Version 16 CAPE PACK

By CAPE SYSTEMS

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Correspondence regarding this publication should be forwarded to:

Esko Software BVBA

Kortrijksesteenweg 1095

B - 9051 Gent

info.eur@esko.com

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Installing Cape Pack

System Requirements

Cape Pack runs on Microsoft Windows Vista, 7, 8 or 10. To install this program in any NT-based system, you must have ADMINISTRATIVE PRIVILEGES/RIGHTS.

To run the program, you will need the following:

Computer set up	Windows operating systems
Windows Client	When running Cape Pack on a single PC you must run with Microsoft Windows 7 (32/64 bit) Windows 8 (32/64 bit), Windows 10 (32/64 bit), or Vista (32/64 bit).
Web Browser	The web application component of Cape Pack 16 requires an up to date version of one of the following browsers (minimum version in brackets): Firefox (40+), Chrome (42+), Internet Explorer (11+), Safari (8+). You may need to enable WebGL in your browser. See http://superuser.com/questions/836832/how-can-i-enable-webgl-in-my-browser
Internet	A broadband internet connection is required. The Cape Pack web application cannot be used offline.
Graphics	Cape Pack uses a 3D technology called WebGL to allow 3D graphics to be displayed in your browser. For this to work you need a recent 3D graphics card (look for confirmation that your card supports WebGL) and you may also need to explicitly enable WebGL in your browser. It is also important that you update the drivers for your graphics card to the latest version. In some case your GPU may be blacklisted by your browser. Please refer to https://www.khronos.org/webgl/wiki/BlacklistsAndWhitelists for more information. 3D viewing may not work
	correctly on virtual machines due to the use of GPU emulation. For best results, ensure the VM emulates a non black listed GPU if possible.
Printers	Cape Pack prints through Windows.
RAM	Cape Pack requires that your computer has at least 1 Gbyte of RAM.
Hard Disk	Cape Pack will occupy approximately 600 Mbytes of space on your hard disk for program storage. Additional space will be needed as you add data files and save Solution/Graphics files.

Installing the Program

You can download the program from mysoftware.com Double click on the downloaded file.

Select Install Software and you will see the following screen.



Click on **Next**. and you will see the End User License Agreement.

🗟 Cape Pack 16.0.1 Setup	x
End-User License Agreement Please read the following license agreement carefully	0
END USER LICENSE AGREEMENT	
BY YOUR USE OF THE SOFTWARE, YOU ACKNOWLEDGE THAT YOU HAVE READ THIS AGREEMENT, UNDERSTAND IT, AND AGREE TO BE BOUND BY ITS CONTENTS. YOU ALSO AGREE THAT THIS AGREEMENT IS THE COMPLETE AND EXCLUSIVE STATEMENT OF AGREEMENT BETWEEN ESKO AND YOU AND SUPERSEDES ALL PRIOR REPRESENTATIONS OR AGREEMENTS, ORAL OR WRITTEN, BETWEEN ESKO AND YOU REGARDING THE SUBJECT MATTER OF THIS AGREEMENT.	
 I accept the terms in the License Agreement I do not accept the terms in the License Agreement 	
Advanced Installer	
< <u>B</u> ack <u>N</u> ext > Cancel	

Click on I accept the terms in the License Agreement and then click on Next and you will see the Cape Pack 16 Setup screen.

🐻 Cape Pack 16 Setup	- • •
Select InstallationType and Installation Folder	
This is the folder where Cape Pack 16 will be installed.	
Choose a location for your Cape Pack 16 by selecting one of the 3 installatio procedures listed below. To install in this folder, click "Next". To install to a d folder, enter it below or click "Browse".	n type fferent
Folder:	
C:\Program Files(x86)\cape16	Browse
< Back Next >	Cancel

Accept the default folder or select the folder you wish to use and click on **Next**. You will see the **Select Setup Features** screen.

🗟 Cape Pack 16 Setup	×
Select Setup Features In the dialog you can select which features will be installed	6
Select Pallet Base Style(s) Image: Style style style Image: Style style style style style style	
Select Program Language English (Metric - mm/kg)	
< Back Next >	Cancel

This screen allows you to choose which pallet styles you want to install and which program language you prefer. Make your selections and then click on **Next**. You will see the following screen.



Click on **Install** to begin the installation.

Depending on your machine, you may see this message.



This is a subroutine to install the essential Microsoft components. Click on **I agree to the license terms and conditions** and then on **Install**. You will see a progress screen.



Then you will the completion screen.



Click on **Close** to continue. The installation process for Cape Pack 16 will begin. This could take several minutes and you will see progress screens during the process.



When all the files have been installed you will see this screen.



Click on **Finish**.

The installation will create a shortcut on your desktop for Cape Pack and add it to your Start menu.

If you have a current Cape Pack v2.16 subscription, you will want to deactivate that subscription license before you launch Cape Pack 16. Then your Cape Pack 16 license will automatically activate when you log in to Cape Pack.

When you double click on your Cape Pack icon, you will see this screen.



You will want to click on **I have an Esko ID to sign in and to use my Subscription.** Then you will see this screen while your subscription is activated through the on-line portal.

0	WELCOME TO CAPE PACK Signing in	
		ESK0 🛠

When completed you will see this screen. Click on Start Working.



Yyou will see Cape Pack 16 splash screen and then the Front Menu of Cape Pack will appear.



To review your license information, click on the **Help** menu and then **About Cape Pack 16**. You will see the details for your subscription.



To log out of Cape Pack and exit click on File, Sign out & Exit.

O w	/elcome to C	ape Pack 16.0.1 (Caj	pe Pack Advanced) - [
File	Programs	Create ShortCuts	Make a new Shape
	Open Input	Data	Ctrl+O
	Open CIF		
	Open Viewe	r/Open Saved Solut	ions 🕨
	WebCenter	Connector Browser	
	Program Se	ttings	+
	Open Cape	Pack Administrator	
	Change Priv	vate Path	
	Open MS Ex	cel Examples	
	Sign out &	Exit	
	Exit		

Cape Pack Administration

Introduction

The Cape Pack Administrator program is available to help you maintain the program parameters. Its main function is to provide administrators with an easy way to set up Cape Pack for network users.

Privileges/Rights

The Cape Pack folder must have **Security permission** of the **Modify** level for **"users"** profile or any other **user profile group** that will want to run Cape Pack.

Permissions for cape216		×
Security		
Object name: C:\cape216		
<u>G</u> roup or user names:		
Street Everyone		
SYSTEM 8		
	A <u>d</u> d	<u>R</u> emove
Permissions for Everyone	Allow	Deny
Full control		
Modify	\checkmark	
Read & execute	V	
List folder contents	\checkmark	
Read		
Learn about access control and p	permissions	
ОК	Cancel	Apply

Note: It is important that you have these rights or your Cape Pack program will not function correctly.

Opening the Cape Pack Administrator

CAPEAD can be accessed either through the Front Menu of the Cape Pack program or through the Windows Explorer.

Accessing CAPEAD through the Front Menu

Start Cape Pack as usual by double-clicking on its shortcut. From the **File** menu, choose **Open Cape Pack Administrator**.

/elcome to C	ape Pack 16.0 (Cape	Advanced) - [Front M
Programs	Create ShortCuts	Make a new Shape
Open Input	Data	Ctrl+O
Open CIF		
Open Viewe	r/Open Saved Solut	ions 🕨
WebCenter	Connector Browser	
Program Se	ttings	+
Open Cape	Pack Administrator	
Change Priv	vate Path	
Open MS Ex	cel Examples	
1. C:\\BOL	.SA.CLF	
2. C:\\TRA	PEZOIDS 2.CLF	
Exit		
	Velcome to C Programs Open Input Open CIF Open Viewe WebCenter Program Se Open Cape Change Priv Open MS Ex 1. C:\\BOI 2. C:\\TRA Exit	Velcome to Cape Pack 16.0 (Cape Programs Create ShortCuts Open Input Data Open CIF Open Viewer/Open Saved Solut WebCenter Connector Browser Program Settings Open Cape Pack Administrator Change Private Path Open MS Excel Examples 1. C:\\BOLSA.CLF 2. C:\\TRAPEZOIDS 2.CLF Exit

A window like this appears.

Cape Pack Administrator - [Front Menu] File Tools Help	
Create/Edit List of Valid Users Image: Create/Edit List of Valid Users	
Edit List of Active Connections	
Edit list of Active Web Page Publisher Connections	
Unlock Catalog	Esko ID Product Name: Cape Advanced
Print Cape Pack Administrator Report	Release: C5
Exit Exit from Cape Pack Administrator	
Create/Edit List of Valid Users	(in/lb) 3:49 PM CAPS NUM

Accessing CAPEAD through the Windows Explorer

Start Explorer. Find and change to the drive and directory where Cape Pack resides.

In the main Cape Pack directory, find a file called **capead32.exe** and double click on it.

Selecting your Log-in Mode

You can select either the User-id or Global User-id login mode from the Tools menu.

O c	pe Pack Administrator - [Front Menu]		
File	Tools Help		
-	Copy Valid Users from Cape Pack'96/97	E	
ſ	Switch Login Mode	\checkmark	User-id
	Create/Edit List of Valu		Global User-Id

Your chosen mode will have a check mark next to it. When you switch modes, all users will need to use the same type of login: 3-character or 7-character.

Managing Cape Pack users

• Cape Pack administrator will have to create a unique login ID for each user. A login ID provides the user with access to the program. This is not required for a subscription license

Adding a User

You can specify up to 99 unique login ID's.

From the CAPEAD Front Menu, click on the **Create/Edit List of Valid Users** button. A window showing a list of current users will appear.

Cape Pac	k Administrat	or - [User List]		
Sort By				
Name				
No.	ID	Name	Global User-id	Private Path
1	cap	cape pack Default User		c:\cape216\private\
•		m		+
	ок	Cancel Add	Edit E)elete Print
Select Prefe	erred Dimen	sions	(in/	b) 3:50 PM CAPS NUM

Click on the button labeled **Add New User**. A dialog box will appear.

User-id Type User-id	🔿 Global	User-id			
User I.D.]	Global	User-ID		
User Name					
User name					
Location Field				`. 	
✓ User is allow	ed to Edit default	User Text/Fie	lds		
	OK I	Cano	el		

Select whether you wish to add a **User-id** (3 character) or **Global User-id** (7 character). If **User-id** is selected, the *Global* and *Location* fields will be grayed out. If **Global User-id** is selected, the *User ID* field will be grayed out. Fill in the fields that are available according to the following.

- User I.D. 3 alphanumeric characters. Certain three letter combinations cannot be used. They are EXE, BAT, COM or DLL.
- **Global User ID** up to 7 alphanumeric characters
- User Name the proper name of the user for which the ID was created
- Users Private Path default folder where all Cape Pack CLF files are stored. This is the default or saving and opening files.
- Location Field 25 character free-flow field for location information for the user.

If a user's private path is on the local hard drive, that user's ID will not function on another workstation. This is because the private path will not exist.

You can deactivate user's ability to save Default User Text. If you choose to do this, click on the appropriate field.

When all the information has been entered, click on the **OK** button to accept it, or **Cancel** to return to the User List without adding the user.

To ensure any changes are retained, click on **OK** from the User List Window. If you do not want to save your changes, click on **Cancel**.

Deleting a User

If a user no longer needs to be part of the User List you can delete that user from the list.

From the CAPEAD Front Menu, click on the **Create/Edit List of Valid Users** button. A window showing a list of current users will appear.

	Administrat	or - [User List]				[
Sort By Name		•					
No.	ID	Name		Global Us	er-id F	Private Path	
1	cap	cape pack Def	fault User			::\cape216\pr	ivate\
2	kim	Kim Karl				c:\cape216\pr	ivate\
•							,
		m					4
<)K	Cancel	Add	Edit	Delete		Print
<	ж	Cancel	Add	Edit	Delete		► Print

Find the user in the list and click on the row to highlight it.

Click on the **Delete User** button. You will be prompted to confirm the deletion.

You cannot delete the last remaining record.

When you are deleting a user, the removal is final if you answer **OK** to the confirmation prompt. In order to get a user back once they have been deleted; you must add them as a new user.

Do not delete the default user, CAP. If this user is deleted, the program will need to be reinstalled to function properly.

To make the deletion final, click on **OK** at the confirmation prompt. The user is gone and you are returned to the User List window.

At the User List Window, it is important to remember that if you were to click on the **Cancel** button, the deleted user does not return.

Editing a User's Setup Information

If a user requires a name change or path change, you can edit the user's information.

From the CAPEAD Front Menu, click on the **Create/Edit List of Valid Users** button. A window showing a list of current users will appear.

Name		•			
No.	ID	Name	1	Global User-id	Private Path
1	сар	cape pack Default User			c:\cape216\private\
2	kim	Kim Karl			c:\cape216\private\
•		III			
	_			1	
		Cancel Ad	d Ed	dit E	Delete Print
C)к 📗	- Culleel Au			

Find the user in the list and click on the row to highlight it.

Click on the button labeled **Edit User**.

dit User Info		
User-id Type		
• User-id	C Global User-id	
User I.D.	Global User-ID	
km		
User Name		
Kim Karl		
Users Private Pat	h	
c:\cape216\private\		
Location Field		
Location Field		
User is allowed	d to Edit default User Text/Fields	
[
	UK Cancel	

Make any changes to any of the fields, then click on **OK** to accept changes, or **Cancel** to cancel changes.

Printing the User List

Click on the Create/Edit List of Valid Users button. A window showing a list of current users will appear.

name		-				
No.	ID	Name		Global User	-id Pri∨at	e Path
1	cap	cape pack Def	ault User		c:\ca	pe216\private\
2	kim	Kim Karl			c:\ca	pe216\private\
•						
•				_		
•						

Click on **Print User List**. This will automatically send a copy of the user list to the default printer.

Program Parameters

Within CAPEAD there are some features that allow you to check and change the status of the program. Fortunately, this does not have to be done often, if at all.

Click on Maintain System Parameters. A window will appear.

Pallat Group	A		ОК
Arrange Group	Licensed		Cancel
Design Group	Licensed		
Cape Folder	c:\cape216\		
(
WPP Shared Folde	r	_	
c:\capezio\wppsna i	\		
Tutor Folder			
c:\cape216\tutor\			
Image Folder			
c:\cape216\images\			
Display Pallet Data	base Shared Directory:		
c:\cape216\databa~1	displa~1\shared\		
Marta Databara D	·		
Master Database L	irectory:		
oleane216\detebe211			

Field Name	Description
Number of Users	This is the number of simultaneous users for which the software has been licensed.
Pallet Group	This indicates you are licensed for the Pallet Group of programs.
Arrange Group This indicates you are licensed for the Arrange Group of programs	
Design Group	This indicates you are licensed for the Design Group of programs
Cape Folder	This folder, created during the installation process, specifies the location of the Cape Pack programs and
Also referred to as the Cape Program Directory and as the Install Directory.	selected files.
WPP Shared Folder	Set the path for the location of the Shared folder for Cape's Web Page Publisher
Tutor Folder	The location of the Tutor Directory was set during installation and contains certain configuration files required to run Cape Pack. This cannot be moved.
Image Folder	The Image folder is for storage of your 3DI files.
Display Pallet Database Shared Directory	This folder is for shared database files that are used in the Display Pallet program.
Master Database Directory	This folder is for shared database files that are used in the single product parts of the program. The databases can be moved to a central location and this field updated.

Changing the Images path

The installation procedure creates a folder called Images under the main Cape directory. You can change this default after installation. Users should have all appropriate rights to this directory.

Click on Maintain System Parameters. A window like this will appear.

	A	ОК
Pallet Group	Licensed	J
Arrange Group	Licensed	Cancel
Design Group	Licensed	
Cape Folder	c:\cape216\	
WDD Shared Folds	-	
c:\cape216\wppsha~1	•	
	·	
Tutor Folder		
c:\cape216\tutor\		
Image Folder		
c:\cape216\images\		
Display Pallet Data	base Shared Directory:	
c:\cape216\databa~1	displa~1\shared\	
Master Database L	lirectory:	

Type in a new drive and directory location in the Images directory field.

Click on **OK**, to accept the changes. Click on **Cancel** if you do not wish to accept the changes.

You can only change the *Tutor Folder* when CAPEAD is launched from outside the Cape Pack program. If CAPEAD is launched from within the program, the *Tutor Folder* will be disabled.

Checking Active Connections

Cape Pack maintains a list of active connections to ensure compliance with the license agreement. If an excessive amount of users try to log into the program, CAPEAD will not allow it. This list also ensures that two users do not log in with the same ID simultaneously.

For example, if a user attempts to log into Cape Pack they will receive a message informing them the ID is already logged in or that the maximum amount of users have logged in. You can check to see who is logged in or if the user might already be logged in from a previous session.

If the program terminates abnormally, it may be unable to close the connection for that User ID. When the user attempts to log back into the program it will not allow it. This is because it assumes the user is still logged in.

Click on Edit List of Active Connections.

Look for that person's ID in the list.

If you find the ID for the person who wants to log in, you can highlight the ID and click on the **Delete** button. This will clear the connection for that ID and allow the person to log in.

You have a similar feature for managing your list of active Web Page Publisher Connections.

If you delete a user from the Active Connections List, make sure they are not running Cape Pack at that time.

Unlocking Web Page Publisher Catalogs

If you get an error message when you are trying to change a Web Page Publisher catalog, you can use this feature to unlock or release the hold on that catalog.

Click on the Unlock Catalog button.



Select the type of catalog you want to unlock and click on **OK**.

Cape Pacl	c Adminis	trator - [Unlock Shared	Catalog]			
No.	ID	User Name	Login Date	Login Time	Catalog Name	
						OK
						Delete

A screen will open for you to select your catalog and you unlock it by deleting the connection.

Printing a Cape Pack Administrator report

If you want to keep a copy of the configuration, you can print a copy of all the settings. Click on **Print Cape Pack Administrator Report**. The report will be printed to the default printer.

Exiting CAPEAD

After you have completed all your checks and modifications you can exit the CAPEAD program.

Click on the button labeled **Exit from CAPEAD**. You will be returned to the Front Menu providing that is where you initiated CAPEAD. Otherwise you will be returned to the Windows Explorer.

Exploring Cape Pack

Introduction

Cape Pack is a 32-bit, standard Windows convention program that has been designed to operate in a similar style to other programs, such as Microsoft Word. The program is easy to use, with pull-down menus, toolbars, right-click menus and tabbed data input screens.

Like Word, Cape Pack is a comprehensive system, catering to a wide range of needs. We understand that not everyone will want to use all of its features at first. However, a lot of people will grow to use many parts of the program over a period of time.

So, don't be overwhelmed by every feature or option that is available in the program. Just concentrate on the features you want to use for your own circumstances. Like any large system, the finer points can be learned as and when you need them or when you have the time to experiment.

Cape Pack is a group of programs designed to help you solve most of your packaging problems.

- What is the best way to load this product onto a pallet?
- How do I design the best size primary pack (product), case (shipper) size and pallet load?
- How many boxes can I fit on a pallet?
- How will the pallet load fit in a truck?
- How can I draw all the packaging components and load diagrams?
- Which load is more economical?
- How do I create realistic packaging components for my specifications?
- How can I put surface graphics on my packaging components?
- How can I communicate the results to my colleagues/customers?

By running one or more of the program groups you have the ability to evaluate many different packaging alternatives quickly. You no longer have to sit for hours with paper, pencil and calculator trying to decide how best to load a case, pallet or a truck.

Getting Started

Simply select the package type you need from the drop down lists on the Front Menu. Then click on **Go** to launch that program.

O Welcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]	- • ×
File Programs Create ShortCuts Make a new Shape Databases Resolutions Internet Publisher Help	
🖻 🖓 🕺 🖗 🕀 🌿 8 🖶 🗛 🗤 🌾 💿	
Pallet Group (Palletize your shipper, and/or load a truck)	
	Go
Type of Package Pallet? Case ▼	•
Arrange/Design Group (Create packaging for a new or existing product and palletiz	e it)
Fixed \overrightarrow{Vary} \overrightarrow{Par} \overrightarrow{Par} \overrightarrow{Par} \overrightarrow{Par} \overrightarrow{Par}	Go
Type of Package Type of Package Pallet? Box Case Yes No	•
Casefill Group (Choose the most efficient product fit, using existing box sizes)	
Type of Package	Go
Box	
Select Programs Menu and then choose the program to run (in/lb) 6:18 AM (CAPS NUM

Or if you have already run one program, you can select another program from the **Programs** menu on any of the input screens.

) We	elcome to Cape Pack 16.0 (Cape Adva	nced) - [Front	Menu]				
jile (Programs Create ShortCuts Make	a new Shape	<u>D</u> atabases	Resolutions	Internet	Pu <u>b</u> lisher	Help
2	Pallet Group	+ k 🖸					
Pal	Display Pallet (Club-store)) er, a	nd/or loa	d a truck)		
	Arrange Group	+ [```			,		
	Design Group		- É	3	3	-	
	Casefill Group	→ [-	r	
	KDF Group	- + _		~			0
	Folding Carton Arrange (FCA)	+	New Case Size	s ≯	Nester	d Cartons in	Bundles
0	Other Programs		Fixed Case Size	s ≯	Nester	d Bundles in	Cases
Ca:	Wizard	- • T					
Arr	ReArrange Program groups	cka	ging for a	new or e	existing	product	t and palletize

Or you can customize your Front Menu using the ReArrange Program Groups option on the **Programs** menu.

ms Create ShortCuts allet Group	Make a new Sł
allet Group	
inglass Dallet (Club, store	
isplay Pallet (Club-store	e) 🔸
rrange Group	· · [
esign Group	•
asefill Group	→ [
DF Group	
olding Carton Arrange ((FCA)
ther Programs	
/izard	
eArrange Program grou	ıps (
	range Group esign Group asefill Group DF Group olding Carton Arrange (Vitard eArrange Program grou

Using any of these methods, the program will load with your Default Settings. You then just enter the data you need to change, choose a save option and then the program calculates and displays a range of solutions. You then evaluate the different solutions using the on-screen graphics and a number of text reports.

The on-screen graphics allow you manipulate the diagrams to suit your own requirements so that you can save those results, print them, or export them for use in another program application (i.e., packaging specifications, databases or Word documents).
Start the program

Start Cape Pack from your desktop by double-clicking on the icon.



Choose the appropriate program and package type and click on the **Go** button. You move forward to the data entry area with the **Default Settings** already filled out. The following is an example of the Pallet Group.

📀 Pallet - [Data Input]			- • •
File Programs Make a new Shape Input Database	s Tools Fill Wizard Colors	Add Graphics Internet	Help
Image: Case Image: General system Imag	, ≫ 3 ∅ ⊕ ≫3 8 ?? Pallet 2	Pallet 3	53footer
Select Pack Type Select F RSC (2.2,4)	Pack Name		
	Length	Width	Height
Enter OD's Set Dimensions Vertical	16.0000	12.0000	10.0000 x
Enter Pack Weight Gross Weight 10.0000 10.0000	Input Settings Save/Calc.	Product Nam	e/Product Code
Case		(in/lb)	6:20 AM CAPS NUM

Create Data

Modify your Default Settings with your specific package and loading requirements.

Save Data

Save the data and calculate the results.



Your Default Settings will be maintained, but your data will be saved to a filename of your choice. You will then be presented with a range of solutions, in the graphics portion of the program.

View the results in Multi-Viewer Graphics.



Evaluate the different solutions, select a solution, and customize your results with screen, layer or object formatting. Then save the graphics for later use.

C	N	1ulti-Vi	ewer Gr	aphics						
E	ile	<u>E</u> dit	<u>V</u> iew	E <u>x</u> port	<u>T</u> ruck	<u>T</u> ools	<u>D</u> ataba	ses		
		Chang	ge Input	t Data				1		
		Return to Front Menu								
		Save (Graphics	s Solutio	n	(Ctrl+S			
		Save (Graphics	s Solutio	n As	C	Ctrl+A			
		WebCenter Connector Browser								
		Print	Custom	Report (Word)		F	45		
		Page	Setup					н		
		Print I	Preview					н		
		Print S	Standar	d Report		C	Ctrl+P	н		
		Print Setup								
		Print Language Options								
		Exit								
	<u> </u>			-				-		

Share Data

Cape Pack has many sharing options.

Print your reports from the desktop to manually share your information.

O N	lulti-Vi	ewer Gr	aphics			
<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	E <u>x</u> port	Truck	<u>T</u> ools	<u>D</u> atabase
	Chang	ge Input	t Data			
	Returr	n to Fro	nt Menu			
	Save (Graphics	s Solution	n	C	Ctrl+S
	Save (Graphics	s Solution	n As	C	trl+A
	WebC	enter C	onnecto	r Browse	r	
	Print (Custom	Report (Word)		+
	Page	Setup				
	Print P	Preview				
	Print 9	Standar	d Report		C	Ctrl+P
	Print 9	Setup				
	Print l	anguag	ge Optior	ns		
	Exit					

Upload to WebCenter to save your data in a Project and share with other WebCenter users in your organization.

O Multi-Viewer Graphics											
<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	E <u>x</u> port	<u>T</u> ruck	<u>T</u> ools	<u>D</u> atabases					
	Chang	ge Input	Data			1					
	Return	n to Fro	nt Menu								
	Save Graphics Solution Ctrl+S										
	Save (Graphic	s Solution	n As	C	trl+A					
	WebC	enter C	onnecto	Browse	r						
	Print (Custom	Report (Word)		▶ 45					
	Page	Setup				- 1					
	Print P	Preview				- 1					
	Print S	Standar	d Report		C	trl+P					
	Print S	Setup				- 1					
	Print l	angua	ge Option	ns							
	Exit										

Send your data to ArtiosCAD for use in that program and reporting.

orapin	6		
v E <u>x</u> p	oort <u>T</u> ruck <u>T</u> ools <u>D</u> atabases	<u>C</u> olors	rs <u>A</u> dd Graphics <u>e</u> -mail <u>I</u> nternet Pu <u>b</u> lisher <u>H</u> elp
1	Settings		🕀 ?? WP 🔽 🖀 🖽 🗿 📆 💿 🐼
V.1	Export Information Only Export Cape Diagram Export Cape Report	+ + +	Product Length48.000Product Width40.000Product Height40.000Load Ref.1 I
	Export to Databases Robot Export to ESKO	+	Area Used 100.0% Cube Used 89.9%
	Export to KASEMAKE Export to ImpactCAD/WEBcnx SAP	×	Send to WebCenter CRF/VRML Show XML
)0	48.000		Export Pallet Load (XML) Send to Cape Cloud Configure Cape Pack Cloud upload Connection

Or upload your data to the Cape Pack cloud for wider collaboration with improved reporting and graphics.

Urap	incs			Ľ
wE	xport <u>T</u> ruck <u>T</u> ools <u>D</u> atabases	<u>C</u> olors	s <u>A</u> dd Graphics <u>e</u> -mail <u>I</u> nternet Pu <u>b</u> lisher <u>H</u> elp	
ιi	Settings		🕀 ?? WPF 🔽 🖀 🛄 🗿 🔞 📀	
	Export Information Only	•	Product Length 48.000	
~	Export Cape Diagram	•	Product Width 40.000	
2	Export Cape Report	•	Product Height 40.000	
			Load Ref. 1 I	
	Export to Databases	•	Area Used 100.0%	
~	Robot		Cube Used 89.9%	
	Export to ESKO	×	Send to ArtiosCAD	
	Export to KASEMAKE		Send to WebCenter	
	Export to ImpactCAD/WEBcnx		CRF/VRML	
-	SAP	×	Show XML	
00	48.000		Export Pallet Load (XML)	•
	-		Send to Cape Cloud	
			Configure Cape Pack Cloud upload Connection	

0

Analysis types

There are three types of analysis you can use in the program groups:

- 1. Use My Default Settings which load automatically whenever you start a program group.
- 2. Start from a completely New data file. Once the program group has loaded, you can select New from the File menu to "clear" the data input screen of all previous information. If you have identified a default pallet or truck style, this will appear with each new analysis.
- 3. Open a saved data input file and modify the data entries in that file. You can then either save over the existing file to update it, or save the file as a new name, preserving the existing file.

Using your own Default Settings is by far the easiest way to create a new data file as the data fields are already filled out. All you have to do is modify them. Starting a New data file means you have to enter all the data.

Whether you launch the program from the pictorial sections on the Front Menu or from the Programs menus, the appropriate program will begin with Default Settings already loaded.

Default Settings

Default Settings are simply your chosen default parameters for the module. Your program is supplied with preset Default Settings. These should be modified to suit your needs and then saved by clicking on **File**, **Save My Default Settings**. These settings are a template or master set of information for the program. Because the program loads these Default Settings automatically, all you need to do is make necessary changes for the particular analysis, enter your product name and product code, and calculate your answers.

For example, if you loaded the Pallet Group for cases, all you might need to do is enter a new case size and weight and then calculate your answers. The pallet information and/or truck information would mostly likely remain the same.

Default Settings are also an easy way for you to see the type of information required by any of the Cape Pack program modules. They offer an ideal way for you to work with the different program groups and familiarize yourself with the software and how it works. You can open the Default Settings, change the data and run an analysis. You can resave them, but you cannot create any additional templates.

PALLET GROUP	Rectangle/Oval, Cylinder/Bottle, Trapezoid, Bags
ARRANGE GROUP	Box/Bag/Bottle, Cylinder/Bottle, Trapezoid
DESIGN GROUP	Box/Bag/Bottle, Cylinder/Bottle, Trapezoid
CASEFILL GROUP	Box/Bag/Bottle - Fixed, Box/Bag/Bottle- Variable, Cylinder/Bottle - Fixed
KDF GROUP	Flatblank, Made-up Case
FCA GROUP	New-Nested Cartons in Bundles, New-Nested Bundles in Cases, Fixed-Nested Cartons in Bundles (all Patterns), Fixed-Nested Cartons in Bundles (Row/Column), Fixed-Nested Bundles in Cases (Row/Column)
DISPLAY PALLET	Single Product, Order Fulfillment

There is only one template for each program module as follows.

Cape Pack Suite of Programs

Cape Pack contains two types of programs: the Analytical programs and the Accessories programs. These are divided into 2 subscription levels: Cape Pack Essentials and Cape Pack Advanced.

Cape Pack Essentials

Cape Pack Essentials includes the Pallet Group, Display Pallet, Casefill Group and KDF Group programs.

Pallet Group

If you have a fixed sized object, which you want to load onto a pallet or into a truck, you should run this program to see how that object can be loaded, based on the restrictions you apply. The object can be a rectangle, oval, bag, cylinder or trapezoid, or an object you create within the Make a new Shape feature. You can load the object onto a variety of pallet styles or into a variety of truck styles. Use this program to compare the different alternatives for loading an object onto a maximum of three different pallet sizes.

Display Pallet

If you have different sizes of boxes to load on the same pallet, you would use this program. Once designed, you can then place your loads into a truck. Display Pallet allows you to combine up to 40 different box sizes, with a maximum load of up to 500 boxes. There is also a powerful load editor for fine-tuning your load.

KDF Group

These programs are specifically for use by corrugated companies where the user wants to start with either a flat blank of a case or a made-up case (an erected corrugated case). They select a formula and the program automatically converts the flat blank or made-up case dimensions to a KDF (knocked down flat/flat-glued case). They enter a minimum and maximum number of KDFs per bundle and the program creates the bundle size. Finally, they choose a pallet and truck type and the program does the rest.

Casefill Group

If you need to fill an existing case size with a product or primary package, use this program. First, set up a database of case or tray sizes that exist within your operation. Then specify the size and shape of the primary package as well as the cases/trays you want to consider loading. The program searches for the case that yields the best fit. In addition, Variable Casefill will allow for changes in the primary pack size to fit more efficiently in an existing case. This program does not palletize the case because it assumes that the palletization for this case is acceptable to you. Use this program to help in consolidating the number of existing case sizes your company uses. The rule that 20% of the product supports 80% of the business might apply to this analysis.

Cape Pack Advanced

Cape Pack Advanced includes Cape Pack Essentials plus Arrange Group, Design Group and Folding Carton Arrange Group programs.

Arrange Group

If you have a fixed-sized product or primary package you need to arrange in a case and then palletize for shipping, you should run this program. You specify the shape and size of the primary package, how many you want in a case and (if required) how it should be bundled in groups. The program will calculate a case size, which it will then palletize. The object of this program is to fit the highest number of primary packages on the pallet, based on the loading restrictions you specified.

Design Group

If you have a new product to design or primary package you need to resize and pack in a case, and then palletize, you should run this program. You specify the shape and size of the primary package, how much the size can vary, how many you want in a case and (if needed) how it should be packed in bundles. The program will then calculate new primary package sizes, a

variety of package arrangements and new case sizes, which will then be palletized. The object of this program is to calculate the best primary package size in order to fit the maximum number of primary packages onto the pallet.

Folding Carton Arrange (FCA)

The Folding Carton Arrange programs are for building bundles of flat folded cartons, and then arranging these bundles into cases, and then putting these cases onto pallets. There are two modules for new case sizes and 3 modules for existing case sizes. The New Case size options will design you new cases based on your bundle counts and case parameters. The Fixed Case Size options will evaluate your cartons in bundles compared to a database of existing cases.

Accessories Programs

Use these optional programs to enhance or customize your results from the main analytical programs and then communicate them to others.

Pallet Audit

Introducing Pallet Audit. Pallet Audit has been designed to allow the user to enter very simple input information so the program can create a database of all possible 2 dimensional case footprint sizes, for all Cape's pallet patterns, on up to four different pallet sizes. The completed Audit Database contains a wealth of information at a glance.

Web Page Publisher

Use this program to create web pages and catalogs that can be uploaded to a web address to provide a single source for your palletizing specifications. You can then allow access to these pages via the Internet anytime day or night by anyone in the world, based on your security settings.

Make a New Shape programs

These programs allow you to create rectangular, cylindrical, trapezoidal, ovals and gable-end shaped packages. Bottles, cans, milk cartons, various bag shapes and sloping sided shapes can also be created.

You can also color either the entire package in one color or different colors for different parts of the package for greater realism. So, a green wine bottle with a red top seal is very easy to create.

You can also create display cases and trays, pallet base styles, pallet crates, pallet blocks, container sizes and pallet bins for use in the analytical programs.

Packaging Information Database

Cape Pack has a powerful database feature called the Packaging Information Database. This special database allows you to save the information from any solution you create in Pallet, Arrange, Design, KDF or Casefill and then sort, review or group that information. You can even recall your saved graphics from within the database.

Strength

This program calculates the compression strength of a case based on case size, board grades, and environmental factors. The results are calculated using the McKee formula, which is based on strict laboratory conditions. Use Strength to work out how your particular case performs under different conditions.

Add-on Graphics (3D Imaging)

This program allows you to transfer scanned images or artwork files onto the surfaces of the packaging components (primary, tray, secondary package) available in the analytical programs or onto those packages created using the Make a new Shape feature. Full documentation for this program is available on your Application CD in the Documentation folder.

Which Program to Use

To determine which program you need, all you have to do is to ask the question "What am I trying to do?" Here are some guidelines.

- Building pallet patterns: If you want to put a case onto a pallet, choose the Pallet Group and the appropriate shape you want to use (i.e., a case, a cylinder).
- Creating a new case size: If you have a fixed size primary package and you want to arrange it in different case counts to create a new case size, then choose the Arrange Group and the appropriate shape of primary package.
- Designing a new size primary package: If you have already run the Arrange Group for a fixed primary package size and then want to change the dimensions to design a new primary package, choose the Design Group and the appropriate shape of primary package.
- Case consolidation: If you have a primary package and a number of existing, fixed, case sizes and you want to see how many primary packages you can fill into each one of those different case sizes, you will be "filling cases". Therefore, choose the Casefill Group and an appropriate primary package shape.
- If you have cases that you want to ship in a knocked-down form, bundled onto pallets, use the KDF Group. This group can take either a flat case and fold it up to achieve the KDF size, or it can take the erected case size and convert it to a KDF.
- Folding Carton Arrange: If you are trying to determine a case size for flat folded cartons, you would use the Arrange Group for either Fixed or New case sizes.
- If you have more than one size of case that needs to be placed onto the same pallet at the same time, you should use the Display Pallet program. This program can consolidate up to 40 different sizes of packages onto the same pallet, and then display the finished pallets loaded into a truck or container.

The program names correspond to the type of analysis you need to run. So just think about what you are trying to do and the name of the appropriate program group will become obvious.

New Features of Cape Pack 16

The following new features are part of Cape Pack 16.

Named User Subscription License

This is a new form of subscription liceneses that allows for greater flexibility of license Management. Cape Pack 16 will use this new form of Licensing. A big benefit of this type of subscription is that you don't have to activate them – that is done automatically when you log in to the desktop or cloud program.

Esko Cloud License Managing Program

This portal is accessed through through mysoftware.com with your EskoID. At least one user in your Company will have administrative privileges on this portal. You use this portal to assign named user subscription licesnes to individual users. This can be changed as required.

🚟 English 🔻					Kim K	(arl 🔻
ESK0😵	My Software	DOWNLOADS	LICENSES		HOTFIXES	FAQ
Manage Su Here you can assign and u subscriptions please go to UNASSIGNED SUBSCR	Ubscriptions unassign your subscriptions. If you want to revie the <u>Esko Store</u> XIPTIONS ASSIGNED SUBSCRIPTIONS	w your order, your invoices of	r your payment d	letails or if you want to	purchase addition	al
ORDER NR	♦ PRODUCT		¢ Q.	JANTITY	ACTIONS	
Test Order	ArtiosCAD Design Prime		5		<u>Assiqn</u>	
Test Order	ArtPro+ Essentials		4		Assign	
Test Order	Cape Pack Advanced		4		Assign	
Test Order	DeskPack Advanced for Illustrator		5		Assign	
Test Order	DeskPack Flexo Tools for Photoshop		5		Assign	
Test Order	Dynamic Content Advanced for Illustrator		5		Assign	
Test Order	Studio Essentials		5		Assign	
	© Esko 2012-2016 - Packagin	g and printing pre-production sol	utions - <u>Disclaime</u> r			

See FAQs on this page for more information on using the portal to assign and reassign your Company subscription licenses.

Cloud Database Features

The cloud database will be a first for Cape Pack. All your data will be store don the cloud and can be accessed by anyone in your organization with an entitlement to the cloud. From the database you can Access all the data about the solution, plus you will have the ability to create, save and share reports.

	Сар	e Pack		You are	logged in as Kim.Karl@esko.co	om EMPLOY Settinį	gs English ▼ Log Out
Solution	s 🥵	Select a solution i	n the list to see its images	Double click a solution to	open it		
Previous 1 2 3 4 5 110 Search Q_ Showing 1-10 of 1091 Next					Show 10 •	entries <u>Set Columns</u>	
		Analysis Date ≬	Product Name	Product Code ≬	CaseSize(s) •	🕴 SP Per Load 🌢	Upload Date 🔻
1 🔻		09/06/2016	top bigger than bottom	Trapezoid	400 mm X 300 mm X 200 mm	70	9/9/2016, 6:14:56 AM
2 🤝		09/06/2016	bottom bigger tha top	Trapezoid	400 mm X 300 mm X 200 mm	70	9/9/2016, 6:13:01 AM
3 🐨		09/06/2016	Assorted Fruit Flavor Snacks	031704_SNA-FF-ASSORT	16 in X 12 in X 10 in	32	9/6/2016, 11:19:34 AM
4 👻		09/06/2016	Assorted Fruit Flavor Snacks	031704_SNA-FF-ASSORT	16 in X 12 in X 10 in	32	9/6/2016, 11:19:17 AM
5 🐨	喫	09/06/2016	Assorted Fruit Flavor Snacks	031704_SNA-FF-ASSORT	16 in X 12 in X 10 in	32	9/6/2016, 11:14:30 AM
6 🐨	喫	09/06/2016	Assorted Fruit Flavor Snacks	031704_SNA-FF-ASSORT	16 in X 12 in X 10 in	32	9/6/2016, 10:54:00 AM
7 👻	-	09/05/2016	ProxyTest3	manual with auth	400 mm X 300 mm X 200 mm	70	9/5/2016, 8:10:57 AM
8 🐨		09/05/2016	ProxyTest3	PAC with auth	400 mm X 300 mm X 200 mm	70	9/5/2016, 8:09:45 AM
9 👻		09/05/2016	ProxyTest3	PAC no auth	400 mm X 300 mm X 200 mm	70	9/5/2016, 8:05:36 AM
10 👻		09/05/2016	ProxyTestWithLog	PAC and no auth	400 mm X 300 mm X 200 mm	70	9/5/2016, 5:40:31 AM
				ł			
Co	opyright ©	2016 Esko Software bv	Da		н	elp Privacy Policy Leg	al Terms & Conditions

There is an extensive on-line help available on the Cape Pack cloud program via link in the footer of the web page.

Configure Cape Pack Cloud Connection

This option allows you to setup the parameters for the cloud or proxy settings if required. Normally the cloud confinguration will be set during installation. If there is an issue, this will allow you to make changes.

Access this option through the Export menú in MultiViewer Grpahics after you calculate.

Gra	aphics								
1	Export Truck Tools Databases	s Colors	Add (Graphics	e-mail	Internet	Publisher	Help	
ī	Settings		50 ?	Y WPP	1	III 🥝	13 💿 🚯		
	Export Information Only	•		Produ	ct Len	gth	48.000		
~	Export Cape Diagram	•		Produ	ct Wid	th	40.000		
-]	Export Cape Report	•		Produ	ct Hei	ght	40.000		
	Export to Databases	+		Load Area	Ref. Used		1 I 100.0%		
~	Robot	•		Cube	Used		89.9%		
	Export to ESKO	×	S	end to Ar	tiosCAD				- H
	Export to KASEMAKE		S	end to W	ebCenter				- 81
	Export to ImpactCAD/WEBcnx	c 🔤	С	RF/VRMI	L				- 11
7	SAP	×.	S	how XML					- 11
0	48.000		E	xport Pall	let Load (XML)			- • _
			S	end to Ca	ape Cloud	I			plut
			C	onfigure	Cape Pag	k Cloud u	ipload Conne	ction	

Make whatever changes are required and then click on OK.

Configure Cape Pack Cloud upload Conr	nection	
Cape Pack Cloud Server Name		
https://cape.eskocloud.com/		
EskolD	○ EskoRD	
Esko Cloud Connection choice		
Auto detect Proxy Server	O Manually Configure Proxy Server	
Auto detect Proxy Server		
□ Use PAC File		
PAC file URL		
Requires Authentication		
Username		
Password		
ОК	Cancel	

Send to Cape Cloud

This feature starts the upload action to the Cape Pack cloud database. You can also use the orange cloud button in the tool bar.

iraphics								
Export Truck Tools	s Databases Colo	rs Ad	d Graphics	e-mail	Internet	Publisher	Help	
a Settings		-50 16	?? WPP	1	🖽 🙆	📆 💿 🚳		
Export Informatio	on Only		Produ	ct Len	gth	48.000		
Export Cape Diag	jram l	·	Produ	ct Wid	th	40.000		
- Export Cape Repo	ort	·	Load	Ct Hei Ref.	gnt	40.000 1 I		
Export to Databas	ses		Area	Used		100.0%		
- Robot	I		Cube	Used		89.9%		
Export to ESKO	I	-	Send to A	rtiosCAD				- 1
Export to KASEM	AKE		Send to W	ebCenter				- 1
Export to Impact	CAD/WEBcnx		CRF/VRM	L				- 1
SAP	1	•	Show XMI	L				- 1
0 4	18.000		Export Pal	let Load ()	XML)			- F
			Send to C	ape Cloud	I			olu
			Configure	Cape Pac	k Cloud u	pload Conne	ction	

You will be presented with a field to categorize the analysis further if you wish. You can enter Customer Name and Project information then click on OK.

Set Cloud only data fields		
	Custo	omer Name
	F	Project
	ОК	Cancel

Type in your Esko ID and password and click on Sign In.

(
	Sign In
	Email Address
	kim.karl@esko.com
	Password
	Sign In Remember me
	Forgot password? Help

The program will upload your information for the analysis and then ask if you wish to review it on the cloud. Click Yes to open the cloud.



You will be asked to sign into the cloud.

E	
5	Sign In
E	mail Address
	kim.karl@esko.com
F	assword
	••••••
	Sign In 🛛 Remember me 🔘
F	orgot password? Help

Documentation on the full use of the cloud can be found on the cloud platform via a Help link in the page footer.

Exploring the Front Menu

Introduction

The Front Menu is the entry point of the program. It lets you choose where you want to go in the program.

It is also designed to provide easy access to certain functions that will affect the overall program (i.e. screen resolution settings) and let you connect to our web site, access the Packaging Information Database and help you navigate around Cape Pack.

Choosing which program to run

The Front Menu is where you can choose the group you need for your particular analysis.

You select your package type from the **Type of Package** list, then click on the **Go** button to launch that program.

Velcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]	
File Programs Create ShortCuts Make a new Shape Databases Resolutions Internet P	u <u>b</u> lisher <u>H</u> elp
🖻 🖓 ½ ¾ 🖉 🕀 ¾ 8 🤀 🖶 🗤 🌾 💿	
Pallet Group (Palletize your shipper, and/or load a truck)	
	Go
Type of Package Pallet? Case Ves No	Truck? Yes ● No O
Arrange/Design Group (Create packaging for a new or existing p	roduct and palletize it)
Fixed • Vary • Pixed •	Go
Type of Package Type of Package Pallet? Box Case Yes No Case Case<	Truck? Yes ● No O
Casefill Group (Choose the most efficient product fit, using exist	ing box sizes)
	Go
Type of Package Box	
Select Programs Menu and then choose the program to run	(in/lb) 2:24 PM CAPS NUM

If your program is not showing on the Front Menu, you can either launch it directly from the programs menu as shown below:

Welco	ome to Cape Pack 16.0 (Cape Adv	anced) - [Front	Menu]				
e Pr	ograms Create ShortCuts <u>M</u> ak	e a new Shape	<u>D</u> atabases	Resolutions	Internet	Pu <u>b</u> lisher	<u>H</u> elp
	Pallet Group	🕨 k 💿					
al	Display Pallet (Club-store)) yr a	nd/or loa	d a truck	a		
	Arrange Group				4		
	Design Group			3	3	-	
	Casefill Group				-	/	-
	KDF Group	+					0
	Folding Carton Arrange (FCA)	•	New Case Size	s ▶	Nester	d Cartons in	Bundles
	Other Programs	• I	Fixed Case Siz	es 🕨	Nesteo	d Bundles in	Cases
·0.	Wizard		L				·
rr	ReArrange Program groups	cka	ging for a	new or	existing	product	t and palletiz
ked	•				France		

Or you can use the new Front Menu setup feature to rearrange how your program groups appear on your screen. Click on the **Programs** menu and **Rearrange Program Groups**.

/elcon	ne to Cape Pack 16.0 (Cape	Advanced) - [F
Prog	rams Create ShortCuts	Make a new Sł
	Pallet Group	+
	Display Pallet (Club-store)	· · · .
1	Arrange Group	→ [
	Design Group	
	Casefill Group	→ [
	KDF Group	
	Folding Carton Arrange (F	CA) 🕨
	Other Programs	
	Wizard	+
· 📃	ReArrange Program group	os (

The following screen will appear.

Change program group order - Max groups allowed = 3		×
Group Names	Show Group	Order
Pallet Group		1 💌
Display Pallet Group		None 💌
Arrange/Design Group		2 💌
Casefill Group		3 💌
KDF Group		None 💌
FCA Group		None 💌
ОК	Cancel	

Select the groups you want to appear by clicking on the appropriate check mark in the Show Group column, then setup the order you prefer in the order column. Here is an example.

Group Names		
Display Pallet Group		None 💌
Arrange/Design Group		None 💌
Casefill Group		None 💌
KDF Group		3 💌
FCA Group		2

And the results would look like this.



Pallet Group has been replaced with Display Pallet, Arrange and Design Group has been replaced with FCA and Casefill has been replaced with the KDF Group. The program will remember this options as your default until you change them.

Design Group

If the Arrange/Design Group is active on your Front menu, you it by clicking on the **Vary** field under Arrange/Design Group, then select your package type and click on the **Go** button.



File Menu

Here is the **File** menu.



Open Input Data

This is a standard Windows Open function to open a selected input data file.

Click on Open Input Data and the following dialog box will appear.



Select the filename and click on **Open**. This will launch the program module that was used to create this file. The input screens will then appear with all of the appropriate data fields filled in.

In the event that your input data also contains saved solutions/graphics, you will be prompted with the following message.



If you click on **Yes** you will retrieve your saved graphics. If you click on **No** your input data will open.

Open CIF

This new feature of Cape Pack allows you to open specially formatted text files called Cape Interface Files (CIF). The open feature will work in the same manner as Open Input Data. The correct program group will open along with the input data. However, with CIF files, the calculation process can be made automatic. So when you open the file, the program will automatically calculate answers for your data.

O v	Velcome to Cape Pack 16.0 (Cape	Advanced) - [Front Me
File	Programs Create ShortCuts	Make a new Shape
	Open Input Data	Ctrl+O
	Open CIF	n
	Open Viewer/Open Saved Solut	ions 🕨
	WebCenter Connector Browser	
	Program Settings	+
	Open Cape Pack Administrator	
	Change Private Path	
	Open MS Excel Examples	ıi
	1. C:\\WIDGET.CLF	
	2. C:\\BOLSA.CLF	
	3. C:\\TRAPEZOIDS 2.CLF	
	Exit	

You will see a file open box.

Open a CAPE II	mport File			? 🔀
Look in:	🗀 Tutor		- 🗈 📸 -	
My Recent Desktop Desktop My Documents	badpa4s ARR1.CIF ARR2.CIF ARR2.CIF CF1.CIF CF1.CIF CF2.CIF DGN1.CIF DGN2.CIF DGN2.CIF DGN3.CIF CDN3.CIF CF3.CIF DGN3.CIF PAL1.CIF PAL2.CIF PAL3.CIF	2 PAL4.CIF		
My Network Places	File <u>n</u> ame: Files of <u>type</u> :	 Open CIF	▼ [▼	<u>O</u> pen Cancel

You select the file you wish to use and open it, the program will then load the program group, data and the next thing you will see is the Multi-Viewer Graphics screen with your solution.



Open Viewer/Open Saved Solutions

When you run a Cape analysis, you have the option to save the on-screen graphics and to view them at a later date. This special option has been located at the Front Menu to make it easy for you to open the saved files.

Click on **Open Viewer/Open Saved Graphics**, select either cape pack or Display Pallet (Club-store), and then select **Solution Dialog**.

ile	Programs Create ShortCuts	Make a new Shape	Databases Resolutions	Internet	Publish	ner Help	
	Open Input Data	Ctrl+O					
	Open CIF	-	ndlar land a truck	4			
	Open Viewer/Open Saved Solut	ions 🕨	Cape Pack		•	Solution Dialog	
	WebCenter Connector Browser		Display Pallet (Club-	store)	•	Standard Dialog	_
	Program Settings	•				-une C	
	Open Cape Pack Administrator		Pallet?			-Truck?	
	Change Private Path		Yes 💿 No	•		Yes 💿 N	١o
	Open MS Excel Examples		ling for a pow or	ovictina	produ	ict and nallet	izo i
	1. C:\\WIDGET.CLF		ing tor a new or t	existing	produ	ici and paller	126 1
	2. C:\\BOLSA.CLF		🕨 🛁 🏑				
	3. C:\\TRAPEZOIDS 2.CLF				~	-uncel	
	Exit						-
	Type of Package	Type of Pack	age -Pallet?-			Truck? —	

You will then see a Saved Solution Open Dialog box.

Name	Module Type	Units	SP Length	SP Width	SP Height
102938901238	FCA/New Case Size/Nest	(mm/kg)	332.000	248.000	186.000
🙂 aw snap 1.clf	Arrange - Cylinders/Bottles	(in/lb)	16.640	16.320	19.160
🙂 aw snap 2.clf	Arrange - Cylinders/Bottles	(in/lb)	16.640	16.320	19.160
🙂 aw snap 3.clf	Arrange - Cylinders/Bottles	(in/lb)	16.640	16.320	18.160
🙂 aw snap 4.clf	Arrange - Cartons/Bags/O	(in/lb)	16.640	13.320	8.160
🙂 aw snap 5.clf	Arrange - Cartons/Bags/O	(in/lb)	16.640	13.320	8.160
🙂 aw snap 6.clf	Pallet - Cylinders/Bottles	(in/lb)	12.000	12.000	20.000
7					Þ

Only those files with Saved Solutions will appear in the list and their details are provided to help you locate the file you want.

Highlight the file containing your saved graphics and click on **Select**. Your graphics will then appear.

Alternatively, you can click on Open Viewer/Open Saved Graphics and select Standard Dialog.

The following dialog box appears, which lists all of your CLF files, not just those with saved solutions.



WebCenter Connector Browser

WebCenter Connector is a feature that allows you to connect to your company's WebCenter to automatically upload your Cape Pack files. From the Front Menu in Cape Pack, this feature also allows you todownload saved CLF files in WebCenter.

O v	/elcome to Cape Pack 16.0 (Cape	e Advanced) - [Front M
File	Programs Create ShortCuts	Make a new Shape
	Open Input Data	Ctrl+O
	Open CIF	
	Open Viewer/Open Saved Solut	tions 🕨
	WebCenter Connector Browser	
	Program Settings	•
	Open Cape Pack Administrator	
	Change Private Path	I
	Open MS Excel Examples	
	1. C:\\WIDGET.CLF	
	2. C:\\BOLSA.CLF	
	3. C:\\TRAPEZOIDS 2.CLF	
	Exit	

Program Settings

Select Settings from the File menu and you will have three choices.

Program Language

You can choose between English, French, German, Spanish, Swedish or Italian as the language to run your program with.

O v	Velcome to C	ape Pack 16.0 (Cape	Advanced) - [Front	Menu]						
File	Programs	Create ShortCuts	Make a new Shape	Databases	Resolutions	Internet	Publisher	Help)	
	Open Input	Data	Ctrl+O							
	Open CIF			nd/or loa	id a truck	۱				
	Open Viewe	r/Open Saved Solut	ions 🕨			,			_	
	WebCenter	Connector Browser				:	\Rightarrow		Lines .	
	Program Se	ttings	•	Progra	m Language			▶ 🗸	English	
	Open Cape	Pack Administrator		More S	ettings				Français	
	Change Priv	/ate Path		Transfe	er Help Files to	My Local	Drive		Deutsch	
	0 100				-				Español	
	Open MS Ex	cel Examples		ing for a	a new or e	existing	produc	ta	Svenska	
	1. C:\\WID	GET.CLF				<u> </u>	•		Italiano	
	2. C:\\BOL	SA.CLF		F =	🗦 🏑	3	/ ⇒	-		
	3. C:\\TRA	PEZOIDS 2.CLF						-	Suco a l	
	Exit									

Selecting any of these will change the language on the menus, buttons and reports. Here is an example of Spanish.



More Settings

Selected from the **Program Settings** menu will display the following screen.

O More Settings		
Enable Specifi Export	Export Solution Information	Activate CIF
Skip Animated Video	Activate Accelerate Interface	🕱 DeskTop Refresh
Enable WebCenter Browser log		
	Close	

Choose any of these options if you wish to use them.

- **Enable Specifi Export**: if you have the Specifi program and would like an automatic interface to it.
- **Export Solution Information** adds the ability to export an ASCII file with information about a particular solution to the Export option in Print Preview.
- Activate CIF turns on or off the export to CIF file format.
- Skip Animated Video turns off the movie that plays during calculation.

- Activate Accelerate Interface turns on the menu option for exporting to Accelerate for Folding Cartons.
- **Desktop Refresh** works in conjunction with the new option for creating shortcuts to establish shortcuts on your desktop.
- Enable WebCenter Browser Log turns on a log to help keep track of WebCenter Connector actions.

Transfer Help Files to my Local Drive

Will make a copy of your program help files on your hard drive so the program can access them.

Open Cape Pack Administrator

A special program for managing and maintaining network installations.

Change Private Path

The Cape Pack program sets a default path called Private for you to save the data and results of your analyses. This path defaults to a folder within the overall Cape Pack directory. If you wish to change the location of your Private path, simply select this option and you will see the following screen:

Edit User Info	Tra
User I.D. cap	ОК
User Name cape pack Default User	Cancel
Users Private Path	
Edit Lleer Name	

Now click on the browse button (...) and select a new path. The Cape Pack programs will recognize this new path and display it in any **File Save** or **File Open** dialog box.

Exit

Selecting this option will completely exit Cape Pack and return you to Windows or to another program application you have open.

Programs Menu

The **Programs** menu is an alternative way to launch the program modules (Pallet, Arrange, Design, Casefill and KDF), or you can use it to select some of the other programs available in Cape Pack (Strength, Display Pallet, etc.).



The **Programs** menu is also available, on the input screens, in the major program modules to allow you to switch from one program to another. This approach means that you do not have to return to the Front Menu each time you want to switch programs.

The **Wizard** option on this menu allows you to activate the automatic calculation (**Auto Calc**) feature of the program. If activated, when you click on any **Go** button, the program will load whatever default settings are current for the program and then automatically calculate solutions, taking you straight to Multi-Viewer Graphics. Your options are:

- Use My Default Settings which will load the data input screens as normal.
- Auto Calc which will take you straight to Multi-Viewer Graphics.

Make a New Shape Menu

The **Make a New Shape** menu is a group of programs that lets you create a specific shape of primary, secondary packages and pallet/container styles to be used in the Pallet, Arrange, Design, Casefill and Display Pallet modules. You can choose between Cases, Trays, Cylinders, Bags, Oval shapes, Rectangular or Square bottles and Gable-end cartons; or you can make pallet base styles, pallet crates, pallet blocks, pallet bins or containers/truck styles.

vano	ed) - [Front Menu]				
M	ake a new Shape Databases Resolutions	Intern			
•	Make a new Case	- 1			
ļ –	Make a new Tray				
1	Make a new Cylinder/Bottle				
	Make a new Bag				
	Make a new Gable End Shape				
	Make a new Rectangle Square Bottle				
	Make a new Oval Shape				
	Make a new Pallet Base	- 11			

The **Make a New Shape** menu is also available on the input screens in the Pallet, Arrange, Design, Display Pallet, KDF and Casefill program modules.

Databases Menu

Cape Pack has a powerful database feature called the Packaging Information Database. This special database allows you to save the information from any solution you create in the analysis modules.



By selecting the **Databases** menu and then **Packaging Information Database**, you will see the following screen.

Select Group (cap.czf)	X
Choose a Group	Open
Pallet Group Solutions Arrange Group Solutions	Cancel
C Design Group Solutions	PID Setup
C KDF Group Solutions	Update PID

From here you select the information you wish to review.

Resolutions Menu

The Resolutions menu is for switching between full-screen or partial screen versions of Cape Pack.

Select the **Resolutions** menu option.

25	25-SD)]					
	Reso	olutions Internet	Publis			
	1.800 x 600					
	✓	2.1024 x 768				
K		3.1152 x 864				
		4.1280 x 768	- 1			
		5.1280 x 1024	- 1			
		6.1366 x 768	- 1			
		7.1600 × 1200				

You will see a list of resolutions that are available on your PC. Select one of these settings and your Cape Pack program will change to that resolution. This means you have the choice to set either a full or partial screen setting for your PC.

Once you select one of the resolution settings the program will then set itself by resizing this Front Menu screen. Setting the resolution here means that all of your Cape Pack screens will appear at that resolution. You can reset the screen resolution at any time, but only from the Front Menu.

Internet Menu

With the increasing use of the Internet and the need for people to keep up to date with program versions, news and "what's new" with Cape, we have added this new menu item. It provides you with easy access to our website and the many options. Just remember you will need to be on-line or be able to get on-line to use these features.

Here are the **Internet** menu options.



You can now email the Help Desk for technical support or help with your analysis.

Publisher Menu

This menu is for using the Web Page Publisher feature.

		Σ
et	Publisher Help	
	Cape's Web Page Publisher	

Help Menu

We provide extensive on-line Help with the Cape Pack programs. Wherever you are in the programs the Help files are applicable only to that specific area. For example, when you are working on the input screens, the Help files relate to the input information only. When you get to the Multi-Viewer Graphics section of the program, the Help files relate to graphics, printing, exporting, etc.

Here are the options on the **Help** menu.

Contents

Allows you to see the contents of the Help file associated with the part of the program you are currently operating.

Search for Help on

Provides a detailed listing for you to select a subject:

Glossary

Generates a Help file with a listing and explanation of all the names and terms used in the Cape Pack programs.

About Cape Pack 16

Opens a standard Windows About screen.

Display Cape License

Click on this option to display the Cape Pack License screen..

Pallet Group

Introduction

The programs in the Pallet Group are designed to help you determine the best way to load a particular object onto a pallet or into a truck. That object cannot vary in size (unless it is a cylinder). However, it can be a rectangle, bag, cylinder, oval or trapezoid, or a shape created in the Make a New Shape feature.

Running an analysis for each type of object is basically the same, although some of the data you need to input will be different. For example, you would enter a diameter instead of a length and width for a cylinder. This tutorial will take you through running a rectangular product pack (a case).

This chapter is provided, as a Help file, under the **Help** menu with the name **Tutorial** on both the input screens and on the graphics screen. It also includes a section on additional Pallet Group features that lists a wide variety additional features and capabilities.

The Problem

Your colleague has just come to you with a problem. He does not think that your Widget product line is loaded or distributed to the maximum efficiency. The current pallet is only loaded at 66% capacity. He asks you to find a better way to load and transport these widgets. The specific widget he wants you to evaluate has the identification code 062469.

Considerations

Based on previous experience, you know that making changes to the way you package and load products can dramatically affect marketing, warehousing, logistics and distribution. You find out that:

- you must use a standard pallet base size, a US GMA 48x40 inches.
- fork-lift trucks can lift a maximum of 2000 pounds.
- you must use a 40 foot truck that has a 80,000 weight limit.
- you know the inside dimensions and weight of the widget shipping case.
- you know the type of shipping case.
- the product can only be loaded with the height dimension of the case vertical to the pallet.
- you have to add a layer pad, a top cap and corner posts.
- the layers on the pallet must be alternated to produce an interlocking load.

As you already know the secondary package size, pallet size, truck size and loading restrictions, you would like to look at a better method of loading and shipping your product.

After reading through the *Welcome* chapter, you establish that you will need the **Cases/Trays/Ovals** program in the **Pallet Group**.

Click on the **Type of Package** drop down list under the Pallet Group. Choose **Case**. Make sure that you have marked **Yes** for Pallets and **Yes** for Trucks, and then click on the **Go** button.

S Welcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]	- • ×
File Programs Create ShortCuts Make a new Shape Databases Resolutions Internet Publisher Help	
🖙 🎽 🎽 🎊 🏟 🔀 🎇 😝 🗰 🕸 🗤 🌾 💿	
Pallet Group (Palletize your shipper, and/or load a truck)	
	Go
Type of Package Pallet? Truck? Case Yes < No	٠
Arrange/Design Group (Create packaging for a new or existing product and palletize	e it)
Fixed \circ \lor \Rightarrow \Rightarrow \Rightarrow \Rightarrow \Rightarrow	Go
Type of Package Type of Package Pallet? Box Case Yes No	٠
Casefill Group (Choose the most efficient product fit, using existing box sizes)	
Type of Package	Go
Box	
Select Programs Menu and then choose the program to run (in/lb) 10:33 AM C	APS NUM

You can also select the **Programs** menu, **Pallet Group** and then click on the **Cases/Trays/Ovals** option.

N	elcon	ne to Cape Pack 16.0 (Cape Adv	anced) -	[Front	Menu]		
	Prog	rams Create ShortCuts <u>M</u> a	ke a new	Shape	<u>D</u> atabases	Resolution	s <u>I</u> r
•		Pallet Group	÷		Cases/Trays/	Ovals	
al		Display Pallet (Club-store)	۱.		Bags		
-		Arrange Group	•		Cylinders/Bot	ttles	-1
		Design Group	+		Trapezoids/T	otes	- 1
		Casefill Group	•				_
		KDF Group	•				
H		Folding Carton Arrange (FCA)	•		- Pallet?		
3:		Other Programs	•		Yes	No	0
		Wizard	•				
r		ReArrange Program groups		cka	iging for a	a new or	exi

The first Rectangle/Oval input data screen appears with your Default Settings already loaded. Notice that the first of the 3 pallet tabs is active as well as the truck tab.

O Pallet - [Data Input] Eile Programs Make a new Shape Input Database: C D D D 日 日 日 ○ 2 22	s <u>T</u> ools Fill Wizard <u>C</u> olors	Add Graphics Internet	Help
Case 48×40	Pallet 2	Pallet 3	53footer
Select Pack Type Select F RSC (2,2,4)	² ack Name ✓	Width	Height
Enter OD's Set Dimensions Vertical	16.0000	12.0000	10.0000 IX
Enter Pack Weight Gross Weight 10.0000 10.0000	Input Settings Save/Calc.	Product Name	e/Product Code
Case		(in/lb)	10:34 AM CAPS NUM

Data Input

You know the outside dimensions of the shipping case for the widgets. You also know that you need to evaluate how the case is loaded onto a pallet, and in turn how that pallet is loaded into a truck. The dimensions you have are in English units of measure.

Click on the **Input Settings** button near the bottom of the screen. Or you can use the **Input** menu and then choose **Input Settings**.



The following screen appears.

Input Settings	
Input Product Name/Product Code Inside/Outside Dimensions Enter ID's Enter DD's	Number of Pallets 1 x Pallet 2 x Pallet 3 x Pallet
Additional Options T Show Flap Indicator Bulge allowed Allow Bulge entry by percentages Alternate Layers Partial Top Layer/Skip Old Patterns enabled	Analysis Type O Dbjects onto Pallet O Dbjects onto Pallet into Truck O Dbjects into Truck Enable Floor loading Units of Measure O mm/kn
Cylinders Recessed Objects allowed Vary Cylinder size OK	In/lb Show Control Face Direction Default Cancel

Make sure the following items are marked: Enter ID's, 1 x Pallet, Objects onto Pallet into Truck, and in/lb. Your Input Settings screen should now look like this.

Input Settings	•••
Input Product Name/Product Code	Number of Pallets
	I x Pallet
Inside/Outside Dimensions	O 2 x Pallet
Enter ID's	O 3 x Pallet
○ Enter OD's	
	Analysis Type
Additional Options	O Objects onto Pallet
Show Flap Indicator	Objects onto Pallet into Truck
Bulge allowed	O Objects into Truck
Allow Bulge entry by percentages	Enable Floor loading
Alternate Layers	
Revisit Top Lawer/Skip Old Patterns enabled	Units of Measure
	Omm/kg
Cylinders	● in/lb
Becessed Objects allowed	
	Show Control Face Direction
Vary Lylinder size	Default 🗸
ОК	Cancel

$Click \ on \ \textbf{OK}.$

If you want the program to automatically alternate the pallet layers for you, select the **Alternate Layers** option on the **Input Settings** screen.

You can also use the right-click options for some of these settings.

_	0.0000
	Objects onto Pallet
\checkmark	Objects onto Pallet into Truck
	Objects into Truck
\checkmark	1 x Pallet
	2 x Pallet
	3 x Pallet
	Enable Floor loading
	Input Settings
	Product Quantity Input
	per Sheet Quantity Input
	Pack Names
	Material Thicknesses
	Fill Wizard
	Print Input Data
	Print Preview
	Fraction Table

Next we'll give the analysis a name.

Click on the **Product Name/Product Code** button and a dialog box appears.

Input Product Name/Code	×
Date of Analysis 9/8/2016	ОК
Product Name Pallet Group-Cases/Trays/Ovals	Cancel
Product Code	

Enter **Widget** in the *Product Name* field.

Enter 062469 in the Product Code field. Your screen should now look like this.

Input Product Name/Code	×
Date of Analysis 9/8/2016	ОК
Product Name Widget	Cancel
Product Code 062469]

Now click on **OK** to begin your data entry.

Now that you have defined the problem, you can begin to input the data.

Case Information

Make sure you are on the tab labeled **Case**.

Press the **Tab** key on your keyboard to move from one input field to another. The heading will change to blue to indicate which field is active.

Choose 1: RSC (2,2,4) from the *Pack Type* field. This is the type of shipping case you are using.

Choose **Case** from the *Pack Name* field. This is just a descriptive name for the secondary package. Alternatively, you can build your own list of names by selecting **Pack Names** from the **Tools** menu.

Use **125 C-Flute 26-26-26 Calip 0.153** from the *Thickness* field. The options in this list come from the Material Thickness' list. This is the thickness of the secondary package board.

For the inside dimensions, enter 16.125, 15.125 and 5.867 in the Length, Width, and Height fields respectively.

In the *Dimension Vertical on Pallet* field make sure only **Height** is marked. This indicates which direction the case is turned on the pallet.

Enter **13** in the *Gross Weight* field. This is the weight of the shipping case plus the widgets inside it. It is used in determining any weight restrictions of the load.

Enter **12** in the *Net Weight* field. This is the weight of the widgets only. Your screen should now look like this:

Pallet - [Data Input]			
File Programs Make a new Shape Input	Databases Tools Fill Wizard Colors	Add Graphics Internet	Help
🔚 🗅 🗁 🖬 🗟 🎒 🧐 🗳 🕨 🗎 🔟 🖓) '놀 '놀 'š 🏓 🔁 'š 🔒 ?? 📿		~
Case 48×40	Pallet 2	Pallet 3	53footer
Colord Dool: Tring	Palast Dask blasse		~
(2,2,4)			
-	I hickness		
	•		
	Lenath	Width	Height
Enter ID's	16.125	15.125	5.867
Number of Thicknesses	2	2	4
Enter OD's	16.4310	15.4310	6.4790
Set Dimensions Vertical			x
Enter Pack Weight	Input Settings	Product Name/	Product Code
Gross Weight Net Weight			
13 12	Save/Calc		
Enter Net Weight		(in/lb)	10:39 AM CAPS NUM

Pallet Information

Click on the tab labeled **48x40** which is the name of the default pallet style.

😌 Pallet - [Data Input]	
<u>File Programs</u> <u>Make a new Shape</u> Input <u>Databases</u> <u>T</u> ools Fill Wizard <u>C</u> olors	Add Graphics <u>I</u> nternet <u>H</u> elp
🚋 🗅 🗁 🖶 🖶 🎒 የං 👂 🖹 📫 🕤 🍇 🏂 🍏 🍇 兽 ??	
Case 48x40 Pallet 2 F	Pallet 3 53footer
Select Pallet Base Style	
48x40.pa4 48x40 US GMA 4-Way Pallet	
Pallet Dimensions	
Length Width Height Weight	
48.0000 40.0000 5.5000 50.0000	
	Additional Palletizing Input
Enter Maximum Load Dimensions	
Overhang/Underhang Max Load	Select Pallet Pattern Styles Screen
Length Width Max.Height Max.Weight	Pallet Base Style Directory
	Pallet Thumbnails
Input Settings Product Name/Product Code	Save/Calc.
48x40	(in/lb) 10:40 AM CAPS NUM

Press the **Tab** key on your keyboard to move from one input field to another. The heading will change to blue to indicate which field is active.

From the *Pallet Base Style* field, you may choose a different pallet style, or you can use the default **48x40 US GMA 4-way Pallet**.

Notice how the Pallet Dimension fields are automatically filled in with data from the pallet style you chose.

Also note, you cannot access the pallet dimensions, nor can you make any changes to a pallet type you have selected.

Skip the *Maximum Overhang* field. This is any amount that a secondary package can extend over the edge of the pallet surface.

Enter **50** in the *Maximum Height* field. This is the height of the overall load, including the height of the pallet.

Enter 2000 in the Maximum Weight field. This is the weight of the overall load including the weight of the pallet.

Click on the button labeled **Select Pallet Pattern Styles Screen**. This button allows you to choose which basic style of pallet patterns you would like to consider. Make sure all pattern types are marked.

Select Pallet Pattern Styles Scr	een	—
🛛 Column		
🛪 Interlock		
🕱 Trilock		ОК
🕱 Spiral		Cancel
🛛 Diagonal		
🕱 Expanded Spiral		
Partial Top Layer Permit	ied	

Your screen should now look like this.

📀 Pallet - [Data Inp	ut]						
<u>File Programs</u>	<u>M</u> ake a new Shape <u>I</u> nput	Databases Tools	Fill Wizard C	olors A	dd Graphics	Internet	Help
Back L 1/27 1 1 11 Case	48×40	🗐 🐴 🐴 🐴 🥬	2 2	r Pi	allet 3		53footer
	Select Palle	t Base Style					
48×40.pa4	48x40 US GMA	. 4-Way Pallet		-			_
	Pallet Dir	mensions					
Length	Width 40.0000	Height 5 5000	Weight			*	
					A	dditional F	Palletizing Input
	Enter Maximum L	oad Dimensions	;				
Overha	ang/Underhang	Max.	Load		Selec	t Pallet Pa	attern Styles Screen
Length	Width	Max.Height	Max.Weigh	nt .	P	allet Base	Style Directory
0.00		50.0000	2000.00	00		Pallet T	humbnails
Inpu	t Settings	Product	Name/Produc	t Code			Save/Calc.
48×40						(in/lb)	10:40 AM CAPS NUM

Truck Information

Click on the tab labeled **40hicube** which is our default truck style.

Pallet - [Data Input]				
File Programs Make a new	Shape Input Databases	Tools Fill Wizard Colors	Add Graphics Internet	Help
🔚 🗋 👝 🖬 🗐 🎒 ንና	🎦 🖻 🔟 🔓 💥 💥 💥	i 🧔 🛱 💥 🔒 ??		
Case	48x40	Pallet 2	Pallet 3	53footer
	I			I
	Select Truck Style			
53footer.pa4 53	3-Footer Truck	•		
Т	ruck Internal Dimension	S		
Length	Width	Height		
636.0000	96.0000	102.0000		
Weight	Max.Weight	Max.Height		
10000.0000	55000.0000	102.0000		
			Truck S	Style Directory
			Select Lo	ading Patterns
			🕱 Simple	,
			🕱 Complex	
			× Partial Top L	aver Permitted
			•	,
Input Settings	Pro	oduct Name/Product Cod		Save/Calc.
53footer			(in/lb)	10:41 AM CAPS NUM

In the *Truck Style* field choose **40 ft. long – High Cube**. Notice how many parts of the *Truck Internal Dimension* field are automatically filled in with the values for your truck style.

In the *Max*. *Weight* field, enter **45000**.

Make sure that **Simple**. **Complex** and **Partial Top Layer Permitted** *Loading Patterns* are marked. These are defined as follows:

- **Simple** means the Column and Interlock loading patterns will be applied to pallet loads being placed in the truck or container.
- **Complex** means the Trilock, Spiral, Diagonal and Expanded Spiral type patterns will be used.
- **Partial Top layer Permitted** means that the program will create a partial layer of pallet loads (top layer) in the container to take full advantage of the maximum load weight you allowed. The program will continue to load pallet loads until the maximum weight is reached.

Your screen should now look like the following.
Pallet - [Data Input]				
File Programs Make a new Sha	pe Input Databases Tool	s Fill Wizard Colors A	Add Graphics Internet	Help
🔚 🗅 🗁 🖬 🗟 🎂 🦻	🖻 🔟 🖓 💥 🏹 🕻	🕯 🕆 将 ??	· ·	
Case 48x4	10 Pallo	et 2 P	Pallet 3	truck1
5	Select Truck Style			
TRUCK1.PA4 40 ft. I	ong - High Cube	-		
Iruci	k Internal Dimensions			
Length	Width	Height		
476.0000	92.0000	102.0000		
Weight	Max.Weight	Max.Height		
/000.0000	45000	102.0000		
			Truck S	tyle Directory
			O-last a	
			Select Lo	ading Patterns
			× Simple	
			× Complex	
			Partial Top La	yer Permitted
Input Settings	Produ	ct Name/Product Code		Save/Calc.
			(in/lb)	10:42 AM CAPS NUM

Now that you have entered all of the information about the case, the pallet and the truck you want to see the results.

Saving Data

Choose Save Input Data and Calculate from the File menu, or click on the Save/Calc. in the lower right on the screen.



The Save As dialog box appears.

Save As							×
Computer + Local Dis	k (C:))) ca	ape216 🕨 private		✓ ✓ Search prive	ate	Q
Organize 🔻 New folder							0
☆ Favorites	^	Na	me		Date modified	Туре	-
🧮 Desktop			Vcitoria 3.clf		5/20/2016 8:49 AM	CLF File	
🗽 Downloads			sample 1.clf		3/4/2016 9:00 AM	CLF File	=
🕮 Recent Places			sampel 2.clf		3/4/2016 9:02 AM	CLF File	
			rudy design.clf		3/17/2016 3:33 AM	CLF File	
🥽 Libraries			cpccap92.clf		4/28/2016 3:39 PM	CLF File	
Documents	-		cpccap90.clf		4/28/2016 3:27 PM	CLF File	
🎝 Music	=	۵	rudhy arrange.clf		3/17/2016 3:34 AM	CLF File	
E Pictures			cpccap95.clf		4/28/2016 3:54 PM	CLF File	
📑 Videos		۵	of2 0720.clf		7/20/2016 10:33 AM	CLF File	
		۵	water bottle sample.clf		3/17/2016 8:07 AM	CLF File	
🖳 Computer			oscar.clf		8/26/2016 10:08 AM	CLF File	
🚢 Local Disk (C:)		۵	tissue.clf		3/1/2016 11:54 AM	CLF File	
🙀 KIKA (\\egwusms003\users\$) (P:)		۵	energy drink.clf		3/17/2016 8:28 AM	CLF File	
🙀 GlobalStorage (\\esko-graphics.com	r	۵	kc tissue.clf		3/1/2016 11:43 AM	CLF File	
🖵 Shared Folders (\\vmware-host) (Z)		bunldes.clf		4/28/2016 10:53 AM	CLF File	
			10293890123890a.clf		8/3/2016 3:54 AM	CLF File	-
📬 Network	Ŧ	•		III			•
File name:							-
Save as type: Cape Load file (*.clf)							
Alide Folders					<u>S</u> ave	Can	cel

Make sure you have the Private folder showing in the Save In field. Type Widget in the File name box.

Click on **Save**. The program automatically begins calculating solutions and assembling the diagrams for your problem. The status window will show you a progress bar as well as a count of how many solutions have been found for your analysis.

When the calculations are finished you will see a new window, the Multi-Viewer Graphics, showing solution number 1.



The program has calculated a variety of solutions. It now displays the graphics for the solution with the simplest pattern and the maximum number of secondary packages per load, solution number 1.



Click on **Set-up Buttons**. This will display all the controls you need for setting up and creating your diagrams.

The Summary Report button is grayed out and is only used if you run an analysis with more than one pallet size.

Notice how the button now shows the **Quick Report.** This is used for displaying the solution information. You can toggle between the **Quick Report** and the **Set-up Buttons** just by clicking on this button. Click on **Quick Report** to bring back the solution information.

Evaluating Results

You can see the corner and top views of the pallet load, along with a view of one layer on the pallet and the secondary pack on its own.

You can easily review the numbers in the upper right-hand corner. The area efficiency is shown as 79.2%, which beats the goal of at least 75%. There are 6 secondary packs per layer, and there are 6 layers which amounts to a total of 36 secondary packs per load.

However, at this stage you cannot see how the layers need to be interlocked or how the pallet is loaded within the truck. You may also need to see the statistics about a number of solutions, so you can decide which is the best pallet pattern/load.

Click on **Set-up Buttons** to give you back the format controls.

Reviewing Graphics for Other Solutions

Although the results of solution number 1 appear perfectly satisfactory, you want to view other solutions.

Click on the greater than arrow button (\clubsuit) on the menu icon bar. This brings up the next solution in the list.

Click on the less than arrow button (\bigstar) . This brings up the previous solution in the list.

Click on the **Jump to a Solution arrow** button. Enter a particular solution number, and click on **OK**. That solution number appears.

If a particular arrow button is gray you are at the first or last solution in the list. Click on the opposite button or the **Jump to a Solution** button to switch solutions.

Comparing Statistics

After looking at the graphics solutions, you want to compare the actual statistics of each solution. It is difficult to remember all the data when switching between the graphics solutions.



Click on the **Solution Report button**. A window like this appears.

This is a thumbnail report of the plan views of all the solutions. If you would prefer a numerical report, click on the **Solution Report** button on this screen.

ile <u>E</u>	dit Thu	mbnails	Option:	; <u>H</u> elp							
Sol. No.	Pat Type	# Per Load	# Per Layer	# of Layers	D V	Cube Eff.	Area Eff.	Length Under	Length Over	Width Under	Width Over
1	С	36	6	6	Н	69.2	79.2	0.85	0.00	3.57	0.00
2	I	36	6	6	Н	69.2	79.2	0.35	0.00	4.57	0.00
3	Т	36	6	6	н	69.2	79.2	0.85	0.00	4.07	0.00
4	S	36	6	6	н	69.2	79.2	8.57	0.00	4.07	0.00
5	I	30	5	6	н	57.7	66.0	7.57	0.00	4.07	0.00
6	Т	30	5	6	н	57.7	66.0	7.57	0.00	4.57	0.00
7	Т	30	5	6	н	57.7	66.0	8.07	0.00	4.07	0.00
8	S	30	5	6	н	57.7	66.0	8.07	0.00	4.07	0.00
9	С	24	4	6	н	46.1	52.8	7.57	0.00	4.57	0.00
10	D	24	4	6	н	46.1	52.8	8.07	0.00	4.07	0.00

You can choose the default Solution Report format on the **View** menu by selecting **Default Solution Report** and then the option that you wish.

The solutions are listed in descending order of number of secondary packages per load. You notice that solution #5 is the method you are currently using. You would like to show your colleague the comparison between these different solutions.

Printing the Solution Report

From the **File** menu of the Solution Report choose **Print Solution Report** and then click on **OK**. If you wish to review the report before printing, click on **File** and then **Print Preview**.

Closing the Solution Report

From the File menu of the Solution Report, choose Close and you will be returned to Multi-Viewer Graphics.

The Best Solution

After analyzing the statistics and graphics you decide you like solution #2 best. It fits 36 secondary packages per load and has a good interlocking pattern style, which will be more stable than a column pattern when the layers are alternated.

So now you want to see how the truck is loaded and how the layers on the pallet will look when they are alternated. Then you can present this solution to your colleague, along with the statistics you printed previously.

If your solution does not need to be changed, you can print the default views in a report format directly from the **Print** or **Print Preview** functions of the **File** menu.

Loading the Truck

From the Truck menu, choose Show my Truck, or from the Tools menu, choose Truck Analysis.

c:\cape216\private\widget.clf								
<u>Truck</u> <u>T</u> ools <u>D</u> atab	ases <u>C</u> olors	<u>A</u> dd Gr						
Show My Truck								
Change Truck Restrictions								
\leq \sim								

You will then see a Truck Analysis Solution Report.



This solution report will show up to 40 different truck loads. You can select any load you wish, or you can change your truck restrictions by clicking on File, Change Truck Restrictions.

Fruck	Analysis Solution Report (Pallet #1)									
File	Edit Options Help									
	Save Current Load and Exit									
	Change Truck Restrictions									
	Print Solution Report Ctrl+P									
	Print Preview									
	Print Setup									
	Close									

The following screen will appear.



You like solution number 1.

Click on the File menu and select Save Current Load and Exit.

ruck	Analysis Solution Report (Palle	et #1)
File	Edit Options Help	
	Save Current Load and Exit	
	Change Truck Restrictions	
	Print Solution Report	Ctrl+P
	Print Preview	
	Print Setup	
	Close	

You will return to Multi-Viewer Graphics with your truck diagram placed in the last active panel in the Multi-Viewer Graphics. We had the Pallet Load panel (panel 1) highlighted, so the truck appears in the top left corner of the Multi-Viewer screen.

Y

Keep in mind that this example of a truck analysis has pallet loads with the layers still stacked in columns **and** layer pads, etc. have not been added.

If you want the truck to be located in another panel, highlight the panel you want for the truck (where the Top View is currently showing, for example).

Click on **Set-up Buttons** to display the format controls.

Click on the Format Panel button.

We are highlighting panel number 2. Choose **truck 1 (#1) TRUCK** from the *Diagram Type* list box. The loaded truck will then appear in the appropriate panel.



You can now change the panel with the original truck in it (#1). Here is how to put the pallet load back in that panel.

Highlight the truck in the top left panel (panel #1).

Select **48x40 (#1)** from the *Diagram Type* list.



Formatting the Pallet Load

In order to achieve some level of stability you want to alternate (interlock) the layers of this load. This load also requires a top cap and corner posts. Cape Pack will be able to display all this for you.

Layer one is the bottom layer, i.e., the layer sitting on the surface of the pallet base.

Alternating Layers

First make sure the active panel is a pallet load diagram. Click on the button labeled **Format Load**. A new window will open allowing you to format the pallet load to your own specifications.

📀 Format Load								×
<u>F</u> ile <u>T</u> ools								
					Select all Lay	ers		
			Leng	th () Width	O Bot	h	
	\sim				Forma	t Load Options		
	>	\geq	Select a	format load o	ption			-
	$\mathbf{\mathbf{\nabla}}$							
	77		Layer	Flip	Top Cap	Layer Pad	Layer Tray	Spread
			1	None	No	No	No	No
		_	2	None	No	No	No	No
			3	None	No	No	No	No
	and a second		4	None	No	No	No	No
32.862	47.	293	5	None	No	No	No	No
			6	None	No	No	No	No
	Length	Width	Height	Weight		_	_	
Old Load Dims	47.293	32.862	44.374	518		OK		Cancel
New Load Dims	47.293	32.862	44.374	518				

Since you want to form an interlocking load, you need to alternate all of the layers. Click on the **Select All** button. The whole spreadsheet will become highlighted.

📀 Format Load								×
File Tools								
					Select all Lay	ers		
			Leng	th () Width	O Bot	h	
	~				Forma			
	>		Select a	format load o	ption			•
\sim			,					
	T		Layer	Flip	Top Cap	Layer Pad	Layer Tray	Spread
			1	None	No	No	No	No
			2	None	No	No	No	No
			3	None	No	No	No	No
			4	None	No	No	No	No
32.862	47.	293	5	None	No	No	No	No
			6	None	No	No	No	No
	Length	Width	Height	Weight				
Old Load Dims	47.293	32.862	44.374	518		OK		Cancel
New Load Dims	47.293	32.862	44.374	518				

Make sure the setting underneath the **Select All** button is marked for **Length**.

From the drop down list select **Alternate Layer(s)**.



Notice how the layers have become alternated and how layers 2, 4 and 6 in the spreadsheet have Length in the Flip column.

Now that you have alternated the layers you can use the **Twin Top-View** feature, under the *Diagram View* list, in Format Panel.



Adding a Top Cap

Make sure you have highlighted the panel with the **Pallet Load** and then click on the **Format Load** button.

Highlight layer 6 in the spreadsheet. This is the top layer.

Select Add/Remove Top Cap(s) from the drop down list and new fields appear in the bottom half of the screen.

Sormat Load						- ×		
File Tools								
	Select all Layers							
	● Leng	jth (⊃ Width O Both		h			
_			Forma	t Load Options				
	Add/Remove Top Cap(s)							
	·					_		
	Layer	Flip	Top Cap	Layer Pad	Layer Tray	Spread		
	2	Length	No	No	No	No 🔺		
	3	None	No	No	No	No		
	4	Length	No	No	No	No		
	5	None	No	No	No	No		
32.862 47.293	6	Length	No	No	No	No		
						*		
			1	op Cap				
	Weight		0.000	-	Accept Va	alues		
	Thickne	88	0.000		Bemove To	n Can		
	Height		0.000		Tionove re			
			10.000	•				
Length Width	Height	Weight			1	1		
New Load Dims 47.293 32.862	44.374	518		OK		Cancel		

In the Weight field, enter 2. This is the weight in pounds of the top cap.

In the *Thickness* field, enter **0.25.** This is the thickness in inches of the top cap material.

In the *Height* field, enter **4**. This is the length of the lip of the top cap.

You can set your own defaults for these values and for Layer Pads/trays and Corner Post from the **Tools** menu at the top of the screen. For further details please refer to the "What else can I do?" section at the end of this tutorial.

Click on the button labeled **Accept Values**. A top cap will be drawn on top of layer 6, extending down over the cases the amount you entered in the *Height* field. Also in the spreadsheet, layer 6 will have a **Yes** in the column for Top Cap. Your screen should now look like this.

📀 Format Load									x
<u>F</u> ile <u>T</u> ools									
			Lengl	th C) Width	O Bot	h		
	~				Forma	t Load Options			
		<u> </u>	Add/Rer	nove Top Ca	p(s)				▾
\leq									
			Layer	Flip	Тор Сар	Layer Pad	Layer Tray	Spread	
			2	Length	No	No	No	No	
	11	-	3	None	No	No	No	No	
		2	4	Length	No	No	No	No	=
			5	None	No	No	No	No	-
32.862	4/.	293	6	Length	Yes	No	No	No	
									· ·
	Length	Width	Height	Weight					
Old Load Dims	47.293	32.862	44.374	518		ОК		Cancel	
New Load Dims	47.793	33.362	44.624	520					

Notice in the small spreadsheet (bottom left) how the height and weight in the Product Dimensions have changed from the original calculations.

Layer trays are added the same way as top caps, however they are drawn on the bottom of the layer rather than the top.

Adding Layer Pads

When you add a layer pad, you are adding a pad below the layer you have highlighted.

Highlight layer 4 in the spreadsheet.

Select Add/Remove Layer Pad(s) from the drop down list and new fields appear in the bottom half of the screen.

In the Weight field, enter 2. This is the weight in pounds of the layer pad.

In the *Thickness* field, enter **0.25.** This is the thickness in inches of the layer pad. The screen should look like the following.

Click on the button labeled **Accept Values**. A layer pad will be placed between layers 3 and 4 and an arrow will appear alongside layers 3/4. Also in the spreadsheet, layer 4 will have **Yes** in the column for Layer Pad. Your screen should now look like this.

Format Load									×
<u>F</u> ile <u>T</u> ools									
			Select all Layers						
			Leng	th C	Width	O Bot	h		
	~				Forma				
	<u> </u>	_	Add/Rei	Add/Remove Layer Pad(s)					T
\leq									_
			Laver	Flip	Тор Сар	Laver Pad	Laver Trav	Spread	
		←	2	Length	No	No	No	No	
			3	None	No	No	No	No	
			4	Length	No	Yes	No	No	-
		~~~	5	None	No	No	No	No	=
32.862	47.	293	6	Length	Yes	No	No	No	-
	Lenath	Width	Heiaht	Weight					
Old Load Dims	47.293	32.862	44.374	518		ОК		Cancel	
New Load Dims	47.793	33.362	44.874	522					

As you add layer pads, top caps and corner posts, the small spreadsheet, in the bottom left hand corner of the screen, records the changes in **Product Dimensions** and **Weight**. When you click on **OK** to accept these changes, this information (i.e. the changes you made) will be updated in the file structure. The new dimensions/weight will be shown on the Multi-Viewer Graphics screen.

### **Adding Corner Posts**

Select **Add/Remove Vertical Corner Posts** from the drop down list and new fields appear in the bottom half of the screen.

In the Weight field, enter 2. This is the weight in pounds of each corner post.

In the *Thickness* field, enter **0.25.** This is the thickness in inches of the corner post material.

In the *Width* field, enter **4.** This is the length of the corner post side.

Click on the button labeled **Accept Values**. Four corner posts will be drawn at the corners of the pallet extending out over the cases by the amount you entered in the *Width* field. You will see the following screen.

Format Load									x	
<u>File</u> <u>T</u> ools										
					Select all Lay	ers				
			Lengt	th (	⊖ Width		h			
	~		Format Load Options							
	$\sim$		Add/Ber	nove Vertical	Corner Posts				ΞÌ	
$\leq$			1						_	
			Layer	Flip	Тор Сар	Layer Pad	Layer Tray	Spread		
			2	Length	No	No	No	No		
			3	None	No	No	No	No		
			4	Length	No	Yes	No	No	-	
			5	None	No	No	No	No	=	
32.862	47.2	293	6	Length	Yes	No	No	No	9	
									-	
	Length	Width	Height	Weight						
Old Load Dims New Load Dims	47.293 48.293	32.862 33.862	44.374 44.874	518 530		ОК		Cancel		

## Adding Strapping

Select Add/Remove vertical straps from the drop down list and new fields appear in the bottom half of the screen.

Sormat Load						-	3
<u>F</u> ile <u>T</u> ools							
			Select all Lay	ers			
	Len	gth C	Width	O Bot	h		
~			Forma	t Load Options			
	Add/Re	emove vertical	straps				J.
	Layer	Flip	Тор Сар	Layer Pad	Layer Tray	Spread	
	2	Length	No	No	No	No	
	3	None	No	No	No	No	
	4	Length	No	Yes	No	No	_
	5	None	No	No	No	No	=
32.862 47.293	6	Length	Yes	No	No	No	-
							_
			Add Vertical	Straps around	load		
	Acros	s Length	0	•	Add Strap	)S	
	Acros	s Width	0	•	Remove Str	raps	
	Width	of Straps (%)	3		Change Co	olor	
			• •		Evolude Pa	llet Base	
						mot blase	
Length Width H	1eight 44 374	Weight 518		0.11			1
New Load Dims 48.293 33.862	44.874	530		UK		Cancel	

Specify how many straps you want across the length and width of the pallet and adjust the width of the straps to suit your load. The width of the straps is expressed a s a percentage of the load dimensions. Enter 2 in the length and 2 in the width. Then enter in 3% for the width of the straps, and select **Exclude Pallet Base.** 

#### Click on Add Straps.

📀 Format Load								×	
<u>F</u> ile <u>T</u> ools									
					Select all Lay	ers			
			Leng	th C	Width	⊖ Bot	h		
	$\sim$				Forma	t Load Options			
	<	<u> </u>	Add/Rer	move vertical	straps			•	·
	>								
		-	Layer	Flip	Top Cap	Layer Pad	Layer Tray	Spread	П
	11		2	Length	No	No	No	No 4	
			3	None	No	No	No	No	
			4	Length	No	Yes	No	No	
			5	None	No	No	No	No	-
32.862	47.	293	6	Length	Yes	No	No	No	4
	Length	Width	Height	Weight			_		
New Load Dims	47.293	32.862	44.374	518		OK		Cancel	
NEW LOOU DIIIIS	40.233	33.002	44.074	530					

You can also choose to change the color of your straps if you wish.

You can also add Horizontal Corner Posts, horizontal straps, Layer Trays and a Top Board to suit the needs of your load. All of these formatting options are applied in a similar manner.

Click on **OK** to accept all your changes and the Multi-Viewer Graphics will return with the updated diagrams and dimensions.



Notice that the truck has disappeared. This is correct. By adding a layer pad, top-cap and corner posts, you changed the height, length and width dimensions and the weight of the pallet. In essence, you have created a new pallet load. Therefore, Cape Pack does not know if your new pallet load will fit the truck. You will need to rerun **Show my Truck** from the **Truck** menu.



Then use File, Save Current Load and Exit to bring your new truck into the Multi-Viewer Graphics.



## Sharing Data

The first thing you must decide on is the layout and set-up of the screen report and printout, i.e., the type and quantity of diagrams you want to show. You know that the production floor workers like to see the corner and side views of the pallet load. It is not necessary to see the contents of the secondary package, so you do not want to show this on the report. However, you also want to show the truck. Thus, you need to set up the report to show three diagrams.

## Setting up the Screen

Click on the button labeled Format Screen.



Click on the button labeled **3**. The Multi-Viewer returns with 3 diagrams.



### Setting up the Diagrams

Click on the button labeled **Format Panel**.

Highlight panel #1. In the *Diagram Type* field, make sure it is set to **48x40 (#1)**.

In the *Diagram View* field, make sure it is set to **Corner View**.

Now highlight panel #2. In the *Diagram Type* field, make sure it is set to truck1 (#1) TRUCK.

Finally highlight panel #3. Select **48x40 (#1)**, and in the *Diagram Type* field make sure it is set to **Side Views**.

You may also use the right-click options here to change and manipulate the views of your diagrams as well as other features of the Multi-Viewer Graphics.

Corner View
Side Views
Indicators
Show Shrink Wrap
Top View
Bottom View
🖌 Show View at
Remove Indicator
Strength
Layer Editor
Page Setup
Print Preview
Print
Export Settings
Edit User Text
Show Thumbnails Solution Report
Export to Casefill Database
CAPE's Web Page Publisher
Apply Default Format Load Settings
Export Diagram/Report



Now that you have the Multi-Viewer Graphics configured with the layout and types of diagrams you want, you can manipulate the pallet load and the screen settings to show how it will look when it is ready for shipment.

## Page Setup

You can use Page Setup under the File menu in the Multi-Viewer.

<b>O</b> N	1ulti-Vi	ewer Gr	aphics -	c:\cape2	16\priva	te\widget.
<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	E <u>x</u> port	<u>T</u> ruck	<u>T</u> ools	<u>D</u> atabase
	Chang	ge Input	t Data			
	Returr	n to Fro	nt Menu			
	Save 0	Graphic	s Solution	n	C	Ctrl+S
	Save 0	Graphic	s Solution	n As	C	trl+A
	WebC	enter C	onnecto	r Browse	r	
	Print (	Custom	Report (	Word)		- + [
	Page S	Setup				
	Print P	review				
	Print S	Standar	d Report		C	trl+P
	Print S	Setup				- 1
	Print L	angua	ge Option	ns		
	Exit					

Or you can access it by right-clicking on a pallet load diagram on your screen.

ĺ	Corner View	
	Side Views	- 1
	Indicators	- 1
	Show Shrink Wrap	- 1
	Top View	- 1
	Bottom View	- 1
	Show View at	- <b>F</b>
7	Remove Indicator	- 1
~	Strength	- 1
	Layer Editor	- 1
	Dago Setup	
	Print Draviou	_
	Dist	5
	Print	
	Export Settings	
-	Edit User Text	
VIIVA	Show Thumbnails Solution Report	
<b>N 4</b>	Export to Casefill Database	
	CAPE's Web Page Publisher	
	Apply Default Format Load Settings	
	Export Diagram/Report	+

Cape Pack has 2 standard reports to choose from: New and Classic. The default for your program is the New format. To change the report format, click on the **View** menu, and **Report Type**.



Here is the Page Setup screen for the New Report format. You will notice that there are several grayed out options. These do not apply to the New format.

Page Setup	ge Split	User Text		User Fields	
Copies Le 1 • 0.0	<b>ft Margin (in)</b> 1000	Top Margin 0.0000	(in)	Print Language English	Print Quality     Presentation ▼
Color Ca Color Co	pe Report Font	Report Type Standard	e	Report Units in/lb	<b>_</b>
Show Logo	<b>go Width (in)</b> 1000	C:\cape216\In	nages\Cape_Pa	ck_256c.bmp	
K Show Header	🗆 Show Overhar	g	🗖 Driver fix		🗙 Show Product
Skip Driver Copies	🕱 Speed Print		🗆 Actual Ne	et Weight	Show Legend
Update Export Settings	🛪 Show User Te	xt	× Show Pac	:kage ID	🗙 Show Cube
Show Column Mapping					
Show One-Line Text/Syste No Text	m Date © Date	•	Text	_	
			Canaal	1	

Here is the Page Setup screen for the Classic Report format.

Set Options							3 23
Page Setup Page	ge Split	User Text		User Fields			
Copies Le 1 • 0.0	e <b>ft Margin (in)</b> 2000	Top Margin 0.0000	(in)	Print Language English	•	Print Quality Presentation	•
Color Ca Color Ca X Show Logo Lo	ppe Report Font ourier New 💌 go Width (in) 0000	Report Typ Standard C:\cape216\Ir	e ▼ nages\Cape_Pa	Report Units in/lb ck_256c.bmp	•		
🕱 Show Header	🗆 Show Overhar	g	🗆 Driver fix		🗙 Sł	now Product	
Skip Driver Copies	🗙 Speed Print		🗆 Actual Ne	t Weight	🗆 SF	now Legend	
🕱 Update Export Settings	🕱 Show User Te	xt	🗙 Show Pac	kage ID	🗙 Sł	now Cube	
Show Column Mapping							
Show One-Line Text/Syste	em Date • Date	0	Text	_			
	ОК		Cancel				

Using this option and the other tabbed screens you can set up margin sizes, the date (on/off), whether you want the top specification, user text, overhang statement, net weight shown, if you want to use a logo on the printout and the quality and color of printing.

For further details, please refer to the Page Setup chapter.

### Adding Annotations

You can use the special Annotation feature in Print Preview to add notes to your printouts in the Classic Report format.

Select **Print Preview** from the **File** menu and then click on the **Annotation** button. You will see the following screen with a yellow annotation box available for you to type in.

Annotation Text			<b>—</b>
	Annotatior Pool	n in	
	۲ ۱	>	
Place at new Position	Place at old Position	Cancel	Delete
<u>B</u> ackground Color	<u>F</u> ont	<u>T</u> ext Color	Borde <u>r</u> Color

You can change the color of the text, the background and the border, and you can also change the font. Now type your text.

Annotation Text			×
This is an example	of Annotations for the	User Guide	
	Annotatio Pool	n in	
	۲ ۱	>	
Place at new Position	Place at old Position	Cancel	Delete
<u>B</u> ackground Color	<u>F</u> ont	<u>T</u> ext Color	Borde <u>r</u> Color

Click on **Place at new position**. The following message box appears.



Click on **OK**. The diagrams will quickly redraw. Now hold down the **Shift** key and using the left mouse button, draw a box.

🜔 Print Pr	eview - (	Cape Standar	d Report							
Zoo	om			1 1 .				1	1	1 1
100%		- Exp	ort <	> ¹	of 1 <u>C</u> I	ose	<u>P</u> rint	Draft	Fast Print	Annotation
Ś						Thurs	sday, S	eptember	08, 2016	<u> </u>
Product	Name		Widget							
Product Datafile Load Re:	Code e Name f.		062469 widget (9 1 C	9/8/ <mark>This is an</mark> the User (	example of A Guide.	Annotatio	ns for			
Cube Use	ed		69.2 %					Case / TI	HI	
Area Use	ed		79.2 %	•			-	TI HI / Lo	ad	
Pallet	type		48 <b>x</b> 40					Case / Lo	ad	
		Length	Width	He				Volume		
Case	(ID)	16.125	15.125	5 <mark> </mark>	12.000	10.0	<del>00 10 <b>1</b></del>	0.83 c	uft	
Case	(OD)	16.431	15.431	6.479 in	12.000	13.0	00 lb	0.95 c	uft	
Product		46.293	32.862	38.874 in	432.000	468.0	00 1b	34.22 c	uft	
LOAD		48.000	40.000	44.574 III	468.000	518.0		49.30 0		
•				44.374			2			11.979 •

You can now move the box by clicking on it and dragging it to a new location. You can also drag the arrow pointer to highlight anything on the screen.

Print Preview	v - Cape Standar	d Report									x
Zoom		1	1 1	1 of 1		1		1			- 1
100%	▼ Exp	ort <	>	1011	<u>C</u> I	ose	<u>P</u> rint	Draft	Fast Print	<u>Annotatio</u>	on
Ô	This is a the Use	in example o r Guide.	fAnnotatio	ns for							•
	-					Thurse	lay, Se	ptember (	08, 2016		
Product Nam	le	Widget									
Product Cod	ne me	062469 widget (9	/8/2016	<b>`</b>							
Load Ref.	ine.	1/C	0/0/2010	,							
Cube Used		69.2 %				6		Case / TI	ні		
Area Used		79.2 %				6	Т	I HI / Loa	d		
Pallet type		<b>48x40</b>				36		Case / Loa	d		
	Length /	/ Width	Height		Net	Gross		Volume			
Case (ID	) 16.125	15.125	5.867	in 1	2.000	13.000	) 1b	0.83 cu	ft		
Case (OI	) 16.431	15.431	6.479	in 1	2.000	13.000	) 1b	0.95 cu	ft		
Product	46.293	32.862	38.874	in 43	2.000	468.000	) 1b	34.22 cu	ft		
Load	48.000	40.000	44.374	in 46	8.000	518.000	) 1b	49.30 cu	ft		
							$\langle$	$\leq$	>	1	
			44.374				$\geq$			11.979	•
<b>_</b>										-	

## Printing the Graphical Report

Now that you have formatted the screen to meet your specific requirements, you can print a report. However, you would first like to add a few comments to the printout.

Set Options		
Jser Text		
For more	e information	
Contact	Customer Support	
000-000-	-0000	
	Save ås	
	Default Clear Current Reset Font	
-		
	OK Cancel	

From the Page Setup screen, choose the User Text tab.

Click on the **Clear** button. If there was any text in the box, it is now gone.

Make sure your cursor is blinking on the first line. If it is not, click the mouse pointer there. As you are typing, you must hit **Tab** at the end of every line.

Type This report shows how the widget can be loaded onto a pallet and into a truck more efficiently than at present. To see how our current method compares to this, see the statistical solution report printout for solution #5.

Then click on **OK**. You are returned to the Multi-Viewer.

From the File menu, choose Print Preview. A window will come up showing you how the printout will look.

Use the scroll bars to scroll around the entire page, or use the **Zoom** controls.

If everything looks okay, click on the **Print** button.

To exit the Multi-Viewer, select File and Close.

## Exporting Cape Reports

You can use the **Edit** menu to take the diagram or a full Cape report to the Windows Clipboard. Or you can use the **Export** menu to export graphics files or text/numerical information.

Graphics - c:\cape216\private\widget.clf							
v Export Databases Colors Add Graph	nics e	e-mail Internet Publisher Help					
* Settings		0 📀					
Export Information Only	•	Product Length 46.29	3				
Export Cape Diagram	• _	Product Width 32.86	2				
Export Cape Report	•	Report Only	ZSoft Format (PCX)				
Robot	•	Report and ASCII	Tagged Image File Format (TIF)				
Export to ESKO	+	Cape's web page (html format)	Encapsulated Postscript (EPS)				
Export to KASEMAKE		Create a PDF Report	Adobe Photoshop 3.0 (PSD)				
Export to ImpactCAD/WEBcnx		3D PDF	Windows Bitmap (BMP)				
- SAP	ъ Т		OS/2 Bitmap (BMP)				
	_		Windows Metafile - WMF				
48.000			JPEG				

## Conclusion

You have just used the Rectangle/Oval program in the Pallet Group. There are, however, a wide range of very important and useful features.

## **Data Input Features**

## Right Clicking Options in Data Entry

Right-clicking with your mouse on any of the data entry screens will bring up the following pop menu.



You can change any of these options by clicking on the new choice.

### Using Multiple Pallet Types

Select Input Settings from the Input menu, or use the Input Settings button, or the right-clicking option.

O Input Settings	
Input Product Name/Product Code Inside/Outside Dimensions © Enter ID's © Enter OD's	Number of Pallets O 1 x Pallet 2 x Pallet O 3 x Pallet
Additional Options Show Flap Indicator Bulge allowed Allow Bulge entry by percentages Alternate Layers Partial Top Layer/Skip Old Patterns enabled	Analysis Type Objects onto Pallet Objects onto Pallet into Truck Objects into Truck Enable Floor loading Units of Measure Omm/kg
Cylinders Recessed Objects allowed Vary Cylinder size OK	in/lb      Show Control Face Direction      Default      Cancel

Click on the **2 x Pallet** option. You screen should now look like this.

#### $Click \ on \ \boldsymbol{\mathsf{OK}}.$

Notice how the tab marked **Pallet 2** has become active.

Click on the **Pallet 2** tab.

Select the **Euro1.pa4 1200 x 800** pallet style from the drop down list. Enter the *Max Height* as **50** inches and the *Max Weight* as **2000** lb. Your screen should now look like this.

Pallet - [c:\cape216\private\widget.clf]						
File Programs Make a new Shape Input Databases Tools Fill Wizard Colors A	dd Graphics Internet Help					
🔚 🗅 🗁 🖬 📾 🦫 🎖 🖻 🖻 👘 🌿 🎽 🆓 🍎 🧏 🖲 ??						
Case 48x40 euro1 Pa	allet 3 truck1					
Select Pallet Base Style	·					
euro1.pa4 Europallet 1200x800x145						
Pallet Dimensions						
Length         Width         Height         Weight           47.2441         31.4961         5.7087         55.1150						
	Additional Palletizing Input					
Enter Maximum Load Dimensions						
Overhang/Underhang Max. Load	Select Pallet Pattern Styles Screen					
Length Width Max.Height Max.Weight	Pallet Base Style Directory					
	Pallet Thumbnails					
Input Settings Product Name/Product Code	Save/Calc.					
Enter maximum Load Weight CAPS NUM						

Now select **Save Input Data and Calculate** from the **File** menu or use the Save icon, or the **Save/Calc.** button. The Multi-Viewer Graphics screen will appear.



On the left side of the screen (larger picture) is Pallet load #1 and on the other side (smaller picture) is Pallet Load #2. Basic information for **both loads** is shown in the Quick Report area.

You can also click on the **Summary Report** button to see a combined report, or you can click on either Pallet Load and then click on the **Solution Report** button.

Here is the Summary Report.

0	Summary Solution Report								x					
File Help														
			Pall	et #1			Pall	et #2			Pall	et #3		
	Sol. No.	Pat Type	# Per Load	# Per Layer	# of Layers	Pat Type	# Per Load	# Per Layer	# of Layers	Pat Type	# Per Load	#Per Layer	# of Layers	Ĥ
Г	1	С	36	6	6	С	24	4	6	-	-	-	-	
	2	I	36	6	6	С	18	3	6	-	-	-	-	
	3	Т	36	6	6	I	18	3	6	-	-	-	-	
	4	S	36	6	6	С	12	2	6	-	-	-	-	
	5	I	30	5	6	С	12	2	6	-	-	-	-	
	6	Т	30	5	6	С	6	1	6	-	-	-	-	
E	7	Т	30	5	6	-	-	-	-	-	-	-	-	
E	8	S	30	5	6	-	-	-	-	-	-	-	-	
	9	С	24	4	6	-	-	-	-	-	-	-	-	
	10	n	24	4	6	-	-	_	-	-	-	_	-	

Here is the Solution Report for Pallet Load #1.

Numerical Solution Report (Pallet #1)												
File E	File Edit Thumbnails Options Help											
Sol. No.	Pat Type	# Per Load	# Per Layer	# of Layers	D V	Cube Eff.	Area Eff.	Length Under	Length Over	Width Under	Width Over	<b>^</b>
1	С	36	6	6	Н	69.2	79.2	0.85	0.00	3.57	0.00	
2	I	36	6	6	Н	69.2	79.2	0.35	0.00	4.57	0.00	
3	т	36	6	6	н	69.2	79.2	0.85	0.00	4.07	0.00	
4	S	36	6	6	н	69.2	79.2	8.57	0.00	4.07	0.00	
5	I	30	5	6	н	57.7	66.0	7.57	0.00	4.07	0.00	
6	т	30	5	6	н	57.7	66.0	7.57	0.00	4.57	0.00	
7	т	30	5	6	н	57.7	66.0	8.07	0.00	4.07	0.00	
8	S	30	5	6	н	57.7	66.0	8.07	0.00	4.07	0.00	
9	С	24	4	6	н	46.1	52.8	7.57	0.00	4.57	0.00	
10	D	24	4	6	н	46.1	52.8	8.07	0.00	4.07	0.00	
<u>ا</u>	-			-		·				·	i	

Activate Panel 2 in the Multi-Viewer and click on the **Solution Report** button to see the report for Pallet Load #2.

📀 Num	Numerical Solution Report (Pallet #2)											
<u>F</u> ile <u>E</u> o	<u>File</u> <u>E</u> dit Thumbnails <u>O</u> ptions <u>H</u> elp											
Sol. No.	Pat Type	# Per Load	# Per Layer	# of Layers	D V	Cube Eff.	Area Eff.	Length Under	Length Over	Width Under	Width Over	
1	С	24	4	6	Н	59.8	68.2	7.19	0.00	0.32	0.00	
2	С	18	3	6	Н	44.9	51.1	0.48	0.00	7.53	0.00	
3	I	18	3	6	н	44.9	51.1	7.69	0.00	7.53	0.00	
4	С	12	2	6	н	29.9	34.1	7.19	0.00	8.03	0.00	
5	С	12	2	6	н	29.9	34.1	8.19	0.00	7.53	0.00	
6	С	6	1	6	н	15.0	17.0	15.41	0.00	8.03	0.00	

When you click on **Set-up Buttons**, the **Diagram Type** options under Format Panel show the number for each individual Pallet Load.



You must click on the pallet load you want to work before you can use the normal program features. Once you have selected a pallet load, everything will operate for that load in the normal way. Just remember that each pallet load will be numbered appropriately (Pallet Load #1, Pallet Load #2, etc.).

You can work with a maximum of three different pallet sizes at one time.

### Floor Loading into Containers

You can use the multiple pallet feature to consider a pallet load compared to floor (or bed) loading.

To activate this feature, click on **Input**, **Input Settings**, and then click on the field labeled **Enable Floor Loading** in the *Analysis Type* section.

O Input Settings	
Input Product Name/Product Code	Number of Pallets
Inside/Outside Dimensions Enter ID's Enter OD's	● 2 x Pallet ○ 3 x Pallet
Additional Options Show Flap Indicator Bulge allowed Allow Bulge entry by percentages Alternate Layers	Analysis Type O Objects onto Pallet O Objects onto Pallet into Truck O Objects into Truck Enable Floor loading
Partial Top Layer/Skip Old Patterns enabled	Units of Measure Omm/kg
Cylinders Recessed Objects allowed Vary Cylinder size OK	in/lb     Show Control Face Direction     Default     Cancel

Click on **OK**, and you will see that the pallet tabs have changed.

Pallet - [c:\cape216\private	widget clf]					
File Programs Make a new	v Shape Input Da	atabases Tools	Fill Wizard Color	s Add Graphic	s Internet Help	
🚋 🗋 🧑 🖬 🗐 🖨 የቀ	: 🎦 🖻 📼 🖏	Ng Ng Ng 💋	ff > 8 ??			
Case	48×40	euro1	<b>•••</b> ••	Pallet 3	truck1	
	Select Pallet Ba	ase Style				
euro1.pa4 E	Europallet 1200x80	0x145	•			
	Select Truck	Style		-		
N	lo Selection		-			
,			_			
	Pallet Dimer	isions				
Length	Width	Height	Weight			
47.2441 31.	4961 5.7	7087	55.1150			
Ento		d Dimonsions			Additional Palletizing	Input
Ente	r Maximum Luai	u Dimensions		Solo	oct Pallot Pattorn Style	as Screen
Overhang/Und	erhang	Max. I	_oad		sect allert allert olyn	es ocreen
Length	Width M	lax.Height	Max.Weight		Pallet Base Style Dire	ectory
0.0000	0.0000	50.0000	2000.0000			
			Pallet Thumbnail	s		
		L				
Input Settings		Product	Name/Product Co	de	Save/C	alc.
euro1					(in/lb) 11:20 AM	CAPS NUM

On each of the pallet tabs, you will have an additional list to choose from. You may select either a *Pallet Base Style* or a *Truck Base Style* on each of the tabs. Here is an example of a case run both as a pallet load and floor loaded into a truck.



Here is a comparison of the pallet loads loaded into a truck, with the same case floor loaded.



### **Changing Package Color**

Click on the panel with a case or primary pack. Now select the **Colors** menu and then choose **Change Package Color**. You will be presented with the Windows color palette.

Color	x				
Basic colors:					
🔳 🥅 🕅 🔲 🗖 🗖					
Custom colors:					
Define Custom Colors >>					
OK Cancel					

Now select the color you want and click on **OK.** The package will change to your chosen color.

You can return to the original box color by selecting Change to Original Colors from the Colors menu.

### Custom Colors for Package

Select the **Colors** menu and choose **Set Custom Colors**.



Each panel has a letter (A-F). Select a panel letter and click on **OK**. The Windows Color Palette appears.

Color
Basic colors:
🔳 🗔 📖 📰 📰 📰 🛄
<u>C</u> ustom colors:
Define Custom Colors >>
OK Cancel

Select a color and click on **OK**.



Change as many panel colors as you wish, then click on  $\mathbf{OK}$ . Your package will appear with all the selected colors displayed.

Pallet - [c:\cape216\private\widget.clf]			
_ <u>F</u> ile _Programs _ <u>M</u> ake a new Shape _Input _Data	bases <u>T</u> ools Fill Wizard <u>C</u> olors	Add Graphics <u>I</u> nternet	<u>H</u> elp
Case 48x40	truck1	Pallet 3	truck1
Select Pack Type Sele RSC (2,2,4) Thic 0.15	sect Pack Name scherkenss 30		
Enter ID's	Length 16.1250	Width 15.1250	Height 5.8670
Number of Thicknesses	2	2	4
Enter OD's	16.4310	15.4310	6.4790
Set Dimensions Vertical	<b>—</b>		×
Enter Pack Weight Gross Weight Net Weight 13.0000 12.0000	Input Settings Save/Calc.	Product Name	9/Product Code
48x40		(in/lb)	11:24 AM CAPS NUM

You can return to the original red, white and blue color by selecting **Change to Original Colors** from the **Colors** menu.

### Adding Graphics to Packages

Yes. Cape Pack has the unique ability to add surface graphics to your packaging components (primary and secondary packs). Normally you would need to create the special 3D Image files to use this feature. However, your program is supplied with three 3DI files for you to experiment with.

Click on the panel with the case in it. Select the Add Graphics menu and then select Add 3D Graphics. The following screen will appear.

Add Graphics	×
Available Graphics	Preview
BLUE FLAME DANGEROUS F CAPE:3DI CAPECOLA:3DI CARTON.3DI CARTON.3DI COLABOXTIF:3DI COLABOXTIF:3DI COMBUSTIBLE PLACCARD.3 DANGEROUS PLACCARD.3 DELICATE + DO NOT DROP.3 DELICATE ARROW - HANDLE DELICATE WITH SCALES:3D DO NOT FREEZE:3DI	
	OK Cancel

Click on **Case.3Dl.** The case will then appear with graphics images on all six of its sides.


Now click on **OK** and the case with the images will appear in the picture window on the Multi-Viewer Graphics screen.

( _			
Pallet - [c:\cape216\private\widget.clf]			
<u>File</u> Programs <u>Make a new Shape</u> Ing	put <u>D</u> atabases <u>T</u> ools Fill Wizard <u>C</u> ol	ors Add Graphics <u>Internet</u>	<u>H</u> elp
🔚 🗅 🗁 🖬 🗐 🖨 🏷 🔁 🖻	] 다 놀 놀 옷 🍎 🕀 ¥ 용 ??	~	~
Case 48x40	truck1	Pallet 3	truck1
		' <u></u>	
Select Pack Type	Select Pack Name		
RSC (2,2,4)			
	Thickness		
	0.1530 💌		ICKO S
			EB
Enter ID's	Length	Width 1E 12E0	Height
	16.1230	15.1250	
Number of Thicknesses	2	2	4
Enter OD's	16.4310	15.4310	10.6120
Set Dimensions Vertical			×
Enter Pack Weight	Input Settings	Product Nam	e/Product Code
Gross Weight Net Weight	ght		
13.0000 12.	0000 Save/Calc		
Check Length Dimension Vertical to P	allet	(in/lb)	11:25 AM CAPS NUM
encert zengar ermension vertiedricht		((((())))	

If you do not want to use these images, you can select **Remove Graphics** from the **Add Graphics** menu.

## Primary Packages in your Shipper

You can show contents of your cases or trays by using the **Fill Wizard** option on the first input screen in Pallet Group – Cases/Trays/Ovals. This powerful feature unique to Cape Pack allows you to put the actual contents (products) inside the fixed size case/tray you specify. Great for communicating results with colleagues and customers!

#### Select the Fill Wizard menu and choose Define/Review Arrangement.

_					
	Fill Wizard Colors Add Graph	nics Internet			
	Define/Review Arrangement				
	Clear Arrangement				

Or you can use the right-click option.

	Objects onto Pallet
•	objects onto Panet into Track
	Objects into Truck
$\checkmark$	1 x Pallet
	2 x Pallet
	3 x Pallet
	Enable Floor loading
	Input Settings
	Product Quantity Input
	per Sheet Quantity Input
	Pack Names
	Material Thicknesses
	Fill Wizard
-	Print Input Data
	Print Preview
	Fraction Table

You will see the following screen.

Fill Wizard			- • <b>•</b>
<u>File Tools Colors</u> Add Graphics	<u>H</u> elp		
Pack Type Box Divider/Partition None Arrangement in Second 2 L 2 W Switch Direction © off	Pack Type Box  Pack Names Box  Pack Names Pack Names Box  Pack Names Box  Pack Names Box  Pack Names Box  Pack Pack Names Box  Pack Names Box  Pack Names Pack Names Box  Pack Names Pack Names Pack Names Pack Names Pack Pack Names Pack Pack Pack Pack Pack Pack Pack Pack	15.431	10.612
⊖ on	○ Width	No. Arrangement	Count Pack Nam
	eight	1 21 x 2W x 2H   ∢	8 Boy
		Close	

Select a pack type from the *Pack Type* list box.

Fill Wizard				(	- • <b>×</b>
<u>File</u> <u>Tools</u> <u>Colors</u> <u>A</u> dd Graphics	; <u>H</u> elp				
Pack Type Cylinder 🔹	Pack Names Box 🔹				
Divider/Partition					10.010
Arrangement in Second 2 L 2 W	ary Pack				10.612
Switch Direction	Orientation in SP		15.431	16.431	
off	O On Side				
⊖ on		No.	Arrangement	Count	Pack Nam
		1	21 x 2W x 2H	8	Cylinde
	Upright				
		СІ	ose		

Now enter the arrangement of the cylinders as they might be in the "real world." We will use an arrangement of  $4 \times 4 \times 2$ .

Fill Wizard					
File Tools Colors Add Graphic	<u>п</u> ер				
Pack Type Cylinder	Pack Names Box 🔹			<u> </u>	
Divider/Partition				5	
None			255	$\mathbf{P}$	
Arrangement in Second	lary Pack				10.612
4 L 4 W	2 н			1	
Switch Direction	Orientation in SP	1	5.431	16.431	
• off	O On Side				
⊖ on		No.	Arrangement	Count	Pack Nam
		1	4L x 4W x 2H	32	Cylinde
	Upright				,
		_			
		Clos	se l		

Dividers can be added if necessary.



Select **Close**. You will then be returned to the normal input screen and your case will reappear. The contents are inside the case, but will not be displayed.

You will not see the jars again until you reach the Multi-Viewer Graphics after the program has calculated the results.



This report shows the pallet load, the top view of the pallet, the case **and** our jars. You can then use the **Format Object** feature to display the contents of the case.

# Ounce to Pound Conversion Feature

10.0000	10.0000	
Gross Weight Net	14 02 15 oz	
	14 07	
Enter Pack Wei	13 07	
	12 oz	•
	11 oz	•
Set Dimensions Vertical	10 oz	•
	9 oz	•
Enter OD's	8 oz	•
	7 oz	•
	6 oz	•
	5 oz	)
	4 oz	•
	3 oz	)
	2 oz	)
	1 oz	)
	1/4 oz	•
	Convert Weight	•

Right-clicking on the weight fields in data entry brings up the following conversion chart.

Make your selection from the list and the weight field is updated automatically.

#### **Convert Weight**

You can use this feature to convert between metric and imperial weights. For example, you can enter a weight in kilos and then convert that weight to pounds, and vice versa.

#### Zero Package Weights

Cape Pack allows you to enter a zero (0) for package weights. Entering a zero will affect the overall load information.

#### Special Secondary Pack Types

#### No Package

This package type allows you to palletize your product/primary pack without any outer packaging. Here is an example of the same bottle analysis but with the No Package type..



#### None

This package type provides a similar opportunity. However, it puts a "skin" on the items on a pallet. This is because, under some circumstances, selecting **No Package** might not let you clearly differentiate the individual items on the pallet load. Here is the same example, but using the package type **None**.



If you choose None or No Package you will not be able edit your pallet pattern with the Layer Editor.

#### Shrink Wrap

Select **Shrink Wrap** from the *Pack Type* list box. Here are wine bottles just shrink-wrapped on the pallet.

• • • • • • • • • • • • • • • • • • •			
Pallet - [c:\cape216\private\widget.clf]			
<u>File Programs</u> <u>Make a new Shape</u> Input	Databases Tools Fill Wizard Colors	Add Graphics Internet	<u>H</u> elp
🔚 🗅 🗁 🖬 🗐 🖨 🦫 🤔 🗎 🔟 🤇	b 🔏 😤 🧏 💋 🐴 🔒 ?? ୍		
Shrink Wrap 48×40	truck1	Pallet 3	truck1
Select Pack Type	Select Pack Name		
Shrink wrap			
	Thickness		
	0.0000		
	Length	Width	Height
Enter ID's	16.1250	15.1250	10.0000
Number of Thicknesses	0	0	0
Enter OD's	16.1250	15.1250	10.0000
Set Dimensions Vertical			×
Enter Pack Weight	Input Settings	Product Name/	Product Code
Gross Weight Net Weight			
13.0000 12.000			
	Save/Calc.		
Enter Secondary Pack Type		(in/lb)	11:29 AM CAPS NUM

#### HSC (Half Slotted Container)

Select HSC (2,2,2) from the Pack Type list box. Here are wine bottles just shrink-wrapped on the pallet.



# Palletizing Cylinders or Drums

When dealing with cylinders on pallets there is an extra feature that allows you to vary the diameter, height, volume and weight. This is called **Vary Cylinder Size** and is found under the **Input Settings** screen on the **Input** menu.

Input Settings	
Input Product Name/Product Code	Number of Pallets  I x Pallet
Inside/Outside Dimensions  Enter ID's  Enter OD's	O 2 x Pallet O 3 x Pallet
Additional Options Show Flap Indicator Bulge allowed Allow Bulge entry by percentages	Analysis Type O Objects onto Pallet O Objects onto Pallet into Truck O Objects into Truck Enable Floor loading
R Partial Top Layer/Skip Old Patterns enabled	Units of Measure Omm/kg
Cylinders  Recessed Objects allowed  Vary Cylinder size  OK	in/lb     Show Control Face Direction     Default     Cancel

To vary the dimensions and weight you need to select the **Input** menu and then choose **Input Settings**.

Click on **OK** and the input screen will then appear with these extra fields.

Pallet - [Data Input]			
File Programs Make a new Shape Input PID Tool	Add Graphics	Internet <u>H</u> elp	
Cone 48x40	Pallet 2	Pallet 3	53footer
Select Pack Type Select Default Cone	Pack Name Top Diameter	Bottom Diamete	r Height
Enter OD's	12.0000	8.000	20.0000
	· · ·	0.0000	n 0.0000
Dimensional Variance (+)		0.0000	0.0000
Dimensional Increment		0.0000	0.0000
Enter Pack Weight Gross Weight Net Weight	Input Settings	Product	Name/Product Code
25.0000 25.0000	Save/Calc.		
Cone		(in/lb)	11:31 AM CAPS NUM

If you do choose to vary the dimensions, volume or weight you will **not** be able to use the **Recessed Objects Allowed** feature. The program, in this mode, only works with solid objects.

## **Recessed Objects**

When you recess cylindrical or trapezoidal objects, the **Recess Factor** is the amount **one object sits inside another**.

Select Input Settings and highlight Recessed Objects Allowed.

Input Settings	<b>X</b>
Input Product Name/Product Code	Number of Pallets
Inside / Outside Dimensions	• 1 x Pallet
O Enter ID's	O 2 x Pallet
Enter OD's	O 3 x Pallet
	Analusia Tupa
Additional Options	O Objects onto Pallet
Show Flap Indicator	Objects onto Pallet into Truck
Bulge allowed	Opjects onto 1 allectric Mick
Allow Bulge entry by percentages	
	Enable Floor loading
	Units of Measure
Partial Top Layer/Skip Old Patterns enabled	O mm/kg
Culinders	● in/lb
	Show Control Face Direction
Vary Cylinder size	Default 🔹
ОК	Cancel

Click on **OK** and the cylinder input screen appears with one extra field. In the Recess Factor field, you enter the amount of recess of the top cylinder into the next one down in the stack.

O Pallet - [Data Input]						
File Programs Make a new Shape Input PID Tools	s <u>C</u> olors Add Graphics	Internet <u>H</u> e	p			
Cone	Pallet2	Pallet 3		53foot	er	
Select Pack Type Select Pack Name Cone						
Top Diameter         Bottom Diameter         Height           Enter OD's         12.0000         8.0000         20.0000						
Enter Recess Factor					10	.0000
Enter Pack Weight	Input Settings	F	Product Na	me/Product	Code	_
Gross Weight 25.0000 25.0000	Save/Calc.					
Cone			(in/lb)	11:31 AM	CAPS	NUM

In order to recess cylinders, the top and bottom must have different diameters.

# Interlocking Pallet Layers

Select the **Alternate Layers** on the **Input Settings** screen. When the program calculates, it will display the layers already alternated/interlocked.

Input Settings	
Input Product Name/Product Code	Number of Pallets
Inside/Outside Dimensions O Enter ID's Enter 0D's	O 2 x Pallet O 3 x Pallet
Additional Options           Image: Show Flap Indicator           Image: Bulge allowed           Image: Allow Bulge entry by percentages	Analysis Type O Objects onto Pallet O Objects onto Pallet into Truck O Objects into Truck T Enable Floor loading
	Units of Measure Omm/kg
Cylinders     Recessed Objects allowed     Vary Cylinder size	<ul> <li>In/lb</li> <li>Show Control Face Direction</li> <li>Default</li> </ul>
ОК	Cancel

### Secondary Package Database

This feature is accessed under the Databases menu.



See the Cape Pack Databases chapter for more information.

#### Converting Product Volume to Net Weight

There is a special Volume-to-Net-Weight Conversion... feature on the Tools menu at input.

		ouraci	
es	Тоо	Is Fill Wizard Colors Add Graphics	Internet
2		Pack Names	- 1
		Material Thicknesses	- II
		Change Pallet Weight	!
		Volume-to-Net Weight Conversion	
	Pallet Base Style Directory		
		Truck Style Directory	- <b>- -</b>
		Set Default Pallet Base Styles	- <b>+</b>
		Set Default Truck Styles	
		Show Product Name/Code Alert	

When selected, the following screen appears.

Volume-to-Net Weight Conversion	×
Volume (ft^3)	OK
Bulk Density	Cancel
Weight	Calculate

Enter a **Volume** (in cubic feet or liters) and a **Bulk Density** and click on the **Calculate** button. The net weight will be displayed.

📀 Volume-to-Net \	Weight Conversion	×
Volume (ft^3)	1.25	OK
Bulk Density	1.2	Cancel
	Weight	Calculate

Click on **OK** and the net weight will be automatically entered into the *Net Weight* field.

#### **Printing Input Data**

Use the **Print** or **Print Preview** options under the **File** menu at any input screen.

#### Overhang and Underhang

For overhang use an ordinary number such as .5" or 1". For underhang put a minus sign in front of the number. Here is an example with 1" of overhang entered.

O Pallet - [Data Input]		
<u>File Programs</u> Make a new Shape Input <u>PID</u> Tools <u>C</u> olors Add Graphics Inter	net <u>H</u> elp	
🚋 🗅 🗁 🖶 🗟 👙 📴 💷 🐚 🧏 🧏 🦓 🍎 🦄 👌 ??		
Cone 48x40 Pallet 2 Pa	allet 3	53footer
		·
Select Pallet Base Style		
48x40 US GMA 4-Way Pallet		
Pallet Dimensions		
		3
Length Width Height Weight		
48.0000 40.0000 5.5000 50.0000		
	Additional Pa	alletizing Input
Enter Maximum Load Dimensions	[	
Overhang/Underhang Max. Load	Select Pallet Patt	tern Styles Screen
Length Width Max.Height Max.Weight	Pallet Base S	Style Directory
2 -1 50.0000 2000.0000		
	Pallet Ir	numbnails
Input Settings Product Name/Product Code		Save/Calc.
Enter maximum Load Height	(in/lb) 11:	33 AM CAPS NUM

Please be aware that if you enter 1 inch overhang for the length or width, then the program will add up to 1 inch to each side of the length or width (i.e., a total of up to 2 inches).

## Calculating the Maximum Load Height

First, make sure you filled out the Secondary Pack tab and that you have selected your Pallet Base Style.

Then select the **Pre-Calculate Max. Load Height** feature from the **Tools** menu when any of the pallet tabs are active.



The following screen appears.

📀 Max Height Calcula	ation		×
Diameter 12.0000	Height 20.0000	Pal. Height 5.5000	
Number of Layers	1		
- Dimension Vertical T	o the Pallet		
🔘 On Side	<ul> <li>Upright</li> </ul>		
Maximum Load Height	i:		
ОК	Cancel	Calculate	

Simply enter the number of layers you want on the pallet and the program will calculate the load height including the pallet base height, and then automatically enter it into the *Maximum Load Height* field for you.

#### **Using Master Pallets**

Enter the secondary pack input and pallet restrictions as normal, but choose the half pallet on the Pallet 1 tab.

📀 Pallet - [Data Input]		
<u>File</u> Programs <u>M</u> ake a new Shape <u>I</u> nput	<u>PID</u> <u>T</u> ools <u>C</u> olors Add Graphics <u>I</u> nter	met <u>H</u> elp
🚋 🗅 🗁 🖬 🗟 🎒 🏜 💷 🐁	>놀 >놀 >š 🤌 🕀 >š 🔒 ??	
Cone 24x40	Pallet 2	allet 3 53footer
· · · · · · · · · · · · · · · · · · ·	,	· · · · · · · · · · · · · · · · · · ·
Select Palle	t Base Style	
24x40.pa4 Black&Decke	er Half Pallet 🗾	
Pallet Dir	mensions	
Length Width	Height Weight	
40.0000 24.0000	4.5000 25.0000	
		Additional Palletizing Input
Enter Maximum L	.oad Dimensions	
		Select Pallet Pattern Styles Screen
Overhang/Underhang	Max. Load	
Length Width	Max.Height Max.Weight	Pallet Base Style Directory
	50.0000 2000.0000	
		Pallet Thumbnails
Input Settings	Product Name/Product Code	Save/Calc.
Enter maximum Load Height		(in/lb) 11:33 AM CAPS NUM

Now go the Input menu and choose the Select Master Pallet Base option.



The following window will appear.

Master Pallet base	×
Select Palle	t Base Style
	<b></b>
Dimer	nsions
Length Width	Height Weight
Overhang/Underhang	Max. Load
Length Width	Max. Weight
0.0000 0.0000	0.0000
OK	Cancel
Overhang/Underhang Length Width 0.0000 0.0000	Max. Load Max. Weight 0.0000

Drop down the list box and select the pallet base style you want to use as a master pallet.

Enter in any overhang or underhang you need to consider, along with a maximum Master Pallet Load weight.

📀 Master Pallet b	ase		<b>×</b>		
	Select Pallo	et Base Style			
48x40.pa4	48x40 U	S GMA 4-Way P	allet 🗾 🛨		
	Dime	nsions			
Length 48.0000	Length         Width         Height         Weight           48.0000         40.0000         5.5000         50.0000				
Overhang/Underhang Max. Load					
	5 .!		4000		
	OK	Cancel			

#### Click on **OK**.

Now select the **File** menu and the **Save Input Data and Calculate** option. Next you will see the Multi-Viewer Graphics screen displaying the cases on the quarter pallet.



Now select the **Tools** menu and the **Fill Master Pallet Base** option. You will see the following screen.



Select the File menu and Save Current Load and Exit.

O Multi-Viewer Graphics		
<u>F</u> ile <u>E</u> dit <u>V</u> iew Export <u>T</u> ruck <u>T</u> ools <u>D</u> atabases <u>C</u> olors <u>A</u> do	Graphics <u>e</u> -mail <u>I</u> nternet Pu <u>b</u> lisher <u>H</u> elp	
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	WPF 🔁 🖀 🗿 📆 💿 😚	
50.000	Product Length36.000Product Width24.000Product Height40.000Load Ref.1 RArea Used70.7%Cube Used62.1%Per Layer6Layers3Cone /Load18	
40.000 48.000	Set-up Buttons Summary Report	Solution Report
	24.000	20.000
		8.000
Panel # 2	1 of 1 (in/lb) 11:35 AM	CAPS NUM

You will see the two half pallets loaded onto the 48x40 US GMA pallet.

## Customizing your Pallet Style List

This feature allows you to choose which pallets styles you want to appear on your list. You can also sort the list in alphanumeric order.

To access this feature, click on the **Pallet Base Style Directory** button or on the **Tools** menu and then **Pallet Base Style Directory**...

	and the second sec	
s	Tools Fill Wizard Colors Add Graphics	<u>I</u> nternet <u>H</u> elp
	Pack Names	
	Material Thicknesses	Pallet 3
	Change Pallet Weight	
	Volume-to-Net Weight Conversion	
e1	PreCalculate Max. Load Height	
UT	Pallet Base Style Directory	▶ Setup
	Truck Style Directory	<ul> <li>Reset Pallet Styles to on</li> </ul>
	Set Default Pallet Base Styles	•
	Set Default Truck Styles	
'n	Show Product Name/Code Alert	

The following screen appears.

Palle Help	Pallet Base Style Directory						
Pallet	Pallets are sorted by Description.						
No.	Name	Description	size	Weight	Include in List		
	euro3.pa4	1200x1000x145 mm 30 kgs	1200 x 1000 x 145	30.00	V		
2	euro2.pa4	1200x1000x145 mm 30kg	1200 x 1000 x 145	30.00	1		
3	euro5.pa4	1200x1000x145 mm 30kgs	1200 x 1000 x 145	30.00	V		
4	ipplogip.pa4	1200x1000x161 mm Pallet	1200 x 1000 x 161	25.00	V		
5	euro4.pa4	1200x800x144 mm 24 kgs	1200 x 800 x 144	24.00	V		
6	ipplog2p.pa4	1200x800x144 mm Pallet	1200 x 800 x 144	21.00	V		
7	euroblue.pa4	1200x800x150 mm 25kgs	1200 x 800 x 150	25.00	V		
8	euro.pa4	1200x800x150 mm 25kgs	1200 x 800 x 150	25.00	V		
9	34106-27.pa4	123x44x4.875" 2-way	123 x 44 x 4.875	90.00	1		
10	902-c.pa4	24x20x4.75 902-C	24 x 20 x 4.75	15.00	1		
11	2420-4bd.pa4	24×20×4.75" 4-BOARD	24 x 20 x 4.75	15.00	V		
12	wc27x24.pa4	27x24 2-way winged pal	27 x 24 x 5	16.00	V		
13	27x24.pa4	27x24 Pallet	27 x 23.75 x 4	20.00	V		
14	27x24-3.pa4	27x24 Pallet	27 x 24 x 4.5	20.00	V		
15	27x24-2.pa4	27x24 Pallet	27 x 24 x 4	20.00	V		
16	32x30x55.pa4	32x30x5.5" 4-way	32 x 30 x 5.5	50.00	V	-	
Sort P by Des	Sort Pallets by     Find Pallet     Select Pallet Style     Select All     Un-Select all						
	Pallet Thumbnails	s OK	Cancel				

To activate a pallet style, click on the Include in List field for that pallet. A red arrow will appear.

To deactivate a pallet style, click on the red arrow in the Include in List field.

To sort the pallets, click on the drop down list for *Sort Pallets by*. Select one of the 4 methods to sort by: name, description, size or weight. When you make your selection, the pallets will resort.

To search for a pallet, click on the **Find Pallet** button.

Find Pallet	<b>•</b>
Select Search Criteria Pallet Name Pallet Description Pallet Size Pallet Micrist	Go
Enter a Pallet Name	

Select the criteria you want to use to sort by, then enter the information required and click on Go.

To view a top down view of the pallet configuration, click on the **Show Thumbnails** button. You can scroll through the pallets in the same sort order, but with a picture of each pallet.



Click on **OK** to exit the Pallet Base Style Directory utility.

#### Setting a Default Pallet

This feature allows you to select a default pallet base style for all new analyses. This is the pallet that will automatically appear as your base style selection when you start a new problem. You can overwrite this default simply by selecting another pallet from the list.

To select your default pallet, click on the **Tools** menu, **Set Default Pallet Base Styles** and then choose **Pallet 1, 2** or **3**. The following screen will appear.

No.	Sele	Select Pallet Base Style					
1	224n21.pa4	Non-std 44x44 slotted					
2	2420-4bd.pa4	24X20X4.75" 4-BOARD					
3	24x22.pa4	One Quarter Pallet					
4	24x40.pa4	Black&Decker Half Pallet					
5	27x24.pa4	27x24 Pallet					
6	27x24-2.pa4	27x24 Pallet					
7	27x24-3.pa4	27x24 Pallet					
8	32x30x55.pa4	32x30x5.5" 4-way					
9	34106-18.pa4	75x44x4.875 2-way pallet	-				
Set Default Pallet Base Styles							
OK Cancel Set Default							

Click on the pallet in the list that you wish to use as your default, and then click on the **Set Default** button.

# Customizing Your Truck Style List

This feature allows you to choose which truck styles you want to appear on your list. You can also sort the list in alphanumeric order.

To access this feature, click on **Truck Style Directory** button or the **Tools** menu and then **Setup Truck Base Style Directory...** 

Tru Help Truck	ck Style Directory	Name.				×
No.	Name	Description	size	Weight	Include in List	
12	45hicube.pa4	Maersk 45' Hi Cube	534.5 x 92.25 x 1	9061.00	V	
13	45reefer.pa4	Maersk 45' Hi Reefer	515.81 x 90.937 x 1	11464.00	1	
14	45wide.pa4	Custom Truck / Container	13440 x 2440 x 25	4200.00	1	
15	53footer.pa4	53-Footer Truck	636 x 96 x 1	10000.00	1	1
16	contr1.pa4	40 ft. Container	472 x 92 x 1	7000.00	V	1
17	contr124.pa4	Custom Truck / Container	472 x 92 x 1	7000.00	1	
18	contr2.pa4	40 ft. long - 8 ft. high	472 x 92 x 1	7000.00	1	
19	contr3.pa4	20 ft. Container	232 x 92 x 1	4700.00	1	
20	contr4.pa4	20 ft. long - 8 ft. high	232 x 92 x 1	4700.00	V	-
21	contr45.pa4	Custom Truck / Container	536 x 92 x 1	7000.00	1	
22	csftruck.pa4	383x284x460	383 x 284 x 25	23.00	1	
23	dist.pa4	Bob's Pallet	5900 x 2340 x 25	2400.00	1	
24	distcont.pa4	distillers	5900 x 2340 x 25	2400.00	1	
25	truck1.pa4	40 ft. long - High Cube	476 x 92 x 1	7000.00	1	
26	truck2.pa4	40 ft. long - 8 ft. high	476 x 92 x 1	7000.00		
27	truck3.pa4	40 ft. long - 102 in wide	476 x 102 x 1	8000.00	<b>V</b>	-
Jort Trucks by     Find Trucks     Select Truck Style     Select All     Un-Select all       by Name     ▼     OK     Cancel						

To activate a truck style, click on the Include in List field for that pallet. A red arrow will appear.

To deactivate a truck style, click on the red arrow in the Include in List field.

To sort the trucks, click on the drop down list for *Sort Pallets by*. Select one of the 4 methods to sort by: name, description, size or weight. When you make your selection, the trucks will resort.

To search for a truck, click on the **Find Trucks** button.

Sind Truck	<b>—</b>
Select Search Criteria Truck Name Pallet Size Truck Size Truck Weight	Go
Enter a Truck Name	

Select the criteria you want to use to sort by, then enter the information required and click on Go.

To view a top down view of the truck configuration, click on the **Show Thumbnails** button. You can scroll through the trucks in the same sort order, but with a picture of each truck.

Click on **OK** to exit the Truck Base Style Directory utility.

### Setting a Default Truck

This feature allows you to select a default truck style for all new analyses. This is the truck that will automatically appear as your base style selection when you start a new problem. You can overwrite this default simply by selecting another truck from the list.

To select your default truck, click on the **Tools** menu, **Set Default Truck base Style**. The following screen will appear.

🕒 Set	Default Truck Sty	les	×			
No.	Select Truck Style					
1	20-dry.pa4	Maersk 20' Dry Freight				
2	20-open.pa4	Maersk 20' Open Top				
3	20stan.pa4	Custom Truck / Container				
4	20stan1.pa4	Test				
5	40-dry.pa4	Maersk 40' Dry Freight				
6	40-open.pa4	Maersk 40' Open Top				
7	40hicube.pa4	Maersk 40' Hi Cube				
8	40hireef.pa4	Maersk 40' Hi Reefer				
9	40reefer.pa4	Maersk 40' Reefer	-			
	Set D	efault Truck Styles				
	ОК	Cancel Set Default				

Click on the truck in the list that you wish to use as your default, and then click on the Set Default button.

# **Multi-Viewer Graphics Features**

#### Exporting to the Packaging Information Database (PID)

Select the **Databases** menu item and click on the **Packaging Information Database (PID), Export Current Solution to PID** option. This will save your solution information to PID.

Please refer to the Cape Pack Databases chapter for more information on this feature.

#### Packaging Report

Click on the **Pack Report** button to generate the Packaging Report. The Packaging Report is a comprehensive, detailed report that lists all of the dimensions and statistics for your solution. It also includes information such as nesting angles (for cylinders), flat blank area (for cases) and the cubic feet measurements for your case and load.

Packaging Report					<b>×</b>
File Edit Help					
Case Information		Style	1		4
# Per Layer	6	Layers	6	# Per Load	36
Dimensions (ID)	16.1250	15.1250	5.8670		
Dimensions (OD)	16.4310	15.4310	6.4790	Cube (OD)	0.9507
Net Weight	12.0000	Thickness	0.1530		
Gross Weight	13.0000	Mat. Weight	0.0000		
48x40.pa4 Information				Cube Eff.	69.2%
Pallet Dimensions	48.0000	40.0000	5.5000		
Product Dimensions	46.2930	32.8620	38.8740	Prod. Cube	34.2235
Load Dims.	48.0000	40.0000	44.3740	Load Cube	49.3044
Weights: Product	432.0000	Net	468.0000	Gross	518.0000
Pallet Weight	50.0000				

#### Reviewing Objects in the Load

There is a special feature in Multi-Viewer Graphics that allows you to scroll through all of the levels, from individual primary pack right through to the truck.

Click on the View menu and select Review Function.



The following screen will appear.



Use the black **Up** and **Down** arrow heads to cycle through all the packs and methods of packing.







You can also print and export individual packaging components using this feature by selecting the appropriate buttons or menu options.

#### Multi-Dimensional Loading

You can use the **Multi-Dimensional Analysis** (MDA) feature located under the **Tools** menu to build loads of product with different dimensions vertical to the pallet base.

To run **MDA**, you must allow more than one case dimension vertical to the pallet during input. Let's take our Widget example where all 3 case dimensions have been allowed vertical to the pallet.

Pallet - [c:\cape216\private\widget.clf]			
File Programs Make a new Shape Inpu	t <u>D</u> atabases <u>T</u> ools Fill Wizard <u>C</u> olo	rs Add Graphics Internet	<u>H</u> elp
🔚 🗅 🗁 🖬 🖩 🎒 ზº 🎘 🗎 🔟	다 > > > > > > > > + + + + + + + + + + +		
Case 48x40	Pallet 2	Pallet 3	truck1
Select Pack Type	Select Pack Name		$\sim$
RSC (2,2,4)	Case		
	Thickness		
	0.1530		
	Longth	Width	Hoight
Enter ID's	16.1250	15 1250	5 8670
Number of Thicknesses			
	2		4
Enter OD's	16.4310	15.4310	6.4790
Set Dimensions Vertical	×	×	×
Enter Pack Weight			
Gross Weight Net Weigh	Input Settings	Product Name	e/Product Code
13.0000 12.0	000		
	Save/Calc.		
Check Length Dimension Vertical to Pal	let	(in/lb)	11:30 AM CAPS NUM

Choose Save Input Data and Calculate. The next thing you will see is the normal Multi-Viewer Graphics screen.

From the Tools menu, select Multi-Dimensional Analysis.

Тоо	ls Databases	Colors	Add Graphics
	Multi-Dimensi	ional Ana	lysis
	Economic Ana	alysis	10
	Strength		10
	Maximizer		IC F
$\sim$			1 2

Having selected the **MDA** option the program will calculate any loads with layers with different dimensions vertical mixed together.

Multi-Dimensional Analysis <u>F</u> ile <u>H</u> elp		X
Solution #1 = 36 per load	< > Solution <b>#</b> 1	
Number Per Load 44		$\geq$
Improvement 8	Default Calc	
% Change 22.2%	Bedraw	
Cube Efficiency 84.6%		
Solution Number & Drawing Order		
5 01 02 03		
16 01 @2 03		
1 01 02 @3		
Length Verticel Colutions Width Verticel Colution	WidthSolution 161	2
	HeightSolution 1 C	2
5     C     33.7%     -     10     1     00.7%       6     T     93.7%     17     I     88.7%	2 I 79.2% LengthSolution 5 C	
7 I 88.5% 18 I 88.7%	3 T 79.2% Number per Load to Beat	
9         T         88.5%         20         T         88.7%	25 1 66.0%	
10 T 88.5% 21 S 88.7%	26 T 66.0% Maximum Load Height:	50.0000
11 I 88.5% 22 S 88.7% 12 S 88.5% 29 T 83.2%	27 1 66.0% Current Load Height	49.3200
13 S 88.5% 30 T 83.2%	35 C 52.8% Maximum Load Weight:	2000.0000
14 S 88 5% 31 T 83 2%	Current Load Weight	622.0000

Notice how the load has 44 cases instead of 36 when just the height dimension could be vertical.

You can set where each layer should be and even change the mixture of layers. Here is the load with some other patterns selected.

To use this feature, select the patterns from one of the three tables and click on **Default Calc**.

Multi-Dimensional Analysis					X
File Help					
Solution #1 = 36 per load		$\langle \rangle$	Solution #1	$\sim$	
Number Per Load	40			>>>	
Improvement	4	Default Calc			
% Change	11.1%	Redraw			
Cube Efficiency	76.9%				
-Solution Number & Drawing Order					
8 01 02 0	3				
18 © 1 C 2 C	3				
35 01 02 6	3				
Length Vertical Solutions Width Vertic	cal Solutions	Height Vertica	al Solutions WidthSo	lution 18 l	2
5 C 93.7% 🔺 16 I	88.7% 🔺	1 C 7	9.2% A HeightSt	olution 35 C	2
6 T 93.7% 17 I	88.7%	2 1 7	9.2% LengthS	olution 8 I	0
7 1 88.5% 18 1 8 1 88.5% 19 T	88.7%	<u> </u>	9.2% Number	per Load to Beat	
9 T 88.5% 20 T	88.7%	25 1 8	6.0%		
10 T 88.5% 21 S	88.7%	26 T 8	6.0% Maximur	n Load Height :	50.0000
11 T 88.5% 22 S	88.7%	27 T 6	6.0% Current L	oad Height	49.3200
12 S 88.5% 29 I 13 S 88.5% 30 T	83.2%	28 S E	2.8% Maximur	n Load Weight:	2000.0000
14 S 88 5% • 31 T	83.2%	36 D F	Current L	oad Weight	570.0000
		, <u> </u>		-	

You can also reset the layers in any order you choose.

Multi-Dimensional Analysis can only be used when you are working with a single pallet size. It is not available if you choose two or three pallet sizes.

### Pallet Maximizer

Maximizer is a type of palletizing program that offers an alternative way to load pallets, cases or trucks with a single size product. It offers a very powerful way to optimize any loading space. The normal Pallet Group of programs builds efficient layers and then calculates how many layers high can be built on the pallet using one dimension vertical.

Maximizer looks and works just as the normal pallet programs. The only difference is that it creates more complex loads and often achieves the "soldiering" effect. So, entering your data, choosing a save option and getting to the graphics is a simple task. Pallet Maximizer takes a very different approach and builds loads with any dimension vertical even on the same layer.

Once the load has been calculated, select the **Tools** menu and **Maximizer**. Your options will be calculated.



You can scroll through the solution report to find the best option for you.



Here's another example. Simply select the load you want to use and then click on **File** and **Save Current Load and Exit**. Your solution will appear in the Multi-Viewer Graphics screen, along with any other pallet load solutions you have.



The program has calculated a variety of solutions. It is now displays the graphics for the solution with the simplest pattern and the maximum amount of secondary packages per load.

All of the menus and functions in the Multi-Viewer Graphics except for layer formatting operate in the same way as they do in the normal Pallet Group programs. The **Layer Editor** is not available in Maximizer, and the **Format Load** option is grayed out.

#### Changing the Product Name and Product Code in graphics

This option is for those users who may have several products using the same case size. Thus, they do not have to run several Pallet Loading analyses just to change the Product Name and Product Code.

Use this feature to change the Product Name and Product Code information. You can then save the load along with all the associated graphics and reports to another file name. The feature is also available under **Opening Saved Graphics Files** (**File** menu at the Front Menu).

Select Review Product Name/Code from the View menu.



You will be presented with a window showing any existing Product Name and Product Code information.

Review Product Name/Code	
Product Name Widget	ОК
Product Code	Cancel

Change this information as appropriate and click on **OK**.

#### Changing the Number of Decimal Places in Graphics

You can change them during data input for the Primary Pack Input screen, the Bundle Wizard and for the graphics, in the Multi-Viewer. You **cannot** change the decimal places for the fields on the input screens. These changes only affect the graphics screens and printing. They do not affect any information you want to export.

To change the number of decimal places in graphics around each object you can use the **Set Decimal Places (Dim Labels)** option under the **View** menu.

/ie	/iewer Graphics								
t	View	Export	Truck	Tools	Databases	Colors			
9		Zoom							
Ī		Default Gr	aphics V	liew					
I		Set Dimer	ision Lab	oel to		- + I			
1		Show dim	ension a	round P	allet Load	- +			
_		Set Packa	ge Dime	nsion La	bel to	- +			
_		Review Pr	oduct N	ame/Co	de				
		Review Fu	nction						
		Set Decim	al Place	s (Dim. L	abels)				
$\mathbb{N}$		Reset Aler	t Screen			- + I			
~		Review Pr	oduct Q	uantity					
I		Default So	lution R	eport					
Π		Default Pa	illet Load	d to 90°					
т		Apply Def	ault For	mat Load	d Settings				
		Show Dim	ension l	abels		- +			
		Rotate Loa	ad 90°						
Ц		Report Ty	pe						

The following input screen appears.

Set Decimal Places								
	Dim. Label Decimal Places							
	0							
	ОК	Cancel						

Enter number of decimal places you require (say 2) and click on **OK**.

# **Changing Content of Dimension Labels**

You can choose what information you want to have shown as your dimension labels around your diagrams in Multi-Viewer Graphics. Your choices are:



**Load**: Includes the largest dimension of the pallet or truck load.

Product: Includes the dimensions of the product on the pallet, not including the pallet itself.

**Product Load Height**: Includes the footprint (length and width) of the product on the pallet, but the load height including the pallet.

#### Dimension Labels and Outside or Inside Dimensions

You can choose whether to show your case dimension labels on your screen as either inside or outside dimensions. From the **View** menu, select **Set Secondary Pack Dimension Labels to**, and then choose either **OD** or **ID**.



## **Review Product Quantity**

You can choose to add an inner package (primary package) count to your analysis whether or not you have used the Fill Wizard. From the **View** menu select **Review Product Quantity**.



The following screen will appear. Enter your inner package name and the quantity per case or shipper.

roduct Quantity Input	
Name	ОК
Widget	
	Cancel
Quantity	
24	

Click **OK** and then click on **File**, **Print Preview** to see the results.

<b></b>	Print Preview - Cape Standard Report												
Ξ	🗉 🎍 <u>Print</u> 🗅 👫 🗉 🕀 Q. Q. 100 % 🔽 🔥 🕑 1/2 🗳 <u>Back</u> 🕹 Figward												
			2 * * * 1 *			- I <b>5</b> -		1 <b>6</b>		7			
:	Product Name		Widget										
<u>:</u>	Product Code		062469										
	Datafile Name												
÷	Load Ref.		10	(	9/8/2016)	<b>C</b> -1		<b>TT</b> 117					
1	Cube Used	69.2 % 70.2 %			e Used 69.2 %			6	Cas	зе / лт /	II HI Load		
:	Pallet type		79.2 % 0 48x40 36			Cas	Case / Load						
					24	Widget / Case							
:					864	64 Widget / Load							
2		Lanath	145 dala	Unight	Net	Crease							
1		(in) (in)		(in)	Weights	Weights Volu		Volume					
-	Case (ID)	16.125	15.125	5.867	12.000	13.000	lb	0.83	cuft				
	Case (OD)	16.431	15.431	6.479	12.000	13.000	lb	0.95	cuft				
3	Product	46.293	32.862	38.874	432.000	468.000	lb	34.22	cuft				
:	Load	48.000	40.000	44.374	468.000	518.000	lb	49.30	cuft	J			
÷.													
1		$\langle \rangle$	$\searrow$										
4		$\sim$	<>	1			$\sim$						
1		$\sim$	$\sim$	-		$\sim$	~	>					
: I			$\frown$	-		< >	$\sim$		2	•			
										•			

### **Dimension Labels**

You can choose not to show dimension labels on your printed reports and exported diagrams and reports. Click on the **View** menu, and **Show Dimension Labels** and then choose the option you prefer.

		Subbunes											
:	View	Export	Truck	Tools	Databases	Colors	s A	dd Gr	aphics	e-m	ail	Inte	
5		Zoom					5	<del>8</del> ??	WPP	1	2	EE	
		Default G			]	ict L	Length						
		Set Dime	•			idt	idth eight						
Ē		Show dim	•			eig							
_		Set Packa	•		1	Area Used							
-		Review Pr	roduct Na				Cube Per I Lavei	Used Layer	ed er				
		Set Decim			0	Case	/Loa	d					
		Reset Ale											
		Review Product Quantity											
		Default So	olution R	eport		•			C -+	- Du#-			
		Default Pa	allet Load	l to 90°			Ľ		Ser-u	Duttons			
T		Apply Def	_						_				
		Show Din	•	✓	Show	v Labe	ls						
		Rotate Lo			Rem	ove La	abels						
Т		Report Ty	pe			×	$\geq$	$\geq$	$\leq$	2	15 4	500	

# Rotate Layers 90 degrees

When using a square pallet, you can use this option to rotate the entire load 90 degrees on the pallet.



#### Editing your Layer Pattern

Use the Layer Editor option under the Edit menu in Multi-Viewer Graphics.



Please see the Exploring the Cape Pack Editors for detailed instructions on how to use the Layer Editor.

## **Rotating Objects**

You can click on the **Rotation** button and choose an angle at which you want the object to be drawn. For example, in order to rotate the pallet load make sure the panel with the pallet load is active and click on **Rotation**. Then select **0**, **90**, **180** or **270** degrees. We have selected **180** degrees.



Notice how the pallet has now changed to show the 180-degree view.

When you have finished setting the rotation, click on either one of the two Format Panel buttons.

#### Displaying the Case Front around the Pallet

Use the Show Panel B around the Pallet option under the View menu.



Panel B (relating to the Adding Graphics/3D Imaging) is defined as the "front panel" on any case or tray.

#### **Show Contents**

This removes three sides of the secondary pack to show the contents inside.

O Multi-Viewer Graphics - - -<u>File Edit View Export Truck Tools Databases Colors Add Graphics e-mail Internet Publisher Help</u> ॑ 🔙 🖨 💁 🖪 ☜ 🔲 ☜ 🖾 覀 🔍 ← → 🗘 🐡 ?? ₩₩ 🔽 🖀 🛄 🧿 📆 🎯 🚳 Show Shrink Wrap Format Screen Show Cutaway Format Panel 🗖 Open flaps 45.500 Format Load Show Content 🕱 Show Case Content Format Object Pack. Report 48.000 40 000 E-Quick Report Summary Report Solution Report 10.000 10.000 40.000 16.000 16.000 12.000 12.000 48.000 (in/lb) 11:37 AM CAPS NUM 1 of 40

Click on the Format Object button and then Show Content.

# **Open Flaps**

This options opens the top flaps of case to show the contents inside.



Click on the Format Object button and then Open Flaps.

## Exporting from Print Preview

Using the **Export** button you can export a variety of graphics file formats to a directory/destination of your choice.
Graphics Export			×	]	
COO~ 📕 « Lo	cal Disk (C:) 🕨 cape216 🕨 private	search private	٩	st Print	Annotation
Organize 🔻 Ne	w folder		··· v		
<ul> <li>➢ Libraries</li> <li>➢ Documents</li> <li>➢ Music</li> <li>➢ Pictures</li> <li>➢ Videos</li> </ul>	<ul> <li>Name</li> <li>E</li> </ul>	No items match your search	Date modified	. 2016	
I Computer	) sms003\users\$) (P:) 0\arbo graphics com =	m	•		
Ave as type:     Hide Folders	Zsoft Format (PCA) Zsoft Format (PCX) Tagged Image File Format (TIF) Encapsulated Postscript (EPS) Adobe Photoshop 3.0 (PSD) Windows Bitmap (BMP) OS/2 Bitmap (BMP) Windows Metafile - WMF JPEG 45.500				15.500
•					

# Right Clicking Options in Multi-Viewer Graphics

Right-clicking with your mouse in the Multi-Viewer Graphics screens brings up different options depending on what objects are active. Here is the menu for pallet loads.

Corner View
Side Views
Indicators
Show Shrink Wrap
Top View
Bottom View
Show View at
Remove Indicator
Strength
Layer Editor
Page Setup
Print Preview
Print
Export Settings
Edit User Text
Show Thumbnails Solution Report
Export to Casefill Database
Cape's Web Page Publisher
Apply Default Format Load Settings
Export Diagram/Report

Here is the menu for secondary packages.

Here is the menu for truck loads.

٢	Z Z N Z N N M
	Corner View
	Side Views
	Top View
	Show View at
	Page Setup
	Print Preview
	Print
	Export Settings
	Edit User Text
	Show Thumbnails Solution Report
	Cape's Web Page Publisher
_	Export Diagram/Report
-	

# Arrange Group – Creating New Case Sizes

### Introduction

The programs in the Arrange Group are designed to help maximize the number of fixed size primary packages loaded on a pallet. The program will arrange a number of primary packages together and then calculate a new case, which is, in turn, palletized.

The primary package cannot vary in size, but it can be a box, bag, bottle, cylinder, oval, blister pack or trapezoid.

You need to specify the shape and size of the primary package, whether you want the product inside the primary package, how many you want in an arrangement, and if necessary, how the primary package should be bundled in groups within the arrangement. You will need to provide some details about the type of secondary package you want to use, and you will have to specify the pallet and/or truck information.

Running an analysis for each type of object is basically the same, but the data for the primary package will be different. This tutorial will take you through an analysis for a carton.

### The Problem

The following example deals with a widget in a carton and there are currently 24 cartons per case. This existing case size does not palletize as well as you would like.

You already know that for this particular case size you cannot produce a more efficient load without changing the loading restrictions. As this is not possible, you realize that your only option is **to change the size of the case**. Before you can even think of changing the case size you need to gather some information. You go to the marketing, production, warehouse and logistics departments and ask some more questions.

- stores prefer a case count of 24, although they will accept 20 per case.
- the stores to which you ship the cartons give you space for up to four facings on the shelf.
- the maximum case size that can fit through the automatic case loaders is 36 x 36 x 36 inches.
- the minimum case size that can slide over the rollers without getting stuck is 8 x 8 x 3 inches.
- you know the size and weight of each individual carton.

You know from previous experience that:

- your company wants to use the 48x40 US GMA standard pallet size.
- fork trucks can lift a maximum of 2000 pounds.
- the maximum stack height is 50 inches.
- the type of board and the material thickness being used for the shipping case is already established.
- the type of shipping case is already established.

- the product can only be loaded with the height dimension vertical to the pallet.
- trucks cannot exceed the 80,000 pound weight limit.
- your company uses a standard 40 foot truck for shipping.

You want Cape Pack to calculate a new case size based on 24 or 20 cartons per case. Therefore you decide to run the **Arrange Group** using the **Cartons/Bags/Ovals** program.

Make sure that the **Fixed** option is marked. This will load the Arrange program instead of Design.

From the first drop down *Type of Package* list in the Arrange Group section, choose **Carton.** This is the type of primary package (inner package) we will be using.

From the second drop down *Type of Package* list choose **Case**. This is the type of secondary package (shipper) we will be using.

Select **Yes** under both the Pallet and Truck sections.

Then click on the **Go** button.



Or, click on the **Programs** menu, and then select the **Arrange Group.** Now click on **Cartons/Bags/Ovals**. The first Arrange Group input screen appears with your Default Settings already filled out.

O Arrange - [Data Input] <u>File Programs Make a new Shape Input D</u> atabases	<u>T</u> ools <u>B</u> undle <u>C</u> olors	Add Graphics Internet	Help
International control of the state of th	Vidth	Pallet 3 Sele Box	20-dry ct Pack Name
Enter Pack (OD) 6.00 Set Pack Dim Vertical	00 <u>5.0000</u>	8.0000	
Enter Pack Weight Gross Weight 1.0000 1.0000		Input Settings Product Ne	Save/Calc.
Box		(in/lb)	2:11 PM CAPS NUM

Notice how the tabs are similar to the Pallet Group. The difference is that you know the carton size and pallet restrictions, but a new case size has to be created.

## Data Input

The first thing that we need to do is establish the parameters for the program. We do that with Input Settings.

### **Input Settings**

Click on the **Input Settings** button, or you can use the **Input** menu, choose **Input Settings**, or the right-click options to activate this option.

_		Select Fact
L		Objects onto Pallet
	✓	Objects onto Pallet into Truck
		Objects into Truck
	✓	1 x Pallet
L		2 x Pallet
v		3 x Pallet —
1		Enable Floor loading
٢.		Input Settings
		Min/Max PP Bulge Input
L		SP Count Type 🕨
L		Pack Names
L		Material Thicknesses
L		Define/Review Bundle input
L		Print Input Data
		Print Preview
		Fraction Table

The following screen appears.

Input Settings	
Input Product Name/Product Code	Number of Pallets  I x Pallet
Inside/Dutside Dimensions	O 2 x Pallet O 3 x Pallet
Additional Options     Product Allowed     Glue Flap Allowed	Analysis Type O Objects onto Pallet O Objects onto Pallet into Truck
Alternate Layers     Additional Weight Allowed     Partial Top Layer/Skip Old Patterns enabled	C bijeus into Hick  Enable Floor loading  Cvlinders
Bulge Options Primary Pack Bulge Allowed Allow Bulge entry by percentages	Recessed Objects allowed
Primary Pack Min/Max Bulge Input	O mm/kg
Secondary Pack Count Type  Min/Max Count  S x Single Count	Arrangement Pattern     Arrangement (C)
Secondary Pack	O Interlock (I) 80 - ★
	Default  Cancel

Make sure the following items have a check mark next to them.

- Enter OD's as we will be using outside dimensions of the carton (primary package) for this analysis.
- Glue Flap Allowed so we can enter information about the glue flap of the secondary package.
- Alternate Layers so that the software will automatically alternate layers of the pallet load.

- **8 x Single Count** rather than **Min/Max Count** because we want to define the number of packages allowed in the case.
- 1 x Pallet
- Objects onto Pallet into Truck
- in/lb
- **Column** patterns. Setting the Arrangement Pattern for an Interlock arrangement is explained in the chapter *Arrange Group Features*.

Your Input Settings screen should now look like this.

O Input Settings	<b>×</b>
Input Product Name/Product Code	Number of Pallets  I x Pallet
□Inside/Outside Dimensions ○ Enter ID's ● Enter OD's	O 2 x Pallet O 3 x Pallet
Additional Options  Product Allowed  Glue Flap Allowed  Additional Weight Allowed  Partial Top Layer/Skip Old Patterns enabled	Analysis Type Objects onto Pallet Objects onto Pallet into Truck Objects into Truck Enable Floor loading
Bulge Options Primary Pack Bulge Allowed Allow Bulge entry by percentages Primary Pack Min/Max Bulge Input	C mm/kg
Secondary Pack Count Type O Min/Max Count	in/lb  Arrangement Pattern  Column (C)
Secondary Pack	C Interlock (I)
ОК	Cancel

You can change these options any time you wish by repeating the last two steps. Click on **OK** to return to data input.

### Product Name and Product Code

Click on the **Product Name/Product Code** button. The following screen appears.

Input Product Name/Code	<b></b>
Date of Analysis 9/17/2016	ОК
Product Name Arrange Group - Cartons/Bags/Ovals	Cancel
Product Code	

Enter Widget 1 in the *Product Name* field.

Enter **062469a** in the *Product Code* field.

Click on **OK**.

#### **Carton Information**

You know the size and weight of the carton. You are looking for 20 or 24 cartons per case.

Make sure you are on the tab marked Carton.

Choose **REV Tuck (3,2,4)** from the *Primary Pack Type* field. This is the type of box (reverse tuck carton) in which the widget is placed.

Choose **Carton** from the *Primary Pack Name* field. This is just a descriptive label for the primary package. You could type in **Widget** or whatever name you want.

Enter 4, 2.5 and 5.75 in the *Length*, *Width*, and *Height* fields respectively for the *Outside Dimensions* field. Length must always be greater than width.

Choose **Height** in the dimensions allowed vertical in secondary pack.

Enter .5 in the *Gross Weight* field. This is the weight of the widget and the carton in which it is placed. If you wanted to enter ounces here instead of pounds, you could right click on the weight fields and bring up a selection menu.

	Convert Weight	•
	1/4 oz	•
	2 oz	
	3 oz	
	4 oz	
	5 oz	
	6 oz	
	7 oz	•
	8 oz	
	9 oz	•
	10 oz	
	11 oz	
	12 oz	•
	13 oz	+
	14 oz	•
6	15 oz	•
_	1.0000	_

Enter .4 in the Net Weight field. This is the weight of the powder itself. Your screen should now look like this.

Arrange - [Data Input]		
File Programs Make a new Shape Input Databases Tools Bundle Colors	Add Graphics Internet	Help
뉴 🗅 🗁 🖬 📾 🖧 🍋 🖻 🔟 🖓 🎁 🌾 😫	??	
Carton Case 48x40 Pallet 2	Pallet 3	20-dry
Select Pack Type	Select	Pack Name
REV Tuck (3,2,4)	Carton	•
Length Width	Height	
Enter Pack (OD) 4 25	5 75	
Set Pack Dim Vertical	×	
Enter Pack Weight	Input Settings	Save/Calc
Gross weight Net weight	Product Nam	o/Product Code
	1100000110011	eyr roddel e
	(in/lb) 2	:14 PM CAPS NUM
	1/i	

### **Case Information**

Click on the tab labeled **Case**.

1					
🕓 Arrange - [Data Input]					• ×
<u>File</u> Programs <u>M</u> ake a new Shape <u>I</u>	nput <u>D</u> atabases <u>T</u> ools <u>B</u> undle <u>C</u> olors AddGraphi	cs <u>I</u> nternet	<u>H</u> elp		
🔚 🗅 🗁 🖬 📾 🎒 🛍 🔟	다 똘 앱 🍹 🌾 🌾 🍈 🦄 🔒 ??				
Carton Case	48x40 Pallet 2	Pallet 3		20-dry	/
	· · ·				
Select Pack Type	Number of Material Thicknesses	Sele	ct Pack Na	ime	
RSC (2,2,4)	2 L x 2 W x 4 H	Case			-
	Thickness LB/MSF Glue Flag	•			
	0.1600 - 112.0000 0.00	00			
Select Partition Type	,				
Nepo					
Carton Per Case		0	0 0		
Enter Max Case Weight					_
50.0000					
	Case Settings				
Input Settings	Save/Calc.				
Product Name	e/Product Code				
Case		(in/lb)	2:14 PM	CAPS	NUM
		1			

The information on this tab is used to outline the type of case that the program will design for you. You enter in the package type and board that you want to use, the counts of primary packages that you can accept, and if necessary, the minimum and maximum case dimensions. From this information, the program will arrange your packages into new case sizes and display your options.

Using the information we had gathered earlier, we will fill in this tab.

Choose **RSC (2,2,4)** from the *Secondary Pack Type* field. This is the regular slotted container you are using. The 2, 2, 4, represents the number of material thicknesses in the length, width and height of the case. This case type is the most widely used of the standard case types in Cape Pack.

Choose **Case** from the *Secondary Pack Name* field. This is a descriptive name for the shipping case or secondary pack.

Choose **125 C-flute .153** from the *Thickness* field. This is the thickness of the secondary package material. The lb/msf field should fill in automatically. If it doesn't, enter **80** in this field.

Details of the size of the glue flap are an optional item that we selected on the Input Options screen. *Glue Flap* refers to the length of the glue flap for your shipping case. Enter **1.25** inches for the Glue Flap.

We will not use a partition type so leave that field as it appears.

In the *Carton per Case* field enter **20** in the first box and **24** in the second. These are the total numbers of primary packages you want within the shipping case. It is not the number of bundles.

Enter **50** in the *Maximum Weight* field. The new case cannot weigh more than this amount. Your screen should now look like this.

🕓 Arrange - [Data Input]	×
<u>File P</u> rograms <u>M</u> ake a new Shape Input <u>D</u> atabases <u>T</u> ools <u>B</u> undle <u>C</u> olors Add Graphics Internet <u>H</u> elp	
🚋 🗅 🗁 🖬 📾 🍄 ၆ 🔟 ዑ) 🦉 🗃 🦓 🦓 🍎 🆓 8 ??	
Carton Case 48x40 Pallet 2 Pallet 3 20-dry	
Select Pack Type Number of Material Thicknesses Select Pack Name	
RSC (2,2,4)  2 L x 2 W x 4 H Case	•
Thickness         LB/MSF         Glue Flap           0.1530          80.0000         1.25	
Select Partition Type	
None	
Carton Per Case 20 24 0 0 0 0 0	
Enter Max Case Weight	
50.0000	4
Case Settings	
Input Settings Save/Calc.	
Product Name/Product Code	
Exter Number of Dimen (Decke Dev Cecender) (Deck	4

#### **Case Settings**

Cape Pack also allows you to set up defaults for case restrictions. These are handled using the **Case Settings** button.

Case Settings			
	Length	Width	Height
Min (OD)	0.0000	0.0000	0.0000
Max (OD)	20.0000	20.0000	20.0000
Bulge in	0.0000	0.0000	0.0000
Slack in	0.0000	0.0000	0.000
Dims. Vertical on Pallet			×
🗌 Fix case size to max si	ize		
Center Primary Pack in	n Secondary Pac	k	
	ОК	Cancel	

Click on the **Case Settings** button and the following screen appears.

Enter the following information concerning the new case the program will calculate for you.

- *Minimum Dimensions* are an optional input. The program does not require this information to calculate the results. However, it does provide an extra filter to remove any potential case sizes that would be smaller than the specified minimum. In our example, you should enter **8**, **8** and **3** in the *Length*, *Width*, and *Height* fields respectively. The new case size cannot be smaller than these dimensions.
- For *Maximum Dimensions*, **36**, **36** and **15** in the *Length*, *Width*, and *Height* fields respectively. The new case size will not be larger than these dimensions.
- Bulge is an optional input that will not be used for this analysis. Leave these fields set at **0**.
- *Slack in I.D.* is another optional input. Slack is the amount added to each overall dimension of the case to allow extra room within the case for hands or machinery packing the contents into the case. Enter .125 in each of the slack fields.
- Make sure the **Height** box is marked in the *Dim. Vert. to Pallet* field. The case can only be loaded in an upright fashion.
- *Fit Case to Max size* is a new option in Cape Pack. If selected you can enter the dimensions of an existing case in the *Maximum Dimensions* fields, and the program will force the OD to that size. We will not be using this feature for this analysis because we do not know the size of our case. We want Cape Pack to calculate that information for us. If you choose this option, you can also choose to center your primary packs in the case by checking that box.

	Length	Width	Height
Min (OD)	8	8	;
Max (OD)	36	36	1
Bulge in	0.0000	0.0000	0.000
Slack in	.125	.125	0.0000
Dims. Vertical on Pallet			×
Fix case size to max siz	e		
Center Primary Pack in	Secondary Pack		

### Pallet Information

This procedure is exactly the same as for the Pallet Group Tutorial.

- You know from the warehouse manager that you need to use a 48x40 US GMA standard pallet and that a fork truck cannot lift more than 2000 pounds.
- The current method of shipping the cartons results in little or no damage to the product.
- You also know that the cases do not hang over the edge of the pallet. You decide you will not allow any overhang.

Click on the tab labeled **48x40**. This is our default pallet base style, and it is the pallet we will use for this analysis.

Because we are using the default pallet, you do not need to select a pallet from the drop down list.

Skip the *Maximum Overhang* field. This is any amount that a secondary package can extend over the edge of the pallet surface.

Enter **50** in the *Maximum Height* field. This is the height of the overall load including the height of the pallet base.

Enter **2000** in the *Maximum Weight* field. This is the weight of the overall load including the weight of the pallet base.

Click on the **Select Pallet Pattern Styles Screen** button and make sure all pattern types are marked, and click **OK**. Do not mark **Partial Top Layer Permitted**.

Select Pallet Pattern Styles Scr	een	<b>×</b>
🛛 Column		
🕱 Interlock		
🕱 Trilock		ОК
🕱 Spiral		Cancel
Diagonal		
🕱 Expanded Spiral		
Partial Top Layer Permit	ted	

If required, you can choose options from the Additional Palletizing Input screen described in the *Pallet Group* chapter.

Additional Palletizing Input		<b>X</b>
Minimum Load Dimensions	Clampable Information	OK Cancel
0.0000 0.0000 Min Area Efficiency 0% Max Rack Height 0.0000	Maximum Offset 0.0000 0 2	

Your pallet tab screen should now look like this.

😡 Arrange - [Data Input]				- • ×
<u>File</u> Programs <u>M</u> ake a new Shape	<u>I</u> nput <u>D</u> atabases <u>T</u> ools <u>B</u> undle <u>C</u>	olors Add Graphics	<u>I</u> nternet <u>H</u> elp	
🚋 🗅 🗁 🖬 🖩 🎒 Ъ́ 🖹 !	🗕 🕤 😤 🖻 🧏 🧏 🦓 🍎 🦄	8 ??		
Carton Case	48x40 Pa	let 2 F	Pallet 3	20-dry
Sele	ct Pallet Base Style			
48x40.pa4 48x40	US GMA 4-Way Pallet	-		
P Length Widt 48.0000 40.0000	allet Dimensions th Height Weigh 5.5000 50.0000			
			Additional Palletizir	ng Input
Enter Ma	ximum Load Dimensions		alact Dallat Dattarn St	daa Saraan
Overhang/Underhan	g Max. Load		select Fallet Fallem Sig	yies acreen
Length Widt	h Max.Height Max.We	ght	Pallet Base Style D	irectory
			Pallet Thumbri	ails
Input Settings	Product Name/Pro	duct Code	Save	/Calc.
48x40		(in	/lb) 2:19 PM C/	APS NUM

Now you have to define how the pallet gets arranged in the truck.

### **Truck Information**

You know that a truck you want to use is a 40 foot truck and it cannot weigh more than 45,000 pounds.

Click on the tab labeled with a truck style.

For the *Truck Style*, choose **40' High Cube** from the drop down list. Notice how many parts of the *Truck Dimension* field are automatically filled in with the values for that item.

In the Max. Weight field, enter 45000 pounds.

Make sure that **Simple**. **Complex** and **Partial Top Layer Permitted** *Loading Patterns* are marked. These are defined as follows:

- **Simple** means the Column and Interlock loading patterns will be applied to pallet loads being placed in the truck or container.
- **Complex** means the Trilock, Spiral, Diagonal and Expanded Spiral type patterns will be used.
- **Partial Top layer Permitted** means that the program will create a partial layer of pallet loads (top layer) in the container to take full advantage of the maximum load weight you allowed. The program will continue to load pallet loads until the maximum weight is reached.

Your screen should now look like the following.

O Arrange - [Data Input]		
<u>File</u> Programs <u>Make a new Shape</u> Input	: <u>D</u> atabases <u>T</u> ools <u>B</u> undle <u>C</u> olors Add Gra	aphics <u>I</u> nternet <u>H</u> elp
🚋 🗅 🗁 🖬 🗟 🎒 ኈ 🖹 🔟 🖣	똘 🖆 🌿 🌿 🥻 🍎 🌾 8 ?? 👘	
Carton Case	48x40 Pallet 2	Pallet 3 truck1
Select	Fruck Style	
TRUCK1.PA4 40 ft. long - H	ligh Cube 🔹 💌	
Truck Intern	al Dimensions	
Length Wi	dth Height	
476.0000 92.0000		
Weight Max.V	Veight Max.Height	
7000.0000	45000 102.0000	
		Truck Style Directory
		Select Loading Patterns
		▼ Simple
		🗵 Complex
		Partial Top Layer Permitted
Input Settings	Product Name/Product Code	Save/Calc.
		(in/lb) 2:20 PM CAPS NUM
		, , , , , _

## Saving Data

You want to save this data so that you can show your colleague how you reached your conclusion.

Choose **Save Input Data and Calculate** from the **File** menu, or click on the **Save/Calc.** button on any of the input screens.

You will be prompted to enter a filename and location for this problem. If you did not want to save the data, you would use the **Calculate Only** option.

Type **Widget1** in the *File name* box.

Click on **Save**. The program automatically begins calculating solutions for the problem you have defined. When the calculations have finished, you will see the Multi-Viewer Graphics screen.



The program has calculated ten solutions for you. The solutions in Arrange Group are new cases sizes. It is displaying the case size with the simplest pattern and the most primary packages per load. Notice how the layers of the load are alternated as requested during input.

## **Evaluating your Results**

You can see diagrams of the primary package (bottom right), the secondary pack (bottom middle), the pallet layer (bottom left) and the corner view of the pallet load (top left).

Now click on the **Solution Report** button.



The default Thumbnail Solution Report opens showing you solution number 1 and the 6 pallet patterns determined for that box size.

Click on the **Solution Report** button to see the standard solutions report.

File	Edit Thumbnails O	ptions He	p									
Sol. No.	Carton Arrangement	Length	PP (OD) Width	Height	#/ Layer	<b>∦</b> of Layers	# Per Case	# Per Load	Length	SP (ID) Width	Height	F Ty
1	5W-2L-2H	4.00	2.50	5.75*	16	3	20	960	12.6	8.1	11.5*	
2	4L-5W-1H	4.00	2.50	5.75*	8	6	20	960	16.1	12.6	<b>5.8*</b>	
3	6W-2L-2H	4.00	2.50	5.75*	13	3	24	936	15.1	8.1	11.5*	
- 4	3L-4W-2H	4.00	2.50	5.75*	12	3	24	864	12.1	10.1	11.5*	
5	8W-3L-1H	4.00	2.50	5.75*	6	6	24	864	20.1	12.1	5.8*	
6	4L-6W-1H	4.00	2.50	5.75*	6	6	24	864	16.1	15.1	5.8*	
- 7	12W-2L-1H	4.00	2.50	5.75*	6	6	24	864	30.1	8.1	5.8*	
8	6L-4W-1H	4.00	2.50	5.75*	6	6	24	864	24.1	10.1	5.8*	
9	5L-4W-1H	4.00	2.50	5.75*	6	6	20	720	20.1	10.1	5.8*	
10	10W-2L-1H	4.00	2.50	5.75*	6	6	20	720	25.1	8.1	5.8*	

This report tells us that Solution #1 has 960 cartons per load and that they are packed 20 to a case.



Highlight Solution #1 and double click on it.

You review the numbers in the upper right corner. You see that the area efficiency is 90.9% which is greater than the existing pallet load efficiency. You see that there are 8 secondary packages per layer and that there are 6 layers. You decide that this is the solution you will use. However, at this stage, you cannot see how the pallets will be loaded in the truck.

### **Comparing Statistics**

You are pleased with the results of Solution # 1, but you would like to review some of the other solutions (if any are available). This can be achieved by looking at the statistics in the Solution Report and/or by viewing the solutions in a graphical mode.

To view statistics for solutions, click on the **Solution Report** button.

File	Edit Thumbnails O	ptions He	lp									
Sol. No.	Carton Arrangement	Length	PP (OD) Width	Height	#/ Layer	<b>∦</b> of Layers	# Per Case	# Per Load	Length	SP (ID) Width	Height	Н Т
1	5W-2L-2H	4.00	2.50	5.75*	16	3	20	960	12.6	8.1	11.5*	
2	4L-5W-1H	4.00	2.50	5.75*	8	6	20	960	16.1	12.6	5.8*	
3	6W-2L-2H	4.00	2.50	5.75*	13	3	24	936	15.1	8.1	11.5*	
4	3L-4W-2H	4.00	2.50	5.75*	12	3	24	864	12.1	10.1	11.5*	
5	8W-3L-1H	4.00	2.50	5.75*	6	6	24	864	20.1	12.1	5.8*	
6	4L-6W-1H	4.00	2.50	5.75*	6	6	24	864	16.1	15.1	5.8*	
7	12W-2L-1H	4.00	2.50	5.75*	6	6	24	864	30.1	8.1	5.8*	
8	6L-4W-1H	4.00	2.50	5.75*	6	6	24	864	24.1	10.1	5.8*	
9	5L-4W-1H	4.00	2.50	5.75*	6	6	20	720	20.1	10.1	5.8*	
10	10W-2L-1H	4.00	2.50	5.75*	6	6	20	720	25.1	8.1	5.8*	

The solutions are listed in descending order of number of primary packages per load.

The on-screen Solution Report has two columns which show the number of cases per layer and number of layers on the pallet. Due to space constraints these two columns are **not** shown in the printed Solution Report.

#### Printing the Solution Report

From the **File** menu of the Solution Report window, choose **Print Solution Report**. The report will be sent to the default printer. You have a choice between **Portrait** or **Landscape** printing.

#### Closing the Solution Report

From the **File** menu of the Solution Report window, choose **Close**. You will be returned to the Multi-Viewer Graphics.

#### **Reviewing Graphics**

Click on the right arrow button  $(\rightarrow)$  on the icon bar. This brings up the next solution in the list.

Click on the left arrow button ( $\leftarrow$ ). This brings up the previous solution in the list.

Click on the **Jump to a Solution** arrow button. Enter a particular solution number, and click on **OK**. That solution number appears.

If a particular arrow button is gray, you are either at the first or last solution in the list.

#### **Reviewing Different Pallet Patterns**

In the Arrange Group, each new case size can be palletized using different patterns, providing you selected more than one pallet pattern type on the Pallet 1 tab.

Click on the up arrow button ( $\uparrow$ ). This brings up the next pattern in the list. Click on the down arrow button ( $\downarrow$ ). This brings up the previous pattern in the list.

To see how the same case might be palletized differently select the **RePalletize** option on the **Tools** menu. RePalletizing is easy with Cape Pack since you do not have to remember all the dimensions and specifications. This option will recalculate all the patterns available for the specific pattern type shown on the report. For example, our pattern is an Interlock. Selecting **RePalletize** will calculate all the possible Interlock patterns for this case size.

# Sharing Data

Solution #1 with the Interlock pattern is better than the method you are currently using. You want to present this solution graphically to your colleague along with the statistics you printed previously. However, you want to depict how the product is packaged, how the layers will be alternated on the pallet and how the load is going to be shipped.

If the graphics for your chosen solution does not need to be modified in any way, you can print the default views from the **Print** option on the **File** menu.

### Setting up your Graphics

Click on **Set-up Buttons.** The statistics in the top right Quick Report will disappear and a new set of controls will take its place.



#### Setting up the Screen

First, you must decide on the presentation of your report, including the type and quantity of diagrams you wish to show. Since you have repackaged the primary packages you need to show the contents of the secondary package, the case and how it is palletized. You also want to show the truck filled with your pallets. The report needs to be set up to show four diagrams.

Click on the button labeled **Format Screen**. A window like this appears.



Click on the button labeled **1**, **2a**, **2b**, **3** or **4** as required. However, we are leaving the screen set up as 4 panels, so click on the **Close** button.

#### Formatting the Load

Make whatever load formatting changes you want. This load is shown with horizontal corner posts, a top board and strapping.

#### Setting Up the Diagrams for the Report

Click on the pallet load to highlight panel #1.

Make sure the *Diagram Type* field is set to **Pallet Load**.

Make sure the *Diagram View* field is set to **Corner View**. To change the *Diagram View*, you can either use the *Diagram View* drop down list, or you can use the right-click options for the diagram.

Corner View
Side Views
Indicators
Show Shrink Wrap
Top View
Bottom View
Show View at
Remove Indicator
Strength
Layer Editor
Page Setup
Print Preview
Print
Export Settings
Edit User Text
Show Thumbnails Solution Report
Export to Casefill Database
Cape's Web Page Publisher
Apply Default Format Load Settings
Export Diagram/Report

Now activate panel **#2** (bottom left).

Change this panel to a **Pallet Load** as well.

Click on the Truck menu and Show my Truck.

Highlight Solution number 1 on the list.

Click on the File menu and Save Current Load and Exit. This will place the truck in panel 2 in the Multi-Viewer.

Activate panel 3. Set it to show the **Case (#1)**.

Finally activate panel 4. From *Diagram Type*, select **Carton (#1)**. Your screen should now look like this.



#### Formatting Objects - Cases

Click on the secondary package picture and then the Format Object button.



Click on **Open Flaps**. Your final diagram setup should look like this.

You can also activate these features using right mouse click pop menus.

Corner View
Default View
Show Content
Show Shrink Wrap
Invert Content
Open flaps
Show View at
Rotate Content
Page Setup
Print Preview
Print
Export Settings
Edit User Text
Show Thumbnails Solution Report
Cape's Web Page Publisher
Add Graphics
Quick Wizard
Export Diagram/Report
Lift Cover (on)
Lift Cover (off)

### Formatting Objects - Pallets

Click on the pallet load diagram and then click on the **Format Object** button.

Now click on the **Show Wrap** box, and then right click on that same option. The following window opens:

OK I
UK
Cancel

Enter in a shrink wrap weight for the load, select a color for the wrap and choose whether or not you wish to include the pallet base.

Review Shrink wrap weight	
Shrink wrap weight (Ib) 3	OK
Include Pallet Base	Cancel
Select Shrink Wrap Color	

Click **O**K and your pallet load will appear with your wrap options.



Notice how the pallet load and all the pallet loads in the truck have been shrink-wrapped. Now that you have the Multi-Viewer Graphics configured with the layout and types of diagrams you want you are ready to finalize the details for your report.

You can also activate this feature from the right-click pop menu.

### **Printing Graphical Reports**

Now that you have formatted the pallet load you can print a report. However, you would first like to add a few comments.

Right click on the pallet load picture and select Edit User Text.

Corner View
Side Views
Indicators
Show Shrink Wrap
Top View
Bottom View
Show View at
Remove Indicator
Strength
Layer Editor
Page Setup
Print Preview
Print
Export Settings
Edit User Text
Show Thumbnails Solution Report
Export to Casefill Database
Cape's Web Page Publisher
Apply Default Format Load Settings
Export Diagram/Report

5

Choose the **User Text** tab.

Set Options	
Jser Text	
This is an example of the standard CAPE report, using typical	
information and dimensions.	
To change this text or this report, click on File, Page Setup.	
10 create a customized report, click on file, Frint Custom Report.	
These 6 lines can be customized with any information you need.	
Save Ao	
Default Clear Current Reset Font	
OK Cancel	

Click on the **Clear** button. If there was any text in the box, it is now gone. Make sure your cursor is blinking on the first line. If it is not, click the mouse there.

Type This report shows how the carton can be packed 20 into a case, palletized and then loaded into a truck. To see how our current method compares to this, see Solution 2 of the Pallet Group analysis. When you are typing you must hit **Tab** at the end of every line.

When you are finished, click on **OK**. You are returned to the Multi-Viewer.

From the File menu, choose Print Preview to review your report before printing.

Use the scroll bars to scroll around the page, or use the **Zoom** controls. If everything looks okay, click on the **Print** button.

### **Printing Custom Reports**

We have included several custom reports for use with your software. Cape Custom Reports are individually designed printouts using a Microsoft Word Template. To fill out the information boxes/spaces you will need to create a Microsoft Word Macro. This will populate the text, number and diagram fields of the report. You can either edit the templates, or you can create new templates and custom reports for yourself.

There is a special option on the File menu in Multi-Viewer Graphics called Print Custom Report (Word).

File Edit View Export Truck	Tools Databas	es Colors	Add Graphics e-mail Internet	Publish
Change Input Data		$\rightarrow \downarrow$	1 🗘 🐣 ?? 🍿 🖾 🔁	III 🙆
Return to Front Menu			Product Length	45.96
Save Graphics Solution	Ctrl+S		Product Width	36.96
Save Graphics Solution As	Ctrl+A	1	Area Used	88.
			Cube Used	66.
WebCenter Connector Browser		00.700	Per Layer	
Print Custom Report (Word)	۰.	Add Te	mplate	1
Page Setup		TEMPL	ATE 1.DOT	1
Print Preview		TEMPL	ATE 2-LANDSCAPE.DOT	ľ
Print Standard Report	Ctrl+P	TEMPL	ATE 3-US AND METRIC.DOT	- 1
Print Setup		TEMPL	ATE 4-PKG SPECS.DOT	- H
Print Language Options		TEMPL	ATE 5-BOTTOM SPECS.DOT	1.6
Exit		TEMPL	ATE 6-BOTTOM SPECS-OD.DOT	- t
		TEMPL	ATE 7-CASEFILL.DOT	ſ

See the *Printing* chapter for more information on this feature.

### Saving your Graphics

Click on **File**, **Save Solution** to save your graphics in your load file. These graphics can be recalled later from the Front Menu using **File**, **Open Viewer/Open Saved Graphics**.

#### Uploading to the Cape Pack cloud database

Click on the cloud icon in the tool bar to upload your report to the Cape Pack cloud database and create reports to share on that website.



The Help link on the website gives a full description of this powerful feature as well as complete instructions.

### Other Arrange Group Features

Most of the menu items and features in Arrange are the same as in the Pallet Group of programs. However, there are a number of additional features that are specific to the Arrange programs that allow you to enhance or improve your results.

## **Data Input Options**

### Interlocking Patterns Inside the Case

Cape Pack offers a unique way to quickly find out if an interlocking pattern will achieve more items per case and/or more items per pallet.

Sometimes a specific carton size and case count using the standard row/column packing method will not generate a suitable case size and efficient pallet load. If alternative case counts will not improve the situation, then try the "interlocking" method of packing. Here is an example with the normal row/column packing method with a case count range of 5 to 30. Our row column load achieves 450 cartons per load.



Now let's run this example using the Interlock Arrangement Pattern option.

#### Click on Input Settings.

O Input Settings	
Input Product Name/Product Code	Number of Pallets
	I x Pallet
Inside/Outside Dimensions	○ 2 x Pallet
◯ Enter ID's	○ 3 x Pallet
Enter OD's	Analusia Tupo
- Additional Options	O Objects onto Pallet
Product Allowed	Objects onto Pallet into Truck
🕱 Glue Flap Allowed	Objects into Truck
Alternate Layers	
Additional Weight Allowed	
Partial Top Layer/Skip Old Patterns enabled	- Culindors
Bulge Options	Becessed Objects allowed
Primary Pack Bulge Allowed	
Allow Bulge entry by percentages	- Units of Monsure
Primary Pack Min/Max Bulge Input	
Casendary Deels Caunt Ture	
Min /May Count Type	
Min/Max Count	Arrangement Pattern Min. Fit %
	Column (C)
Secondary Pack	O Interlock (I)
Show Flap Indicator	Show Control Face Direction
Round up to the Nearest 1/16"	Default
ОК	Cancel

You will notice, in the bottom right-hand corner that the Arrangement Pattern is currently set for **Column** patterns.

Click on Interlock and to choose a Minimum Fit Percentage. That is the only change we need to make.

O Input Settings	
Input Product Name/Product Code	Number of Pallets <ul> <li>1 x Pallet</li> </ul>
Inside/Outside Dimensions	O 2 x Pallet O 3 x Pallet
Additional Options Product Allowed Glue Flap Allowed Alternate Layers Additional Weight Allowed Partial Top Layer/Skip Old Patterns enabled	Analysis Type O Objects onto Pallet O Objects onto Pallet into Truck O Objects into Truck Enable Floor loading
Bulge Options  Primary Pack Bulge Allowed  Allow Bulge entry by percentages  Primary Pack Min/Max Bulge Input	Cylinders Recessed Objects allowed Units of Measure O mm/kg
Secondary Pack Count Type Min/Max Count S x Single Count	in/lb      Arrangement Pattern      Column (C)
Secondary Pack Show Flap Indicator Round up to the Nearest 1/16''	Interlock (I)      Show Control Face Direction      Default
OK	Cancel

This fill efficiency percentage is required because some interlocking patterns may have small gaps in between the items. So if the fill efficiency was set at 100%, only patterns without any gaps could be found. We recommend that you set this figure to approximately 80%

All we need to do now is select Save Input Data & Calculate from the File menu. Here are the results.



# Inverted Cylinders and Trapezoids

You can now calculate inverted tapered cylinders and trapezoids inside cartons in the arrange group. Simply select **Inverted** as your *Arrangement Pattern* under **Input Settings**.

Input Settings	×
Input Product Name/Product Code	Number of Pallets <ul> <li>I x Pallet</li> </ul>
⊂Inside/Outside Dimensions ○ Enter ID's ● Enter OD's	O 2 x Pallet O 3 x Pallet
Additional Options  Product Allowed  Glue Flap Allowed  Alternate Layers  Additional Weight Allowed	Objects onto Pallet     Objects onto Pallet into Truck     Objects into Truck     Enable Floor loading
Partial Top Layer/Skip Old Patterns enabled     Bulge Options     Primary Pack Bulge Allowed     Allow Bulge entry by percentages	Cylinders Recessed Objects allowed
Primary Pack Min/Max Bulge Input Secondary Pack Count Type Min/Max Count 8 x Single Count	O mm/kg ● in/lb Arrangement Pattern
Secondary Pack Show Flap Indicator Round up to the Nearest 1/16"	C Column (C) (Inverted Cylinders) Show Control Face Direction Default

Then enter your dimensions for your default trapezoid or cylinder.

Arrange - [Data Input]	aput PID Tools Bund	dle Colors Add Gr	anhics Internet He	
🔚 D 🛩 🖬 🗟 🎒 🕒 🖻 🔟	다 앱 앱 것 것 것		? ?	P
Cylinder/Drum Case	48×40	Pallet 2	Pallet 3	53footer
Select Pack Type	Select Pack Name			
Default 🔹	Cylinder/Drum	-		
Enter OD's Orientation In Secondary Pac	Diameter (Top) 6	Diameter (Bottom) 2	Height 6	
Enter Pack Weight			Input Settings	Save/Calc.
Gross Weight Net W 1.0000	eight 1.0000		Product	Name/Product Code
Specify the Primary Pack Width allow	ved to be Vertical to the	Secondary Pack H	leight (in/lb)	11:08 AM CAPS NUM





Here is an example of trapezoids.



## **Blister Packs**

You have the ability to design, show and calculate blister type packages within the Arrange Group in Cape Pack.

😔 Arrange - [Data Input]	
File Programs Make a new Shape Input Databases Tools Bundle Colors	rs Add Graphics <u>I</u> nternet <u>H</u> elp
🔚 🗅 🗁 🖬 🗃 🎒 የ• 🖻 🔟 ዓን 🦉 😭 🦓 🍏 🦄 🔒	9 ??
Blister Pack Case 48x40 Pallet	2 Pallet 3 20-dry
	· · ·
Select Pack Type	Select Pack Name
blister.csf	Blister Pack 💌
Do not nest	
Length Width	Height
Enter Pack (OD) 6.0000 1	
Set Pack Dim Vertical	×
Enter Pack Weight	Input Settings Save/Calc.
Gross Weight Net Weight	
1.0000 1.0000	Product Name/Product Code
Enter Primary Pack Height Dimension	(in/lb) 11:10 AM CAPS NUM

Select the blister type you want to use from the Select Pack Type list and enter your dimensions.

Then calculate as normal. The following is an example of nested blisters. This will be the default if there is room to flip or alternate the packages so they nest together.



And here is an example of straight blisters. If you don't want your blisters to automatically alternate, check the Do Not Nest field on the data input screen.

Arrange - [Data Input]     File Programs Make a new Shape Inc	ut Databases Tools	Bundle Colors	Add Graphics In	ternet Help	
	h 🐮 📾 🔀 💥 🕅		<b>??</b>	itemet Help	
Blister Pack Case	48x40	Pallet 2	 Pe	dlet 3	20-dry
Select Pack Type				Select Pack N Blister Pack	ame
✓ Do not nest				Diraci i dek	
Enter Pack (OD) Set Pack Dim Vertical	Length 6.0000	Width	Height 8.0000 x		
Enter Pack Weight Gross Weight Net V	Veight		Input Setting	gs	Save/Calc.
1.0000	1.0000		Prod	uct Name/Produc	ct Code
Enter Primary Pack Height Dimension			(in/ll	b) 11:11 AM	CAPS NUM

This will be the default if there is not room enough on the blister pack to alternate the packages.



#### **Blister Pack Wizard**

We have added a new Make a New Shape feature for Blister Packs as well.

Enter your starting dimensions.

O Create a new Shape (Make a new Blister Pack)				
Overall Initial Height:	350.0000			
Overall Initial Length: 200.0000				
Overall Initial Width: 40.0000				
ОК	Cancel			

Click **OK** to see the default shape on the screen.

Blister Pack Shape	Length	Width	Height
Flatboard Dims	200.0000	5.0000	350.0000
Bubble Dims	180.0000	35.0000	150.0000
Bubble Vertical Offset 5.0000 Flatboard Color Bubble Color			
Save	Open	Close	;

Then adjust the placement of the card back and also the blister (or bubble) part of the package.

Blister Pack Shape			<b>×</b>
	Length	Width	Height
Blister Pack Dims	200.0000	43	350.0000
Flatboard Dims	200.0000	5.0000	350.0000
Bubble Dims	196	38	200
Bubble Vertical Offset 5.0000 Flatboard Color Bubble Color			
Save	Open	Close	

If offset will not be possible, you will see the following prompt when you save.



Save your shape and it will appear in your list of options.

### Minimum/Maximum Case Count

Arrange has two modes for entering case counts.

- Eight individual case counts, and
- Min/Max SP Count which is available on the Input Settings screen from the Input menu

Input Settings	×
Input Product Name/Product Code	Number of Pallets I x Pallet
Inside/Outside Dimensions O Enter ID's	O 2 x Pallet O 3 x Pallet
Additional Options Product Allowed Glue Flap Allowed Alternate Layers Additional Weight Allowed Partial Top Layer/Skip Old Patterns enabled	Objects onto Pallet     Objects onto Pallet into Truck     Objects into Truck     Enable Floor loading
Bulge Options Primary Pack Bulge Allowed Allow Bulge entry by percentages Primary Pack Min/Max Bulge Input	Recessed Objects allowed  Units of Measure O mm/kg
Secondary Pack Count Type O Min/Max Count	in/lb      Arrangement Pattern     Min. Fit %      Column (C)
Secondary Pack Show Flap Indicator Round up to the Nearest 1/16" OK	O Interlock (I) Show Control Face Direction Default Cancel

Choosing a wide range between the min/max case counts means the program will look at all those numbers, including some "odd" numbers/arrangements, and may increase the calculation time.

### Round to nearest 1/16th inch (IDs)

Select this field if you wish to have the program round the inside dimensions of your case up to the nearest 1/16th of an inch. This option is not available for metric.

### Showing Product Inside the Primary Pack

Often users want to show their product inside the primary package (i.e., a light bulb in a chipboard carton). They then want to package the carton into a case (or into bundles and then into a case), and then palletize the cases. There is a special **Product Allowed** feature on the **Input Settings** screen to allow this.

Input Settings	
Insuit Dischart Name /Dischart Carte	Number of Pallets
Input Product Name/Product Lode	1 x Pallet
Inside/Outside Dimensions	◯ 2 x Pallet
◯ Enter ID's	◯ 3 x Pallet
Enter DD's  Additional Options      Product Allowed      Glue Flap Allowed      Alternate Layers      Additional Weight Allowed	Analysis Type O Objects onto Pallet O Objects onto Pallet into Truck O Objects into Truck Enable Floor loading
Partial Top Layer/Skip Old Patterns enabled	Cylinders
Bulge Options	Recessed Objects allowed
Primary Pack Min/Max Bulge Input	O mm/kg
Secondary Pack Count Type	● in/lb
O Min/Max Count ● 8 x Single Count	Arrangement Pattern Min. Fit %
Secondary Pack	O Interlock (I)
Show Flap Indicator	Show Control Face Direction
Round up to the Nearest 1/16"	Default
ОК	Cancel

Two new fields open up Product Type and Product Name.

In the *Product Type* field, you can select a Cape default shape or any product you have designed in the Make a new Shape feature.
		6
🔾 Arrange - [Data Input]		- • •
<u>File Programs</u> <u>Make a new Shape</u> <u>Input</u> <u>Databases</u> <u>Tools</u> <u>B</u> undle <u>C</u> olors	Add Graphics Internet	<u>H</u> elp
🔚 🗅 🗁 🖬 📾 🌢 📴 🔟 🗗 🦉 😭 🏹 🄌 🌐 🧏 🔒	??	
Carton Case 48x40 Pallet 2	Pallet 3	20-dry
·		
Select Pack Type	Sele	ct Pack Name
Seal End (3,2,6)	Blist	er Pack 🗾
Select Product Type	Sele	ct Product Name
		<b>_</b>
bites.csf	Hoight	
bread bag.csf		
bulkbag.csf	0.0000	
cementbag.cst	×	
chipbag2.csf		
clamshell.csf 🔹		
Enter Pack Weight	Input Settings	Save/Calc.
Gross Weight Net Weight		
1.0000 1.0000	Product Na	me/Product Code
Enter Primary Pack Type	(in/lb)	11:14 AM CAPS NUM

Here is the Multi-Viewer Graphics screen after the analysis has been calculated.



You can also use the **Show Content** option to display the product inside the carton.



Fixed Case size in Arrange and Design Group

We have added an option for you to fix your case size (outside dimensions) to the maximum allowed case size in Arrange and Design Group. Click on the **Case Settings** button to select this feature.

Case Settings			×
	Length	Width	Height
Min (OD)	0.0000	0.0000	0.0000
Max (OD)	20.0000	20.0000	20.0000
Bulge in	0.0000	0.0000	0.0000
Slack in	0.0000	0.0000	0.0000
Dims. Vertical on Pallet			×
🛪 Fix case size to max si	ze		
Center Primary Pack in	Secondary Pac	:k	
	ок	Cancel	

If you select this option, you can also select the option to center your primary packages inside the case.

#### Analyses with No Outer Packaging

The program is provided with a special package types called **No Package** and **None**. Examples of these package types can be seen in the *Pallet Group Features* chapter.

# **Bundling Your Primary Packs**

Cape Pack has a unique Bundle Wizard for this purpose.

At the Primary Pack input screen select the Bundle menu, choose Define/Review Bundle Input.



Or you can use the right click option. You will see the following screen.

O Bundle Wizard	
File Format Tools Database Colors Add Graphics Help	
Bundle Package Bundle Name	Divider/Partition None 🗾
Bundle 1 of 8           No.         Bundle Arrangement         Count         Bundle Package           1         1Lx1Wx1H         1         No Package	7.000
Control  Control    Bundle Arrangement    1    x L    1    x W    1	5,0000
Dimension Vertical in Bundle C Length C Width © Height	
Switch Direction	Close

This screen allows you to see the bundle arrangements as you create them. You can create up to eight different Bundle Arrangements.

Enter **8 x 1 x 1** in the *Bundle Arrangement* fields.

Bundle Wizard       File     Format       Iools     Database       Colors     Add Graphics       Help       Bundle     Package       No     Package       Vo     Vo	Divider/Partition
Bundle 1 of 8       No     Bundle Arrangement     Count     Bundle Package       1     8L x 1W x 1H     8     No Package        Delete     >       Bundle Arrangement     >       8     x L     1     x W       Delete     >	7,000
Dimension Vertical in Bundle         Length       Width         Switch Direction         off	Close

Turn Switch Direction on to change the orientation in the bundle.

(	
Bundle Wizard     File Database Colors Add Combine Hole	
Bundle Package     Bundle Name       No Package     Image: Transmission of the second	Divider/Partition None 💌
Bundle 1 of 8	
No.     Bundle Arrangement     Lourt     Bundle Package       1     8W x 1L x 1H     8     No Package                   Bundle Arrangement         8      1	7.000
Dimension Vertical in Bundle O Length O Width © Height	
Switch Direction	Close

To package these cartons into a tray, choose **Tray** from the *Bundle Package* list.

Dunalla Minard	
File Format Tools Database Colors Add Graphics Help	
The comat Tools Database Colors Add oraphics Help	
Bundle Package Bundle Name	No. of Material Thicknesses Divider/Partition
Tray Tray 4	xL 2 xW 1 xH None -
Tray Wall Height Packs	ge Thickness LB/MSF
1 750	▼ 80.0000
1.150	
Bundle 1 of 8	
No. Bundle Arrangement Count Bundle Package	
1 8Wx1Lx1H 8 Tray	
	7.0000
Contraction Contra	
Bundle Arrangement	
	10.0000
	5.0000
	→ ↓
Dimension Vertical in Bundle	
○ Length ○ Width	
Switch Direction	
	Close

You can adjust the height of the tray by using the spin-wheel at the top of the screen. You can also add dividers and change the material thicknesses for both the package and the dividers.

You can change the tray color and add a 3D Image from the appropriate menus. You can even shrink-wrap the tray.

Select the Format menu and click on Show Wrap.



Each Bundle Arrangement can be different. The Bundle Package type can be the same or different for each arrangement and the Material Thicknesses for the package and dividers can also be different. Therefore, you can consider different arrangements of the same primary package in one form of Bundle Pack, or you can look at those arrangements in different types of Bundle Pack, or you can even consider different arrangements, different Bundle Package types and Material Thicknesses, all at the same time.

#### **Reviewing Bundle Dimensions**

On the Secondary Pack tab, click on the Bundle menu and select Show Primary Pack/Bundle Details.



You will see the following screen.



This screen provides details of the Bundle Arrangements you specified in the Bundle Wizard. Having this information can help you to determine the Min/Max case sizes needed as input at the bottom of the Secondary Pack screen.

#### **Changing Package Color**

Select the **Colors** menu and then **Change Package Color**. A color palette will appear.

Color						x
Basic col	ors:					
Custom o	olors:					
	Define (	Custon	n Col	ors >>	•	
ОК		Cano	cel			

Select the color you require and click on **OK**. The package will then change to your selected color.

If you wish to return to the original colors select Change to Original Colors, from the Colors menu.

Alternatively, you can use the **Set Custom Colors** option to change the color of each individual panel.

#### **Changing Divider Color**

On the case screen, simply select the **Colors** menu and chose **Change Divider Color**:



We will pick red.

Click on **OK** and the dividers will change to your chosen color:

File Programs Make a new Shape	nput Databases Tool	s Bundle Colors	Add Graphics	Internet H	eln	
	□n 📽 🕅 ১< ১< ১	s 🙇 🖶 🕅 🥸	<b>22</b>	Internet II		
Carton		Pallot	ν γ	Dallat 3	) 20-	daz
Caron		I t difet?	-		20	ury
Select Pack Type	Number of	Material Thick	000000	Select P	ack Namo	
BSC (2.2.4)			/ 4 H	Case		•
	I hickness	LB/MSF	Glue Flap			
	0.1600	112.0000	0.0000	J		
Select Partition Type	Thickness	LB/MSF				
3-Way	0.0000 💌	0.0000				
Blister Pack Per Case					0	
Enter Max Case Weight						<u> </u>
50.0000					$\sim$	
	Case Se	ttings				
Input Settings	Save/C	alc.			$\sim$	
Product Nam	e/Product Code					
Cons			6	s/lb) 11:		
Case			10	nyiu)   11:	TS ANI JUAPS	NUM

## Zero Package Weight

You can use a zero weight for the primary and secondary package weights.

## Adding Extra Weight for items in the Carton

An extra weight field can be used from a setting in **Input Settings**:

O Input Settings	
Input Product Name/Product Code	Number of Pallets
Inside/Dutside Dimensions	○ 2 x Pallet ○ 3 x Pallet
Additional Options     Product Allowed	Analysis Type O Objects onto Pallet
Glue Flap Allowed     Alternate Layers	Objects onto Pallet into Truck     Objects into Truck     Finale flam landing
Additional Weight Allowed	
Bulge Options	Recessed Objects allowed
Allow Bulge entry by percentages	Units of Measure Omm/kg
Secondary Pack Count Type	in/lb     Arrangement Pattern     Min. Fit %
Secondary Pack	Column (C)     Normalized Strength Strengt Strength Strength Strength Strength Strength Strength Strength
Round up to the Nearest 1/16"	Show Control Face Direction           Default
ОК	Cancel

This brings the extra field onto the **Input** screen:

Arrange - [Data Input]		x
File Programs Make a new Shape Input Databases Tools Bundle Colors	s Add Graphics Internet Help	
뉴 🗅 🕞 🖬 📾 🖫 🖻 🔟 🖓 🎬 🎒 🌾 🧏 🙆 👘 🧏 🕴	1 77	
Carton Case 48x40 Pallet 2	2 Pallet 3 20-dry	
Select Pack Type	Select Pack Name	
Seal End (3,2,6) 🔹	Blister Pack	•
Length Width	Height	
Enter Pack (OD) 5 1.25		
Set Pack Dim Vertical	x	
Enter Pack Weight	Input Settings Save/Calc.	
Gross Weight Net Weight Add Weight		
	Product Name/Product Code	
	(in/lb) 11:19 AM CAPS NUM	
	, , , , , ,	

# **Multi-Viewer Graphics Options**

#### **RePalletizing a Case**

This option gives you the ability to review all options for a specific pallet pattern type (i.e. Interlock, Column, Spiral, etc.)

Make sure the solution for the case size you wish to evaluate is showing in the Multi-Viewer Graphics.

From the **Tools** menu choose **RePalletize**.



The **RePalletize** option calculates all the patterns available within the specified pattern group of your current solution. For example, if you are on an interlock pattern, selecting **RePalletize** will show you all the other possible interlock patterns for that case.



All the regular solution report options are available to you. These include copying, switching to the alternate report and printing. You also have the option to choose a solution in the list and bring that back to the original Arrange Group solution report.

To bring another pattern back into Multi-Viewer Graphics, select the solution you want to use. We are picking Solution #2.



Choose File, Close to take this new solution back to Multi-Viewer Graphics. Click Yes at the prompt.



When you choose to update the pattern, the pattern is temporary. If you switch to another solution and then come back to the updated solution, the pattern will revert to the original pattern that the Arrange Group calculated.

#### Common Secondary Pack Sizing

There is a search feature to allow you to compare like secondary package sizes when you are using more than one pallet for your analysis. Here is an example. First you set up your data to evaluate on more than one pallet criteria.

😳 Arrange - [Data Input]					- • •
<u>File</u> Programs <u>M</u> ake a ne	ew Shape <u>I</u> nput <u>D</u> ata	bases <u>T</u> ools <u>B</u> undl	e <u>C</u> olors Ado	Graphics Internet	<u>H</u> elp
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euro1.pa4	Europallet 1200x8	)0x145	•		
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					alessal Della ticica Inc. 4
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	iter Maximum Load	Dimensions		Release D	-ll-t D-ttom Ot do a Concern
Overhang/Un	derhang	Max. Load			allet Pattern Styles Screen
Length	Width Ma	x.Height Max	Weight	Palle	et Base Style Directory
0.0000	0.0000	50	2000		
					Pallet Thumbnails
Input Setting	as	Product Name	e/Product Code		Save/Calc.
Enter maximum Load Wei	ight			(in/lb)	11:21 AM CAPS NUM

After calculate you are presented with multiple separate pallets with potentially 3 separate case sizes. Calculate and you will see the following screen.



You select Search for Common Secondary Pack Size from the Tools menu.



And the following list appears.

No.	Secondary Pack Size	PP per Load	
1	10.3200 x 5.3200 x 14.6400	1488	
2	10.3200 x 6.5700 x 14.6400	1620	
3	10.3200 x 7.8200 x 14.6400	1584	
4	10.3200 x 10.3200 x 7.6400	960	
5	11.5700 x 5.3200 x 14.6400	1620	
6	11.5700 x 10.3200 x 7.6400	1080	
7	12.8200 x 5.3200 x 14.6400	1620	
8	12.8200 x 10.3200 x 7.6400	1200	
9	14.0700 x 5.3200 x 14.6400	1584	
10	14.0700 x 10.3200 x 7.6400	1210	
11	15.3200 x 4.0700 x 14.6400	1620	
12	15.3200 x 5.3200 x 14.6400	1512	
13	15.3200 x 6.5700 x 7.6400	1350	
14	15.3200 x 7.8200 x 7.6400	1350	
15	15 3200 x 9 0700 x 7 6400	1365	
Gort C Secor	C <b>ases By</b> Idary Pack Size <b>▼</b>		
	Open	Close	

Select any option and click on **Open** and that case size will appear on each of your three pallets in whatever configuration is most efficient.



# Design Group – Designing New Package Sizes

## Introduction

The programs in the Design Group can help you determine how to maximize the number of primary packages on the pallet, while looking at new sizes for those primary packages.

First, the program will calculate a new size for the primary packages and then arrange them. It will then calculate a case size based on that arrangement. Subsequently, the new case is palletized for shipping.

You specify the shape of the primary package, how much it can vary in size, as well as how many you want in an arrangement and, if necessary, how the primary package should be bundled in groups within the arrangement. The primary package can be a box, bag, bottle, cylinder, oval or trapezoid or any shape created in the Make a New Shape Feature. Running an analysis for each type of object is the same, but the type of data you input will be different. This tutorial will take you through an analysis for a carton.

If you have not run the Arrange Group example, you should do so now.

# The Problem

After such a positive reaction from your colleagues regarding the results of the Arrange Group tutorial, you begin to think of other possibilities. What happens if you change the carton size? Would the new size mean you could distribute more of the product within the same space?

## Considerations

You know from the results of the Arrange Group tutorial that for this particular carton size you cannot produce a more efficient load without changing loading restrictions. And you know you have set the loading restrictions appropriately.

But before you can start thinking about changing the carton size you need to gather some more information. You discuss with marketing and production the degree by which they can allow the primary pack to vary. You find that:

- you can use a slightly different size carton. However, no more than a fraction of an inch can change in either the length, width or height.
- all the other parameters must stay exactly the same as in the Arrange Group analysis.

You want Cape Pack to calculate a new carton size for you. After reading the *Welcome* chapter you realize you need to run the **Design Group – Cartons/Bags/Ovals** program.

You know the product shape and how much the product can vary in size. You want to look at the same arrangements as in the Arrange analysis and then generate a new case size that will be palletized more efficiently.

In the Arrange/Design Group section on the Front Menu make the following changes.

Click on Vary.

Choose **Carton** from the first *Type of Pack* drop down list.

Choose **Case** from the second *Type of Pack* drop down list.

Mark Yes for Pallet and Yes for Truck

Welcome to Cape Pack 16.0.1 (Cape Advanced) - [Front Menu]	dell'ale and the	a luc		
File Programs Create ShortCuts Make a new Shape Databases Resolutions Internet Pu	i <u>b</u> iisner <u>H</u> i	eip		
·				
Pallet Group (Palletize your shipper, and/or load a truck)				
				Go
Type of Package Pallet?	⊢ Ti	ruck?		
Case Ves • No •	Y	′es 💿 N	0 0	
-Arrange/Design Group (Create packaging for a new or existing pr	oduct a	nd palleti	ze it) –	
Fixed $\sim$	⇒ _			Go
Type of Package Type of Package Pallet?		ruck?		
Pov - Coso - Yes O No O	Y	′es 🖲 N	0 0	
-Casefill Group (Choose the most efficient product fit, using existing exis	ng box s	sizes) —		
				Go
Type of Package				
Box				
Select Programs Menu and then choose the program to run	(in/lb)	3:22 PM	CAPS	NUM

Click on **Go**. The first input screen appears with your Default Settings already loaded.

O Design (Data Japut)				
File Programs Make a new Shape In	nut Databases Tools	Bundle Colors	Add Graphics Internet	t Help
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Box	148x40	Pallet 2	 TPallet3	53footer
		1		
Select Pack Type			Sel	ect Pack Name
Seal End (3,2,6) 🔹			Box	د <b>ب</b>
	Length	Width	Height	
Enter Pack (OD)	6 0000	5 0000		
Set Pack Dim Venical				
Dimensional Variance (+)	1.0000	1.0000	1.0000	
Dimensional Variance (-)	1 0000	1 0000	1 0000	
	1.0000	1.0000	1.0000	
Dimensional Increment	0.1250	0.1250	0.1250	
Enter Pack Weigh	t		Input Settings	Save/Calc.
Gross Weight Net 1	Weight			
1.0000	1.0000		Product N	lame/Product Code
Box			(in/lb)	3:22 PM CAPS NUM

The difference between the Arrange Group and Design Group is that the primary package can vary in size. To account for this difference a few fields have been added to the Primary Pack input tab. Everything else remains the same as before. You

know that secondary package and loading restrictions are not going to change. So we will open the Arrange file we already completed so that we do not have to re-enter all the same data.

From the **File** menu, choose **Open**.

Find **Widget1.clf** in the list of filenames and click to highlight it.

Click on the **OK** button to open this file. This will open our Arrange example file.

O Arrange - [c:\cape216\private\widget1.clf]	
File Programs Make a new Shape Input Databases Tools Bundle Colors	s Add Graphics Internet Help
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Carton Case 48x40 Pallet 2	2 Pallet 3 truck1
· · ·	
Select Pack Type	Select Pack Name
REV Tuck (3,2,4)	Carton
Length     Width       Enter Pack (OD)     4.0000     2.5000       Set Pack Dim Vertical	Height 5.7500 X
Enter Pack Weight	Input Settings Save/Calc.
Gross Weight Net Weight	
0.5000 0.4000	Product Name/Product Code
Primary Pack	(in/lb) 3:22 PM CAPS NUM

Now select the **Programs** menu and click on **Design Group, Cartons/Bags/Ovals**. The screen will change to the show the Arrange screen with nine extra fields.

Oesign - [c:\cape216\private\widget1.c	f]			
<u>File</u> Programs <u>M</u> ake a new Shape In	out <u>D</u> atabases <u>T</u> ools	<u>B</u> undle <u>C</u> olors	Add Graphics Intern	et <u>H</u> elp
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Carton Case	48×40	Pallet 2	Pallet	3 truck1
·				
Select Pack Type			Se	lect Pack Name
REV Tuck (3,2,4)			Ce	arton 🗾
	Length	Width	Height	
Enter Pack (OD)	4 0000	2 5000	5 7500	
Set Pack Dim Vertical		1	×	
Dimensional Variance (+)	0.0000	0.0000	0.0000	
	0.0000	0.0000	0.0000	
Dimensional variance (-)	0.0000	0.0000	0.0000	
Dimensional Increment	0.0000	0.0000	0.0000	
Enter Pack Weigh	•	ĺ	Input Settings	Save/Calc
		l	input Settings	
Gross Weight Net V	Veight	ĺ	Draduat	Name/Dreduct Code
0.5000	0.4000		Product	Name/Product Code
Primary Pack			(in/lb)	3:22 PM CAPS NUM
			J	

The next step is to add the information about changing the size of the carton.

# **Evaluating Different Primary Package Sizes**

You have learned from marketing and production that the carton size can change slightly, but that the weight needs to stay the same. You can now define the carton and the variances you will allow.

For *Dimensional Variance* (+), enter .25, .25 and .5 in the *Length*, *Width*, and *Height* fields respectively. This is the additional amount up to which a particular dimension can be in size. So our carton will not be larger than 4.25 x 2.75 x 6.25 inches.

For *Dimensional Variance* (-), enter .25, .25, and .5 in the *Length*, *Width*, and *Height* fields respectively. This is the decreased amount to which a particular dimension can be in size. So our carton will not be smaller than 3.75 x 2.25 x 5.25 inches.

For *Dimensional Increment*, enter .0625, .0625 and 0 in the *Length*, *Width*, and *Height* fields respectively. This is the quantity in which the program will add or subtract from the values in the range, in order to create a new size for the primary pack. Remember, the values in the range have been determined by the variance. Because we have not entered an increment in the *Height* field, the height will remain constant.

If you want to vary the volume of your product as the size varies, you can select this option from the **lnput** menu. Do not vary the volume or the weight with the volume. For this tutorial we are working with a fixed volume analysis.

The program is restricted to forty increments. Therefore, you cannot specify a 2.5 inch plus and 2.5 inch minus variance with a .0625 inch increment. This would create a total of at least 80 increments (+40 and -40).

Your screen should now look like this.

Oesign - [c:\cape216\private\widget1.cl	lf]				- • ×
File Programs Make a new Shape Ing	put <u>D</u> atabases <u>T</u> ools	Bundle Colors	Add Graphics Interr	iet <u>H</u> elp	
	U 197 ⊞1 *≦ *≦ *8 1 48∨40	Pallat 2	ff TPallat	3	Truck1
Canon	140,40	Falletz	Fallet	J	
Select Pack Type			Se	lect Pack	Name
REV Tuck (3,2,4) 🔹			Ca	arton	•
	Length	Width	Height		$\frown$
Enter Pack (OD)	4.0000	2.5000	5.7500		
Set Pack Dim Vertical			×		
Dimensional Variance (+)	.25	.25	.25		
Dimensional Variance (-)	25	25	25		
Dimonoional Fananco ()	.23	0000			
Dimensional increment	.0625	.0625	0.0000		
Enter Pack Weight	t		Input Settings		Save/Calc.
Gross Weight Net V	Veight				
0.5000	0.4000		Product	Name/Pro	duct Code
Enter the Dimensional Increment for the	e Primary Pack Heigh	t	(in/lb)	3:23 PM	M CAPS NUM

The rest of your input screens remain unchanged and should look like this.

Polegon - [c:cape2lotprvate/wdgeL.ctf]   File Programs Make a new Shape Input Databases Tools Bundle Colors Add Graphics Internet Help   Image: Delta Colors Add Graphics Internet Help   Carton Case   48x40   Pallet 2   Pallet 3   Truck1   Select Pack Type   PSC (2.2.4)   PSC (2.2.4)   Image: Delta 2   Pallet 3   truck1   Select Pack Name   Carton   Case   Use 1   Image: Delta 2   Pallet 3   truck1   Select Pack Name   Case   Carton Per Case   20   24   0   0   Case Settings   Input Settings   Save/Calc   Product Name/Product Code		
Input Settings     Imput Setti	Uesign - [c:\cape216\private\widget1.clf]	
Carton Case   Absection Absection   Carton Case   Absection Absection   Carton Case   Carton Per Case Color   Case Settings Case Settings   Input Settings Save/Calc.   Product Name/Product Code Case	<u>File</u> Programs <u>Make a new Shape</u> Input <u>D</u> atabases <u>T</u> ools <u>B</u> undle <u>C</u> o	olors Add Graphics <u>I</u> nternet <u>H</u> elp
Carton       Case       48x40       Pallet 2       Pallet 3       truck1         Select Pack Type       Number of Material Thicknesses       Select Pack Name       Case          RSC (2.2.4)        2       L       x       2       W       x       4       H         Case       2       L       x       2       W       x       4       H       Case       Case           Select Partition Type       None        80.0000       1.2500       0       0       0       0         Carton Per Case       20       24       0       0       0       0       0         Case Settings       Case Settings       Case Settings       Save/Calc.            Product Name/Product Code        Product Code	🔚 D 🗁 🖶 🗏 🎒 16 🖻 🔟 🗗 🐕 🖓 🕺 🍎 🖓	8 ??
Select Pack Type       Number of Material Thicknesses       Select Pack Name         RSC (2,2,4)       2       2       W       X       4       H         Case       2       L       X       2       W       X       4       H         Case       0       0       0       1.2500       1.2500         Select Partition Type       None       2       0       0       0       0         Carton Per Case       20       24       0       0       0       0         Carton Per Case       20       24       0       0       0       0         Case Settings       Case Settings       Case Settings       Case Settings       Case Settings       Save/Calc.         Product Name/Product Code       Product Code       Product Code       Product Code       Product Code	Carton Case 48x40 Pall	let 2 Pallet 3 truck1
Select Pack Type       Number of Material Thicknesses       Select Pack Name         RSC (2.2.4)       2       2       W       X       4       H         Case       Thickness       LB/MSF       Glue Flap       Glue Flap       Glue Flap       Glue Flap         0.1530       80.0000       1.2500       Select Partition Type       None       Glue Flap       Glue Flap         None       Carton Per Case       20       24       0       0       0       0         Enter Max Case Weight       S0.0000       Case Settings       Gase Settings       Gase Settings       Gase Settings         Input Settings       Save/Calc.       Product Name/Product Code       Enter Max Product Code       Enter Max Case Settings	· · · · · · · · · · · · · · · · · · ·	
RSC (2.2.4)    2 L   X 2   W X   A H   Case -   None   Carton Per Case   20 24   0 0   0   Carton Per Case   20   24   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0 <	Select Pack Type Number of Material Thi	icknesses Select Pack Name
Thickness LB/MSF   Glue Flap   0.1530   Select Partition Type   None   Carton Per Case   20   20   20   20   20   20   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   <	RSC (2,2,4) 🔹 2 L x 2 W	x 4 H Case
0.1530       80.0000       1.2500         Select Partition Type       None          Carton Per Case       20       24       0       0       0       0         Enter Max Case Weight       50.0000	Thickness LB/MSF	Glue Flap
Select Partition Type   None   Carton Per Case   20   24   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0 <tr< td=""><td>0.1530 💌 80.0000</td><td>0 1.2500</td></tr<>	0.1530 💌 80.0000	0 1.2500
None   Carton Per Case   20   21   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0  <	Select Partition Type	
Carton Per Case 20 24 0 0 0 0   Enter Max Case Weight   50.0000     Case Settings     Input Settings Save/Calc.     Product Name/Product Code	None	
Carton Per Case       20       24       0       0       0       0       0       0         Enter Max Case Weight       50.0000       Case Settings       Case Settings       Input Settings       Save/Calc.       Input Settings       Save/Calc.       Input Settings       Input S		
Enter Max Case Weight 50.0000 Case Settings Input Settings Save/Calc. Product Name/Product Code	Carton Per Case 20 24 0 0	
Input Settings     Save/Calc.	Enter Max Case Weight	
Case Settings       Input Settings       Save/Calc.	50 0000	
Case Settings       Input Settings       Save/Calc.   Product Name/Product Code		
Case Settings       Input Settings       Save/Calc.   Product Name/Product Code		
Input Settings Save/Calc.  Product Name/Product Code	Case Settings	
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Product Name/Product Code		1
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Case (in/lb) 3:23 PM CAPS NUM	Case	(in/lb) 3:23 PM CAPS NUM

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Carton Case	48×40 Pallet 2	Pallet 3 Truck1
Select Pa	llet Base Style	
48x40.pa4 48x40 US G	MA 4-Way Pallet 🔹	
Pallet	Dimensions	
Length Width	Height Weight	
		Additional Palletizing Input
Enter Maximur	n Load Dimensions	Select Pallet Pattern Styles Screen
Overhang/Underhang	Max. Load	· · · · · · · · · · · · · · · · · · ·
Length Width	Max.Height Max.Weight	Pallet Base Style Directory
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Input Settings	Product Name/Product Code	Save/Calc.
48×40		(in/lb) 3:23 PM CAPS NUM
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TRUCK1 PA4 40 ft long -	Truck Style	
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Length W 476.0000 92.000	idth Height 0 102.0000	
Weight         Max.\           7000.0000         450	Weight Max.Height	
		Truck Style Directory
		Select Loading Patterns
		▼ Simple
		🗵 Complex
		Partial Top Layer Permitted
Input Settings	Product Name/Product Code	Save/Calc.

# Saving Data

You have now entered all the information Cape Pack needs to calculate solutions. Every other piece of information stays the same as in the Arrange analysis. All we are doing is varying the size of the carton within all of our specified parameters.

Choose **Save Input Data and Calculate** from the **File** menu, or click on the **Save/Calc.** button on any of the input screens.

The program automatically begins calculating solutions. When it is finished, you will see the Multi-Viewer Graphics screen.

# **Evaluating Results**

The program has calculated a variety of solutions. It is displaying the solution with the simplest pattern and the most primary packages per load.



You see diagrams of the primary package (bottom right), the secondary pack (bottom middle), the layer on a pallet (bottom left) and a corner view of the pallet load. You need to view your solution information so you can decide on the best pallet load.

Click on the **Solution Report** button which will display the Thumbnail report. This report shows you the different pallet patterns for the first solution in the list.

O Thumbnails Solution Report	t - Pallet #1 (1 of 80)			<b>—</b>
Column				
Spiral Die				
← →	Open	Solution Report	Packaging Report	Close
SP/Load=49 Layers=7 #/Lay	yers=7 Area Eff.=95.78'	%	3:2	4 PM CAPS NUM

Then the Solution Report button on the Thumbnail report.

rile Edit Thumbnails Options Help												
Sol.	Carton		PP (OD)		. #/	# of	# Per	# Per		SP (ID)		E
NO.	Arrangement	Length	Width	Height	Layer	Layers	Case	Load	Length	Width	Height	13
1	8W-3L-1H	4.25	2.44	5.55*	7	7	24	1176	19.6	12.9	5.6*	
2	8W-3L-1H	4.19	2.44	5.63*	7	7	24	1176	19.6	12.7	5.6*	
3	8₩-3L-1H	4.25	2.38	5.70*	7	7	24	1176	19.1	12.9	5.7*	
4	8₩-3L-1H	4.13	2.44	5.72*	7	7	24	1176	19.6	12.5	5.7*	
5	5L-4W-1H	3.88	2.69	5.52*	8	7	20	1120	19.5	10.9	5.5*	
6	5L-4W-1H	3.75	2.75	5.58*	8	7	20	1120	18.9	11.1	5.6*	
7	5L-4W-1H	3.81	2.69	5.61*	8	7	20	1120	19.2	10.9	5.6*	
8	5L-4W-1H	3.88	2.63	5.65*	8	7	20	1120	19.5	10.6	5.7*	
9	5L-4W-1H	4.25	2.38	5.70*	8	7	20	1120	21.4	9.6	5.7*	
10	5L-4W-1H	3.75	2.69	5.71*	8	7	20	1120	18.9	10.9	5.7*	

If you check the Solution Report you will find that this solution achieves 1176 cartons per load, compared to the 960 cartons per load found in the Arrange Tutorial.

The new carton size has changed marginally, from  $4.00 \ge 2.5 \ge 5.75$  inches to  $4.25 \ge 2.4375 \ge 5.5505$  inches. A very small size change to achieve an extra 216 cartons (or +22.5%) per pallet.

## **Reviewing Graphics**

You are very pleased with the outcome shown in solution #1 but you might want to look at other solutions and patterns.

Click on the right arrow button  $(\rightarrow)$  on the icon bar. This brings up the next solution in the list.

Click on the left arrow button ( $\leftarrow$ ). This brings up the previous solution in the list.

Click on the **Jump to a Solution** arrow button. Enter a particular solution number, and click on **OK**. That solution number appears. If a particular arrow button is grayed out, you are at the first or last solution in the list. Click on the opposite button or the **Jump to a Solution** button to switch solutions.

#### Viewing other Pallet Patterns

In the Design Group program, each new case size can be palletized using different patterns, providing you selected more than one pallet pattern type on the first pallet tab.

Click on the up arrow button ( $\uparrow$ ). This brings up the next pattern in the list. Click on the down arrow button ( $\downarrow$ ). This brings up the previous pattern in the list.

You can run the case size through the **RePalletize** feature under the **Tools** menu. This is easy with Cape Pack because you do not have to remember all the dimensions and specifications. For more information, see the *Other Arrange Group Features* file in the Documentation folder on your Application CD.

# **Comparing Statistics**

After reviewing some of the graphics solutions, you decide you want to compare the actual statistics. You find it is hard to remember all the data when switching between solutions.

Click on the Solution Report button.

ile Edit Thumbnails Options Help												
Sol. No.	Carton Arrangement	Length	PP (OD) Width	Height	#/ Layer	# of Layers	# Per Case	# Per Load	Length	SP (ID) Width	Height	F Tj
1	8W-3L-1H	4.25	2.44	5.55*	7	7	24	1176	19.6	12.9	5.6*	
2	8₩-3L-1H	4.19	2.44	5.63*	7	7	24	1176	19.6	12.7	5.6*	
3	8₩-3L-1H	4.25	2.38	5.70*	7	7	24	1176	19.1	12.9	5.7*	
- 4	8₩-3L-1H	4.13	2.44	5.72*	7	7	24	1176	19.6	12.5	5.7*	
5	5L-4W-1H	3.88	2.69	5.52*	8	7	20	1120	19.5	10.9	5.5*	
6	5L-4W-1H	3.75	2.75	5.58*	8	7	20	1120	18.9	11.1	5.6*	
- 7	5L-4W-1H	3.81	2.69	5.61*	8	7	20	1120	19.2	10.9	5.6*	
8	5L-4W-1H	3.88	2.63	5.65*	8	7	20	1120	19.5	10.6	5.7*	
9	5L-4W-1H	4.25	2.38	5.70*	8	7	20	1120	21.4	9.6	5.7*	
10	5L-4W-1H	3.75	2.69	5.71*	8	7	20	1120	18.9	10.9	5.7*	

The solutions are listed in descending order of number of primary packages per load. You see in the list that the top solution contains 1176 cartons per load. You could scroll through the list evaluating the different primary package configurations within the secondary package, as well as the size of the secondary package. However, you are only really interested in Solution #1 with its extra 216 cartons per load.

The on-screen Solution Report has two columns which show the number of items per layer and number of layers on the pallet. Due to space constraints, these two columns are not shown in the printed Solution Report.

After evaluating the statistical data you see that solution #1 shows the least amount of size change for the primary package. The following table outlines the differences.

	Before	After	Difference
Primary (L)	4.00	4.25	+.25
Primary (W)	2.5	2.4375	0625
Primary (H)	5.75	5.5505	1995

After outlining the differences and seeing that the pattern is an interlocking style, which is what you have been using, you decide to draw up a preliminary proposal. You want to print the statistics and a graphical representation of the primary package and the pallet load.

# Sharing Data

All of the same printing, exporting, and uploading options that were available in the Arrange Group are also available in the Design Group.

# Folding Carton Arrange (FCA) Programs

# Folded Carton Arrangement (FCA) Programs

There are two Folding Carton Arrangement programs in the Arrange Group of programs. Each of these programs is designed to alternate either individual collapsed cartons or bundles of collapsed cartons, then place them into the case, then onto a pallet and into a truck. The philosophy behind this program is that often our folded cartons do not lay flat, but will have one end thicker than the other. For example, a standard carrier may have 2 thicknesses of paperboard on the handle end and 6 or more thicknesses on the bottom end of the carrier. So to maximize the space in the carton, the program alternates, or flips them in the case, just as the manufacturer would in real life. The diagram on the input screen shows a standard tuck-top box, but any folded carton style could be entered. However, the picture on the screen will be rectangular when calculated.

There are two modules for new case sizes and three modules for existing case sizes. These are the options.

- New Cases Sizes, Nested Cartons in Bundles: This program will develop new cases sizes for you by examining your bundle count range, and alternating every other carton in the bundle. So instead of having a bundle with one end larger than the other, your bundle size will be an even thickness. The program then takes these bundles and loads them into case configurations in a row/column pattern based on the maximum size you have allowed for your case. Then it palletizes your cases for you. The best solution will be the bundle count and case size that gets the most cartons on the pallet load.
- New Cases Sizes, Nested Bundles in Cases: This program will develop new cases sizes for you by examining your bundle count range, creating bundles of each count, and then alternating every other bundle in the case. So if your bundle has 2 different thicknesses, one end of the bundle will be larger than the other and all cartons will be facing the same direction. The program loads the bundles in the case, alternating each bundle, in a row/column pattern based on the maximum size you have allowed for your case. Then it palletizes your cases for you. The best solution will be the bundle count and case size that gets the most cartons on the pallet load.
- Fixed Case Sizes, Nested Cartons in Bundles (All Patterns): This program uses the Casefill procedure of filling cases in a current database, using all the pattern types available. It still creates bundles of alternated cartons, but then arranges those bundles in Column, Interlock, Trilock, Spiral, Diagonal and Expanded Spiral patterns within existing cases to see if there is a case that will work. The program palletizes the cases that are acceptable solutions.
- Fixed Case Sizes, Nested Cartons in Bundles (Row/Column): This program uses the Casefill procedure of filling cases in a current database, but uses only Row/Column bundle arrangements. It creates bundles of alternated cartons, and then arranges those bundles in existing cases in the Row/Column pattern. The program palletizes the cases that are acceptable solutions.
- Fixed Cases Sizes, Nested Bundles in Cases (Row/Column) : This program uses the Casefill procedure of filling cases in a current database, but uses only Row/Column bundle arrangements. It creates bundles of cartons, all facing the same direction in a bundle, and then arranges those bundles in existing cases in the Row/Column pattern. The program palletizes the cases that are acceptable solutions.

Provided in this chapter will be a tutorial for the New Case Sizes, Nested Bundles in Cases and also the Fixed Case Sizes, Nested Bundles in Cases (Row/Column). The other programs are similar in nature and only the calculation of the bundle size will vary.

# **New Case Sizes**

The first analysis we are going to run is going to help us find a new case size for our cartons. We want the program to build bundles of 20-25 cartons and then alternate every other bundle within the case.

From the Folding Carton Arrange Group, select the module you want to run, the case type you want to use and then turn pallets and trucks both on. Click on **Go** to launch the program.



Or you can launch the program from the Programs menu.

Welco	ome to Cape Pack 16.0 (Cape Ad	vanced) - [Front	Menu]				
: <u>P</u> r	ograms Create ShortCuts <u>M</u> a	ake a new Shape	<u>D</u> atabases	Resolutions	Internet	Pu <u>b</u> lisher	<u>H</u> elp
:	Pallet Group	• §	)				
al	Display Pallet (Club-store)	) er a	nd/or loa	d a truck	d		
	Arrange Group	→ ['''	,				
	Design Group	• • •		<b></b>			
	Casefill Group	→ [			-	v	-
	KDF Group						0
	Folding Carton Arrange (FCA	) 🔸	New Case Size	es 🕨	Nester	d Cartons in	Bundles
	Other Programs	•	Fixed Case Siz	es ▶	Nester	d Bundles in	Cases
	Wizard	· · · ·	-				· · · · · · · · · · · · · · · · · · ·
rr	ReArrange Program groups	cka	ging for a	new or	existing	produc	t and palletize

The screen will load with default settings and look like the following.

Eile Programs       Make a new Shape       Input       Databases       Icols       Colors       Add Graphics       Internet       Help         Image: Carton       Image	ss 2 1250 it 0025
Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       48x40       Pallet 2       Pallet 3       53footer         Image: Carton       Case       Fillet 3       Fillet 3       53footer       0.1         Image: Carton       Case       Fillet 3       Fillet 3 <td>s 2 1250 It 0025</td>	s 2 1250 It 0025
Carton     Case     48x40     Pallet 2     Pallet 3     53footer       Enter FCA OD's     Length     Width     Thickness 1     Thickness 1       Fluff Factor     0%÷     0.0	ss 2 1250 11 0025
Length     Width     Thickness 1     Thickness 1       Enter FCA OD's     7.0000     4.0000     0.0625     0.1       Fluff Factor     Weigh     0% -     0.1	s 2 1250 It 0025
Length     Width     Thickness 1     Thickness 1       Enter FCA OD's     7.0000     4.0000     0.0625     0.1       Fluff Factor     Fluff Factor     Weigh       0%     0.1	ss 2 1250 It 0025
Enter FCA OD's         7.0000         4.0000         0.0625         0.           Fluff Factor         Weigh         0%÷         0.	1250 1t 0025
Fluff FactorWeigh0%0.	nt 0025
	0025
Bundle Counts	
Thickness 2	
	<b>m</b>
Set Pack Dim Vertical	
Insuit Settings Product Name/Product Code Save/Calc	
Carton (in/lb) 9:48 AM CAPS N	IUM

For our flat carton dimensions, we will enter the dimensions of the unit flat – not as it would be when erect. Length will always be the longer of Length and Width. Enter **10.25** for the *Length* and **6.875** for the *Width*.

For the *Thickness* fields, if your carton is symmetrical, enter the same thickness for both fields. If your carton is asymmetrical, enter the thickness of one end in the first field and the other end in the second field. When calculating, the program will alternate the bundles to minimize space required. So for example, if you have thicknesses of 3" and 5", the total thickness for 2 bundles on each end would be 8": 3" from the first bundle and 5" from the second. Enter **.10** for *Thickness 1* and **.25** for *Thickness 2*.

*Fluff* factor is added in after bundle size is determined and is expressed as a total percentage. Enter **3**%.

Enter the weight of 1 flat carton in the *Weight* field. You can right-click on this field for an ounce to decimal conversion.

Weight								
	0 0025							
	Convert Weight	+						
	1/4 oz	- +						
	2 oz	- +						
	3 oz	- +						
	4 oz	+						
	5 oz	•						
	б oz	•						
_	7 oz							
	8 oz							
	9 oz	•						
	10 oz	•						
- 10	11 oz	•						
ve/C	12 oz	•						
	13 oz	•						
	14 oz	•						
	15 oz	•						

Select ³/₄ ounces from the list. A weight of **.0469** will appear in the field.

*Bundle Counts* can be entered as a range or a specific count. You must enter at least 1 for the minimum bundle count. Enter **20** for the minimum and **25** for the maximum.

Enter the dimension vertical as you would like the cartons loaded into the case. The default above shows the cartons being loaded on their folded edge into the case. The normal dimension will be **Width** and that is what we will select for this analysis.

Your input screen should look like this.

Folding Carton (New Case Size/Nested	Bundles in Cases) - [c:\cape21	5\private\fca-new.clf]		
File Programs Make a new Shape In	put <u>D</u> atabases <u>L</u> ools <u>C</u> ol	ors Add Graphics In	ternet <u>H</u> elp	
	-0 *2 *2 ??   48x40	Pallet 2	Pallet 3	53footer
Enter FCA OD's	Length 10.25	Width 6.875	Thickness 1 .1	Thickness 2 .25
			Fluff Factor	Weight 0.0469
Thickness 2 Thickness 1 Langth	Bundle Counts - Min 20 -	Max 25 ÷		
Set Pack Dim Vertical		×		
Input Settings	Product Name	e/Product Code	s	ave/Calc.
Carton			(in/lb) 9:54 Al	M CAPS NUM

For your Case tab, you can use specific counts for your boxes as shown below, or enter a minimum and maximum quantity per box. Either way, the program will calculate quantities in your bundle count groups.

We will use individual counts, so right-on your screen, and select **SP Count T**ype and then **8X Single Counts**.

	1			Fluff Fac	tor	
✓	Objects onto Pallet Objects onto Pallet into Truck			0	% <u>*</u>	
•	Objects into Truck 1 x Pallet 2 x Pallet					
	3 x Pallet Enable Floor loading					~
	Input Settings					
	Bundle Count Type	- ►				_
	SP Count Type	•	✓	Min/Max Cou	int	l
	Pack Names		_	8 x Single Cou	int	
1	Material Thicknesses		Г		Save	e/(
	Print Input Data Print Preview					
-	Fraction Table		F	(in/lb)	11:42 AM	6

The following screen opens. The Case tab is the same for all the Arrange and Design Group programs, including Folding Carton Arrange.

6							
Folding Carton (New Case Size/Nested)	Bundles in Cases) -	[Data Input]					• ×
<u>F</u> ile <u>P</u> rograms <u>M</u> ake a new Shape <u>I</u> r	nput <u>D</u> atabases <u>T</u>	ools <u>C</u> olors	Add Graphics	<u>I</u> nternet <u>H</u> elp			
🔚 🗅 🗁 🖬 🖩 🖨 🕨 🗎 🔟	🛯 🏂 🧏 ??						
Carton Case	48x40	ΓP	allet 2	Pallet 3	Ì	53footer	
	,						
Select Pack Type	Number	of Material	Thicknesse	s Sel	ect Pack Na	ime	
RSC (2,2,4)	2 L	<b>x</b> 2	w x	4 H Cas	e .		-
	Thickness	LB/MS	- Glue	e Flap			
	0.1600 💌	112.0	000	0.0000			
Select Partition Type							
None							
				,			
Carton Per Case	0 0	0	0 0		0 0		
Enter Max Case Weight						~	
50.0000							_
						/	
	Case	Settings				ſ	
Input Settings	Sav	e/Calc.					
	·			(			
Product Name	e/Product Code						
				(in 10-)	0.50 414		NU IN A
Lase				(in/ib)	9:50 AM	LAPS	NUM

We will allow for our cartons to stack 2-high in the case if the case size is more efficient, but we want them protected. So from the *Select Partition Type* list, select **Divides Height** as a partition type.

Select **125 E Flute** from the *Caliper* list for this partition.

Enter 200 in the first *Case Count* block, 240 in the second and 300 in the third.

Finally, in the Enter Max Case Weight field, enter 35. Your screen should look like the following.

Folding Carton Folding Carton	n (New Case Size/Nest	ed Bundles in Cases) - [	[Data Input]					
<u>File</u> Programs	Make a new Shape	Input Databases I	ools <u>C</u> olors Add Grap	hics <u>I</u> nternet	<u>H</u> elp			
🔤 🗆 🗁 📕	📕 🎒 🔓 🗎 🔟	변 월 잘 ??						
Carton	Case	48×40	Pallet 2	Pal	let 3	Į.	53footer	
Select Pack	Туре	Number	of Material Thickne	sses	Select F	ack Na	me	
RSC (2,2,4)	-	2 L	x <u>2</u> W x	4 H	Case			
		Thickness	LB/MSF	Glue Flap				
		0.1600 💌	112.0000	0.0000				
Select Parti	tion Type	Thickness	LB/MSE					
Divides He	iaht 🔻	0.0630	80.0000					
Divides rie			00.000					
Carton Per (	Case	200 240	300 0	0 0	0	0		
Entor May C	aco Wojaht							
	ase #eigin 35							
L	55							
		Case	Settings			_	_	$\sim$
							and the second s	
Inn	it Settings	Save	a/Calc					
	acoctango		sy oure.					
mpi								
	Product Nan	ne/Product Code						
	Product Nan	ne/Product Code						

Click on the **Case Settings** button in the center of the screen.

Change your maximum case dimensions to 30 x 24 x 16.

We will not need slack because we have allowed for fluff.

Case Settings			×					
	Length	Width	Height					
Min (OD)	0.0000	0.0000	0.0000					
Max (OD)	30	24.0000	16					
Bulge in	0.0000	0.0000	0.0000					
Slack in	0.0000	0.0000	0.0000					
Dims. Vertical on Pallet			×					
Fix case size to max s	ize							
Center Primary Pack in Secondary Pack								
	Cancel							

Click **OK** to close this screen.

Click on the pallet tab labeled **48x40**.

Change your maximum height to **52**. Your screen should look like this.

Eolding Carton (New C	ase Size/Nested Bun	dles in Cases)	- [Data Input]				
File Programs Make a	new Shape Input	<u>D</u> atabases	Tools Colors	Add Graphics	Internet He	lp	
🔚 D 🗁 🖬 🗟 🎒	вс 🗈 🔲 🕦	x x ??					
Carton	Case	48x40	P	allet 2	Pallet	3	53footer
		-	L				
	Select Palle	t Base Styl	e				
48x40.pa4	48x40 US GM	A 4-Way Pa	allet	-		_	
	Pallet Di	mensions					
Length	Width	Height	We	nght			
48.0000	40.0000	5.5000	50.000	<b>U</b>			
					Ac	lditional Palletiz	ing Input
E	nter Maximum L	.oad Dimen	sions		·		
Overhang/U	Inderhang		Max Load		Select	Pallet Pattern S	tyles Screen
					D	II-1 D 01 I - I	Diversity
Length	Width	Max.Heig	jht Max.V	Veight	Pa	liet Base Style i	Directory
0.0000	0.0000	92	20	00.0000		Pallot Thumb	aailo
						Fallet Humpi	
Input Sotti		Dri	oduct Namo/Pr	oduct Code		Sev	
			Jaactivameyi i				syourc.
Enter maximum Load H	eight				(in/lb]	) 9:52 AM	CAPS NUM
					1	1	1

Click on the tab labeled **53Footer**.

Change your maximum load weight to **55000**. Your screen should look like this.

Folding Carton (New Case Size/Nested )	Bundles in Cases) - [[	Data Input]	Add Graphics	Internet Help	
🛨 D 🕞 🔲 🖩 📣 🗞 🖻 🖬 🕻	h ><_ >* <b>??</b>		Add oraphics	Turemer Tielb	
Carton Case	48×40	ÌΡ	allet 2	Pallet 3	53footer
Select	Truck Style				
53footer.pa4 53-Footer	Fruck		-		
Truck Inter           Length         V           636.0000         96.00           Weight         Max           10000.0000         55	nal Dimensions Vidth 00 .Weight i000.0000	Heig 102.000 Max.H 10	ght D eight 2.0000	Tr	uck Style Directory
				Selec	ct Loading Patterns
				× Simple	
				× Complex	
				Partial To	op Layer Permitted
Input Settings	Prod	uct Name/Pr	oduct Code		Save/Calc.
53footer				(in/lb)	9:52 AM CAPS NUM

Click on the **Product Name/Product Code** button and enter identifying formation for your analysis.

Date of Analysis	
9/17/2016	OK
Product Name	Cancel
Folding Carton Example	
Product Code	
2016-0293	

Click on Save/Calc and enter a file name. Your results will calculate and will be displayed in Multi-Viewer Graphics.



The program has calculated 13 solutions for you with 2 different bundle counts and various case counts. The first one showing is the solution where you will get the most cartons per load. The new case sizes allow for your bundles to be alternated and also allow for fluff in the case.

You can scroll to different case sizes using the left and right arrows in the tool bar, and then different pallet patterns for that case using the up and down arrows in the tool bar. Here is solution number 2, with the second pallet pattern option.



The case count for the case size and the pallet pattern both get the same 5400 per load. However this case uses bundles of 25 arranged with the width vertical in the length of the case, and the other uses bundles of 20 with the length vertical in the length of the case. Solution number 2 is probably a better solution to prevent product damage.

All the same graphic and reporting options are available in this program as in the rest of Cape Pack.

# Fixed Case Sizes

The second option we will look at is for Fixed Case Sizes, with the same alternated bundle pattern. Click on the **Programs** menu, Folding Carton Arrange (FCA), Fixed Case Sizes, Nested Bundles in Cases (Row/Column).

:	Programs (	Create ShortCuts	<u>M</u> ake a new S	hape	<u>D</u> atabases	Resolutions	<u>I</u> nternet	Pu <u>b</u> lisher	<u>H</u> elp	
	Pallet G	iroup	۲.	0						
al	Display	Pallet (Club-store	) 🕨	er a	nd/or loa	id a truck	۱			
-	Arrange	e Group	•	., -			,			
	Design	Group	+	,	- A	3		<u> </u>		
	Casefill	Group	•	1				v	-	
	KDF Gro	oup	<u>+</u>						0	
	Folding	Carton Arrange (	FCA)	1	New Case Size	es 🔸			-Truck?	
- 24	Other P	rograms	•	F	Fixed Case Siz	es 🕨	Neste	d Cartons in	n Bundles (All Pattern	s)
24	Wizard		•		<u>i</u>		Neste	d Cartons in	Bundles (Row/Colu	mn)
rr	ReArran	nge Program grou	ps	ckag	ging for a	a new or	Neste	d Bundles ir	n Cases (Row/Colum	n)

The following screen will appear.

File Programs Make a new Shape Input Databases Tools Colors Add Graphics Internet Help   Image: State of the state of	Solding Carton (Fixed Case Size/Nested Bu	indles in Cases) - [Data Inpi	ut]		
Carton Fill Restrictions     Enter FCA OD's     Length   7.000   4.0000     Thickness 1   0%:     Thickness 2   0%:   Thickness 2   0%:   Thickness 2   0%:   Thickness 2   0%:     Thickness 2   0%:     Thickness 2   0%:     Thickness 2   0%:     Thickness 2   0%:     Thickness 2   0%:     Thickness 2   0%:     Thickness 2   0%:     Thickness 2     Thickness 2   0%:     Thickness 2   0%:     Thickness 2     Thickness 2     Thickness 2     Thickness 2     Thickness 2     Thickness 2     Thickness 2  <	File Programs Make a new Shape Input	Databases Tools Co	lors Add Graphics Int	ernet Help	
Carton       Fill Restrictions       48x40       53tooter         Enter FCA OD's       Length       Width       Thickness 1       Thickness 2         Image: Thickness 2       0.0625       0.1250       0.0025         Fulf Factor       Weight       0.0025         Image: Thickness 1       Min       Max       25:       25:         Image: Thickness 1       Min       Set Pack Dim Vertical       Image: Thickness       Image: Thickness         Input Settings       Product Name/Product Code       Save/Calc.       Save/Calc.	🔙 🗅 🗁 🖬 🗟 🎒 🏷 🗎 🔟 🖓	🍇 🧏 📰 ??			
Length       Width       Thickness 1       Thickness 2         Image: Thickness 2       0.0625       0.1250         Image: Thickness 2       0.0025         Image: Thickness 1       Image: Thickness 2         Image: Thickness 2       Image: Thickness 2         Image: Thickness 2       Image: Thickness 2         Image: Thickness 1       Image: Thickness 2         Image: Thickness 2       Image: Thickn	Carton Fill Re	strictions	48×40	53footer	
Length       Width       Thickness 1       Thickness 2         7.0000       4.0000       0.625       0.1250         Fluff Factor       Weight       0.0025         0%:       0.0025         Hin Slack in ID       Min Slack in ID         Set Pack Dim Vertical       Imput Settings       Product Name/Product Code       Save/Calc.         Carton       (in/lb)       9.56 AM       CAPS       NUM	,				
Enter FCA OD's       7.0000       4.0000       0.0625       0.1250         Fluff Factor       Weight         0%:       0%:       0.0025         Hin       Max       25:       25:         Min Slack in ID       Min Slack in ID       Set Pack Dim Vertical         Input Settings       Product Name/Product Code       Save/Calc.         Carton       (in/lb)       9.56 AM       CAPS		Length	Width	Thickness 1	Thickness 2
Fluff Factor       Weight         0%:       0.0025         Bundle Counts       Min         25:       25:         Min Slack in ID       Image: Count of the second of the sec	Enter FCA OD's	7.0000	4.0000	0.0625	0.1250
Image: Content of the set of the se				Fluff Factor	Weight
Bundle Counts   Min   25   25     Min Slack in ID     Set Pack Dim Vertical     Input Settings   Product Name/Product Code     Save/Calc.     Carton     (in/lb)     9.56 AM     Carton				0%-	0.0025
Bundle Counts Min 25: 25: Min Slack in ID Set Pack Dim Vertical Input Settings Product Name/Product Code Save/Calc. (in/lb) 9.56 AM CAPS NUM				<u>·</u>	
Min       Max         25       25         Min Slack in ID         Min Slack in ID         Set Pack Dim Vertical         Input Settings         Product Name/Product Code         Save/Calc.		-Bundle Counts			
25÷       25÷         Min Slack in ID         Set Pack Dim Vertical         Input Settings         Product Name/Product Code         Save/Calc.	Thickness 2 →	Min	Max		
Image: Set Pack Dim Vertical       Image: Set Pack Dim Vertical         Input Settings       Product Name/Product Code       Save/Calc.         Carton       (in/lb)       9.56 AM       CAPS       NUM		25 ÷	25 ÷		
Image: Carton       Min Slack in ID         Min Slack in ID       Image: Carton         Min Slack in ID       Image: Carton	Part Part Part Part Part Part Part Part				
Image: Set Pack Dim Vertical       Image: Set Pack Dim Vertical         Input Settings       Product Name/Product Code       Save/Calc.         Carton       (in/lb)       9.56 AM       CAPS       NUM		No. Ol			
Set Pack Dim Vertical Input Settings Product Name/Product Code Save/Calc. Carton (in/lb) 9.56 AM CAPS NUM	Thickness 1	Min Sia	ack in ID		
Set Pack Dim Vertical	← Length →				
Set Pack Dim Vertical     Image: Carton         Set Pack Dim Vertical     Save/Calc.         Input Settings     Product Name/Product Code     Save/Calc.         Carton     (in/lb)     9:56 AM     CAPS     NUM					
Input Settings     Product Name/Product Code     Save/Calc.       Carton     (in/lb)     9:56 AM     CAPS     NUM	Set Pack Dim Vertical		x		
Input Settings         Product Name/Product Code         Save/Calc.           Carton         (in/lb)         9:56 AM         CAPS         NUM					
Carton (in/lb) 9:56 AM CAPS NUM	Input Settings	Product Nan	ne/Product Code	St	ave/Calc
Carton (in/lb) 9:56 AM CAPS NUM					
Carton (in/lb) 9:56 AM CAPS NUM					
Carton (in/lb) 9:56 AM CAPS NUM					
	Carton			(in/lb) 9:56 AM	1 CAPS NUM

This option calculates bundles in the same way as the New option, but for case sizing it uses the Casefill database of your existing cases and trays. You can review this database under the **Database** menu, **Database Utility**.

Fotal i	in Recordset = 2	20		1 of 20				
No.	Case Name	Pack Type	Rec.   No.	Length	Case (ID) Width	Height	Tray Wall Height	Ur
1	Std. RSC	Case	1	14.2500	8.7500	10.7500	-	in/l
2	End Loader	Case	2	14.2500	10.0000	6.0000	-	in/l
3	Case4	Case	3	15.0000	9.4000	5.6000	-	in/l
4	Case	Case	4	16.0000	12.0000	10.0000	-	in/l
5	Box	Case	5	19.8750	14.5000	12.8750	-	in/l
6	Shipper	Case	6	521.0000	369.0000	559.0000	-	mm
- 7	Case2	Case	7	23.0000	17.0000	11.0000	-	in/l
8	Case3	Case	8	23.0000	17.0000	7.0000	-	in/l
9	test	Case	9	16.5000	16.5000	16.5000	-	in/l
10	case	Case	10	16.0000	8.0000	8.0000	-	in/l
11	carton	Case	11	400.0000	300.0000	200.0000	-	mm
12	Eraser Box	Case	12	7.7500	4.1250	1.6250	-	in/l
13	case	Case	13	16.0000	12.0000	10.0000	-	in/l
14	case2	Case	14	15.5000	14.5000	13.5000	-	in/l
15	case3	Case	15	15.0000	14.0000	13.0000	-	in/l
16	case4	Case	16	10.0000	10.0000	10.0000	-	in/l
17		<b>C</b>	4.2	0 0000	0 0000	0 0000		:- <b>л</b>
Close		Delete	Edit	Add	Select Al	1		

The FCA tab info is the same as for the New Cases program except for the Min Slack in ID button.

Folding Carton (Fixed Case Size/Nested Bi	undles in Cases) - [/casefil	l.mdb]	ana da a Urala	
File Programs Make a new Snape Inpu	t Databases Tools C	olors Add Graphics Int	ernet <u>H</u> eip	
Carton Fill Re	strictions	48×40	53footer	
			I	
	Length	Width	Thickness 1	Thickness 2
Enter FCA OD's	7.0000	4.0000	0.0625	0.1250
			Fluff Factor	Weight
			0 % -	0.0025
	-Bundle Counts -			
Thickness 2	Min 25÷ Min S	Max 25÷		
Set Pack Dim Vertical	Г	×	Γ	
Input Settings	Product Na	me/Product Code	Sa	ave/Calc.
Carton			(in/lb) 9:58 AM	I CAPS NUM

Click on the button and you will see this data entry screen where you can enter required slack in any dimension of the case.

O SF	Slack Allowance	Secondary p	ack	
	Length 0.0000	Width 0.0000	Height 0.0000	
	OK	Ca	ncel	

Instead of the Case tab for creating new cases, we have the Fill Restrictions tab. This tab is for defining how you want the program to evaluate the cases in your database when filling them with your bundles of cartons.

We will use the same case counts as the New program and the same Maximum Weight.

Select the dimension vertical to the pallet you want to use. We will use **Height**, which is flaps up on the case and is general the loading default for cartons. Your tab should look like this.

Folding Carton (Fixed Case Size/	Nested Bundles in Cases) - [/ca	sefill.mdb]		
File Programs Make a new Shap	e <u>I</u> nput <u>D</u> atabases <u>T</u> ools	<u>C</u> olors Add Graphics	Internet <u>H</u> elp	
<u>,</u>		10.10	No.	
Carton	Fill Restrictions	48×40	531	looter
Enter Case Restrictions				
Maximum Case Weight	1			
50.00	DO			
Enter Primary Pack P	er Case Count Target —			
				Min. Fill Efficiency
Primary Packs per Ca	ise 200 2-	40 300 0 0	UU	
-Total Records in Date	abaco - 20 (casofill mdb			
	ibuse - zo (cuseini.inub	<i>'</i> )		
All Records	<u> </u>			
Calculating Using All	Records			
Casa Dimension Vertice	al on Dollat			
Case Dimension vertica				
Length	Width	× Heigh	t	
lunut Cattings				
input Settings	Product	t Name/Product Code		Save/Calc.
Fill Restrictions			(in/lb) 9:	58 AM CAPS NUM
			1	

Our pallet and truck tabs will also remain the same as the New program.

ile <u>P</u> rograms <u>M</u> ak	e a new Shape <u>I</u> np	it <u>D</u> atabases <u>T</u> ools <u>y</u>	<u>C</u> olors Add Graphics	Internet <u>H</u> el	p	
🔜 🗅 🗁 🖬 📑 i	🖨 ቴං 🖻 💻 🛯	🍇 🧏 🧱 🎌				
Carton	Fill R	estrictions	48×40		53footer	
	Select Pal	let Base Style				
48x40.pa4 48x40 US GMA 4-Way Pa			-		-	
	Pallot (	Impresions				
	ruiett	Jinensions				
Length	Width	Height	Weight			
48.0000	40.0000	5.5000 5.5000	0.0000			
	E . N .			Adı	ditional Palletizing Input	
	Enter Maximum	Load Dimensions		Select Pallet Pattern Styles Screen		
Overhang	J/Underhang	Max. Lo	ad			
Length	Width	Max.Height	Max.Weight	Pal	let Base Style Directory	
0.000	UU	52 2			Pallet Thumbnails	
Input S	ettings	Product Na	ame/Product Code		Save/Calc.	
ntor meximum Logo	Wojaht			(in/lb)		

O Folding Carton (Fixed	Case Size/Nested Bundles in Cases	s) - [/casefill.mdb]	
<u>File Programs</u> Make	a new Shape <u>I</u> nput <u>D</u> atabases	Lools Colors Add Graphics	Internet <u>H</u> elp
	y 10° 🖻 — 🗐 🖓 🖓 🔛 . Ú ⊡!! De steintings	<b>ff</b>	(F-2)
Canon	Fill Restrictions	40X40	53100ter
	Select Truck Style		
53footer.pa4	53-Footer Truck	•	
	Truck Internal Dimensio	ins	
Length	Width	Height	
636.0000	96.0000	102.0000	
Weight	Max.Weight	Max.Height	
10000.0000	55000.0000	102.0000	
			Truck Style Directory
			Select Loading Patterns
			🗵 Simple
			🗵 Complex
			Partial Top Layer Permitted
Input Setti	ings P	roduct Name/Product Code	Save/Calc.
E2factor			
53100ter			(III/ID) 3.30 AMI CAPS NOM

Click on **Save/Calc** and you if you are asked for a database, select one to use.

Enter a file name and calculate your solutions.

The Multi-Viewer Graphics will appear with your solutions.



The program displays the case in your database that achieves the most primary packages per load. Unlike the Casefill program, the Folding Carton program automatically calculates a pallet load for you with that case.

Sol. No	Rec.	Case Name	Longth	Bundle Width	Height	#/	tof Lavors	Bundle /	# Per Bundle	# Per	/ PP
1	10	Case	2011ga	4 00	3 13	15	Edyers 5	12	25	300	2250
2	10	case	7.00	4.00	3.13	15	5	12	25	300	2250
3	3	Case4	7.00	4.00	3.13	12	7	8	25	200	1680
4	1	Std. RSC	7.00	4.00	3.13	13	4	12	25	300	1560
5	1	Std. RSC	7.00	4.00	3.13	13	4	12	25	300	1560
6	10	case	7.00	4.00	3.13	15	5	8	25	200	1500
- 7	10	case	7.00	4.00	3.13	15	5	8	25	200	1500
8	2	End Loader	7.00	4.00	3.13	11	6	8	25	200	1320
9	16	case4	7.00	4.00	3.13	16	4	8	25	200	1280
10	4	Case	7.00	4.00	3.13	10	4	12	25	300	1200

Your solution report will list only those cases in your database that achieve your goals.

# Folding Carton Arrange

#### **Case Cube Utilization**

To see the amount of internal case space that was used for your cartons, look at the quick report for Case Cube. This works like pallet load cube efficiency, except that it deals with the available space in the shipper or case.



Because this program uses a database of existing case sizes and styles, it is important to know how efficiently those cases are being used. In this case the first solution is 85.4% cube efficient. Here is the second solution.


Compare the two results. The first solution is 85.4% cube efficient. The second solution has decreased to 76.9%.

# KDF Group – Knocked Down Flat Cartons

## Introduction

KDF stands for Knocked Down Flat. It refers to a flat-glued corrugated case. That is, a corrugated flatblank that has been folded and glued. These programs are provided for designers and estimators, in corrugated companies, to establish the best number of flat-glued cases (KDF's) per bundle, the optimum number of bundles onto a pallet or bale, and the maximum number of pallets into a truck.

There are four KDF programs:

- **Flatblank** to bundles of the KDF's on a pallet. You enter the size of the flatblank (corrugated sheet) and select a formula. The program automatically converts the flatblank to a KDF. You enter the min/max number of KDF's per bundle and the program creates the bundle size. You choose a pallet and truck type and the program does the rest.
- **Made-up Case** to bundles of the KDF's on a pallet. You enter the size of the Made-up Case (an erected corrugated case) and select a formula. The program automatically converts the Made-up Case dimensions back to a KDF. You enter the min/max number of KDF's per bundle and the program creates the bundle size. You choose a pallet and truck type and the program does the rest.
- **Bale FlatBlank** is the same basic program as Flatblank but it loads the KDFs into bales and then directly into trucks rather than using pallets.
- **Bale Made-up Case** is the same basic program as Made-up Case but it loads the KDFs into bales and then directly into trucks rather than using pallets.

## Starting the KDF Programs

On the Programs menu select KDF and the type of package you want to work with (i.e. Flatblank or Made-up Case.

/elcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]					
Programs Create ShortCuts	Make a new S	Shape	<u>D</u> atabases	Resolutions	Ī
Pallet Group	+	0			
Display Pallet (Club-store)	•	er a	nd/or loa	nd a truck	۱.–
Arrange Group	+	[ <b>1</b> , 0			
Design Group	+	•			
Casefill Group		1			_
KDF Group	•		Flatblank		1
Folding Carton Arrange (F	CA) ►		Made-up Cas	e	
Other Programs	+		Bale FlatBlank	c	
Wizard	+		Bale Made-up	o Case	
ReArrange Program group	)S	cka	ging for a	a new or e	exi

Or you can setup your Front Menu in Cape Pack to always show the KDF Group wherever you choose to have it appear.

Velcome to Cape Pack 16.0.1 (Cape Advanced) - [Front Menu]	
File Programs Create ShortCuts Make a new Shape Databases Resolutions Internet Publisher Help	
🖙 🎽 🎽 🏂 🌐 🎝 🧯 🖨 🤀 🕭 🗤 🌾 💿	
Pallet Group (Palletize your shipper, and/or load a truck)	
	Go
Type of Package     Pallet?       Case     Yes • No	٠
- KDF Group (Create Bundles of KDFs/Flat-glued cases and then build pallet loads) —	Go
Type of Package     Pallet?       Flatblank     Yes <ul> <li>No</li> <li>Yes              <li>No</li> <li>Yes              </li> </li></ul>	٠
Casefill Group (Choose the most efficient product fit, using existing box sizes)	
	Go
Type of Package       Box	
Select Programs Menu and then choose the program to run (in/lb) 10:06 AM CAP	PS NUM

Selecting this option from the Front Menu replaces the bottom section of the screen with a KDF section.

Whichever way you choose to start the KDF program you will arrive at the first input screen with your Default Settings already filled out.

😡 KDF - [Data Input]				
File Programs Make a	new Shape Input PID	Tools Colors Add Gra	phics Internet Help	
🥁 D 🗁 🖬 🗟 🎒	ኈ 🖻 🧰 🗣 ??			
Flatblank	48x40	224n21	224n21	53footer
	······································			
Flat Length	Flat Width	Flat Thickness	Flat Weight	
32.0000	19.5000	0.1250 💌	0.0020	
Select	Formula	Add/Edit	Formula	
Glue joint = 1"	•			
KDELssat			Bundle Counts	Deek Neme
KDF Length		KDF Height	Min Max	Pack Name
19.5000	15.5000	0.2500	20 - 25 -	
Bundle Length	Bundle Width	Bundle Height	Bundle Weight	
19.5000	15.5000	6.2500	0.0500	
Bundle Dimension V	'ertical On Pallet			
🗆 Length	□ Width	🕱 Height		
Product Name/	Product Code	Input Settings	Add Straps	Save/Calc.
·				
53footer			(in/lb)	10:06 AM CAPS NUM
			,	

These settings are previously loaded data input figures that have been saved as your Default Settings. So, in our analysis we can simply change the figures, to suit our product information, and then save our data to a new file name. That way the

Default Settings will remain unchanged and our new filename, containing all the data we use for this analysis, will be saved for future reference.

# **Modifying Formulas**

By clicking on the Add/Edit Formula button on the first input screen. Here is the screen in the Flatblank program.

🕒 For	mula - (FlatBlank)		<b>—</b> ×-		
no.	Formula Name	Close			
1	Glue joint = 1"				
2	Glue joint = 1.125"	Add			
3	Glue joint = 1.25"	Add			
4	Glue joint = 0''	1			
5	Glue joint = 1.375"	Edit			
6	Glue joint = 1.5"				
		Delete			
Flat	olank to KDF formula				
	Formula Name				
Glu	Glue joint = 1"				
1	₩= W × 1				
	H= Thickness 2 Update				
KDF Length = (L - 1) * 0.5 KDF Width = W * 1 KDF Height = Thickness * 2					

The formula is the length of the Flatblank multiplied by a number (usually less than 1), the width multiplied by a number (normally 1) and the height multiplied by the number of material thicknesses in the final KDF/Flat-Glued Case (normally 2 or 3).

Here is the screen in the **Made-up Case** program.

🕒 For	mula - (Madeup Case)	<b>—</b> ×			
no.	Formula Name	Close			
1	Allowance = .100				
2	Allowance = .125	Add			
3	Allowance = .150	Add			
4	Allowance = .175				
5	Allowance = .200	Edit			
		Delete			
Mad	le-up Case to KDF formula				
	Formula Name				
AII	Allowance = .100				
	L= L + V LA 0.1 + V + V WA 0.1 W= H + V HA 0.1 + V W + V WA 0.1				
H= Thickness T Update					
KDF Length = L + L Allowance + W + W Allowance KDF Width = H + H Allowance + W + W Allowance KDF Height = Thickness * 2					

This formula creates the length of the KDF/Flat-Glued case by adding the length of the Made-up case plus allowances to the width of the case plus allowances. The width of the KDF is generated from a combination of the height of the case plus allowances added to the width of the case plus any allowances. The height of the KDF is created by multiplying the material thickness of the corrugated material by the number of material thicknesses in the final KDF (usually 2 or 3).

The number of fields in the formulas is fixed. But you can vary content according to the case style, the material specification and the allowances you need to consider for each case/material type. And, you can add as many formulas as you need.

## **Editing Formulas**

Select the formula you want to change, in the list, and click on the Edit button. Make your changes and click on Update.

## Adding Formulas

Select the formula you want to change, in the list, and click on the Add button. Make your changes and click on Update.

# Running a Flatblank Analysis

In this analysis we will start with a specified size for a flatblank, select a formula and specify the min/max number of KDF's per bundle. We will choose a 48x40 GMA pallet and a 40 foot truck. We will then let the program determine the best number of KDF's per bundle, per pallet and per truck.

Using the methods described earlier, launch the KDF Flatblank program. You will see the first Input screen with the Default Settings already filled out.

🕓 KDF - [Data Input]				
File Programs Make a	new Shape Input PID	Tools Colors Add Gra	phics Internet Help	
🔚 🗅 🗁 🖬 🗟 🎒	ኈ 🖻 🔟 🗗 ??			
Flatblank	48x40	224n21	224n21	53footer
Flat Length	Flat Width	Flat Thickness	Flat Weight	
32,0000	19,5000	0.1250 💌	0.0020	
Select F	ormula			
Glue joint = 1"	•	Add/Edit	Formula	
				<b>*</b>
KDELongth		KDE Hojaht	Bundle Counts	Dack Namo
KDF Lengu		KDF Height	Min Max	
19.5000	15.5000	0.2500	20 - 25 -	
Bundle Length	Bundle Width	Bundle Height	Bundle Weight	
19.5000	15.5000	6.2500	0.0500	
- Bundle Dimension Ve	ertical On Pallet			
🗆 Length	Width	× Height		
		,		
		1		
Product Name/F	Product Code	Input Settings	Add Straps	Save/Calc.
53footer			(in/lb)	10:07 AM CAPS NUM

Click on the **Input Settings** button or use the right mouse click feature to activate your Input Settings.

🕓 Input Settings	<b>—</b>
Input Product Name/Product Code	Number of Pallets 1 x Pallet
Additional Options Bulge allowed Allow Bulge entry by percentages	O 2 x Pallet O 3 x Pallet
Add. Bundle Weight Allowed	Analysis Type O Objects onto Pallet
Partial Top Layer/Skip Old Patterns enabled	Objects onto Pallet into Truck     Objects into Truck
Height Factor Allowed	Enable Floor loading
Percentage	Units of Measure
Secondary Pack	Omm/kg ● in/lb
ОК	Cancel

Here you have several additional options for your analysis:

- Bulge Allowed (e.g. bundle spreads under compression on the pallet)
- Add. Bundle Weight Allowed (if you want to add extra weight for straps etc)
- Alternate Layers
- **Height Factor Allowed** (if you need to use a fluff factor, or compress or expand the height of the bundle). You can add the Height Factor as either a fixed quantity (i.e., 1") or a percentage.

We will not be using any of these features in our first analysis.

On the right side of the screen we need to choose the appropriate settings for our problem. We are putting our bundles on to a single pallet size and then we want to load those pallets into a truck. So make sure the settings are as follows:

- Select 1 x Pallet.
- Select Objects onto Pallet into Truck.
- Under Units of Measure, select in/lb.

Input Settings	
Input Product Name/Product Code	Number of Pallets <ul> <li>1 x Pallet</li> </ul>
Additional Options Bulge allowed	C 2 x Pallet C 3 x Pallet
Add. Bundle Weight Allowed  Alternate Layers  Partial Top Layer/Skip Old Patterns enabled	Analysis Type O Objects onto Pallet O Objects onto Pallet into Truck
Height Factor Allowed	O Objects into Truck
	Units of Measure
Secondary Pack	● in/b
ОК	Cancel

Click on **OK** at the bottom of the screen and you will returned to the first input screen.

SkDF - [Data Input]			
File Programs Make a new Shape Input PID	Tools Colors Add Gra	phics Internet Help	
🔚 🗅 🗁 🖬 🗟 🎒 🕨 🖻 🔟 🗣 ??			
Flatblank 48×40	224n21	224n21	53footer
Flat Length Flat Width	Flat Thickness	Flat Weight	
32.0000 19.5000	0.1250 💌	0.0020	
Select Formula	Add/Edit	Formula	
Glue joint = 1"			
			<b>*</b>
KDF Length KDF Width	KDF Height	Bundle Counts	Pack Name
19.5000 15.5000	0.2500		Bundle
Bundle Length Bundle Width	Bundle Height	Bundle Weight	
19.5000 15.5000	6.2500	0.0500	
-Bundle Dimension Vertical On Pallet			
	X Height		
Product Name/Product Code	Input Settings	Add Straps	Save/Calc.
l			·
53footer		(in/lb)	10:07 AM CAPS NUM

You have to change the size and weight of the flatblank, pick a material thickness, select an appropriate formula, choose a min/max number per bundle and the program updates everything for you.

Starting at the top of the screen, change the Flat Length to 57.25, and the Flat Width to 22.25.

From the Flat Thickness list, select 200 C Flute 42-26-42.

Change the **Flat Weight** to **.625**. This the weight of 1 flat carton.

Click on the *Select Formula* list box and select **Glue joint = 1**".

Notice how the KDF dimensions and Bundle dimensions have been updated to reflect your input.

Now change the Bundle Counts. Make your Minimum 25 and your Maximum 50.

Make sure **Height** is selected for Bundle Dimension Vertical On Pallet.

😡 KDF - [Data Input]				
<u>File P</u> rograms <u>M</u> ake a	new Shape <u>I</u> nput <u>P</u> ID	<u>T</u> ools <u>C</u> olors Add Gra	phics <u>I</u> nternet <u>H</u> elp	
🔙 D 🗁 🖬 🗐 🎒	ኈ 🖻 🧰 🗣 ??			
Flatblank	48×40	224n21	224n21	53footer
Flat Length	Flat Width	Flat Thickness	Flat Weight	
57.25	22.25	0.1600	.625	
Select I	Formula	A del/E di	Formula	
Glue joint = 1"	-	Add/Edi	rormula	
KDF Length	KDF Width	KDF Height	Bundle Counts	Pack Name
28.1250	22.2500	0.3200	25 - 50 -	
Bundle Length	Bundle Width	Bundle Height	Bundle Weight	
28.1250	22.2500	16.0000	31.2500	
Bundle Dimension V	ertical On Pallet			
🗆 Length	☐ Width	🛪 Height		
Product Name/F	Product Code	Input Settings	Add Straps	Save/Calc.
L			·	
			(in/lb)	10:09 AM CAPS NUM

See how the picture of the bundle and how the height and weight of the bundle also changes as you increase/decrease the number of KDF's per bundle.

### Adding Straps to the Bundle

Click on the Add Straps button at the bottom of the screen.

O Add Straps Around B	undle	×
Vertical Strapping Across Length Across Width Width of Straps (%)		OK Cancel Remove
Horizontal Strapping Across Height Width of Straps (%)		

In the Vertical Strapping section, enter **1** for the number of straps **Across the Length** of the bundle.

Enter **1** for the number of straps **Across the Width** of the bundle.

Enter **5** for the **Width** of the straps This figure is expressed as percentage of the bundle size so 5 should be sufficient.

In the Horizontal Strapping section, leave the strapping Across Height set to 0.

📀 Add Straps Around E	Bundle	×
Vertical Strapping Across Length Across Width Width of Straps (%)		OK Cancel Remove
Horizontal Strapping Across Height Width of Straps (%)	0 5 *	

Now click on **OK** and you will be returned to the input screen. The picture of the bundle now shows yellow straps on it: Your screen should look like the following.

	$\sim$		
V KDF - [Data Input]			
<u>File Programs</u> <u>Make a new Shape</u> Input <u>P</u> ID	<u>T</u> ools <u>C</u> olors Add Gra	phics <u>I</u> nternet <u>H</u> elp	
🔚 🗅 🗁 🖬 🗏 🖨 🦫 🖻 🔟 🗣 ??			
Flatblank 48x40	224n21	224n21	53footer
Flat Length Flat Width	Flat Thickness	Flat Weight	
57.25 22.25	0.1600 💌	.625	
Select Formula			
Chuo ioint = 1	Add/Edit	Formula	
		Bundle Counts	Da als Nia as a
KDF Length KDF Width	KDF Height	Min Max	Pack Name
28.1250 22.2500	0.3200	25 - 50 -	Bundle
Due die Lee eth D. H. LICH	<b>B H H C</b>		
Bunale Length Bunale Width	Bundle Height	Bundle Weight	
28.1250 22.2500	16.0000	31.2500	
- Bundle Dimension Vertical On Pallet			
	<b>E</b> 11 : 11		
Length Width	× Height		
Product Name/Product Code	Input Settings	Add Straps	Save/Calc.
		(in /lb)	
		(unym)	TU.TU AMI CAPS NOM
		(in/lb)	10:10 AM CAPS NUM

## Pallet Information for Flatblanks

Click on the tab heading with the name **48x40** and you will see the following screen.

😡 KDF - [Data Input]							
<u>File Programs</u> Make	a new Shape <u>I</u> nput	PID Tools Colors	Add Graphics In	ternet <u>H</u> elp			
🥁 D 🗁 🖬 🗟 🖨	ት 🖻 🖬 👘 ?	?					
Flatblank	48×40	224n21	Ì	224n21	53footer		
	I						
	Select Pallet	Base Style					
48x40.pa4	48x40 US GMA 4	1-Way Pallet	-				
	Pallet Dim	ensions					
40.0000	40.0000	5.5000	0.000				
				4	Additional Palletizing Input		
E	Enter Maximum Lo	ad Dimensions					
Overhang/	Inderhand	Max L	had	Selec	Select Pallet Pattern Styles Screen		
overnangy							
Length	Width	Max.Height	Max.weight	F	Pallet Base Style Directory		
0.0000	0.0000	50.0000	2200.0000		Dellet Thumke eile		
					Pallet i numbrialls		
Input Sott	ingo	Droduct N	ama/Draduct Cade		Sava/Cala		
input Set		FIGUIDEIN	amerrioudul Code	-			
10.10							
48x40					(In/Ib) 10:10 AM CAPS NUM		

If you want to change to a different pallet, click on the *Select Pallet Base Style* list and select the pallet you prefer. Or you can use the **Pallet Base Style Directory** button or the **Pallet Thumbnails** button for your selection.

We will not be considering overhang for this load, however quite often overhang is permitted on loads of flat glued cases. This is because of the construction of the load, very little damage will usually result if the load has overhang.

Change the Max. Height to 50, and the Max. Weight to 2000. Your screen should look like this.

Cile Deservers Make	Change Tagent	DID Taala Cala		atomat Uala	
	anew Shape input	<u>FID 1001s C</u> old	ns Add Graphics <u>i</u>	ntemet <u>H</u> eip	
back 🗆 🕑 🖬 😬 🚍		1		1004-01	) F2(
Flatblank	48x40	224h2	.1	224n21	53100ter
		B 0.1			
40.40	Select Pallet	Base Style			
48x4U.pa4	48x40 US GMA	4-Way Pallet	•		
	Pallet Din	nensions			
Length	Width	Height	Weight		
48.0000	40.0000	5.5000	50.0000		
					Additional Palletizing Input
E	Enter Maximum L	oad Dimension	5		
Overhang/	Inderhand	Max	Load	Sele	ct Pallet Pattern Styles Screen
overnangy	ondernang	indox.			
Length	Width	Max.Height	Max.Weight	F	Pallet Base Style Directory
0.0000	0.0000	50.0000	2000		
					PalletThumbnails
Input Sett	ings	Product	Name/Product Coc	le 🛛	Save/Calc.
Enter maximum Load V	Veiaht				
Enter maximum Eoda v	vergin				(IIIII) TO.ITAM CAPS NOM

### Truck Information for Flatblanks

Click on the tab marked **53footer.** We will not be changing the truck style for this analysis.

Enter a Max. Weight of 80000. Your screen should look like this.

O KDF - [Data Input]	
File Programs Make a new Shape Input PID Tools Colors Add Graphics Inter	rnet <u>H</u> elp
Eatblank 48x40 224n21 2	24n21 53footer
	Sibiliti
Select Truck Style	
53footer.pa4 53-Footer Truck 💌	
Truck Internal Dimensions	
Length Width Height	
<u>96.0000</u>	
Weight Max.Weight Max.Height	
10000.0000 80000 102.0000	
	Truck Style Directory
	Select Loading Patterns
	x Simple
	🕱 Complex
	Partial Top Layer Permitted
Input Settings Product Name/Product Code	Save/Calc.
Enter maximum Load Weight	(in/lb) 10:11 AM CAPS NUM
	, , , , , -

# Saving Flatblank Data

Next we need to save our input data and calculate solutions. We have changed those settings and now we need to save our data to a filename we can recognize.

If you want to save the current input data to become your new Default Settings, click on the **File** menu and then **Save My Default Settings**.

To save your data and calculate solutions, choose **Save As Input Data & Calculate** from the **File** menu, or click on the **Save/Calc.** button at the bottom of the screen.

Enter a filename of your choice, in the **Save As** dialog box, and click on **Save**. The next thing you will see is the Multi-Viewer Graphics screen with Solution # 1 displayed.



You can see the full pallet load in the top left hand corner, a single pallet layer in the bottom left hand corner, a bundle (with the straps on it) in the middle and a single flatblank in the bottom right hand corner.

### **Reviewing Solution Statistics**

You can review the different solutions with their pallet patterns by clicking on the Solution Report button on the right side of the screen.

Thumbnails Solution Report - Pallet #1 (1 of 26)	×
←         Open         Solution Report         Packaging Report         Close	
P/Load=6 Layers=3 #/Layers=2 Area Eff.=65.19% 10:12 AM CAPS NUM	м

By using the arrows on this screen to you can scroll to different solutions, which represent different **bundle counts**. Each solution will have between 1 and 6 different pallet patterns to choose from.

There is also a report that displays all the available solution statistical information.

Click on the **Solution Report** button at the bottom of this screen.

<u>F</u> ile	Edit Thumbnails C	ptions <u>H</u> e	lp								
Sol. No.	KDF Arrangement	Length	PP (OD) Width	Height	#/ Layer	# of Layers	III Per Bundle	# Per Load	Length	SP (OD) Width	Height
1	1L-1W-46H	28.13	22.25	0.32*	2	3	46	276	28.1	22.3	14.7
2	1L-1W-34H	28.13	22.25	0.32*	2	4	34	272	28.1	22.3	10.9
3	1L-1W-27H	28.13	22.25	0.32*	2	5	27	270	28.1	22.3	8.6
- 4	1L-1W-45H	28.13	22.25	0.32*	2	3	45	270	28.1	22.3	14.4
5	1L-1W-33H	28.13	22.25	0.32*	2	4	33	264	28.1	22.3	10.6
6	1L-1W-44H	28.13	22.25	0.32*	2	3	44	264	28.1	22.3	14.1
- 7	1L-1W-26H	28.13	22.25	0.32*	2	5	26	260	28.1	22.3	8.3
8	1L-1W-43H	28.13	22.25	0.32*	2	3	43	258	28.1	22.3	13.8
9	1L-1W-32H	28.13	22.25	0.32*	2	4	32	256	28.1	22.3	10.2
10	1L-1W-42H	28.13	22.25	0.32*	2	3	42	252	28.1	22.3	13.4
1					-	-					1.5

The best solution shown has 276 flatblanks per load in bundles of 46. However, we would prefer a bundle amount divisible by 5 so solution number 4 is better suited to our needs. Double click on solution **4** to see those graphics.



### Formatting the Load

All of the normal Pallet Group formatting applies to KDF loads as well. You can add corner posts, layer pads, layer trays, straps and top caps to your load.

Click on the **Set-up Buttons** button to activate the formatting controls.

Click on the Format Load button in the top right hand corner of the screen and a pop-up window appears.

🕒 Format Load								<b></b>	
<u>F</u> ile <u>T</u> ools									
			Select all Layers						
			Leng	th (	◯ Width	O Bot	h		
~				Forma	t Load Options				
	$\geq $	>	Select a	format load (	option			•	
		_							
			Layer	Flip	Top Cap	Layer Pad	Layer Tray	Spread	
		_	1	None	No	No	No	No	
			2	None	No	No	No	No	
			3	None	No	No	No	No	
28.125	44.5	500							
	Length	Width	Height	Weight					
Old Load Dims	44.5	28.125	48.7	218.75		OK		Cancel	
New Load Dims	44.5	28.125	48.7	218.75					

Add whatever formatting to you want to the load and click on **OK** to save your changes to the Multi-Viewer Graphics.

# Loading the Truck

Select the Truck menu, and Show My Truck. You will see the following screen.



From the File menu, choose Save Current Load and Exit to exit the Truck Analysis Solution Report.



You can change the diagrams to suit your needs by using the Format Panel button or the right-click options.

# Sharing your Results

You can print or export your results, or you can upload your information to the Cape Pack cloud database and produce your reports from that platform.



# Running a Made-up Case Analysis

Running an analysis for a Made-up Case is similar to the previous Flatblank analysis. The only difference is that you are starting from an erected case size (not a flatblank). Therefore, you need to input the length, width and height of the case, the material weight for the case and you need to choose an appropriate formula. This will then convert the erected case to a KDF (flat-glued case). You enter the min/max number of KDF's you want in the bundle, add straps (if necessary) and the program will do the rest.

eleonne to cape nack 10.0 (cape Auvanceu) - [nont menu] Programs Create ShortCuts Make a new Shape Databases Resolutions Int Pallet Group • ່ Display Pallet (Club-store) er, and/or load a truck) Arrange Group **Design Group** Casefill Group **KDF** Group Flatblank • Folding Carton Arrange (FCA) Made-up Case Bale FlatBlank Other Programs Bale Made-up Case Wizard ReArrange Program groups ckaging for a new or exis

Open the Made-up Case program from the KDF Group on the Programs menu.

The program opens to the first input screen with the **Default Settings** displayed.

😏 KDF - [Data Input]					- • •
File Programs Make a n	iew Shape Input PII	D Tools Colors A	dd Graphics 🛛 I	nternet Help	
🔚 🗅 🗁 🖬 🗟 🗳 '	ቴ 🖻 🤟 🔁 🎌				
Made-up Case	48x40	224n21		224n21	53footer
L	J				
Length	Width H	leight Thio	ckness	Weight	
16.0000	12.0000	<b>12.0000</b> 0.1650	•	0.0500	
Rale	act Formula			6	
Allewanas 100			Add/Edit Fo	ormula.	
Allowance = .100		<u> </u>			
			Bun	dle Counts	
KDF Length	KDF Width	KDF Heigh	t N	tin Max	Pack Name
28.2000	24.200	D 0.3	300	20 ÷ 30 ÷	Bundle -
Bundle Length	Bundle Width	Bundle Heig	ht E	Bundle Weight	
Bundle Length 28.2000	Bundle Width 24.2000	Bundle Heig	ht   1.500	Bundle Weight O	
Bundle Length 28.2000	Bundle Width 24.2000 Vertical On Ballat	Bundle Heig 9.9000	ht [	Bundle Weight O	]
Bundle Length 28.2000 Bundle Dimension	Bundle Width 24.2000 Vertical On Pallet	Bundle Heig	ht [	Bundle Weight O	]
Bundle Length 28.2000 Bundle Dimension	Bundle Width 24.2000 Vertical On Pallet ⊂Width	Bundle Heig 9.9000 t F Height	ht [	Bundle Weight O	]
Bundle Length 28.2000 Bundle Dimension	Bundle Width 24.2000 Vertical On Pallet Width	Bundle Heig 9.9000 T Height	ht [	Bundle Weight O	
Bundle Length 28.2000 Bundle Dimension Length Product Name/Pro	Bundle Width 24.2000 Vertical On Pallet Width	Bundle Heig 9.9000 F Height	ht	Bundle Weight 0 Add Straps	Save/Calc.
Bundle Length 28.2000 Bundle Dimension Length Product Name/Pro	Bundle Width 24.2000 Vertical On Pallet Width	Bundle Heig 9.9000 F Height Input Settings	ht   1.500	Bundle Weight 0 Add Straps	Save/Calc.
Bundle Length 28.2000 Bundle Dimension Length Product Name/Pro	Bundle Width 24.2000 Vertical On Pallet T Width iduct Code	Bundle Heig 9.9000 F Height Input Settings	ht 1.500	Add Straps	Save/Calc.

Simply enter a new figure for the length, width, and height. Select a material thickness from the drop-down list and enter the weight of your erected corrugated case.

Let's change our figures to:

Length = **13.75** inches

Width = **8.625** inches

Height = **11.5** inches

Material = 200 Doublewall (.3125)

Weight = **1.25** lb:

Now click on the **Select Formula** drop-down list and select **Allowance = .200**.

Make sure that the bundle counts are 20 minimum and 30 maximum. Your screen should look like this.

SKDF - [Data Input]				- • •
<u>File Programs Ma</u> l	ke a new Shape <u>I</u> npu	t <u>P</u> ID <u>T</u> ools <u>C</u> olors Add G	raphics <u>I</u> nternet <u>H</u> elp	
🚋 🗅 🗁 🖬 🗟	🖨 ኈ 🖻 🔟 🗣	??		<u> </u>
Made-up Case	48×40	224n21	224n21	53footer
Length	Width	Height Thickne	ess Weight	
13.75	8.625	<b>11.5</b> 0.3125	<ul> <li>1.25</li> </ul>	
	Select Formula	A	dd/Edit Formula	
Allowance = .200		<b>_</b>		
			Bundle Counte	
KDF Length	KDF Wid	th KDF Height	Min Max	Pack Name
22.77	50 20	.5250 0.6250	20 ÷ 30 ÷	Bundle
Bundle Length	Bundle Wi	dth Bundle Height	Bundle Weight	
22.7750	20.5250	18.7500	37.5000	]
-Bundle Dimens	sion Vertical On F	Pallet		
C Length	Width	🛪 Height		
		-		
Product Name	e/Product Code	Input Settings	Add Straps	Save/Calc
	5,			
Product Name/Prod	uct Code		(in/lb)	TU:19 AM CAPS NUM

# Pallet Information for Made-Up Cases

Click on the pallet tab and select **48x40** from the drop-down list.

Enter 55 for the Max. Height and 2000 for the Max. Weight. Your screen will look like the following.

😔 KDF - [Data Input]		
File Programs Make a new Shape Input	<u>PID Tools Colors Add Graphics Inter</u>	net <u>H</u> elp
	??	<b>~</b>
Made-up Case 48x40	224n21 22	24n21 53footer
Select Palls	t Baco Stylo	
48x40.pa4 48x40 US GMA	4-Way Pallet	
Pallet Di	mensions	
Length Width 48.0000 40.0000	Height         Weight           5.5000         50.0000	
		Additional Palletizing Input
Enter Maximum L	oad Dimensions	
Overhang/Underhang	Max. Load	Select Pallet Pattern Styles Screen
Length Width	Max.Height Max.Weight	Pallet Base Style Directory
		Pallet Thumbnails
Input Settings	Product Name/Product Code	Save/Calc.
Enter maximum Load Weight		(in/lb) 10:20 AM CAPS NUM

## Truck Information for Made-Up Cases

Click on the Truck tab and select **40hicube** from the drop down list.

🕒 KDF - [Data Input]		
<u>File</u> Programs <u>Make a new Shape</u> Input	<u>PID T</u> ools <u>C</u> olors Add Graphics <u>I</u> nterr	net <u>H</u> elp
🔚 🗅 🗁 🖬 🖩 🎒 🔭 🗎 🔟 📭	??	
Made-up Case 48x40	224n21 22	4n21 truck1
Select Tr	uck Style	
TRUCK1.PA4 40 ft. long - Higl	n Cube 🔹	
Truck Interna	Dimensions	
Length Wi	dth Height	
476.0000 92.0000	102.0000	
Weight Max V	Veight Max Height	
		Truck Style Directory
		Select Loading Patterns
		🗵 Simple
		V Complex
		A complex
		Partial Top Layer
Input Settings	Product Name/Product Code	Save/Calc.
Enter maximum Load weight		(IN/ID) TU:20 AM CAPS NUM

Enter **80000** for the *Max. Weight*. Your screen should look like the following.

# Saving Made-Up Case Data

Next we need to save our input data and calculate solutions. We have changed those settings and now we need to save our data to a filename we can recognize.

If you want to save the current input data to become your new Default Settings, click on the **File** menu and then **Save My Default Settings**.

To save your data and calculate solutions, choose **Save Input Data & Calculate** from the **File** menu, or click on the **Save/Calc.** button at the bottom of the screen.

Enter a filename of your choice, in the **Save As** dialog box, and click on **Save**. The next thing you will see is the graphics screen with Solution # 1 displayed.



You can see the full pallet load in the top left hand corner, a single pallet layer in the bottom left hand corner, a bundle in the middle and a single flatblank in the bottom right hand corner.

You have all the same formatting options as the KDF Flatblank program described earlier.

# Running a Bale Analysis

Running an analysis using Bales is basically the same as with pallets. The difference is that you enter the maximum bale size rather than choosing a pallet size from the list. Bales for flatblanks and for made-up cases are run the same way. We will demonstrate with Made-up Cases.

Open the Bales Made-up Case program from the KDF Group on the Programs menu.

veicu	ercome to Cabe Fack toto (Cabe Advanced) - [Liont Menu]							
Pro	ograms Create ShortCuts 👖	<u>M</u> ake a new	Shape	<u>D</u> atabases	Resolutions	Īn		
	Pallet Group	+	0					
	Display Pallet (Club-store)	+	er a	nd/or loa	id a truck	۱_		
1	Arrange Group	+	//, <b>u</b>			,		
	Design Group	+		e de				
	Casefill Group	۰.	ſ			_		
	KDF Group	۱.	F	latblank		1		
	Folding Carton Arrange (FC	A) ►	1	Made-up Cas	e	- Į		
10	Other Programs	•	E	3ale FlatBlank	c			
G	Wizard	•	E	Bale Made-up	o Case			
r	ReArrange Program groups		ckad	ging for a	a new or e	xi		

The program opens to the first input screen with the **Default Settings** displayed.

🕓 KDF - [c:\cape216\priva	ite\made up case.clf]			
<u>File</u> Programs <u>M</u> ake a	new Shape <u>I</u> nput <u>P</u> ID	<u>T</u> ools <u>C</u> olors Add Gra	phics <u>I</u> nternet <u>H</u> elp	
🦕 D 🗁 🖬 🗟 🎒	Ֆ 🖻 🤟 🖓 ?			
Made-up Case	Bale 1	Bale 2	Bale 3	truck1
I				
Length	Width H	eight Thicknes	s Weight	
13.75	8.625	<b>11.5</b> 0.3125	• 1.25	
		(		
Se	lect Formula	Adu	d/Edit Formula	
Allowance = .200		<b>•</b>		
				-
KDE Length	KDEUL	KDE Hojaht	Bundle Counts	Book Nomo
	KUF WIDTN	KDF Height	May May	rackiname
22 7750	20 5250		Min Max	
22.7750	KDF width 20.5250	0.6250	Min Max 20 ÷ 30 ÷	
22.7750 Bundle Length	20.5250 Bundle Width	0.6250 Bundle Height	Min 20 ÷ 30 ÷	
22.7750 Bundle Length 22.7750	Bundle Width	Bundle Height	Min Max 20 $\div$ 30 $\div$ Bundle Weight 37.5000	
22.7750 Bundle Length 22.7750	Bundle Width 20.5250	Bundle Height	Min Max 20 $\div$ 30 $\div$ Bundle Weight 37.5000	
Bundle Length 22.7750 Bundle Dimension	KDF Width 20.5250 Bundle Width 20.5250	Bundle Height	Min Max 20 $\div$ 30 $\div$ Bundle Weight 37.5000	
Bundle Length 22.7750 Bundle Dimension	Bundle Width 20.5250 20.5250 Vertical On Pallet	Bundle Height 18.7500	Min Max 20 $\div$ 30 $\div$ Bundle Weight 37.5000	
Bundle Length 22.7750 Bundle Dimension	Bundle Width 20.5250 Vertical On Pallet	Bundle Height 18.7500	Min Max 20 $\div$ 30 $\div$ Bundle Weight 37.5000	
Bundle Length 22.7750 Bundle Dimension Length	Bundle Width 20.5250 Vertical On Pallet	Bundle Height 18.7500 F Height Input Settings	Min Max 20 $\div$ 30 $\div$ Bundle Weight 37.5000 Add Straps	Bundle
Bundle Length 22.7750 Bundle Dimension Length Product Name/Pro	Bundle Width 20.5250 Vertical On Pallet Width	Bundle Height 18.7500 F Height Input Settings	Min Max 20 $\div$ 30 $\div$ Bundle Weight 37.5000 Add Straps	Bundle
Enter maximum Load W	Bundle Width 20.5250 Vertical On Pallet Width	Bundle Height 18.7500 F Height Input Settings	Min Max 20 ÷ 30 ÷ Bundle Weight 37.5000 Add Straps (in/lb)	Save/Calc.

Simply enter a new figure for the length, width, and height. Select a material thickness from the drop-down list and enter the weight of your erected corrugated case.

Let's use the same analysis as the normal Made-up Cases. Enter the following.

Length = **13.75** inches

Width = 8.625 inches

Height = **11.5** inches

Material = **200 Doublewall (.3125)** 

Weight = **1.25** lb:

Now click on the **Select Formula** drop-down list and select **Allowance = .200**.

Make sure that the bundle counts are 20 minimum and 30 maximum. Your screen should look like this.

KDF - [c:\cape216\privat	te\made up case.clf]			
<u>File Programs</u> Make a r	new Shape <u>I</u> nput <u>P</u> ID	<u>T</u> ools <u>C</u> olors Add Gra	phics <u>I</u> nternet <u>H</u> elp	
🥁 D 🗁 🖬 🗟 🎒	ኈ 🖻 🤟 🗗 ??			
Made-up Case	Bale 1	Bale 2	Bale 3	truck1
I	1			
Length	Width H	eight Thicknes	s Weight	
13.75	8.625	11.5 0.3125	▼ 1.25	
		,		
Sel	ect Formula	Adv	d/Edit Formula	
Allowance = .200		- Au	u/Eultronnula	
KDELssath			Bundle Counts	Dook Nomo
KDF Length		KDF Height	Min Max	
22.7750	20.5250	0.6250	20 - 30 -	
<b>Bundle Length</b>	Dundle Width	Pundle Height	Pundle Weight	
Dunule Length				
22.7750	20.5250	10.7500	37.5000	
Bundle Dimension	Vertical On Pallet			
🗆 Length	☐ Width	🛪 Height		
Product Name/Pro	oduct Code	Input Settings	Add Straps	Save/Calc.
·			· · · ·	
Enter maximum Lood W/	night		(in Ilb)	
Enter maximum Load We	eigni		(ar(ni)	TU.2T AM CAPS NUM

### **Bale Information**

Click on the Bale 1 tab. Bale Analysis has already been selected from the Select Pallet Base Style list.

Enter **52** for the bale *Length* and **48** for the bale *Width*.

Enter 50 for the Max. Height and 2000 for the Max. Weight. Your screen will look like the following.

KDF - [c:\cape216\private\made up case.clf]	
File Programs Make a new Shape Input PID Tools Colors Add Graphics Intern	net Help
ニ 🗅 🍺 🖬 🖨 🌢 🖻 🗇 🎌	- 1
Made-up Case Bale 1 Bale 2 Ba	ale 3 truck1
Select Pallet Base Style	
Bale Bale Analysis 👤	
Bale Dimensions	
LengthWidthHeightWeight52480.00000.0000	
	Additional Palletizing Input
Enter Maximum Load Dimensions	
Overhang/Underhang Max. Load	Select Pallet Pattern Styles Screen
Length Width Max.Height Max.Weight	Pallet Base Style Directory
	Pallet Thumbnails
Input Settings Product Name/Product Code	Save/Calc.
Enter maximum Load Weight	(in/lb) 10:21 AM CAPS NUM

# Truck Information for Bales

Click on the Truck tab and select **53footer** from the drop down list.

Enter **80000** for the *Max. Weight*. Your screen should look like the following.

KDF - [c:\cape216\private\made up case.clf]	
File Programs Make a new Shape Input PID Tools Colors Add Graphics Inter	met <u>H</u> elp
🚋 🗅 🗁 🖬 📾 🖧 ኈ 🖹 🔟 ዓን ??	
Made-up Case Bale 1 Bale 2 Ba	ale 3 53footer
Select Truck Style	
53footer.pa4 53-Footer Truck	
Truck Internal Dimensions	
Longth Width Hoight	
30.0000	
Weight Max Weight Max Height	
10000.0000 80000 102.0000	
	Truck Style Directory
	Select Loading Patterns
	× Simple
	E Complex
	A complex
	Partial Top Layer
Input Settings Product Name/Product Code	Save/Calc.
Select Container Type	(in/lb) 10:21 AM CAPS NUM

# Saving Bale Data

Next we need to save our input data and calculate solutions. We have changed those settings and now we need to save our data to a filename we can recognize.

If you want to save the current input data to become your new Default Settings, click on the **File** menu and then **Save My Default Settings**.

To save your data and calculate solutions, choose **Save Input Data & Calculate** from the **File** menu, or click on the **Save/Calc.** button at the bottom of the screen.

Enter a filename of your choice, in the **Save As** dialog box, and click on **Save**. The next thing you will see is the graphics screen with Solution # 1 displayed.

The program calculates the bale size, then loads them directly into the truck. Your best solution will the be bundle size that best fills the container.



# Display Pallet – Club Store Displays

# Introduction

Display Pallet is designed to help you determine the best way to load multiple cases or trays onto a pallet. You can use standard cases, or any case or tray that you have designed in the Make a new Shape feature. You can also fill these packages with inner packs that can be bottles, bags or boxes.



You have two different loading patterns that you can use: Columns or Layers. Columns are useful when you need a load of different items that is shoppable. The layer method is useful when you need to send mixed loads, but you need to be able to stack them for shipping



In addition, you have two different methods of loading.

- Single Palletization is for building a single pallet display with as many of the packages in the load as possible.
- Order Fulfillment is for building loads to ship all the products requested in the load, regardless of how many pallets are required for the shipment.
- In some situations, you might want to edit or modify a particular load, change the position of some of the cases or even add or delete certain items. For these situations, we have provided a series of load editors. There may be times when you might want to build a load with special requirements that fall outside the normal "column" or "layer" calculations. When optimization is less of a priority than specific requirements, you also have the option to build a load manually from scratch. To do this you can use one of the Display Pallet load editors.





Note: For further information on how to use this feature, please refer to the "*Exploring the Pattern Editors*" chapter of this user guide.

# The Problem

Let's imagine that we are a food manufacturer and a local supermarket has just faxed an order for 2 different beverages, as well as 3 different types of snack foods. They want to have a pallet that they can place directly onto the floor of their supermarket.

## Considerations

Based on previous experience, you know:

- you must use a standard pallet base size, a US GMA 48x40 inches.
- fork-lift trucks can lift a maximum of 2000 pounds.

- you must use a 40-foot truck that has a 45,000 weight limit.
- you know the dimensions and weights of the packages as well as the arrangement of items inside the package.
- each product can only be loaded with the height dimension of the case vertical to the pallet.
- the customer does not allow any overhang on the pallet.
- you know the number of each product required for the customer's order.
- you know the customer wants the products stacked in columns on the pallet to make it more "shoppable".

After reading through the Exploring Cape Pack chapter, you establish that you will need the Display Pallet program.

You can start the **Display Pallet** program from the **Programs** menu.



Display Pallet appears with your Default Settings already loaded.

O D	lisplay Pallet - [Display Pallet	:]							
File	Programs Make a new S	hape Data	abase Tools Colors A	dd Graphics 🛛 🛛	internet Help				
back	D 🗁 🖬 🗟 🎒 🗎 (	බ් 🍇 🍇	?? 🖾						
Pa	ckages		48×40		) i	53footer			
1									
			1 of	4					
	# Package Name	Label	Package Types	Length	Width	Height	Weight	Max	Min
	1 Box	1	Standard Box	16.0000	12.0000	10.0000	10.0000	25	
	2 Case	2	RSC Box	12.0000	9.0000	10.0000	12.0000	25	
	3 Std. Box	3	Standard Box	15.0000	9.0000	9.0000	25.0000	25	
	4 Case	4	Standard Box	12.0000	10.0000	9.0000	1.0000	25	
	۱ <u> </u>								Þ
	Import from Da	ntabase	Add	Package	E	dit Package		Delete	
	Input Settings		Product Name/Prod	luct Code	Ci	alc. Setting	s Sa	ve/Cal	<b>c</b> .
Pac	kages					(in/lb) 1	:11 PM CA	PS N	UM

# Data Input

Before you start anything, you need to understand that you can either import the product details (case/tray sizes, weights, names, etc) from a Display Pallet database or you can enter the same details manually.

For example, you can start by importing the product details or entering them manually. Then deal with changing the **Input Settings**, entering a **Product Name/Code**, checking/specifying the pallet restrictions and, if necessary the truck/container information. Finally, choose the **Calc. Settings** you need. Then save your input data and get the answers. By always following the same procedure, the process will be faster and more efficient.

The first thing that you need to do is setup the parameters for you analysis. You do this through **Input Settings**.

Click on the **Input Settings** button near the bottom of the screen. Or you can use the **Input** menu and then choose **Input Settings.** The following screen appears.

O Input Settings	Analusis Tune
Input Product Name/Product Code Additional Options Show Package Descriptions Show Center of Gravity	Objects onto Pallet     Objects onto Pallet into Truck
Show Flap Indicator Rank Solutions By  Packages Per Load  Cube Efficiency	Units of Measure Omm/kg Onin/lb
ОК	Cancel

Make sure the following items are marked: **Packages Per Load, Objects onto Pallet into Truck**, and **in/lb**. If you mark Show Package Descriptions on this screen, you must enter a description for every product in your load.

#### Click on **OK**.

You can also use the right-click options for these settings. Right click your mouse outside of the "spreadsheet" area to reveal the popup menu.

O Dis	olay Pallet - [Display Pallet	:]							
File	Programs Make a new S	- hape Data	abase Tools Colors A	dd Graphics I	nternet Hel	0			
tark	i 👼 🔲 📾 🖴 🗎 í	බ් 🛬 🛬	?? 📰	·					
Pack						53footer			
	agoo		I						
			1 of	f 4					
#	Package Name	Label	Package Types	Length	Width	Height	Weight	Max	Min
	1 Box	1	Standard Box	16.0000	12.0000	10.0000	10.0000	25	
	2 Case	2	RSC Box	12.0000	9.0000	10.0000	12.0000	25	
	3 Std. Box	3	Standard Box	15.0000	9.0000	9.0000	25.0000	25	
	4 Tray	4	TRAY2.CSF	12.0000	10.0000	9.0000	1.0000	25	
1									Þ
						Obiects onto Pa	allet		Ъ
	Import from Da	ntabase	Add	Package		Objects onto Pa	allet into Truck		
		1			_	Input Settings			Ы
	Input Settings		Product Name/Prod	luct Code		Print Input Data			ł I
						Print Preview			
						Fraction Table			
Packa	iges					(in/lb) 1	0:01 AM CA	PS N	Л

Next we'll give the analysis a name. Click on the **Product Name/Product Code** button and a dialog box appears.

Input Product Name/Code	<b>×</b>
Date of Analysis 9/17/2016	ОК
Product Name Display Pallet	Cancel
Product Code	

Enter Supermarket Order in the Product Name field.

Enter 201-0002 in the *Product Code* field. Your screen should now look like this.

OK
Cancel

Now click on **OK**.

Now that you have defined the problem, you need to establish what type of load you want to build. Click on the **Calc. Settings** button. The following screen will appear with a variety of calculation options for your load.

ptimization Type		
Single Pallet Optimization	🔿 Order Fulfi	llment
lgorithm Type/Parameters		
Column Algorithm	🔿 Layer Algorithm	🔘 Single Package Algorithm
O Column Editor	🔿 Layer Editor	O Mixed Load Editor
Time Limit for Each Strategy (see	conds) 6	
Allow Mixed Columns		
ackage Loading Rules		
No Loading Restrictions		
No Loading Restrictions Limit Column Height Load Priority	Algorithm option enables no restrictions.	optimization of pallet load with
<ul> <li>No Loading Restrictions</li> <li>Limit Column Height</li> <li>Load Priority</li> <li>ayer Algorithm Restrictions</li> </ul>	Algorithm option enables no restrictions.	optimization of pallet load with
<ul> <li>No Loading Restrictions</li> <li>Limit Column Height</li> <li>Load Priority</li> <li>ayer Algorithm Restrictions</li> <li>Do Not Allow Mixed Top</li> </ul>	Algorithm option enables no restrictions.	optimization of pallet load with d to Biggest Layer
No Loading Restrictions     Limit Column Height     Load Priority ayer Algorithm Restrictions     Do Not Allow Mixed Top     Do Not Allow Mixed Layers	Algorithm option enables no restrictions.	optimization of pallet load with d to Biggest Layer num Spread
<ul> <li>No Loading Restrictions         <ul> <li>Limit Column Height</li> <li>Load Priority</li> </ul> </li> <li>ayer Algorithm Restrictions         <ul> <li>Do Not Allow Mixed Top</li> <li>Do Not Allow Mixed Layers</li> </ul> </li> </ul>	Algorithm option enables no restrictions. Sprea Maxin	optimization of pallet load with d to Biggest Layer num Spread

### **Optimization Type**

This is where you decide on the type, or purpose, of your load. You have 2 options, both of which can be in either a layer or column configuration.

#### Single Pallet Optimization

Single Pallet Optimization will provide you with a variety of loads that will include some (or maybe all) of the products on the pallet. These loads are often used for Club Store Displays.

### Order Fulfillment

This type of optimization is designed to transport products from point A to point B. The program will load all the items in your load list and use as many pallets as are required.

## Algorithm Type/Parameters

These options let you decide more specifically what type of load you want and which algorithm or editor to use.

### Column Algorithm

Cape Pack will build loads with only columns of boxes. The program will not allow mixed columns of product unless **Allow Mixed Columns** is marked.

### Layer Algorithm

Cape Pack will build loads with layers of boxes, with the largest layer on the bottom of the load. When you select the Layer Algorithm, you will have access to 4 additional Layer Algorithm Restrictions at the bottom of the screen.

O Calc. Settings		×
Optimization Type		
Single Pallet Optimization	O Order Fu	lfillment
Algorithm Type/Parameters		
O Column Algorithm	Layer Algorithm	🔿 Single Package Algorithm
O Column Editor	O Layer Editor	O Mixed Load Editor
Time Limit for Each Strategy (sec	conds) 6	
Allow Mixed Columns		
Package Loading Rules		
No Loading Restrictions		
O Limit Column Height	Algorithm option enable no restrictions.	s optimization of pallet load with
O Load Priority		
Layer Algorithm Restrictions		
Do Not Allow Mixed Top	🗌 Spr	ead to Biggest Layer
Do Not Allow Mixed Layers	🗌 Max	ximum Spread
	OK Cancel	
		-

- Do Not Allow Mixed Top. This option will not allow the program to mix products on the top layer. When this is marked, the program will allow all layers to be mixed except the top layer.
- Do Not Allow Mixed Layers. This option will not allow any mixed layers in the load.
- Spread to Biggest Layer. This option will spread the upper level layers to the full footprint of the lowest layer on the load.
- Maximum Spread. This option will spread the bottom layer to the full size of the load including any overhang allowed.

### Editors

There are three editors available to you for building your own loads from scratch. You can find more information about the editors in the *Exploring the Pattern Editors* chapter.

• Column Editor. Allows you to build loads with columns of boxes.

- Layer Editor. Allows you to build loads with layers of boxes.
- Mixed Load Editor. Allows you to build loads with some layers and some columns. This is hybrid type editor.

# Packaging Loading Rules

These rules are established so that you can further enhance and define your loads based on specific restrictions.

### No Loading Restrictions

Cape Pack will build the loads the best way it can with the algorithm selected.

### Limit Column Height

Cialla Dallas Caliaciantias	O Pada Est	://
Single Pallet Uptimization		niment
lgorithm Type/Parameters		
Column Algorithm	🔿 Layer Algorithm	🔿 Single Package Algorithm
Column Editor	C Layer Editor	O Mixed Load Editor
Time Limit for Each Strategy (see	conds) 6	
Allow Mixed Columns		
ackage Loading Rules		
ackage Loading Rules	Algorithm option enables	you to limit the number of
ackage Loading Rules O No Loading Restrictions C Load Priority	Algorithm option enables packages in a column. L the Edit Package screer	you to limit the number of Ise the 'Max. in Column' field on 1.
ackage Loading Rules O No Loading Restrictions I Limit Column Height Load Priority	Algorithm option enables packages in a column. L the Edit Package screer	: you to limit the number of Ise the 'Max. in Column' field on ).
ackage Loading Rules No Loading Restrictions Limit Column Height Load Priority ayer Algorithm Restrictions	Algorithm option enables packages in a column. L the Edit Package screer	; you to limit the number of Ise the 'Max. in Column' field on 1.
ackage Loading Rules O No Loading Restrictions Limit Column Height Load Priority ayer Algorithm Restrictions Do Not Allow Mixed Top	Algorithm option enables packages in a column. L the Edit Package screer Spre	you to limit the number of Ise the 'Max. in Column' field on h. ad to Biggest Layer
ackage Loading Rules          No Loading Restrictions         Limit Column Height         Load Priority         ayer Algorithm Restrictions         Do Not Allow Mixed Top         Do Not Allow Mixed Layers	Algorithm option enables packages in a column. L the Edit Package screer Spre Spre	you to limit the number of Ise the 'Max. in Column' field on h. ad to Biggest Layer mum Spread

This option enables you to limit the number of packages in a column. Use the **Max in Column** field on the Edit Package Screen to define the maximum height of the column for each box type. This option is not available for the Layer Algorithm.

### Load Priority

Calc. Settings		(				
Optimization Type						
Single Pallet Optimization	O Order Fo	ulfillment				
Algorithm Type/Parameters						
Column Algorithm	🔿 Layer Algorithm	🔿 Single Package Algorithm				
○ Column Editor	C Layer Editor	O Mixed Load Editor				
Time Limit for Each Strategy (se	conds) 6					
Allow Mixed Columns						
Package Loading Rules						
<ul> <li>No Loading Restrictions</li> <li>Limit Column Height</li> <li>Load Priority</li> </ul>	Algorithm option prevents heavy objects placed on lighter objects. Specify your loading priority in 'Load Priority' field on Edit Package screen.					
Layer Algorithm Restrictions						
🗌 Do Not Allow Mixed Top	□ Sp	read to Biggest Layer				
Do Not Allow Mixed Layers	🗌 Ma	ximum Spread				

This option prevents heavy objects from being placed on lighter objects. Specify your loading priority in **Load Priority** field on the Edit Package screen. The lower the number, the lower in the load the box will be placed. The higher the number, the higher the box can be placed in the load.

Make sure that **Column Algorithm** is checked.

Make sure **No Loading Restrictions** is marked. Your screen should look like this.

Calc. Settings		[			
Optimization Type					
Single Pallet Optimization	O Order F	ulfillment			
Algorithm Type/Parameters					
Column Algorithm	🔿 Layer Algorithm	O Single Package Algorithm			
Column Editor	🔿 Layer Editor	O Mixed Load Editor			
Time Limit for Each Strategy (see	conds) 6				
Allow Mixed Columns					
Package Loading Rules					
<ul> <li>No Loading Restrictions</li> <li>Limit Column Height</li> <li>Load Priority</li> </ul>	Algorithm option enables optimization of pallet load <del>w</del> ith no restrictions.				
Layer Algorithm Restrictions					
Do Not Allow Mixed Top	🗆 Sp	read to Biggest Layer			
Do Not Allow Mixed Layers	🗖 Ma	aximum Spread			
	OK Cancel				

Click on **OK**. You are ready to start entering your data.

# Packages Tab

Make sure you are on the tab labeled **Packages**. This is the tab that we will use to enter the items in our list.

O Dicola	av Dallet - [Display Dallet	1							
File Pro	ograms Make a new S	J hane Data	abase Tools Colors A	dd Granhics - I	nternet Heln				
Packa	Packages 48x40 53footer								
i deka									
	1 of 4								
+	Package Name	Label	Package Types	Length	Width	Height	Weight	Max	Min
1	Box	1	Standard Box	16.0000	12.0000	10.0000	10.0000	25	
2	Case	2	RSC Box	12.0000	9.0000	10.0000	12.0000	25	
3	Std. Box	3	Standard Box	15.0000	9.0000	9.0000	25.0000	25	_
4	Case	4	Standard Box	12.0000	10.0000	9.0000	1.0000	25	_
4							1		Þ
	Import from Database Add Package Edit Package Delete								
Input Settings Product Name/Product Code Calc. Settings Save/Calc.									
Packag	es					(in/lb) 1	:14 PM CA	PS N	ЛМ

Our default settings have a few cases already input and we will only be using the first one. Let's delete the other three cases.

Click on package number **2** in the list and then on the **Delete** button. You will be prompted to verify the delete.

Click on Yes.

Repeat this process for each of the last two cases in the list.

O Display Pallet - [Display Pallet]							
<u>File</u> Programs <u>Make a new Shape</u>	<u>D</u> atabase <u>T</u> ools <u>C</u> olors A	dd Graphics <u>I</u>	nternet <u>H</u> elp				
🔚 🗅 🗁 🖶 🗏 🎒 🏝 🔟 🔪	's 🔀 ?? 🖾						
Packages	48×40		]	53footer			
1 of 1							
# Package Name La	bel Package Types	Length	Width	Height	Weight	Max	Min
1 Box	1 Standard Box	16.0000	12.0000	10.0000	10.0000	25	
د					(		•
Import from Databa	ase Add	Package	E	dit Package		Delete	
Input Settings	Product Name/Prod	uct Code	C	alc. Setting	s Sa	ve/Cal	C.
Packages				(in/lb) 1	:14 PM CA	PS N	JM

# Package 1 – Bagged Chips in a Case

Select box number 1 in the list and then click on **Edit Package**. The package details will appear.

😏 Edit Package				<b>×</b>
Tools Fill Wizard Colors	Add Graphics Help			
Package Type Standard Box ▼	Package Name Box	Label 1		
		Color		
	< 1 of 1	>		
	Length	Width	Height	Weight
Box Dimensions	16.0000	12.0000	10.000	10.0000
Quantity Allowed	Desired Min	1 Absolute	e Max	25
Quantity Allowed Dimension Vertical	Desired Min	1 Absolute	e Max	25
Quantity Allowed Dimension Vertical Max. in Column	Desired Min Length Desired Min	1 Absolute	e Max X Height	25
Quantity Allowed Dimension Vertical Max. in Column Must Not be Stacked on Ba	Desired Min Length Desired Min Load P	1 Absolute	e Max	25 Fill Wizard
Quantity Allowed Dimension Vertical Max. in Column Must Not be Stacked on Ba Stacked Together	Desired Min Length Desired Min Load P	1 Absolute	e Max X Height	25 Fill Wizard
Quantity Allowed Dimension Vertical Max. in Column Must Not be Stacked on Ba Stacked Together	Desired Min Length Documentary Desired Min Documentary	1 Absolute	e Max	25 Fill Wizard Calc Settings

The size of this case is correct, but there are other items we need to change. Tab to the Package Name field.
Type in **Chips**. Tab to the *Weight* field.

Enter **6** pounds for the weight of the box.

Tab to the *Desired Min* field. The Supermarket manager has requested **5-8** boxes of these chips. Enter **5** in this field.

Tab to the Absolute Max field and enter 8 here.

Make sure under *Dimension Vertical* that only **Height** is marked.

Your screen should look like this.

🕓 Edit Package				×
<u>T</u> ools Fill Wizard <u>C</u> olors Add	Graphics <u>H</u> elp			
Package Type     Pa       Standard Box     ▼	ckage Name ips  _	Label 1		
<	1 of 1	Color		
Chips Dimensions	Length 16.0000	Width 12.0000	Height 10.000(	Weight
Quantity Allowed	Desired Min	5 Absolute	Max	8
Dimension Vertical	🗆 Length	🗆 Width	🗙 Height	
Max. in Column	0 Load P	riority	0	
Must Not be Stacked on Base				Fill Wizard
Stacked Together	OK	Cancel		Calc Settings Input Settings

You will noticed that the Max. in Column and the Load Priority fields are grayed out. This is because we have not chosen to use a load restriction. To confirm this, you can click on the **Calc Settings** button to review your settings.

Calc. Settings		
Optimization Type		
Single Pallet Optimization	🔿 Order Fu	lfillment
Algorithm Type/Parameters		
Column Algorithm	🔿 Layer Algorithm	🔿 Single Package Algorithm
Column Editor	O Layer Editor	O Mixed Load Editor
Time Limit for Each Strategy (see	conds) 6	
Allow Mixed Columns		
Package Loading Rules		
<ul> <li>No Loading Restrictions</li> <li>Limit Column Height</li> <li>Load Priority</li> </ul>	Algorithm option enable no restrictions.	s optimization of pallet load with
Layer Algorithm Restrictions		
Do Not Allow Mixed Top	🗖 Spre	ead to Biggest Layer
Do Not Allow Mixed Layers	🗌 Max	rimum Spread
	OK Cancel	

There are two additional options for stacking these packages. Must Not be Stacked on Base and Stacked Together. We will not be using these options for this case.

Click on the **Fill Wizard** button so we can enter our chip bag arrangement. The Fill Wizard window will open.

S Fill Wizard			
<u>File Tools Colors Add Graphics</u>	: <u>H</u> elp		
Pack Type winebot.csf	Pack Names Bottle 🗸		1
Divider/Partition 2-Way	Divider Thickness		
Arrangement in Second	lary Pack		10.000
Switch Direction	Orientation in SP	12.000	16.000
• off	O On Side		
O on		No. Arrangement	Count Pack Nam
		1 4L x 3W x 1H	12 winebot
	Upright	<	•
		Close	

From the *Pack Type* list, select the **Chipbag.csf** shape.

Select **Bag** from the *Pack Name* list.

Select **Divides Length** from the *Divider/Partition List* and enter **.1** for the *Material Thickness*.

In the Arrangement in Secondary Pack section, enter **2** in the length (L), **4** in the width (W) and **1** in the height (H) fields.

Make sure the Dim. Vert. in SP is Height.

Last, we will color our bags. Click on the **Color** menu, and **Change Package Color**.

Select a color and click on **OK** to update your bag's appearance. Your screen should look like the following.

G Fill Wizard				
File Loois Colors Add Graphics	Help			
Pack Type chipbag.csf	Pack Names Bag ; •		1_	
Divider/Partition Divides Length Arrangement in Second	Divider Thickness			10.000
2 L 4 W	1 H	LAD J	16 000	}
Switch Direction	Dim. Vert. in SP	12.000	10.000	
off	○ Length			
O on	⊖ Width	No. Arrangement	Count	Pack Nam
		1 2L x 4W x 1H	8	chipbag
	Height	٠ III.		- F
		Close		

Click on **Close** to close the **Fill Wizard**, and then **OK** to return to the **Packages** tab. Your package list will be updated with your Chips packag.

### Package 2 – Boxed Crackers in a Case

Click on Add Package to enter the next item. The Add Package window will appear.

Add Package				×
Tools Fill Wizard Colors Add	Graphics <u>H</u> elp			
Package Type Pa Standard Box	ckage Name 💌	Label 2 Color		
<	2 of 2 Length	> Width	Height	Weight
Package Dimensions	0.0000	0.0000	0.0000	0.0000
Quantity Allowed	Desired Min	1 Absolute	Max O	
Dimension Vertical	X Length	X Width	X Height	
Max. in Column	0 Load P	riority	0	
Must Not be Stacked on Base				Fill Wizard
Stacked Together	- 			Calc Settings
	ОК	Cancel		Input Settings

Select **RSC Box** from the *Package Type* list.

Enter **Crackers** in the *Package Name* field.

Enter dimensions as follows in the appropriate fields.

- Length: 12.5
- Width: **9.875**
- Height: 13.75
- Weight: **13**

Enter **10** in both the *Min* and *Max* fields.

Make sure only **Height** is marked for the *Dimension Vertical*.

Click on the color button and choose a color for your box that differs from the first package you entered.

Add Package				×
Tools Fill Wizard <u>C</u> olors Add	Graphics <u>H</u> elp			
Package Type Pa RSC Box Cr	ackage Name ackers 🗸	Label 2 Color		
Crackers Dimensions Quantity Allowed	Length 12.5	Width 9.875	Height 13 te Max	.75 Weight .75 13
Dimension Vertical	Length	Width	🗙 Height	
Max. in Column	0 Load F	Priority	0	
Must Not be Stacked on Base Stacked Together				Fill Wizard Calc Settings
	ОК	Cancel		Input Settings

Click on the **Fill Wizard** button and tab to *Arrangement in Secondary Pack*. Since this package is a carton, the defaults work fine.

In the *Arrangement in Secondary Pack* section, enter **5** in the length (L), **4** in the width (W) and **1** in the height (H) fields. Your screen should look like the following.

S Fill Wizard					
<u>File Tools Colors</u> Add Graphic	; <u>H</u> elp				
Pack Type Box 💌 Divider/Partition None 💌	Pack Names Box				10.750
Arrangement in Second 5 L 4 W Switch Direction	Jary Pack			12.500	15.750
• off	⊖ Length		9.015		
O on	⊖ Width	No. 1	Arrangement 5L x 4W x 1H	Count 20	Pack Nam Box
	Height	•			•
		Close			

Click on **Close** to close the **Fill Wizard**, and then **OK** to return to the **Packages** tab.

### Package 3 – Candy Pouches in a Case

For the next two packages, we will use the database and import some packages to save us time.

Open							
Search Shared V Share							
Organize 🔻 New folder				!≡ ▼			
🔆 Favorites	Name	Date modified	Туре	Size			
🧮 Desktop	cp16.mdb	9/12/2016 9:10 AM	MDB File	48 KB			
🐌 Downloads	dieter.mdb	5/4/2016 1:49 PM	MDB File	50 KB			
Recent Places	displaypallet.mdb	11/1/2002 4:19 PM	MDB File	50 KB			
	kim.MDB	7/20/2016 9:43 AM	MDB File	50 KB			
🔰 Libraries	myPackages.MDB	4/7/2014 1:02 PM	MDB File	50 KB			
Documents	myPackages6.MDB	7/20/2016 9:15 AM	MDB File	50 KB			
J Music	tutorial.mdb	9/7/2016 2:56 PM	MDB File	48 KB			
Pictures							
Videos							
📮 Computer							
🚢 Local Disk (C:)							
🙀 KIKA (\\egwusms003\u							
🙀 GlobalStorage (\\esko-							
🚽 Shared Folders (\\vmwi							
Network							
🖳 EAW14ML445							
🖳 EAW14VM445							
🖳 vmware-host							
File <u>n</u> ame:	displaypallet.mdb		•	Package Database (*.mdb	) .		
				<u>O</u> pen Ca	ancel		

Click on **Import from Database**. The following screen appears.

Select **displaypallet.mdb** and then click on **Open**.

🕑 Impo	ort from Database					×
#	Package Name	Import	Package Types	Units	Length	Wic
1	Std. Box		Standard Box	mm/kg	350.0000	300.
2	Case		RSC Box	mm/kg	350.0000	200.
3	Box		End Loader Box	mm/kg	450.0000	350.
		Im	port Cancel			

Click on the **Import** column next to packages number **1** and **3**, and then click on **Import**.

0	Displa	ay Pallet - [Display Pallet	]							
Eil	e <u>P</u> r	ograms <u>M</u> ake a new S	hape <u>D</u> ata	ibase <u>T</u> ools <u>C</u> olors A	dd Graphics <u>I</u>	nternet <u>H</u> elp				
back	D	🗁 🖬 🗟 🎒 🗎	බ් 🧏 🧏	?? 🔳						
P	acka	ges		48×40		)	53footer			
				,						
				1 of	f <b>4</b>					
	#	Package Name	Label	Package Types	Length	Width	Height	Weight	Max	Min
	1	Chips	1	Standard Box	16.0000	12.0000	10.0000	6.0000	8	
	2	Crackers	2	RSC Box	12.5000	9.8750	13.7500	13.0000	10	1
	3	Std. Box	1	Standard Box	13.7795	11.8110	9.8425	33.0690	25	
	4	Box	3	End Loader Box	17.7165	13.7795	15.7480	44.0920	35	
	•									•
	Import from Database Add Package Edit Package Delete									
	Input Settings Product Name/Product Code Calc. Settings Save/Calc.									
Sh	ow Fi	ll Wizard					(in/lb) 1	:20 PM CA	PS N	JM

Click on package number **3**, and then on **Edit Package**. The Edit Package screen will open with package number 3.

Type in **Candy** and tab to the *Label* field.

Change the box color.

Enter **3** and tab to the *Weight* field.

Enter **15** pounds for the weight of the box.

Tab to the *Desired Min* field. Enter **8** for both the *Min* and *Max* quantities.

Change the default dimension vertical to **Height** only.

Select a color different from the first two packages. Your screen should look like this.

Edit Package				×
<u>T</u> ools Fill Wizard <u>C</u> olors	Add Graphics <u>H</u> elp			
Package Type Standard Box	Package Name	Label 3 Coor		
Candy Dimensions	Length	Width 11.8110	Height 9.8425	Weight 15
Dimension Vertical			Max 0	
Max. in Column	0 Load Pi	riority		
Must Not be Stacked on Ba	se 🗌			Fill Wizard
Stacked Together	ОК	Cancel		Calc Settings

Click on the Fill Wizard button so we can enter our product arrangement.

From the *Pack Type* list, select the **bites.csf** shape.

Enter **Candy** for your *Pack Name*, and then tab to the *Arrangement in Secondary Pack* section.

Enter **3** in the length (L), **4** in the width (W) and **1** in the height (H) fields.

Click on the **Color** menu, and **Change Package Color**.

Select a color and click on **OK** to update your bag's appearance. Your screen should look like the following.

<b>S</b> Fill Wizard <u>File T</u> ools <u>C</u> olors <u>A</u> dd Graphics	: <u>H</u> elp				
Pack Type bites.csf	Pack Names Candy				
Divider/Partition	lan/ Dack		TH	T	9.843
3 L 4 W	1 H				
Switch Direction	Dim. Vert. in SP		11.811	13.780	)
off	O Length				
O on	○ Width	No.	Arrangement	Count	Pack Nam
		1	3L x 4W x 1H	12	bites
	Height	•			Þ
		СІ	ose		

Click on **Close** to close the **Fill Wizard** and then the right arrow next to the package number area (3 of 4), to move to the next package.

### Package 4 – Bottles of Lemonade

Type in **16 oz.** and tab to the *Label* field.

Change your Package Color.

Enter **4** and tab to the *Weight* field.

Enter **12** pounds for the weight of the box.

Tab to the Desired Min field. Enter 6 for the Min and 8 for the Max quantities.

Change the default dimension vertical to **Height** only. Your screen should look like this.

Edit Package				×
Tools Fill Wizard Colors Ad	d Graphics Help			
Package Type F End Loader Box ▼ 1	ackage Name 60z. ▼ < 4 of 4	Label 4 Color		
16 Oz. Dimensions	Length 17.7165	Width 13.7795	Height 15.748	Weight
Quantity Allowed	Desired Min	- ADSolute	e Max	8
Dimension Vertical	Length	Width	× Height	
Max. in Column	0 Load P	riority	0	
Must Not be Stacked on Base				Fill Wizard
Stacked Together	ОК	Cancel		Calc Settings

Click on the Fill Wizard button so we can enter our product arrangement.

From the *Pack Type* list, select the **20ounce.csf** shape.

Enter **16 oz.** for your *Pack Name*, and then tab to the *Arrangement in Secondary Pack* section.

Enter **4** in the length (L), **3** in the width (W) and **1** in the height (H) fields.

😏 Fill Wizard					
File Tools Colors Add Graphic	s Help				
Pack Type 20ounce.csf Divider/Partition None	Pack Names Bottle				
Arrangement in Secon	dary Pack				15.748
Switch Direction	Urientation in SP	1	3.780	17.717	
• off	O On Side				
O on		No.	Arrangement	Count	Pack Nam
	Upright		4L X 3W X 1H	12	Zuounce
	Coprigin	•			•
		Clos	;e		

Click on **Close** to close the **Fill Wizard** and then click on **OK** to return to the Packages tab.

### Package 5 - Cans of Coffee

The last package is a tray that contains cans of coffee. Click on Add Package to add this package to the list.

Select Tray from the Package Type list, and type in Coffee for the Package Name.

Enter in 5 for the Label and tab to the dimension fields.

Enter the tray dimensions as follows:

Length = 12"

Width = 8"

Height = 8"

Weight = 13 lb.

Tab to the *Tray Wall Height* field and enter **4** for the height of the wall.

Tab to the *Desired Min* field. Enter 6 for the *Min* and 10 for the *Max* quantities.

Select a color different from the other packages

Change the default dimension vertical to **Height** only. Your screen should look like this.

O Add Package				×
<u>I</u> ools Fill Wizard <u>C</u> olors A	dd Graphics <u>H</u> elp			
Package Type Tray	Package Name Coffee     S of 5	Label 5 Color		
Coffee Dimensions Tray Wall Height	Length 12	Width 8	Height 8 4	Weight 13
Quantity Allowed	Desired Min	6 Absolute	e Max 10	
Dimension Vertical	🗖 Length	Width	🗙 Height	
Max. in Column	0 Load P	riority	0	
Must Not be Stacked on Bas	e 🗌			Fill Wizard
Stacked Together	ПК	Cancel		Calc Settings
				Input Settings

Click on the **Fill Wizard** button so we can enter our product arrangement.

From the *Pack Type* list, select the **cylinder** shape.

Enter **3 lb.** for your *Pack Name*, and then tab to the *Arrangement in Secondary Pack* section.

Select a **2-way** *Divider/Partition* type and enter **.1** for the material thickness.

🥥 Fill Wizard File Tools Colors Add Graphics Help Pack Names Pack Type 3 LB. Cylinder • • Divider Thickness Divider/Partition 0.04 2-Way • • 8.000 Arrangement in Secondary Pack w 1 н 2 3 L 12.000 Switch Direction Orientation in SP 8 000 off O On Side  $\bigcirc$  on No. Arrangement Count Pack Nam Cylinder 3L x 2W x 1H 1 6 Opright • Þ m Close

Enter **3** in the length (L), **2** in the width (W) and **1** in the height (H) fields.

Click on **Close** to close the **Fill Wizard** and then **OK** to return to the **Packages** tab. Your **Packages** tab should now look like the following.

0	O Display Pallet - [Display Pallet]										
Eile	<u>File Programs</u> <u>Make a new Shape</u> <u>Database</u> <u>T</u> ools <u>C</u> olors Add Graphics <u>Internet</u> <u>H</u> elp										
back											
Pa	Packages 48x40 53footer										
	<b>5</b> of 5										
	#	Package Name	Label	Package Types	Length	Width	Height	Weight	Max	Min	
	1	Chips	1	Standard Box	16.0000	12.0000	10.0000	6.0000	8		
	2	Crackers	2	RSC Box	12.5000	9.8750	13.7500	13.0000	10	1	
	3	Candy	3	Standard Box	13.7795	11.8110	9.8425	15.0000	8		
	4	16 Oz.	4	End Loader Box	17.7165	13.7795	15.7480	12.0000	8		
	5	Coffee	5	Tray	12.0000	8.0000	8.0000	13.0000	10		
	•	Import from De	atabase	bA	Package	E	dit Packag	e	Delete	•	
Input Settings Product Name/Product Code Calc. Settings Save/Calc.											
01-	5	11 \ \ / / = = v=1					(in Ille)			11.4	
Sh	ow Fi	II vvizard					(in/ib)	1:25 PM   CA	PS N	JM	

# **Pallet Information**

Click on the Pallet tab which should be labeled **48x40**.

Display Pallet - [Display Pall	et]	
<u>File</u> Programs <u>M</u> ake a new	Shape Database Tools Colors Add Graphics	Internet <u>H</u> elp
		N
Packages	48x40	53footer
5	Select Pallet Base Style	
48x40.pa4	48x40 US GMA 4-Way Pallet	
	Pallet Dimensions	
Length	Width Height Weight	
48.0000 40.0	0000 5.5000 50.0000	
Enter Maximum Over Length 0.0000	Maximum Load Dimensions rhang Max. Load Width Max Height Max Weight 0.0000 50.0000 2000.000 Max Packages 0	
	Pallet Base Style Directory	Pallet Thumbnails
Input Settings	Product Name/Product Code	Calc. Settings Save/Calc.
48×40		(in/lb) 1:25 PM CAPS NUM

This screen is similar to the Pallet Restrictions tab used in the Pallet, Arrange and Design programs. The two main differences are:

- The introduction of the **Center of Gravity** fields which can be activated through the **Input Settings** button. If you do not choose to enter this information, the defaults will remain in effect. You can change the default by activating the fields, entering your new data and then deactivating the fields. Finally, save as your Default Settings.
- The fact that Display Pallet only builds Column or Layer patterns.

Click on the down arrow next to Pallet Base Style.

For this example we will use a standard GMA pallet. From the list select **48x40 US GMA 4-Way Pallet**. Notice how the Pallet Dimensions are automatically entered for you.

Press the **Tab** key and the cursor will move to the *Maximum Overhang* fields. Leave these at **0** for this problem.

Move to the Max Height field under the Maximum Load section. Enter 50 in this field.

Hit the **Tab** key and enter **2000** for the *Max Weight* field.

Hit the **Tab** key and enter **500.** Check that your window looks like this.

📀 Display Pallet - [Display Pa	llet]						
<u>File Programs Make a nev</u>	w Shape <u>D</u> atabase <u>T</u> o	ols <u>C</u> olors	Add Graphics	Interne	t <u>H</u> elp		
🚋 🗅 🕝 🖶 🗏 🎒 🖻	) 🔟 🍇 🍇 🎌 🔟						
Packages	48)	(40			53footer		
	Select Pallet Base	Style					
48x40.pa4	48x40 US GMA 4-1	Way Palle	t	-		-	
	Pallet Dimensio	ns					
Length	Width H	eight	Weight				
48.0000 40.	.0000 5.500	0	50.0000				
Ente	r Maximum Load Di	imensions					
Maximum Ove	erhang	Max. I	_oad				
Length	Width Max	Height	Max Weight				
0.0000	0.0000	50.0000	2000.000	0			
	Max Package	s					
		500					
	Pallet Ba	se Style D	irectory		Pallet	Thumb	nails
Input Settings	Product N	ame/Prod	uct Code		Calc. Settings		Save/Calc.
					(in/lb)	1:26 PM	CAPS NUM

# Truck Information

Click on the tab labeled **53footer** which is our default truck style.

Oisplay Pallet - [Display Pallet]					- • •
File Programs Make a new Sha	ape <u>D</u> atabase <u>T</u> ools <u>C</u> olor	rs Add Graphics	Internet	<u>H</u> elp	
	j ¾ ¾ ?? 🖽				
Packages	48×40			53footer	
	Select Truck Style				
53footer.pa4 5	3-Footer Truck		•		
Tru	ek Internal Dimensions				
Length	Width	Height			
636.0000	96.0000	102.0000			
Weight	Max.Weight	Max.Heigh	t		
10000.0000	55000.0000	102.00			
				Select Loading Pai	ttorne
				Select Loading Pa	uems
				× Simple	
	Truck Style D	irectory		🗵 Complex	
Input Settings	Product Name/Pr	roduct Code		Calc. Settings S	ave/Calc.
53footer				(in/lb) 1:26 PM	CAPS NUM

In the *Truck Style* field choose **40 ft. long – High Cube**. Notice how many parts of the *Truck Internal Dimension* field are automatically filled in with the values for your truck style.

In the Max. Weight field, enter **45000**.

Make sure that Simple and Complex Loading Patterns are marked. Your screen should now look like the following.

Display Pallet - [Display Pallet]     Display Pallet     Eile Programs Make a new Shape Database Tools Colors Add Graphics Internet Help     Display Pallet     Prockages     48x40     53footer	x
Eile       Programs       Make a new Shape       Database       Tools       Colors       Add Graphics       Internet       Help         Image: State of the state	
□         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □	
Packages 48x40 53footer	
Select Truck Style 53footer.pa4 53-Footer Truck Truck Internal Dimensions Length Width Height 636.0000 96.0000 102.0000 Weight Max.Weight Max.Height 10000.0000 45000 102.0000	
Select Loading Patterns	
E Cincle	
Truck Style Directory Complex	
Input Settings Product Name/Product Code Calc. Settings Save/Calc.	
	J
Enter maximum Load Height (in/lb) 1:26 PM CAPS NUM	

Now that you have entered all of the information about the case, the pallet and the truck you want to see the results.

## Saving Data

Click on the Save/Calc. button on any of the input screens. The Save As dialog box appears.

Make sure you have the Private folder showing in the Save In field. Type Supermart in the File name box.

Click on **Save**. The program automatically begins calculating solutions and assembling the diagrams for your problem.

When the calculations are finished you will see a new window, Multi-Viewer Graphics, showing solution number 1.



The program has calculated two solutions. It now displays the graphics for the first solution in the list. You have many of the same options in Display Pallet as you do in the single product programs.

Click on **Set-up Buttons**. This will display all the controls you need for setting up and creating your diagrams. Notice how the button now shows the **Quick Report**. This is used for displaying the solution information. You can toggle between the **Quick Report** and the **Set-up Buttons** just by clicking on this button. Click on **Quick Report** to bring back the solution information.

# **Evaluating Results**

You will be shown the corner view of the pallet, along with the side views and 2 top views. You can easily review the numbers in the upper right-hand corner. The Load Cubic Efficiency is shown as 76.2%, and the number of packages per load is 44. You can click on the **Solution Details** button to see the list of the items in the load.

No.	Label	Package Name	# Per Load	Мах	ltems / Package	ltems / Load	Min	Length	Width
	1	Chips	8	8	8	64	5	16.0000	12.0000
	2	Crackers	3	10	20	60	10	12.5000	9.8750
	3	Candy	4	8	12	48	8	13.7795	11.8110
	4	16 Oz.	8	8	12	96	6	17.7165	13.7795
	5	Coffee	10	10	6	60	6	12.0000	8.0000
		Total	33	44		328	35	47.9331	39.5591
		Load						48.0000	40.0000

Here you can see that the maximum number of boxes for this load was 44, and this load contains 44. If you want to review other solutions to see if there is a better load, you do this through the **Solution Report**.

### **Comparing Statistics**

Click on the **Solution Report button**.

📀 Solu	Solution Report - Column											
File E	File Edit Options Help											
Sol. No.	# Per Load	Cube Eff.	Product Length	Product Width	Product Height	Product Weight	Load Length	Load Width	Load Height	Loa ^ Weic		
1	33	76.4	47.9331	39.5591	41.2441	372.6880	48.0000	40.0000	46.7441	422.6		
										-		
										<b>&gt;</b>		

The solutions are listed in descending order of cubic efficiency. Double click on any one of these solutions to review the graphics.

### **Reviewing Graphics for Other Solutions**

Although the results of solution number 1 appear perfectly satisfactory, you want to view other solutions.

Click on the right arrow button  $(\rightarrow)$  on the menu icon bar. This brings up the next solution in the list.

Click on the left arrow button  $(\bigstar)$ . This brings up the previous solution in the list.

Click on the **Jump to a Solution arrow** button. Enter a particular solution number, and click on **OK**. That solution number appears.

If a particular arrow button is gray you are at the first or last solution in the list. Click on the opposite button or the **Jump to a Solution** button to switch solutions.

# The Best Solution

After analyzing the statistics and graphics you decide you like solution #1 best. It contains all of the packages we needed and has a very shoppable pallet pattern.

## Formatting the Pallet Load

In order to achieve some level of stability this load requires a top cap and corner posts. Cape Pack will be able to display all this for you. We will not be adding formatting to this load, but the following section explains the process.

### Adding a Top Cap

Make sure you have highlighted the panel with the Pallet Load and then click on the Set-up Buttons button.

Next click on the Format Load button.

Click on the button labeled **Top Cap**. New fields appear in the bottom half of the screen.

Select the **200 lb B flute** material from your list and the information for Weight Thickness and Height will be filled in automatically for you. You can overwrite any of this information as needed.

You can set your own defaults for these values and for Layer Pads/trays and Corner Post from the **Tools** menu at the top of the screen.



Click on the button labeled **Accept Values**. A top cap will be drawn on top of the load.

Notice in the spreadsheet how the height and weight in the Product Dimensions have changed from the original calculations.

### **Adding Corner Posts**

Click on the button labeled **Corner Post**. New fields appear at the bottom of the screen.

Again select the **200 lb B-flute** from the list to fill in the required information.

Click on the button labeled **Accept Values**. Four corner posts will be drawn at the corners of the pallet extending out over the cases by the amount you entered in the *Width* field. You will see the following screen.



Click on **OK** to accept all your changes and the Multi-Viewer Graphics will return with the updated diagrams and dimensions.



# Loading the Truck

From the Truck menu, choose Show my Truck, or from the Tools menu, choose Truck Analysis.



You will then see a Truck Analysis Solution Report.



From this window you can evaluate different truck solutions. In our analysis, you like solution number 1.

#### Click on the File menu and select Save Current Load and Exit.

Your truck diagram will be placed in the last active panel in the Multi-Viewer Graphics. We had the Pallet Load panel (panel 1) highlighted, so the truck appears in the top left corner of the Multi-Viewer screen.



# Sharing Data

The first thing you must decide on is the layout and set-up of the screen report and printout, i.e., the type and quantity of diagrams you want to show. You know that the production floor workers like to see the corner and side views of the pallet load. It is not necessary to see the contents of the secondary package, so you do not want to show this on the report. However, you also want to show the truck. Thus, you need to set up the report to show three diagrams.

### Setting up the Screen

Click on the button labeled Format Screen.

• Format Screen		<b></b>
Options		Options
		2a
Options	Options	Options
2b	3	4
	<u>C</u> lose	

Click on the button labeled **3**. The Multi-Viewer returns with 3 diagrams.

O Multi-Viewer Graphics - c:\cape216\private\dptutorial.clf		
File Edit View Export Truck Colors e-mail Internet Help		
	Diagram Type Truck Diagram View Comer View Rotation Control Panel	Format Screen Format Panel Format Load Format Object
	Quick Report Solution Details	Solution Report
10.000	9.875 12.50	13.750
Select Desired Format	1 of 1 (in/lb) 1:29 PM	I CAPS NUM

All we need to change is the view of the Pallet load in panel 2.

Click on panel number two, and change the **Diagram Type** to **48x40**.

Next quick on the Rotation button and select 180 degrees. Your finished diagrams should look like the following.



Now that you have the Multi-Viewer Graphics configured with the layout and types of diagrams you want, you can manipulate the pallet load and the screen settings to show how it will look when it is ready for shipment.

### **Graphics Options**

The following options are available for further enhancement of your on screen diagrams.

#### Showing Content of Cases

In addition to the standard graphic pictures of the pallet and truck loads, you can also choose to show the contents of your cases. Right click on any of the boxes displayed in separate panels of the screen and select **Show Content** from the list.



A cutaway of your case will be displayed in this panel and every panel that shows a view of that case.



This procedure can be completed as needed to show contents of additional cases.

#### Showing Labels

To use the labels you entered as identifiers in your graphics, click on **Set-up Buttons**, then the **Control Panel** button. Some new controls will be revealed.

Show Color
O Show Outline
Show Control Face
Show Label
Format Panel

Click on **Show Label** to turn on this feature.

#### **Showing Outlined Boxes**

To use the labels you entered as identifiers in your graphics, click on **Set-up Buttons**, then the **Control Panel** button. Some new controls will be revealed.

Click on **Show Outline** to activate this feature.

#### Showing All Four Sides of the Load

You have the ability to show each individual side of the load in a separate panel to. Click on the **View** menu, **All Side Views**, and then **Show All Side Views**.



Your screen will appear like the one below. Each side will be labeled. The labels are fixed in location and verbiage and cannot be modified.



#### **Build-Up View**

The Build-Up View show four separate views of the pallet, one per panel. The first view is 25% of the load, the second is 50%, the third is 75% and the last is the full load. Each view is labeled and the labels are fixed and cannot be moved or modified.

To access this view, click on View, Build-up View and then Show Build-up Views.



Your screen will appear like the following.



To reverse this, click on View, Build-up View, and then Restore Views.

# Printing the Graphical Report

Now that you have formatted the screen to meet your specific requirements, you can print a report.

From the File menu, choose Print Preview. A window will come up showing you how the printout will look.

Use the scroll bars to scroll around the entire page, or use the **Zoom** controls.

If everything looks okay, click on the **Print** button.

# Exporting Cape Reports

You can use the **Edit** menu to take the diagram or a full Cape report to the Windows Clipboard. Or you can use the **Export** menu to export graphics files or text/numerical information. You can also Export your Cape Pack Reports directly to Adobe PDF format using this menu.

raphics			
Export Truck Colors e-mai	l Inte	rnet Help	
Settings			
Export Information Only	•	Product/Load Dimensi	ons
Export Cape Diagram	•	Leng	th Width Height
Export Cape Report	×	Report Only	ZSoft Format (PCX)
Robotic Interface		Report and ASCII	Tagged Image File Format (TIF)
	45.50	Cape's web page (html format)	Encapsulated Postscript (EPS)
	45.50	Create a PDF Report	Adobe Photoshop 3.0 (PSD)
		Total Packages	4 Windows Bitmap (BMP)
	1	Packages Used	4 OS/2 Bitmap (BMP)
	,	Packages /Load 5	Windows Metafile - WMF
48.000			JPEG
		Set-un Buttons Solut	tion Details Solution Benort

# **Emailing Results**

Make sure you have the pallet load highlighted.

Select the e-mail menu option and click on email Full Report, and then select either the JPEG or PDF option.

e-mail Internet Help				
email Full Report	۱.		as JPEG	
email Diagram Only			as PDF	
email Help Desk	×			Lengt
		.tt		48.0

This will automatically export the report or diagram as the chosen file type and open your email program. You will see that an email has been opened and that the JPEG file has already been attached. All you have to do is enter the name of the recipient, add or change any text and send the email!

## Calculating Loads with Layers

Let's see what our example will look like if we use layers rather than columns.

Click on the **Back** button to return to data entry.

Click on the File menu and then Open My Default Settings.

0	Displa	ay Pallet - [c:\cape216\p	rivate\dptu	torial.clf]						
<u>F</u> ile	e <u>P</u> r	ograms <u>M</u> ake a new S	hape <u>D</u> ata	abase <u>T</u> ools <u>C</u> olors A	dd Graphics <u>I</u>	nternet <u>H</u> elp	)			
back	Ľ	🗁 🖬 🗟 🎒 (	බ 🖄 🧏	?? 📼						
Pε	icka	ges		48×40		) (	53footer			
				,						
				1 of	4					
	#	Package Name	Label	Package Types	Length	Width	Height	Weight	Мах	Min
í I	1	Box	1	Standard Box	16.0000	12.0000	10.0000	10.0000	25	
	2	Case	2	RSC Box	12.0000	9.0000	10.0000	12.0000	25	
	3	Std. Box	3	Standard Box	15.0000	9.0000	9.0000	25.0000	25	
í I	4	Case	4	Standard Box	12.0000	10.0000	9.0000	1.0000	25	_
	•							1		•
		Import from Da	ntabase	Add	Package	E	dit Packagı		Delete	
	_	Input Settings		Product Name/Prod	luct Code	C	alc. Setting	s Sa	ive/Cal	с.
Pa	ckag	es					(in/lb) 1	:34 PM CA	PS N	JM

Click on the **Calc. Settings** button.

Select Layer Algorithm. Your screen should look like the following.

Calc. Settings Optimization Type		×
Single Pallet Optimization	O Order Fulfilment	
Algorithm Type/Parameters		
🔿 Column Algorithm	Layer Algorithm	
Column Editor	O Layer Editor O Mixed Load Editor	
Time Limit for Each Strategy (second	<b>is</b> ] <u>6</u>	
Package Loading Rules		
<ul> <li>No Loading Restrictions</li> <li>Limit Column Height</li> <li>Load Priority</li> </ul>	Algorithm option enables optimization of pallet load with no restrictions.	
Layer Algorithm Restrictions		
Do Not Allow Mixed Top	Spread to Biggest Layer	
Do Not Allow Mixed Layers	🗖 Maximum Spread	
	OK Cancel	

Now click on the File menu and Save As Input Data & Calculate.

Enter a new name and click on **OK**. Your layer load will appear after calculations have completed.



Let's take a look at load number 2.



This is a nice stable load with even layers so we will choose this one. Here is the load in Truck Analysis.



## **Database Import**

In addition to using your databases to update your load files, you can also use your open analyses to import records into your databases. The following tutorial will walk you through this process. This process works with CLF files as well as the older CL2 files.

On the Display Pallet data input screen, click on File, Open Input Data.

Open the last file you created, Supermart.clf.

🟮 Displa	ay Pallet - [c:\cape216\p	rivate\dptu	orial.clf]						
<u>File</u> Pr	ograms <u>M</u> ake a new S	hape <u>D</u> ata	ibase <u>T</u> ools <u>C</u> olors A	dd Graphics I	nternet <u>H</u> elp				
bock	🗁 🖬 🗟 🎒 🗎	ō 🧏 🛬	?? 🔳						
Packa	ges		48×40		) i	53footer			
			,						
			1 of	5					
#	Package Name	Label	Package Types	Length	Width	Height	Weight	Мах	Min
1	Chips	1	Standard Box	16.0000	12.0000	10.0000	6.0000	8	
2	Crackers	2	RSC Box	12.5000	9.8750	13.7500	13.0000	10	1
3	Candy	3	Standard Box	13.7795	11.8110	9.8425	15.0000	8	
4	16 Oz.	4	End Loader Box	17.7165	13.7795	15.7480	12.0000	8	
5	Coffee	5	Tray	12.0000	8.0000	8.0000	13.0000	10	
1							[		Þ
	Import from Da	ntabase	Add	Package	E	dit Package		Delete	
	Input Settings		Product Name/Prod	uct Code	C	alc. Setting	s Se	ve/Cal	c.
Packag	es					(in/lb) 1	:37 PM CA	PS N	JM

Now let's create a new database and import these three records.

Click on the Database menu and then Create New Package Database.

Database Tools (	Colors Add Graphics	Internet H
Create New Pag	:kage Database	
Package Databa	ase Utility	
Export Package	(s) to Package Database	•

Name your database **DP Tutorial**.

Oreate New Database						×
🔾 🗸 😺 🕨 Computer 🕨 Local Disk (	(C:)	cape216 → Databases → DisplayPallet →	Shared .	<ul> <li>Search Share</li> </ul>	d	Q
Organize 🔻 New folder						?
☆ Favorites	^	Name	Date modified	Туре	Size	
Desktop		cp16.mdb	9/12/2016 9:10 AM	MDB File	48 KB	
Downloads		dieter.mdb	5/4/2016 1:49 PM	MDB File	50 KB	
Recent Places		displaypallet.mdb	9/17/2016 1:20 PM	MDB File	50 KB	
		kim.MDB	7/20/2016 9:43 AM	MDB File	50 KB	
🔚 Libraries		myPackages.MDB	4/7/2014 1:02 PM	MDB File	50 KB	
Documents		myPackages6.MDB	7/20/2016 9:15 AM	MDB File	50 KB	
👌 Music		tutorial.mdb	9/7/2016 2:56 PM	MDB File	48 KB	
E Pictures						
😸 Videos	Ξ					
Computer  Local Disk (C:)  KIKA (\egwusms003\users\$) (P:)  SolobalStorage (\esko-graphics.com  Solared Folders (\\vmware-host) (2:)  Network  EAW14ML445  EAW14ML445  EAW14VM445  Worware-host	•					
File <u>n</u> ame: DP tutorial						•
Save as type: Package Database						•
Hide Folders				Save	Cancel	

Click on **Save** and your empty database will appear.

O Pac	:kage Database - d	p tutorial.mdb								• 💌
File	Options Help									
#	Package Name	Label	Package Types	Units	Length	Width	Heigh	nt Tray He	/ Wall eight	Weigl
										-
		Close	Add	Edit	Delete		Select All			
							(in/lb)	1:37 PM	CAPS	NUM //

Next click on the File menu and then Import Package(s) from Analysis.

O P	ackage Database - cp16.mdb	
File	Options Help	
	Create New Package Database	
	Open Package Database	
	Export Package(s) to Analysis	
	Import Package(s) from Analysis	
	Export Entire Database as ASCII File	+
	Import .cdi from Database	+
	Import SP from CLF into Database	
	Import from Secondary Pack Database	
	Purge Duplicates	
	Print	Ctrl+P
	Print Preview	
	Print Setup	
	Close	

A screen will appear listing the items in the load. Select each item by clicking in the Import column for that item.

#	Package Name	Import	Package Types	Length	Width	Hei
1	Chips	V	Standard Box	16.0000	12.0000	1:
2	Crackers		RSC Box	12.5000	9.8750	1
3	Candy		Standard Box	13.7795	11.8110	1
4	16 Oz.	V	End Loader Box	17.7165	13.7795	1:
5	Coffee	<b>1</b>	Tray	12.0000	8.0000	1

Click on **Import** to add the items to your database.

20	aons <u>T</u> eb								
#	Package Name	Label	Package Types	Units	Length	Width	Height	Tray Wall Height	Weig
1	Chips	1	Standard Box	in/lb	16.0000	12.0000	10.0000	-	6
2	Crackers	2	RSC Box	in/lb	12.5000	9.8750	13.7500	-	13
3	Candy	3	Standard Box	in/lb	13.7795	11.8110	9.8425	-	15
4	16 Oz.	4	End Loader Box	in/lb	17.7165	13.7795	15.7480	-	12
5	Coffee	5	Tray	in/lb	12.0000	8.0000	8.0000	4.0000	13
									Þ

Close the database by clicking on **Close**.

# Menus and Options

Most of the options in the Display Pallet program, both in data input and Multi-Viewer Graphics, are the same as the other Cape Pack programs. Menus and on-screen options are the exceptions.

Menu	Sub-Menu	Description
View	Build-up View	The build up view will use all four panels of the Multi-Viewer Graphics screen. Panel 1 will contain the pallet with 25% of the load; panel 2 will have 50% of the load; panel 3 will have 75% of the load; and panel 4 will have 100% of the load. Each panel is also marked with the percentage of product represented.
	Restore View Before Buildup	Returns the panels to the setup held just prior to activating the Build-up View
	Show All Side Views	This option will display each side of the pallet in a separate panel of Multi- Viewer Graphics, and label each accordingly.
Truck	Show My Truck	New to Display Pallet, this feature allows you to load your pallets into the truck or container style you chose at input.
Colors	Show Outline	This feature removes the color from all of your boxes and trays in the load. Any objects shown in the load will not be affected by this setting.
	Show Color	This feature restores the color to the boxes and trays in the load.
Add Graphics	Show Label	This feature applies the label you chose at input to each package in the load. This is especially helpful if your packages are similar in size and difficult to identify.

Button	Description

Solution Details	Includes the following data for the solution that is active: Package number, Package label, Package Name, Number per Load, Maximum number allowed per load, Number of items per package, and Minimum number per load, package length, width, height and weight.
Solution Report	Includes the following data for each solution: Solution number, Number per load, Cube, Product Length/width/height/weight, Load Length/width/height/weight, and the Search Algorithm used. Your solutions will be ranked by number of items per load with the first solution having the most per load. You can choose to rank the solutions instead by cubic efficiency. Click on <b>Options</b> , <b>Rank Solutions By, Cubic Efficiency</b> to select this option.
Format Screen	Allows you to select the number of diagrams you want in your output.
Format Panel	Allows you select which diagrams you want displayed in each panel.
Format Load	Allows you to add Corner Posts and Top Caps to the load.
Format Object	Depending on the object that is active at the time, you can show stretch/shrink wrap, show contents or open the flaps (for standard box types only)

# Special Display Pallet Features

### Solution Details Button

You can click on the **Solution Details** button to see the list of the items in the load.

No.	Label	Package Name	# Per Load	Max	ltems / Package	ltems / Load	Min	Length	Width
	1	Chips	8	8	8	64	5	16.0000	12.0000
	2	Crackers	3	10	20	60	10	12.5000	9.8750
	3	Candy	4	8	12	48	8	13.7795	11.8110
	4	16 Oz.	8	8	12	96	6	17.7165	13.7795
	5	Coffee	10	10	6	60	6	12.0000	8.0000
		Total	33	44		328	35	47.4331	39.6535
		Load						48.0000	40.0000

## Solution Report Button

Click on the **Solution Report** button to see load information for each solution.

File Edit Options Help         Sol. # Per Cube Product Length       Product Product Height       Load Load Loa         No. Load Eff.       Length       Width       Height         1 31       61.4       45.5000       39.4961       43.5905       394.6450       48.0000       40.0000       49.0905       444.6	O Solution Report - Layer										
Sol. # Per Cube       Product       Product       Product       Product       Load       Load       Load       Height       Weight         1 31       61.4       45,5000       39.4961       43.5905       394.6450       48.0000       40.0000       49.0905       444.6	File E	dit Opti	ions Hel	p							
1 31 61.4 45.5000 39.4961 43.5905 394.6450 48.0000 40.0000 49.0905 444.6 4	Sol. No.	# Per Load	Cube Eff.	Product Length	Product Width	Product Height	Product Weight	Load Length	Load Width	Load Height	Loa.▲ Weic
4	1	31	61.4	45.5000	39.4961	43.5905	394.6450	48.0000	40.0000	49.0905	444.6
4											
4											
4											
۲											-
	•										•

The solutions are listed in descending order of cubic efficiency. Double click on any one of these solutions to review the graphics.

### Format Load Button

### Adding a Top Cap

Make sure you have highlighted the panel with the **Pallet Load** and then click on the **Set-up Buttons** button.

Next click on the **Format Load** button.

Format Load <u>File</u> <u>I</u> ools						<b>-X</b>
- #2	Top Cap	Corr	ner Posts			
41.2		Length	Width	Height	Weight	
	Old Load Dims	47.433	39.654	46.744	423	
	New Load Dims	47.433	39.654	46.744	423	
39.7 47.4						
	ОК	Cancel				

Click on the button labeled **Top Cap**. New fields appear in the bottom half of the screen.



Select the 200 lb C flute material from your list and the information for Weight Thickness and Height will be filled in automatically for you. You can overwrite any of this information as needed.

You can set your own defaults for these values and for Layer Pads/trays and Corner Post from the **Tools** menu at the top of the screen.

Click on the button labeled Accept Values. A top cap will be drawn on top of the load.
Top Cap Old Load Dims New Load Dims	Length 47.433 47.653	Width 39.654 39.874	Height 46.744 46.854	Weight 423 424.28	
Old Load Dims New Load Dims	Length 47.433 47.653	Width 39.654 39.874	Height 46.744 46.854	Weight 423 424.28	
Old Load Dims New Load Dims	47.433 47.653	39.654 39.874	46.744 46.854	423 424.28	
New Load Dims	47.653	39.874	46.854	424.28	
ок	Cancel	1			
	ок	OK Cancel	OK Cancel	OK Cancel	OK Cancel

Notice in the spreadsheet how the height and weight in the Product Dimensions have changed from the original calculations.

#### Adding Corner Posts

Click on the button labeled **Corner Posts**. New fields appear at the bottom of the screen.

Again select the 200 lb C-flute from the list to fill in the required information.

Click on the button labeled **Accept Values**. Four corner posts will be drawn at the corners of the pallet extending out over the cases by the amount you entered in the *Width* field. You will see the following screen.



Click on **OK** to accept all your changes and the Multi-Viewer graphics will return with the updated diagrams and dimensions.



### **Customizing Packages**

#### Showing Content of Cases

In addition to the standard graphic pictures of the pallet and truck loads, you can also choose to show the contents of your cases. Right click on any of the boxes displayed in separate panels of the screen and select **Show Content** from the list.



A cutaway of your case will be display in this panel and every panel that shows a view of that case.



This procedure can be completed as needed to show contents of additional cases.

#### **Showing Labels**

To use the labels you entered as identifiers in your graphics, click on the **Format Panel** button, and then the **Control Panel** button.

Show Color
○ Show Outline
□ Show Label
Format Panel

You will see an option for **Show Labels**.



#### Showing Outlined Boxes

To remove the colors from your cases, click on the Control Panel and Show Outline.



### Customizing the Load

#### Showing All Four Sides of the Load

You have the ability to show each individual side of the load in a separate panel to. Click on the **View** menu, **All Side Views**, and then **Show all Side Views**.

Viewer	Graphics			
t Viev	v Export Truck Colors e-mail	Inter	net Hel	р
9	Zoom		2 7	3
	Default Graphics View			Product/Load Dir
	Set Dimension Label to	•		Product
1	Review Product Name/Code			Load
<ul> <li></li> </ul>	Set Decimal Places (Dim. Labels)			Cube Used
_	Reset Alert Screen	•		Area Used
_	Build-up View	•		Total Packages
	All Side Views	•	Sho	w All Side Views
	Show Dimension Labels	•	Res	tore Views

Your screen will appear like the one below. Each side will be labeled. The labels are fixed in location and verbiage and cannot be modified.



#### **Build-Up View**

The Build-Up View show four separate views of the pallet, one per panel. The first view is 25% of the load, the second is 50%, the third is 75% and the last is the full load. Each view is labeled and the labels are fixed and cannot be moved or modified.

To access this view, click on View, Build-up View, and then Show Build-up Views.

ie	wer (	Graphics					
	View	Export Truck Colors e-mail	Inter	net H	lelp		
1000		Zoom		2	P		
1		Default Graphics View			7	Product/Load	Dimens
l		Set Dimension Label to	•				Len
ł						Product	48.
1		Review Product Name/Code				Load	48.
		Set Decimal Places (Dim. Labels)				Cube Heed	
		Reset Alert Screen				Cube Used	78
		Neset Alert Screen				Area Used	95
		Build-up View	•	S	how	Build-up Views	
		All Side Views	►	R	esto	re Views	
		Show Dimension Labels	+			Fackages / Lo	1a'

Your screen will appear like the following.



To reverse this, click on View, Build-up View, Restore Views.

## Export Options

The Display Pallet Program export options are the same as the other programs and details can be found in the Export chapter of your User Guide. The differences are listed below.

## **ASCII Solution Export**

Following is the structure of the exported solution file.

Line 1	Product Name
Line 2	Product Code
Line 3	Solution Reference

Line 4	File Name
Line 5	File Date
Line 6	Pallet Base Name
Line 7	Units of Measure (0=Metric;1=English)
Line 8	Packages per Load
Line 9	Pallet Load Cube Efficiency
Line 10	Pallet Length
Line 11	Pallet Width
Line 12	Pallet Height
Line 13	Pallet Weight
Line 14	Product Length
Line 15	Product Width
Line 16	Product Height
Line 17	Product Gross Weight
Line 18	Load Length
Line 19	Load Width
Line 20	Load Height
Line 21	Load Net weight
Line 22	Load gross weight
Line 23	Pallet Loads per Truck
Line 24	Packages per Truck
Line 25	Truck Name.
Line 26	Truck Load Length
Line 27	Truck Load Width
Line 28	Truck Load Height
Line 29	Truck Product Length
Line 30	Truck Product Width
Line 31	Truck Product Height
Line 32	Truck Load Gross Weight
Line 33	Truck Load Net Weight
Line 34	Truck Product Gross Weight
Line 35	Truck Product Net Weight
Line 36	# of package Types per Load

The following lines are repeated for each different package in the load.

Line 37	Package name
Line 38	Package length
Line 39	Package width
Line 40	Package height
Line 41	Package weight
Line 42	# pp / Package
Line 43	this Package type per Load

SP2 : Line 44 – Line 50

SP3 : Line 51 – Line 57

SP4 : Line 58 – Line 63

SP99 : Line 723 – Line 729

# Exported Database File (CDI extension)

The following is the file format for databases exported to ASCII format. Although these files have a *.CDI extension, they can be read in any program that is compatible with ASCII format (such as Notepad or Excel).

File Extension	CDI
File Type	Windows INI
Section Name	General
Num_Of_Packages	Number of Packages in Database
Case Data	
Section Name	[Case # X] (where X represents the number of the case)
Field #1	Package Name (Maximum 15 characters)
Field #2	Label
Field #3	Color
Field #4	Package Type (0 = Standard Box, 1 = End Loader Box, 3 = Tray, 4 = *.csf)
Field #5	Shape Script file name (Only if Field #4 > 3)
Field #6	Package Length Outside Dimension
Field #7	Package Width Outside Dimension
Field #8	Package Height Outside Dimension
Field #9	Package Tray Wall Height
Field #10	Package Weight
Field #11	Maximum Package Count
Field #12	Minimum Package Count
Field #13	Pallet Height
Field #14	Package Description (optional)
Field #16	Units Of Measure (0=mm/kg, 1=in/lb)
Field #17	Pack Type (1=Case, 2=Tray)
Field #18	The Pack Type Name (Seal End, ECO Seal, Tray etc)

# **Exploring the Pattern Editors**

### Introduction

With an almost infinite number of possible case sizes and the many different pallet pattern styles available within the Cape Pack palletizing calculations, there are literally hundreds of ways of arranging cases onto a pallet layer.

The palletizing algorithms have been designed to find the maximum number of cases per layer. However, you may decide that the positioning of the cases or the nature of the pattern interlock is not the most appropriate or stable for your production or handling system. This is particularly true when the "case length to case width ratio" is 2:1 and numerous pairs of cases can be turned 90° to provide many different pattern styles.

To overcome this particular problem and other potential pattern layout problems, Cape Pack is supplied with powerful 3D Pattern Editors – Layer Editor for the single product programs and Load Editors for Display Pallet.

### Layer Editor

The Layer Editor provides a simple, yet very realistic, way for you to move, rotate and reposition cases within a **single** pattern layout to suit your exact needs. You can also add or delete layers from a pallet load.

Alternatively, you may wish to use the Layer Editor to edit the layout of the cases to produce different layers with the same number of cases per layer.

Either way, the Editor allows you to modify a pattern layer quickly and then construct your full pallet load.

Once a pattern has been edited it can be reviewed in an on-line mode in the Multi-Viewer Graphics. The pattern can then be saved and recalled at a future date.

You cannot edit layers in the Layer Editor if you have chosen either None or No Package as your package type.

## **Editing Layers**

Select Layer Editor from the Edit menu in Multi-Viewer Graphics.

1ulti-V	iewer Gr	aphics						
Edit	View	Export	Truck	Tools	Databases			
	Copy Diagram							
1	Resize and Copy Diagram							
	Copy C	ape Repo	ort		Ctrl+C			
	Layer E	ditor						
1.0		· / ·	$\sim$	$\sim$				

The Layer Editor consists of a top-view Pattern Editor on the right hand side of the screen and the ability to view the pallet load in a 3-D Viewer on the left-hand side.

You can select the Editor window by clicking on the little circle marked Edit.

Layer Editor						×
	Patt	em: P001	Ŷ	Case	X X	
View C Edit						
4=P001-E 3=P001 <u>Copy</u> <u>Up</u> Down		_			 	-
Dejete					 	-

The Editor window displays a top-view of your selected pattern. This window is used for editing and manipulating the cases within the layer pattern.

The Viewer window is used to look at the layer pattern in the load you are editing. Thus, you can see the changes you make to the layer pattern as they happen simply by choosing **Edit** or **View**. You can also use the Viewer window to examine your edited pattern in a variety of different formats.

If you select **Edit**, the screen changes to the editing mode with just a single layer in the viewing box.

Layer Editor File Options Help							x
	Patt	em: P001	<b>2</b>	Case		×	
View • Edit							
4=P001-E 3=P001 Up Down					 		
Dejete					 		

The Layer Editor Window always displays a single layer, top-view of the pallet pattern. If you need to create an alternate layer that is not a normal alternated or flipped layer, you can create a second layer pattern.

# Viewer Toolbar

In addition to the standard pull down menus, the Layer Editor provides a convenient set of buttons for accessing the most commonly used Viewer Window options. Here is a description of the Viewer Toolbar functions.

<b>0</b> °	Sets the viewing orientation to $0^{\circ}$
90°	Sets the viewing orientation to 90°
180°	Sets the viewing orientation to 180°
270°	Sets the viewing orientation to 270°
1	Shows side 1 of the load
2	Shows side 2 of the load
3	Shows side 3 of the load
4	Shows side 4 of the load
New	Allows an existing pattern to be used to create an entirely new pattern
Сору	Duplicates a pattern, creating an additional layer
Up	Moves a selected layer up in the pallet load
Down	Moves a selected layer down in the pallet load
Delete	Deletes the highlighted layer in the list box

### **Selecting Cases**

The Layer Editor uses a Windows technique for manipulating objects on the screen. This allows you to treat a case as if it were a real object. You can pick it up, rotate it or slide it around. There is also the ability to move several cases together (a "block of cases") as if they were a single case.

However, the Editor options which manipulate cases affect **only** the **selected** item in the load. A selected item is indicated with a large X drawn on top of it.

### Selecting a Single Case

To select a single case move the mouse cursor over the case you want and click on the left mouse button.

Layer Editor     Eile Options Help		×
	Pattern: P001	
View • Edit		
A=P001-E 3=P001 Dopy Delete Delete		

### Selecting a Block of Cases

A "block of cases" is a group of cases stacked together in the same orientation. This method provides a very effective and efficient way to perform editing functions on more than one case at the same time. This feature eliminates the need do to things repetitively.

Press and hold down the **Shift** key, place the cursor over the first case you want to select and press and hold the left mouse button.

Now drag the mouse pointer to the last box to be included. The dotted line you are drawing is called the Selection Rectangle.

#### 298

#### Flip



Release both the mouse buttons and the **Shift** key. The block becomes selected.



Having selected a block of cases, you can now use any of the available Editor functions. An X drawn through them indicates the cases included in the block. This technique is sometimes referred to as "elastic banding". Only those cases that are near to one another and are in the same orientation can be selected into a block.

# **Moving Cases**

Moving a case or block of cases is a simple process. After you have selected a case or block of cases, click and hold down the left mouse button and move the pointer to the position where you want the case/block of cases to be placed.

Select the case or block of cases.



While pressing down the left mouse button, drag the box to the required position.

Layer Editor	
Ele Options Help	Pattem: P001
View © Edit Layers 4=P001-E 3=P001 Up	
Dejete	

Release the mouse button to stop the movement of the case or block of cases.

O Layer Editor	
<u>File Options H</u> elp	
0 1	Pattern: P001
90 2	
C View . • Edit	
Layers	
4=P001-E New Elip	
<u>C</u> opy	
<u>p</u>	
Down Both	
Delete	

# Lifting Cases

This lifting technique is similar to moving a single case but requires you to press and hold **both** mouse buttons at the same time and then drag to the new location.

Select the case with the left mouse button, now hold down both the left and right mouse buttons together. Drag the case to the required position.



Now release both mouse buttons to drop the case into the required position.



You cannot lift a case if another case is above it. However, you can slide the case or block of cases from side to side if there is sufficient room available.

## **Rotating Cases**

The Editor provides the ability to rotate individual cases.

Select a case using your mouse.



Press the **right or left arrow keys** on your keyboard to rotate the selected case in the direction you require.



If there is not enough room to rotate the case where it is located, the program will lift it up over the cases near it and turn it.

## **Creating New Layer Patterns**

The Layer Editor allows you to create as many layer patterns as you like with a different layout to that of the first layer pattern. This option allows you to create unique alternate layers that will make up your final pallet load.

Most users will not need a unique second pattern since they simply want all their layer patterns to be the same layout as their first pattern, just flipped in a particular fashion.

If you do want your alternate layers to have a **different** pattern layout you will need to create a new layer pattern before you exit the Editor.

Once you have completed editing and creating your first pattern, click on the **View** selector, and then the **New** button. The following box appears.

📀 New Layer	<b>EX</b>
Select Pattern (New) P001 P002	Pattern Preview
	O Use <new></new>
	⊙ Create P003
	OK Cancel

You can select a new layer pattern from the list provided (P001, P002, etc.) by selecting the "Use PXXX" feature.

📀 New Layer	×
View Layer Select Pattern (New> P001 P002	Patern Preview
	⊙ Use P002
	O Create P003
	OK Cancel

Or you can create your own new layer based on one of the patterns in the list. Click on the layer of your choice and then the **Create** button.

📀 New Layer	<b>X</b>
New Layer Select Pattern <new> P001 P002</new>	Pattern Preview
	O Use P002
	⊙ Create P003
	OK Cancel

Either way, once you choose, the control returns to the Editor. As you create new layers, you will notice that your pallet load grows. If you do not want to expand the height of your pallet, simply use the **Delete** button to delete the unwanted layers.

Pattern: P003 Cose X X Pattern: P003 Cose X X Pattern: P003 Cose X X Cose X X X A Cose X X X A Cose X X X A Cose X X X A Cose X X X A A Cose X X X A A A A A A A A A A A A A A	Layer Editor     File Options Help			<b>—</b> ×
<ul> <li>View</li> <li>Edit</li> <li>Layers</li> <li>SeP003 +</li> <li>Qopy</li> <li>Length</li> <li>Width</li> <li>Both</li> <li>Dejete</li> </ul>	1 1 90 2 100 3 770 4	attern: P003	Case	 XX
Layers	• View C Edit			
Delete	Layers 5-P003 4=P001-E Length Up Down Length Width Both			 

Select **Edit** to change the pattern of your choice.

O Layer Editor					x
File Options Help	Patt	em: P003	Case	X X	
View • Edit					
Layers 5=P003 4=P001-E Copy Up Down Both				 	

When you have completed editing your second, third, fourth (or however many different layers you want), you can select the **View** mode to review your load or move layers up/down.

Patem: P003 Case X X Patem: P003 Case X X Patem: P003 Case X X Patem: P003 Case X X X Mew Case X X Edit Layers S=P003 A 4=P001-E Opy Length Up Length Width Both Delete	Q Layer Editor			×
	Layer Editor   File Options Help   0 1   10 2   10 3   10 3   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4   10 4 </th <th>Pattern: P003</th> <th>Case</th> <th></th>	Pattern: P003	Case	

When finished, select **Close** from the **File** menu. The following screen will appear.



Click **Yes** to save your changes, **No** to exit without saving or **Cancel** to return to the Editor. If you select **Yes**, you will be returned to Multi-Viewer Graphics and you will see the pallet load with your edited layers.



## Adding Cases

Just highlight one case by clicking on it.

O Layer Editor	
<u>File Options H</u> elp	
0 1 90 2 100 3 270 4 3 12 5	Pattern: P001
⊙ View	
Layers	
2=P001 ↓ <u>Copy</u> <u>Up</u>	
Delete	

Then hold down the **CTRL** key and click on the case again. This will automatically add one case on top of the highlighted case.

Layer Editor	×
Image: Provide and	Pattern: P001
View         • Edit Layers         S=P001         • Eu         Copy         Up         Up         Up	

Now move the new case to the chosen location.

O Layer Editor		x
File Options Help	Patterm: P001	
⊙ View ⊙ Edit		
Layers       3=P001       2=P001       Qopy       Up         Lip		

Expanding Overhang

Click on the **Options** menu and then **Reset Overhang**.

	Options Help	
1	Reset Overhang	þ
0	Do not center pattern on Exit	
n		Т

The following screen appears.

Reset Overhang	
Original Load Length = 48	Original Load Width = 40 Units = (in/lb)
New Overhang in Length 0.0000	New Overhang in Width 3.0000
ОК	Cancel

Enter in the total amount of overhang you want in the length and width and click on **OK**. The pattern will reappear with a border around the layer that represents the new boundaries of the load.

The program will retain the last overhang amount entered as the default.

Layer Editor	
	Pattern: P001
© View ● Edit	
3=P001 2=P001 Up Up Elip Length Width Both	

Make whatever changes you need and then exit the Layer Editor. The load will automatically center when you exit back to Multi-Viewer Graphics.

If you don't want the load to center, click on the **Options** menu and **Do not center pattern on Exit**.



# **Deleting Cases**

Just highlight a case and hit the **Delete** key on your keyboard. The case will be removed.

# Deleting Layers from your Load

Click on the **View** field and you will see the full pallet load.



Highlight a layer and click on the **Delete** button.

Layer Editor	
	Pattern: P001
• View O Edit Layers 3-P001 • New Elip	
2=P001     Copy     Length       Up     Width       Down       Delete	

The pallet now has one less layer.

# Copying Layers

To copy a layer, click on the layer in the list you want to copy and click on the **Copy** button.

Layer Editor     Editor     Editor
Ele Options Help Pattern: P003 Pattern: P003 Case III III IIIIIIIIIIIIIIIIIIIIIIIIIIII

The Editor will make a duplicate of that layer.

## Moving Layers up or down in the load.

To move a layer up, click on the **Up** button. The layer will move up 1 level for each click on that button.



To move a layer down, repeat this process using the **Down** button.

## **Display Pallet Load Editor**

The Display Pallet Load Editors are powerful program utilities that allow you to create and edit different loads. These special Editors allow for adding or deleting packages, building or moving individual or blocks of boxes on the pallet and generally creating a load as if you were physically placing the boxes onto the pallet.

The Editors use simple drag-and-drop techniques to give natural control over the placement of the boxes within the load. A number of additional features are available for you to quickly and easily customize your pallet load. Once you have finished editing/building your load, the results can be printed or saved.

You can choose the Display Pallet editors in two ways:

- You can start with an empty pallet and build your own load. Choose to start with an editor via the Calc. Settings button. If you choose this option, the program will not calculate any loads for you automatically. It will take you directly to the selected editor option when you select to calculate the load.
- You can calculate your loads, go to the on-screen graphics and use the editors to customize or modify the layout of the case/trays in your pallet load.

### **Calculation Settings Button**

• To access the Editor from the Calc. Settings button and use it to totally design your load, click on the Calc. Settings button.



The following screen appears.

O Order Fulfil	Iment
○ Layer Algorithm	🔿 Single Package Algorithm
O Layer Editor	O Mixed Load Editor
nds) 6	
Algorithm option enables on no restrictions.	optimization of pallet load with
☐ Spread	d to Biggest Layer
	<ul> <li>Layer Algorithm</li> <li>Layer Editor</li> <li>nds)</li> <li>6</li> <li>Algorithm option enables on restrictions</li> </ul>

Click on the Column Editor, Layer Editor or Mixed Load Editor selector. Then click on OK.

🔾 Calc. Settings		
Optimization Type		
Single Pallet Optimization	O Order F	Fulfillment
Algorithm Type/Parameters		
O Column Algorithm	🔿 Layer Algorithm	○ Single Package Algorithm
Column Editor	O Layer Editor	O Mixed Load Editor
Time Limit for Each Strategy (seco	inds) 6	
Package Loading Rules		
<ul> <li>No Loading Restrictions</li> <li>Limit Column Height</li> <li>Load Priority</li> </ul>	Algorithm option enab no restrictions.	oles optimization of pallet load <del>w</del> ith
Layer Algorithm Restrictions		
Do Not Allow Mixed Top	🗖 Sr	pread to Biggest Layer
Do Not Allow Mixed Layers	E M	aximum Spread
	OK Cancel	

Choose one of the calculate options from the **File** menu. You will be presented with an empty pallet ready to start building.



To access the Editor from Multi-Viewer Graphics after Display Pallet has calculated solutions for you, select the load you wish to edit.

Click on the **Edit** menu, then **Load Editor**.

M	ulti-V	iewer Gr	aphics				
	Edit	View	Export	Truck	Colors	e-mail	Inter
I		Copy D	liagram				⊥¥  ↑□
		Resize a	and Copy	/ Diagran	n		
		Copy C	ape Repo	ort		Ctrl+C	
		Load Ed	ditor				
	-		$\sim$	~~		RARE	

The Load Editor window will open.



For simplicity in this chapter, the word "boxes" will be used to describe boxes, cases and trays of products.

## Editor and Viewer Windows

Notice the Load Editor has two open windows.

- The Viewer window is used to look at the load being edited from a variety of angles, with or without the labels, control faces or box types.
- The Editor window is used for manipulating, adding or deleting boxes. Boxes cannot be selected in the Viewer window. It is for viewing only.

### Viewer Toolbar

In addition to the standard menus, the editor provides a convenient toolbar for accessing Viewer window functions. The toolbar resides on the left side of the Viewer window. The following table provides a summary of these functions.



Sets the orientation to 0 degrees corner. Sets the orientation to 90 degrees corner Sets the orientation to 180 degrees corner Sets the orientation to 270 degrees corner Shows side one of the load Shows side two of the load Shows side three of the load Shows side four of the load Toggles between color and outline modes Turns the labels on and off Turns the control faces on and off

## Editing Loads

The editor supports a Windows technique for manipulating objects called "drag-and-drop." This technique treats a box on your screen like a real object. The object can be picked up, stacked, slid around, duplicated or even deleted. Other features supported in the editor include:

- The ability to manipulate blocks of boxes as a single box.
- The option to automatically create a full stack of boxes from a single box.
- The ability to rotate a box or block.
- A range of useful editing and viewing techniques.

A block of boxes is defined as a group of boxes in the same orientation and which are stacked together. A block can be created by using the selection rectangle procedure described in this section.

### Selecting a Box

Each of the functions in the Editor, which allow manipulation of a box or block of boxes, will affect the selected item in the load. Just select a box (case or tray) or block and then perform the desired function on it.

Click on the box using the left mouse button. The selection status of an item is illustrated by the following pictures:





Unselected item

Selected item

### Selecting a Block of Boxes

Sometimes a function, such as **Move** or **Copy**, will need to be performed on a group of boxes simultaneously. Multiple box selection is easily accomplished by using the "Selection Rectangle" feature.

In the Column Editor, blocks can be selected which extend in three dimensions. For example, the number of boxes that make up a block could be one box wide, three boxes long and four boxes deep, for a total of 12 boxes selected ( $1 \times 3 \times 4$ ). Since loads made up of layers consist of separate layers of boxes (cases/trays), blocks cannot be selected with more than a depth of one box in the Layer Editor.

Press and hold down the **Shift** key.

Click and hold the left mouse button on the first box in the block and drag the mouse pointer diagonally to the last box to be included. The mouse pointer becomes a cross-hair indicator. A dashed rectangle should be drawn over the boxes as the mouse is moved.



Release the mouse button and the **Shift** key. The Editor will automatically select the largest block possible within the given rectangle. The boxes that were included in the block will now be shown with a diagonal selection mark (or cross).

The editor will select the largest block possible. All the boxes to be defined as a block must be of exactly the same type and orientation. In order to define a block, all the boxes must be touching or stacked together as a group.

To determine how many layers **deep** the selection covers, refer to the list box in the upper-left corner of the Editor Window. Remember that blocks can be selected with a depth greater than one **only in the Column Load Editor**.

8	Ŧ
---	---

The list box above indicates that 8 layers are selected in the block. Simply selecting a different number from this list box can change the number of layers selected in the block. For example, if (2) is selected from the list box, the block automatically becomes only **two** layers deep.

Once a block has been selected, the usual editing functions are available.

### Placing a New Box onto a Pallet

Make the Editor window active by clicking in it.

From the View menu, choose Select Box.

From the resulting small window, click on the type of box and orientation desired.



Click on the pallet where the box is to be placed. An **open** space on the pallet must be selected.

### Copying a Box or Block

Making a copy of a box or block is very easy. The procedure is similar to that for moving an object, except that the **Ctrl** (Control) key must be held and kept down before selecting the box or block.

Identify the box or block to be copied, then press and hold down the **Ctrl** key, and click on the box or block.

Release the **Ctrl** key and the left mouse button. The new box or block will appear on top of the original box or block.

### Moving a Box or Block

Moving a box or block is a natural extension of selecting the object.

Once the block has been selected, click and drag the block to the new location.

When the block is in position, release the mouse button.

### Lifting a Box or Block

The process of lifting a box or block is similar to moving the object. However, instead of clicking and dragging with the left mouse button, use **both mouse buttons at the same time** to lift the object.

Click on the box or block to be lifted with both mouse buttons.

Drag the block to the new location and release both mouse buttons.

A box or block cannot be lifted if there is another box or block above it.

## Creating Gaps within a Block

To create evenly spaced gaps within a block of boxes:

Select the block to be gapped.

Move the mouse pointer to the edge of the selection. It will turn into a **double-headed arrow**.

When the arrow is double-pointed, hold the left mouse button and drag the mouse outwards.

When the left mouse button is released, the boxes will be spread out with even gaps between the boxes.

## Function Keys in the Load Editors

The options listed above give the power to create and modify pallet loads to meet defined specifications. The Editor, however, provides a number of function keys that make the creation of loads even easier. Here is a description of those function keys.

Page Up	Creates a stack of the maximum allowed height from the selected box (case/tray).
Page Down	Reduces a selected block to a single box in height.
Left Arrow (←)	Rotates the selected object 90° in a counter clockwise direction. There must be space available for the box in its new orientation.
Right Arrow (→)	Rotates the selected object 90° in a clockwise direction. There must be space available for the box in its new orientation.
Up Arrow (↑)	Adds one box to the selected block if space is available.
Down Arrow (↓)	Removes one box from the selected block (down to one).
Delete	Deletes the selected box or block from the load.
Shift	Used with the mouse to select the block within the selection rectangle.
Ctrl (Control)	Used with the mouse to copy a box or block.

#### **Fine Tuning Movements**

To fine tune any movements of boxes or blocks:

Select a box or block.

Press and hold the **Alt** key, then use the four arrow keys to move the selected box or block.

The selected object will jump to the next adjacent box or intersection of boxes. This method makes it easy to ensure that the object is lined up precisely with the other boxes already on the pallet.

### Up and Down Buttons

The up and down arrow buttons pictured below have different functions depending upon which Editor is being used.



**UP** Arrow

• In the Layer Editor, this button will make the next higher layer active.

• In the Column Editor, this button will build all stacks in the load to the maximum height allowed according to your specified maximum load height.

**DOWN** Arrow

- In the Layer Editor, this button will make the next lower layer active.
- In the Column Editor, this button will reduce all stacks in the load to a single box high in each column.

## Load Restrictions Violations

When saving a load, the Editor automatically checks the load for conformity to the restrictions and specifications defined for the current problem. If the load violates any of the problem restrictions, a window detailing the violations will appear. This feature stops you from creating unrealistic loads that do not abide by your specified loading requirements, i.e. maximum weight and height restrictions.

The violations listed are of two types:

- Blue violations are warnings that the load you have created differs from your original specifications or restrictions. The edited load can still be saved.
- Red violations are far more severe; a load cannot be saved which contains any red violations.

At any time during the creation of a pallet load, you can check the load for conformity by selecting **View Restrictions** from the **View** menu and looking at the information provided.

## Layer Editor Dialog Box

Since loads made up of layers often require different characteristics from column or mixed loads, the Layer Editor dialog box is only accessible from the **Layout** menu when you are in the Layer Load Editor.

Select the **Layout** menu, then **Layer** to display the following window.

-	Layer Edito	r
8 7 6 5	<u>N</u> ew	Elip Length
3 2 1		Width Both
	Do <u>w</u> n Delete	C <u>e</u> ntre
□ <u>P</u> ad Thickness 0	.00	Close

This feature offers a variety of functions that can help you modify and arrange layers within the load. Here is a list of the button functions available.

New Creates a new layer and makes it the active layer.	
Copy Copies the selected layer and makes it the active layer.	

Up	Moves the selected layer up one position on the pallet.	
Down	Moves the selected layer down one position on the pallet.	
Delete	Deletes the selected layer.	
Flip Buttons	These buttons, Length, Width, Both, cause the selected layer to flip over in that direction.	
Center	Causes the selected layer, as a whole, to be centered on the pallet.	
Pad Check Box	Inserts a layer pad beneath the selected layer.	
New	Creates a new layer and makes it the active layer.	

# Menu Options

Many additional editing functions are available from the toolbar menus at the top of the window. These are described below.

File Menu	Print	Allows the setting of printing options and printing of the load displayed in the Viewer and Editor windows.
	Print Preview	Displays a scaled version of the Viewer window as it will appear on the final printed output.
	Print Setup	Allows the selection of printer configuration options available for your printer driver.
	Save and Update	Saves the load currently being edited using the same filename that load had (prior to entering the Editor). This method saves your changes over the original load.
	Save as New Load	Saves the current load being edited using a different filename from the one loaded into the Editor. This method does not change the original load information.
	Close	Quits the Load Editor and returns to Display Pallet.
Layout Menu	Clear All Boxes	Deletes all of the boxes on the pallet. You cannot get the boxes back once they have been deleted unless you leave the Editor.
	Layer	Shows the Layer Editor dialog box for manipulating layer loads.
	Columns to Min	Reduces all columns in the load to a single box in height.
	Columns to Max	Builds all columns in the load to their maximum height.
	Center Load	Allows you to center the load, as edited, between sides 1 and 3 of the pallet, sides 2 and 4 of the pallet, or both.
	Shift	Moves the active layer or column as far as possible to either the left, right, top or bottom sides of the pallet.
View Menu	Select Box	Displays a window containing the box types (cases, cans/bottles/ cartons in trays etc.) that were defined for the current problem. Select a box for placing in the load.
	Status Bar	Turns the status bar at the bottom of the Editor on or off.
	View Restrictions	Checks the current load for violations of the load restrictions and specifications you defined for the current problem.
	Statistics	Displays a spreadsheet of statistical information about the load.
	Auto Update	Turns the automatic update status of the Viewer window on or off.
Window Menu	uCascade	Arranges the open windows in a cascade fashion.
	Tile	Arranges the open windows in a tiled fashion. This is the default mode.
	Editor	Makes the Editor window active for manipulating boxes.
	Viewer	Makes the Viewer Window active for showing different angles of the edited load.
Help Menu	Contents	Opens the Display Pallet Load Editor on-line Help system.
	About Load Editor	Displays information about the current Editor.
File Menu	Print	Allows the setting of printing options and printing of the load displayed in the Viewer and Editor windows.
	Print Preview	Displays a scaled version of the Viewer window as it will appear on the final printed output.
# Casefill Group – Case Consolidation

# Introduction

Casefill is a type of case consolidation program. Imagine that you have 20 or 50 different cases sitting on the floor and a colleague gave you a carton and said, "How many of these can you fit into each case and how many will we get on a pallet?"

That's what Casefill is for. It lets you look at how to use your existing secondary package (case/tray) sizes for packing and distributing any size primary package.

Even the largest companies will be looking to maintain relatively few standard case sizes, which could ultimately hold the majority of their products. Typically the 80/20 rule (80% of revenue generated by 20% of the product range) governs which case sizes are likely to be retained. These cases, in addition to the industry standard modular case sizes, will probably form your initial database entries, but each company will have different needs.

This approach can produce both financial and logistical benefits. These benefits include reduced inventory of cases and longer runs for the case supplier, resulting in a better unit price. In addition, less pallets have to be handled and stored. This sort of increase in overall efficiency reaches a very significant level when you incorporate the use of modular case sizes designed to fit onto standard pallets (e.g., 16 x 12 inches cases on a 48 x 40 inch pallet).

The methodology behind Casefill is that you create a database of existing secondary package/case sizes by entering or importing the appropriate dimensions into Cape Pack. This, in turn, creates the information base of individual secondary package/case and pallet records. It then becomes the reference point for the analyses using the other Cape Pack programs to consider a range of quantities of a fixed primary package.

Because the three Casefill programs are similar, this chapter will refer to the **Casefill – Cartons/Bags/Ovals - Fixed** program (meaning fixed size rectangular or square shapes).

From the Casefill Group section of the Front Menu, choose **Carton** from the *Type of Pack* drop down list and click on **Go**. Or you can use the **Programs** menu to select the group and module you want to use.

Velcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]	
File Programs Create ShortCuts Make a new Shape Databases Resolutions Internet Publisher Help	
🖻 🏂 💥 🎽 🤁 🖓 8 🤀 🖶 🗤 🌾 💿	
Pallet Group (Palletize your shipper, and/or load a truck)	
	Go
Type of Package Pallet? Truck?	
Case Ves  No  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Yes	No O
-Arrange/Design Group (Create packaging for a new or existing product and pallet	ize it)
Fixed $\circ$ $\forall$ $\forall$ $\forall$ $\forall$ $\Rightarrow$ $\Rightarrow$ $\Rightarrow$ $\Rightarrow$ $\Rightarrow$ $\Rightarrow$	Go
Type of Package Type of Package Pallet? Truck?	
Box   Case  Yes  No  Yes  Yes  Yes	No O
Casefill Group (Choose the most efficient product fit, using existing box sizes) —	
	Go
Type of Package	
Box	
Select Programs Menu and then choose the program to run (in/lb) 3:03 PM	CAPS NUM

The first data input screen will appear with your Default Settings loaded.

Casefill - [Data Input] File Programs Make a new Shape I Case Casefill - [Data Input] File Programs Make a new Shape I Box Fil	nput PID Tools 다 옷 옷 옷 옷 I Restrictions	Database Colors	Add Graphics In	ternet Help	)		3 <mark>- X</mark>
Select Pack Type ECO Seal	Selec Box	t Pack Name	•	Numl 1	ber per Pa	ck	<u>•</u> •
Enter Pack (OD) Set Pack Dim Vertical	Length 6.0000	Width 4.0000	Height 6.0000				
Enter Pack Weight Gross Weight 2.2000	eight 2.0000		Input Settin Pro	gs duct Name/I	Sav Product Code	re/Calc. e	
				(in/lb)	3:03 PM	CAPS	NUM

All of the normal Cape Pack menu options are available here. You can build your own list of Material Thicknesses and Pack NamesChange Package Color, Change to Original Colors, Set Custom Colors or Add 3D Graphics.

# **Casefill Databases**

To understand how Casefill works you must be aware of the database from which it draws the case and pallet information. You will need to build your own database, or any number of different databases. For more information on the Casefill Database features, please refer to the *Cape Pack Databases* chapter of this user guide.

For getting started in Casefill we have provided a small database. You can use this one to run the tutorials in this chapter.

# The Problem

To run Casefill, you must first open a database. Once you have opened the appropriate database you can begin to enter the data for your analysis.

## Input Settings

Click on the **Input** menu **Input Settings** option to establish the parameters for your analysis.

Or you can use the **Input Settings** button, or the right click options. The following screen appears.

Input Settings	
Input Product Name/Product Code	Case
Additional Options Bulge allowed Allow Bulge entry by percentages Additional Weight	Case Count Type Min/Max Count 8 x Single Count Fill to Max Cube
Cylinders Recessed Objects allowed	Units of Measure Omm/kg Omn/lb
ОК	Cancel

Casefill only works with the **outside** dimensions of the primary pack.

You have the following options.

- Bulge Allowed: If you turn this on, then three additional fields appear on the input screen for you add a bulge factor to the *Length*, *Width* and *Height* of the primary pack. You can also allow Bulge by percentages.
- Additional Weight: This field adds an additional weight field to your screen for items that are not included in net weight but need to be included in gross weight. This could represent the weight of a informational insert or perhaps a promotional item.
- Slack Allowed: The total amount of extra space to be allowed, in each dimension. Minimum slack reduces the effective inside case dimensions used in the Casefill calculations. If you click on this option the screen will add three extra fields.
- Case Count Type: Here you can select a Min/Max for the Fill Restrictions screen, or you can specify 8 individual case counts. You can also select to fill to the maximum cube of the case.

- Units of Measure: You can choose between using either Metric or English.
- You will also have a recessed option if you are using the Cylinder program of Casefill.

For this tutorial, make sure your **Input Settings** screen looks like the following.

Input Settings	
Input Product Name/Product Code	Case
Additional Options Bulge allowed Allow Bulge entry by percentages Additional Weight	Case Count Type Min/Max Count 8 x Single Count Fill to Max Cube
Cylinders Recessed Objects allowed	Units of Measure Omm/kg © in/lb
ок	Cancel

## Product Name and Code

Choose either the **Input Product Name/Product Code** button on the **Input Settings** screen, or the one at the bottom of your data input tabs. A window appears.

O Input Product Name/Code	<b>—</b>
Date of Analysis 9/7/2016	ОК
Product Name Casefill Tutorial	Cancel
Product Code 10934832092	

Enter your **Date of Analysis**, **Product Name** and **Product Code** and click on **OK**. You are now ready to start your data entry.

## **Primary Package Information**

The first data input screen has many of the same features and menus as the Pallet, Arrange and Design programs.

🟮 Casefill - [Data Input]				
<u>File</u> Programs <u>M</u> ake a new Shape	<u>I</u> nput <u>P</u> ID <u>T</u> ools <u>D</u> atab	ase <u>C</u> olors Add Graphics	<u>I</u> nternet <u>H</u> elp	
🔚 🗅 🚄 🖶 🗟 🎒 🛅	다 🧏 🧏 🧏 🍎	📲 🔒 🖾 ??		
Box Fi	II Restrictions			
Select Pack Type	Select Pac	k Name	Numbe	r per Pack
ECO Seal	Box	•	1	
	Length W	idth Height		
Enter Pack (OD)	6 0000	4 0000 6 000	n	
Set Pack Dim Vertical		×		
Enter Pack Weight		lanut C		Reve / Cele
Crease Waight		input Si	euings	Save/Calc.
	2 0000			
2.2000	2.0000		Product Name/Pro	oduct Code
			(in/lb)	3:06 PM CAPS NUM

*Select Pack Type:* Select the type of primary package from the list box available. We are using a **ECO Seal** carton.

Select Pack Name: Select a name from the list box or enter your own package name. We are using the name Carton.

*Number per Pack*: Enter the value **1** if you are dealing with individual products. This numeric field also allows you to work with a bundle package of individual items together. For example, if 10 items are bundled and assembled with other bundles, you can enter **10** in the field and then enter the dimensions of the bundle on the Primary Package tab. This will let the program tell you how many individual items are packed per case and per pallet.

We are working with a single carton so this input should be set to **1**.

*Enter Pack (OD) (Length, Width, Height)*: Enter the outside dimensions of the primary pack. We are using dimensions of **3.5**" length, **3**" width and **4**" height.

*Set Pack Dim vertical*: Specify which orientations of the bundle or package you can allow vertical relative to the case. We are allowing both the **Width** and **Height** vertical.

For *Slack* we will enter .125" in both the *length* and *width* of the case. No slack is needed in the height dimension.

Gross Weight: This is for entering the total weight of the product and the primary package. Enter **0.15** pounds.

*Net Weight*: For the weight of the product excluding any weight of the packaging materials. Enter **0.1** pounds. Your completed screen should look like this.

For Additional Weight, enter .01 for an information insert.

	<u> </u>				
Caseriii - [Data Input]	and Inc. A DID	Taala Datahasa Calaa	Add Creation In	termet IIele	
File Programs Make a new Sha	pe input PID	Loois Database Colors	Add Graphics In	ternet <u>H</u> eip	
) 🗁 🖬 🗟 🎒 '° 🖻	비명 생활 생활	; X; 🖗 🗇 X; 8 🗉	1 77		
Box	Fill Restricti	ions			
Select Pack Type		Select Pack Name		Numb	er per Pack
ECO Seal	-	Carton	-	1	<u>•</u>
	Longth	h Width	Hoight		
Enter Deck (OD)	Lengu	2.5 2.			$<$ $\sim$ $\parallel$
Enter Pack (OD)		3.5 3	4	$\leq$	
Set Pack Dim Vertical			×		
Enter Min Slack in ID		125 125	0.000		
Liner mill. Oldek in i.D.		.123 .123	0.0000		
			L		
Enter Pack Weight					
Litter Fuck Weight			Input Setting	gs	Save/Calc.
Gross Weight N	et Weight	Add. Weight			
.15	.1	.01	Proc	duct Name/P	roduct Code
				Juckindanio	
				(in/lb)	3:08 PM CAPS NUM

# **Fill Restrictions**

Click on the Fill Restrictions tab.

O Casefill - [Data Input]							- ×
<u>File Programs</u> <u>Make a new Shape</u> <u>Input</u> <u>PID</u> <u>T</u> ools <u>I</u>	<u>)</u> atabase <u>C</u> olors	Add Graphics	<u>I</u> nternet	<u>H</u> elp			
🔚 🗅 😅 🖬 📾 🎒 📴 🖻 🔟 🖓 🎽 🌽	💮 🧏 🔒 🖾	??					
Box Fill Restrictions							
- Enter Case Restrictions	,						
Maximum Case Weight Select Pattern	Types To Use	9					
50.0000 🛛 Simple	×	Medium		× Ce	omplex		
Enter Min/Max Case Count							
					Mir	n. Fill	
Minimum 1 Maximum 1	00				Effic	ciency	
						0 %	
Total Records in Database = 20 (casefill.mo	db) (db						
All Records 🔹							
Calculating Using All Records							
Enter Polletizing Details							
Select Pellet Size			Pallet Fr	nitarin	d		
• All • Select			Leng	jth n nnnn	Wit		
Allow Multi-Dimensional Solutions			L	0.0000	][	0.0000	
C Allow Maximizer Solutions	-						
Fill Restrictions			(in/	b)	3:09 PM	CAPS	NUM

*Maximum Case Weight*: The maximum weight allowed for a single case, including all the primary packages inside the case **plus** the weight of the case itself. Enter **50** pounds.

Select Pattern Types to Use: Casefill actually builds pallet patterns inside the respective case sizes within the database. The valid styles of primary package arrangement are:

- **Simple** corresponds to the Column and Interlock palletizing styles.
- Medium corresponds to Trilock and Diagonal.
- **Complex** corresponds to Spiral and Expanded Spiral.

Thus, when you calculate the number of items per box, a number of different patterns can be considered. We will use all of the pattern types. So click them all to turn them **On**.

*Enter Min/Max Case Count*: This field is for the minimum and maximum number of units or bundles that can be placed inside a single case. We can allow a minimum of **10** and a maximum of **100** items per case. You can also choose to specify 8 individual case counts on the Input Options screen.

Min Fill Efficiency: This number is based on the total volume of the filled case.

Total Records in Database: In this area, you have three choices.

- All Records will use all the cases in the active database for the analysis.
- 10 x Records allows you to choose 10 specific record/case numbers to use for your analysis.
- Record Block allows you to choose a block of record numbers to use (i.e. record 9 through record 18).

*Enter Palletizing Details*: Here you have two choices. You can either select **All** of the pallet sizes, or you can specify one footprint that you want to consider. A value in this field ensures that only records in the database with matching pallet length and width footprints are considered in the analysis. If you wish to use all pallet sizes, then click on the **All** option.

Allow Multi-Dimensional Solutions: Casefill can consider more complex options such as two or more primary package dimensions vertical in the case. Turn this option on.



Allow Maximizer Solutions: Casefill can use the Maximizer program to arrange different columns of product to use empty space in the carton.



We cannot use this option and the Multi-Dimensional Solutions option in the same analysis. Turn this option off. Your completed screen should look like this.

🔾 Casefill - [Data Input]						x
<u>File</u> Programs <u>Make a new Shape</u> Input PID Tools	<u>D</u> atabase <u>C</u> olors	Add Graphics	Internet H	<u>H</u> elp		
🔚 🗅 🛎 🖬 📾 🎒 여 🖻 🔟 다 🧏 🧏 🤾	🏓 🔁 🧏 😫 🖾	??				
Box Fill Restrictions	5					
Enter Case Restrictions						
Maximum Case Weight Select Patte	rn Types To Use	9				
50.0000 × Simple	×	Medium		× Comple	x	
Enter Min/Max Case Count						
Minimum 10 Manimum	100				Min. Fill	
Minimum 10 Maximum	100					
Total Becords in Database = 20 (casefill	mdh)				0 70	
Calculating Using All Records						
Enter Palletizing Details						
Select Pallet Size		L I	Pallet For	otprint —		
All     Select			Lengt	h	Width	
		[	0.	.0000	0.0000	
Allow Multi-Dimensional Solutions						
Allow Maximizer Solutions						
Allow Multi-Dimensional Solutions			(in/lb	) 3:09 F	M CAPS NU	м

# Saving Data

Either click on the **Save/Calc**. button on the Carton tab, or select the **File** menu and choose the **Save As Input Data** and **Calculate** option.

You may be asked to select the Casefill database that you wish to use.

Pen Open						x
Computer + OS (C:) +	Program Files (x86) + cape213 + Da	atabases 🕨 casefill 🔹	✓ Search casefil	1		۶
Organize 🔻 New folder				• ==		0
Arr Favorites	▲ Name	^ Date modified	Туре	Size		
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<ul> <li>✓ (□) Libraries</li> <li>□ Documents</li> <li>□ Music</li> <li>□ □ Pictures</li> <li>□ Videos</li> </ul>	E					
Computer Computer G OS (C:) Computer C	_					
File name:			Case Database     Open	(*.mdb) Ca	incel	•

Select from the list and click on **Open**.

When the Save As dialog box appears, enter a file name and click on **OK**.

```
If you have not previously opened a database, you will first be prompted to select a database to use.
```

The calculation process will begin. You will be presented with a screen to select dimensions vertical.

O MDA	Loading Order	×
	The order in which the layer patterns for the given solution are loaded onto can be specified by the user. The default order loads the patterns in order of decreasing area efficiency, i.e. largest at the bottom, and smallest at the top.	
	Dimension Vertical to be loaded first	
	Dimension Vertical to be loaded second	
	OK Cancel	

Click **OK** on this screen and your solution will appear.



# **Reviewing Graphic Solutions**

When the calculations have been completed, the Multi-Viewer Graphics screen will appear.



This shows a three-dimensional view of the case and its contents, a top view, side views and the primary package itself.

# **Reviewing Statistics**

Click on the **Solution Report** button.

<u>File</u>	dit <u>O</u> p	tions <u>H</u> elp								
Sol. No.	Rec. No.	Case Name	Case Length	Case Width	Case Height	Case Weight	Total Count	# Per Case	Cube Eff.	F. T
9	9	test	16.5000	16.5000	16.5000	14.4000	1536	96	89.8	
9	9		16.5000	16.5000	16.5000	14.2500	1520	95	88.8	
10	10	case	16.0000	8.0000	8.0000	3.0000	640	20	82.0	
10	10		16.0000	8.0000	8.0000	2.7000	576	18	73.8	
11	11	carton	15.7480	11.8110	7.8740	3.9000	2340	26	74.6	
11	11		15.7480	11.8110	7.8740	4.2000	2520	28	80.3	
12	13	case	16.0000	12.0000	10.0000	6.4000	1728	36	78.8	
12	13		16.0000	12.0000	10.0000	6.8500	1872	39	85.3	
13	14	case2	15.5000	14.5000	13.5000	10.0000	2400	60	83.1	
13	14		15.5000	14.5000	13.5000	10.7500	2600	65	90.0	
<u></u>		- 1				1		[†]		F

The solution with the maximum number of packages per load (Total Count) will be highlighted for you.

The Solution Report shows the cases from the database and their associated statistics. If you allowed Multi-Dimensional solutions in your input, every other line of data (excluding case name field) represents the Multi-Dimensional variation for the case immediately above. If this option was disabled, these lines would not be on the report. If the Multi-Dimensional Solution finds a result that falls outside the minimum-maximum primary range, the line will show zeroes for case count, etc.

The name under *Case Name* is the case name of the record in the database. The case length, width and height dimensions are **Inside Dimensions** as they appear in that record in the database.

The Pat Type field (Pattern Type) corresponds to the C,I,T,S,D, and X filling patterns.

The #Per Case shows the number of unit packages per case (falling within the min- max range specified).

The Cube Eff. figure (Cube Efficiency of the contents in the case) indicates the utilization of the total case capacity.

The *Total Count* column shows primary package calculations based upon the number of cases per pallet entry in the database. This is applied as a straight multiplier to show total units per load. The Total Count value is based on Cases per Load x Unit Packages per Case x No. of items per Unit Pack.

The *Load Weight* (exclusive of pallet) column shows the weight of each case multiplied by the number of cases per pallet. The number of cases per pallet is taken from the record in the database.

The *DV* field identifies the primary package Dimension Vertical for this solution (i.e., L for Length, W for Width or H for Height).

## **Expanded Solution Report**

At the Solution Report, click on the **Options** menu.

ill S	ill Solution Report - Normal					
it	it Options <u>H</u> elp					
F		Expand	F5			
		Next Page Previous Page				

Now click on the **Expand** option. This report shows all the patterns available, within the case, for your selected solution.

у

Double-click on solution **#16.** The Multi-Viewer Graphics screen appears.



To bring up a multi-dimensional analysis diagram, go to the Normal Solution Report.

Go to Solution number 12 and double-click on the solution with pattern type MD.

Sol.	Rec.	Case	Case	Case	Case	Case	Total	# Per	Cube
11	11	carton	15 7480	11 8110	7 8740	3 9000	2340	Case 26	74.6
11	11	carton	15.7480	11.8110	7.8740	4 2000	2520	28	80.3
12	13	case	16.0000	12.0000	10.0000	6.4000	1728	36	78.8
12	13		16.0000	12.0000	10.0000	6.8500	1872	39	85.3
13	14	case2	15.5000	14.5000	13.5000	10.0000	2400	60	83.1
13	14		15.5000	14.5000	13.5000	10.7500	2600	65	90.0
14	15	case3	15.0000	14.0000	13.0000	8.2000	1920	48	73.8
14	15		15.0000	14.0000	13.0000	8.8000	2080	52	80.0
15	16	case4	10.0000	10.0000	10.0000	3.4000	640	16	67.2
15	16		10.0000	10.0000	10.0000	3.4000	640	16	67.2
1		-					· [ -	1	

The MDA Loading Order screen will appear.

у

The message on this screen is self-explanatory and is suggesting that the layers with different dimensions vertical should be stacked in order of area efficiency. If you want to change the order of the layers just reset the length, width or height in the order you require.

We will accept the default setting for now. Click on **OK**.



To change the order in which the layers have been built, repeat this process. You must use Upper Case letters in these boxes.

Formatting Diagrams for your Report

The normal Format Screen, Format Panel, Format Load, Format Object and menu options are all available.

Some of the items in the Diagram Types and Diagram Views have been disabled, as they are not applicable to Casefill.

**Print, Print Preview** and any **Custom Documents** can be accessed from the **File** menu. The other menus are the same as for the Pallet, Arrange and Design programs.

## Palletizing in Casefill

We have added the ability for you to calculate pallet loads for Casefill to replace the old imported pallet load.

After calculating, click on the Tools menu to access this feature.



The standard Cape Pack palletization screen appears with all the normal palletizing options.

Make your changes as required and click on the **Calculate** button.

Palletized Case/Tray						
File Help						
	Select Pallet	Base Style				
48X40.PA4	48x40 US GMA -	4-Way Pallet	-			
,						
	Pallet Din	nensions				
Length	Width					
48.0000 4	10.0000	5.5000	50.0000			
En	ter Maximum L	oad Dimensions	load			
overnailg/or	luemang	MdX.	Luau	Additional Palletizing Input		
Length	Width	Max.Height	Max.Weight			
0.0000	0.0000	65.0000	2000.0000	Select Pallet Pattern Styles Screen		
Case	e Dimension Ve	ertical on the Pa	llet	Pallet Thumbnails		
🗆 Length	□ Width	x H	eight			
				Alternate Layers		
		Close	C	Calculate		
	l					
elect Preferred Dimer	isions			(in/lb) 3:14 PM CAPS NUM		

Options to palletize your case appear on the screen.

📀 Palleti:	Palletized Case/Tray												
<u>F</u> ile <u>H</u> el	p												
Ele Help						Product Length48.0000Product Width40.0000Product Height50.0000Product Weight5.8500PP per SP39PF / Load1950							
Sol. No.	Pat Type	# Per Load	# Per Laver	# of Lavers	D V	Cube Eff.	Area Eff.	PP / Load	Load Length	Load Width	Load Height	Load Weight	-
1		50	10	5	Н	84.0	100.0	1950	48.00	40.00	55.50	392.50	
2	I	50	10	5	н	84.0	100.0	1950	48.00	40.00	55.50	392.50	
3	С	45	9	5	н	75.6	90.0	1755	48.00	40.00	55.50	358.25	
4	Т	45	9	5	н	75.6	90.0	1755	48.00	40.00	55.50	358.25	
5	Т	45	9	5	н	75.6	90.0	1755	48.00	40.00	55.50	358.25	
6	Т	45	9	5	н	75.6	90.0	1755	48.00	40.00	55.50	358.25	
7	S	45	9	5	н	75.6	90.0	1755	48.00	40.00	55.50	358.25	-
										(in/lb) 3:1!	5 PM CAF	S NUM	

Select the load you wish and then close this screen to update Multi-Viewer Graphics. All normal viewing and load formatting options are available.



# **Casefill for Cylinders**

This option operates in a very similar fashion to the standard Casefill for cartons shapes described above. The essential differences are:

- You are dealing with cylindrical objects instead of rectangular boxes.
- The primary package dimensions are specified as top and bottom diameters and a height instead of length, width and height.
- You can allow both row/column and nested arrangements within the cases.
- You can allow partial top layers within the case if the case weight limit will not allow full layers.
- You can specify spacing between each cylindrical object to simulate dividers or another form of product separator.

In all other respects this option program operates in the same way. The input and output screens for a Cylinder/Bottle Casefill analysis are shown next.

## Primary Package Input

O Casefill - [Data Input]					
<u>File</u> Programs <u>M</u> ake a new Shape	Input PID Tools	<u>D</u> atabase <u>C</u> olor	s Add Graphics	Internet <u>H</u> e	elp
🔙 🗅 🚅 日 🗟 🎒 🕒 🖸	ji 🕒 🧏 💥 🦓	🤌 💮 🦄 🔒 🖻	??		
Cylinder/Cone	Fill Restrictions				
۱ <u>ــــــــــــــــــــــــــــــــــــ</u>		1			
Select Pack Type	Sele	ect Pack Name			
Default 🔹	Cyli	nder/Cone	-		
	Top Diameter	Bottom Diameter	Height		
Enter Pack (UD)	4.0000	4.0000	14.0000	<u> </u>	
Orientation in Secondary			×		
	Length	Width	Height		
Enter Min. Slack in I.D.	0.0000	0.0000	0.0000		
Enter Pack Weight			Input Set	tinas	Save/Calc
Gross Weight Net \	Veight A	dd Weight			
3 3000	2 6500				
			Pi	oduct Nami	e/Product Code
				(in/lb)	3:16 PM   CAPS   NUM

## **Fill Restrictions Input**

😔 Casefill - [Data Input]	
<u>File Programs</u> <u>Make a new Shape</u> Input <u>PID</u> <u>Tools</u> <u>Database</u> <u>Colors</u> Add Graphics Internet <u>Help</u>	
🔚 🗅 🚅 🖶 🗟 🎒 🖻 🔟 🗣 🧏 🏹 🦓 🍎 🏠 😫 📰 ??	
Cylinder/Cone Fill Restrictions	
Enter Case Restrictions Select Pattern Types To Use	LC: C'11
Maximum Case Weight	Min. Fill Efficiency
110.0000 🗵 Row/Column 🖾 Nested	0%
	0 70
Enter Min/Max Case Count	
Minimum 1 Maximum 20	
Total Records in Database = 20	
All Records	
Calculating Using All Records	
Enter Palletizing Details	
Select Pallet Size	
All C Select Length Width	
48.0000 40.000	0
Fill Hestrictions (in/ib) 3:1	6 PM CAPS NUM

# Multi-Viewer Graphics Screen



## **Recessed Cylinders**

You must enter a bottom diameter that is different from your top diameter and you must enter a recess factor. The recess factor is the amount that the top cylinder recesses into the one directly beneath it in the stack.

Casefili - [Data Input]		ala Databasa Calas	Add Granhian	Internet L	
		iois <u>D</u> atabase <u>C</u> olor:		Internet E	ieib
	메 년 7월 7일 8	8 🖉 🕕 🐴 🛛 🖽	l m		
Cylinder/Cone	Fill Restrictions				
Role of De of Trans		-l			
Select Pack Type	3	elect Pack Name			
Default	ľ	yinder/cone	•		
		Bottom			
	Top Diamete	r Diameter	Height		
Enter Pack (0D)	4 000	0 2			
	4.000	U3		2	
Enter Recess Factor			7	·]	
Orientation in Secondary			×		
	Length	Width	Height		
Enter Min. Slack in I.D.	0.0000	0.0000	0.0000	l	
Enter Pack Weight			Input Sot	tinge	Sevo/Celo
	W_:_LA		InputSet	ungs	Save/Calc.
	2 6500	Add. Weight			
3.3000	2.0500	0.0000	P	roduct Nam	ie/Product Code
			L		
				(in/lb)	3:19 PM CAPS NUM
				1	. , , _

Here are your results.



# Varying Carton Size in Casefill

This option operates in an almost identical way to the Fixed Casefill options described above. There are, however, three major differences:

- The primary package can be allowed to vary in size.
- You can only work with one database record at a time.
- You cannot select Multi-Dimensional loading or Pallet Maximizer as an option.

Here are the input and output screens for a variable analysis using the data in our original example. The only differences are that we will allow the primary package to vary +/- .5 inches in all three dimensions and we will only be using record #1.

## Primary Package Input

Casefull - [/ casefull.mdb]	
Box/Bag/Bottle (Vary) Fill Restrictions	
Salact Pack Tuno Salact Pack Nama Number per Par	-k
Seal End	
Length Width Height	
Enter Pack (OD) 6.0000 4.0000 5.0000	
Dims. Vert. in Secondary O O O	
Dimensional Variance (+) 1.0000 1.0000 1.0000	
Dimensional Variance (-) 1.0000 1.0000 1.0000	
Dimensional Increment 0.2500 0.2500 0.2500	
Enter Pack Weight	Settings
Cross Weight Net Weight	Jeanga
Product Name/Product Code	
	,
Calculate Using All Pallet Sizes (in/lb) 3:21 PM	CAPS NUM

## **Fill Restrictions Input**

Casefill - [/casefill.mdb]	
File Programs Make a new Shape Input PID Tools Database Colors	<u>3</u> D Image <u>I</u> nternet <u>H</u> elp
🔚 🗅 🚅 🖬 🗃 🎒 🎦 🖻 🔟 🖓 🎽 🎲 🎒 🎁 🧏 🔒 🥅 ?	??
Box/Bag/Bottle (Vary) Fill Restrictions	
Enter Case Restrictions Maximum Case Weight 100.0000	edium 🕱 Complex
Enter Min/Max Case Count	
Minimum 1 Maximum 100	Min. Fill Efficiency
	0%
Record/Case to be used 1	
Enter Palletizing Details	
Select Pallet Size Pallet F	Footprint
• All • Select	ngth Width 0.0000 0.0000
Fill Restrictions	(in/lb) 3:21 PM CAPS NUM

# **Casefill Hints and Tips**

Casefill is a program used to calculate the most efficient loading of a primary package into a range of existing cases. These can fall into one of three categories:

- A routine which establishes good internal case cubic efficiency, but does not consider the way such cases are palletized.
- As above, but with pre-established pallet loading information not specific to the product, but related to the case size.
- As in the first point above, but which individually palletizes each case with product specific parameters.

The first option is all very well, except that a case, which provides a very high internal cubic efficiency, may not palletize as efficiently on a specific pallet as a less efficient case.

Obviously the third option is the most comprehensive and should supply good comparative results in a single Solution Report. However, the negative aspect of this option is that all analyses will require far greater calculation time.

In fact, the Casefill program operates on the basis of the second option, as a compromise between flexibility and performance. The critical factor in the usefulness of this option is the relative product weight. Let's assume that a palletizing solution is calculated with a nominal case weight of 1 lb. and achieves 50 per load in space utilization alone.

Casefill uses this case from the database in the course of its calculations, and gets 25 primary packages of 1 lb. each in the internal arrangement. With the case material weight added, let us say the case gross weight becomes 26 lb. which, multiplied by the 50 cases per load, gives a pallet load weight of 1300 lb., excluding the pallet itself.

If the maximum load weight is 1200 lb., it is clear that although you can place this quantity of product in the physical space, the weight of the load has become the critical factor.

Thus, the logic employed by the Casefill program is perfectly satisfactory as long as you 'cube out' before you 'weight out'. In these circumstances you should revert to the Pallet Group to recalculate the relative efficiencies of the well-filled cases, as indicated by the first option in the list.

The premise behind the case database is to provide the dimensional data for the running of analyses. It is not designed to be for general use as a 'packaging database'. The reference point for entries is simply the record number.

The maximum number of records which can be held in the database is 2500, although it is desirable to keep the working database as compact as possible to maintain operating performance.

## **Data Restrictions**

- The Casefill Group uses the *Minimum Number of Primary Packs per Secondary Pack* field value to exclude cases from the database in preliminary volume calculations. That is, if the minimum number of objects or primary packages is too large to fit within a secondary package or case defined in the database, that secondary package will be excluded from the calculations.
- The Casefill Group may find over the maximum number if it can complete a pattern by adding 1 or 2 more objects or if it can find a higher cube efficiency.
- The product cannot exceed the internal height of a case.
- The product can exceed the internal height of a tray.

## **Object Tips**

- The *Number per Pack* field lets you enter the number of items within the object dimensions you are defining. If there were 6 cans in a shrink-wrapped package, you would enter **6** here. This number is multiplied to calculate the exact number of packs/items per case and pallet load.
- If you want to vary weight or volume, you must click on the **Vary Volume/weight** option on the **Input** menu on the Primary Package input tab to get the settings.
- If you choose to vary only one dimension, you must vary the volume.
- If you want to vary the volume of the primary package, you must specify in percent form the amount to vary. This field can be used when you need to do a "25% more free promotion" of a particular product, or if you are just looking to vary volume, to create new sizes.
- If the weight is to increase as the volume increases, check the Vary **Weight** box. This will also work if the volume decreases. If you want the weight to remain constant as the volume changes, do not select this box.
- The primary package will not change in size if you do not enter a variance amount on the Primary Package input tab.
- If you choose not to vary the volume of the product one dimensional increment must be set to zero. This ensures a constant volume of the primary package because the third dimension will be calculated in accordance with the other two dimensions.

# Fill Tips

- If you want the program to find Multi-Dimensional or Maximizer solutions make sure you have specified more than one dimension vertical.
- Make sure your maximum case weight allows for the maximum number of primary packages to fit in the case based on the primary package weight.

# Cape Pack Databases

# Introduction

Cape Pack includes a variety of databases for use with the various programs. For the most part, the database structures are the same, most are Access-based, and they have similar functions. However, their purposes are different. Here are the databases available to you within the programs of Cape Pack.

Database Name	Used in:	Purpose
Secondary Package (SP) Database	Pallet Group	Database of existing case sizes that are used for more than one analysis. Can also be used to import case sizes from an external source, such as Excel, to eliminate data entry.
Primary Package (PP) Database	Arrange/Design Group	Database of existing carton sizes that are used for more than one analysis. Can also be used to import carton sizes from an external source, such as Excel, to eliminate data entry.
Bundle Database	Arrange/Design Group	A database of bundle configurations that are commonly used to group primary packages together. Can be created with or without bundle packaging.
Casefill Database	Casefill	Database of existing case sizes that are used in Casefill to evaluate package fit for new products or products with new sizes. This is a case consolidation database.
Display Pallet Database	Display Pallet	Database of existing case sizes and weights that is used in Display Pallet to reduce data entry requirements. You create a database of all your existing products including outside dimensions and weights and then select from the database to build your loads.
Packaging Information Database	PID	A database that includes all complete analysis information for the single product modules. This database can be created and then shared with non-Cape users so that they can open and view your files.

# Package Databases

Cape Pack includes 3 databases to assist you in accurate data entry. They include the Secondary Package Database in the Pallet Group, and the Primary Package and Bundle databases in the Arrange/Design Groups. These databases were created to allow you to import your packages from an external source through the use of our CDI text file, and then have the information available for use in the program groups. The Secondary Package database is only available for cases or trays (rectangular objects). The Primary Package database is only available for cartons. The Bundle Database can be used in any of the Arrange or Design Group programs.

All of the databases are Access based, and all of them are locked. They can only be edited from within Cape Pack. They are accessed via the **Database** menu once you start the program group. Here are the menu options for the Secondary Package (SP) Database.



And here is an example of the Primary Package (PP) Database in the Arrange Group.



# Secondary Package Database

The SP Database is used to store the sizes of all your cases and trays that you have in your database. Once created, you can import your case size from the database and then simply calculate your results. This is especially helpful if you have a large number of products that use the same case size. You have the option to create a new database or open and modify an existing database.

## Create New Database

Launch Cape Pack and the Pallet Group for cases.

Select the **Databases** menu and choose **Create a new SP Database.** A dialog box opens.

Create New Secondary Pack Database	X
Name	Create Database
Description	Create & Set as Current
	Cancel

Enter a **Name** and **Description** in the appropriate fields and click on **Create & Set as Current**. The database will be created with no records.

Create New Secondary Pack Database	X
Name Tutorial	Create Database
Description Cases and Trays	Create & Set as Current
	Cancel

To view the database being used, select **SP Database Utility** from the **Databases** menu. The following screen appears.

0 Fil	Data e O	base Utility - Tutorial Iptions Help								• 🔀
0 of 0										
	#	Name	Туре	Units	Length	(OD) Width	Height	Length	(ID) Wid	) 📤 th
	•				1					•
		Clo	se Add	Edit	Dele	te	Select All			
							(in/lb)	3:28 PM	CAPS	NUM //

Here you can add case information (records), view the information for each record or modify an existing record.

## SP Database Fields

The following fields are part of your SP Database record.

Number:	One up number that remains with the case in the order that it was entered into the database.
Name:	A 15-character description of the case
Туре:	Select the type of Secondary Pack to be used
Units:	Sets program to Metric or English units
Length OD:	Outside package length dimension
Width OD:	Outside package width dimension
Height OD:	Outside package height dimension
Length ID:	Inside package length dimension
Width ID:	Inside package width dimension
Height ID:	Inside package height dimension
Tray Wall Height:	Sets the height of the walls for the tray style you select. In a tray, your product height can exceed the tray wall height.
Net Weight:	Weight of the contents of the case or tray.
Gross Weight:	Weight of the case or tray including the contents. The gross weight must be equal to or greater than the Net Weight of the case.
Material Thickness:	The thickness of the corrugated material used to construct the secondary package.

No. Material Thicknesses: The number of material thicknesses in each dimension of the secondary package.

## Navigating the Database

The **Database Utility** program has 2 options for navigation: buttons and menus. Below is an explanation of both.

Buttons	
Close:	Accepts your changes and returns you to the Pallet Group input screens.
Add:	Adds a new case and palletizing record to the database.
Edit:	Allows you to change the record number highlighted in the spreadsheet.
Delete:	Removes the current record from the database.
Select All:	Highlights all records in the spreadsheet.

Menu Options

### SP Database File Menu

The File menu has a number of features for managing your database.

Create New Database	Creates a new SP Database
Open Database	Lets you open a different existing SP Database.
Export SP to Analysis	Allows you to use the highlighted record in your current Pallet Group Analysis.
Import SP from Analysis	Imports the current SP case as a record in your current database.
Export Entire Database as ASCII File	Allows you to export either the highlighted record or the entire database as an ASCII file.
Import .cdi from Database	Allows you to import a CDI file as a new database or into the existing database.
Import SP from CLF into Database	Allows you to import a secondary package from a saved clf into the current database.
Import Case size to Database	Imports from the older Case Size Database to the current SP database.
Purge Duplicates	Allows you to eliminate duplicate records in the database.
Print	Prints the database.
Print Preview	Standard Windows Print Preview feature.
Print Setup	Standard Windows Print Setup feature.
Close	Closes the program and returns you to the input data tabs.

### SP Database Options Menu

The **Options** menu assists you in using your database with features such as sort and search.

Sort By	You can sort your records by Secondary Pack Size, Type, Name, or Package Number.
Search	Search feature that allows you to quickly locate packages meeting your criteria. You can search by any of the data fields and use up to 3 of those fields in your search.
Show All Records	Clears the search list and returns you back to the full spreadsheet.
Select All	Highlights all the records in your database.
Unselect All	Removes highlighting from all records in your database.

## **Maintaining Databases**

The Database Utility allows you to modify your existing cases, add new cases or delete cases from your database. The following will demonstrate each of these options.

### Adding Cases to a Database

Click on the **Add** button under the spreadsheet area.

Select a *Package Type* and then using the **Tab** key to move through the data fields, enter all the information for your new case or tray.

When all the data has been entered, click **OK** to add the record to the database.

### Importing Cases from the Current Analysis

To save your current case as a record in your database, you have two options.

From the Pallet Group data entry area, click on the **Databases** menu and **Export Current SP to SP Database**.

Or from the Database Utility, click on File, Import SP from Analysis. The record will appear in your database.

### Deleting Cases from a Database

Highlight the case in the list that you want to remove and click on the **Delete** button. Once a case is deleted, it cannot be recovered.

#### Editing Cases in a Database

Highlight the case in the list that you want to change and click on the Edit button..

Make your changes and click on **OK** to update the database.

### Searching for Cases in a Database

Click on the **Options** menu and then **Search.** 

#### Sorting Database Records

To sort the records in your database, click on the **Options** menu, then **Sort by**, and finally choose a field to sort by. The database sorts in ascending order.

### Exporting Database Information

You may have a need for a listing of the cases in your SP Database with all of the specifications for use in another application. This database, when customized for your operation, is an excellent source of information for cases used in your organization. Cape Pack provides a feature to export all the records in your database in ASCII (TXT) format.

Select the **File** menu and choose **Export Entire Database as ASCII File...** and then choose either the **Entire Database** or **Current Recordset.** A Save As dialog will appear.

The default path for your export will be your Private path and the default name will be your [database name].CDI. You may change either of these if you wish.

Click on **Save** and your database will be exported in a "flat" ASCII file format with a .cdi extension. You may open this file with Windows Notepad or any similar program.

Field Name	Data Type	Example
[General]	Section Heading	[General]
Field 1	Number of Pages	2
Туре	Database type	4
[Package #1]	Section Heading	[Package #1]
Field #1	Package Name	Case
Field #4	Case type:'	1
	<ol> <li>1 =Regular Slotted Container (RSC)</li> <li>2 =Full Overlapping Container (FOC)</li> <li>3 =Center Special Slotted (CSSC)</li> <li>4 =Surface (SURFACE)</li> <li>5 =Sleeve (SLEEVE)</li> <li>6 =Tray (TRAY)</li> <li>7 =End Loader/Wrap Around (END)</li> <li>1xyz=Custom- 1000 series</li> <li>Or a csf file name</li> </ol>	
Field #6	Outside Length	15.3200
Filed #7	Outside Width	14.3200
Field #8	Outside Height	9.8900
Field #14	Units. 0=Metric, 1=Imperial	1
Field #15	Tray Wall Height	
Field #16	Inside Length	15.0000
Field #17	Inside Width	14.0000
Field #18	Inside Height	9.2500
Field #19	Gross Weight	23.0000
Field #20	Net Weight	22.000
Field #22	Material thickness, Length	2
Field #23	Material thickness, Width	2
Field #24	Material thickness, Height	4
Field #25	Material thickness (caliper)	.01600
Field #28		2

Each database record will contain its own details, as follows:

## Purging Duplicate Records from your Database

Click on the File menu and Purge Duplicates.

Check the records you want to delete in the far right column.

Then click on **Delete** to remove the records. You will be prompted to confirm.

Duplic	ates 🔀
2	Are you sure you want to delete the checked records.
	<u>Yes</u> <u>N</u> o

Click on **Yes** to delete the records. The screen returns to your spreadsheet with the records deleted.

### **Importing Databases**

You can import data into a new or existing SP Database with the use of the .CDI ASCII file. You could export from one database and then import into another using this feature.

Click on **File**, **Import from External Source**, **As a new Database**. A file open box appears to allow you to select the cdi file that you want to use.

Click on the file you want to import and then on the **Open** button. The Create New Secondary Pack Database screen appears.

Enter a name and description and then **Create Database**. A query will ask if you want to open the new database.

Click on **Yes** and your new database is imported and opened for your use.

## Primary Package Database

The PP Database is used to store the sizes of all your cartons and other rectangular shaped primary packages that you have in your database. Once created, you can import your package size from the database and then simply calculate your results. Most of the options available for this database are the same as for the SP Database. We will highlight the differences here.

You have the option to create a new database or open and modify an existing database.

## Create New Database

Launch Cape Pack and the Arrange Group for cartons/bags/ovals.

Select the **Databases** menu and choose **Create a new PP Database.** A dialog box opens.

O Create New Primary Pack Database	E
Name	Create Database
Description	Create & Set as Current
	Cancel

Enter a **Name** and **Description** in the appropriate fields and click on **Create & Set as Current**. The database will be created with no records.

Oreate New Primary Pack Database	X
Name Tutorial	Create Database
Description Primary Pack Database	Create & Set as Current
	Cancel

To view the database being used select **PP Database Utility** from the **Databases** menu. The following screen appears.

у

Here you can add case information (records), view the information for each record or modify an existing record.

## **PP** Database Fields

The following fields are part of your PP Database record.

Number:	One up number that remains with the package in the order that it was entered into the database
Name:	A 15-character description of the package
Туре:	Select the type of Primary Pack to be used
Units:	Sets program to Metric or English units
Length OD:	Outside package length dimension
Width OD:	Outside package width dimensions
Height OD:	Outside package height dimension
Length ID:	Inside package length dimension
Width ID:	Inside package width dimension
Height ID:	Inside package height dimension
Net Weight:	Weight of the contents of the package.
Gross Weight:	Weight of the packaging including the contents. The gross weight must be equal to or greater than the Net Weight of the package.
Material Thickness:	The thickness of the corrugated material used to construct the primary package.
Material Weight:	The weight of the material in pounds per 1000 square feet of board.
Glue Flap	The width of the Glue Flap of the carton.
No. Material Thicknesses	The number of material thicknesses in each dimension of the primary package.

## **Maintaining Databases**

The Database Utility allows you to modify your existing packages, add new packages or delete packages from your database. The following will demonstrate each of these options.

### Adding Packages to a Database

Click on the **Add** button under the spreadsheet area. The following screen appears.

O Add Primary Pack						×
Tools Help						
Units of Measure Omm/kg Omm/kg Onside Dimensions Outside Dimensions	nsions is ons					
Select Pack Type Select Pa	ack Name	•				
	Length		Width		Height	
Enter OD's	0.00	00	0.0000		0.1	0000
Enter Pack Weight Gross Net 0.0000 0.0000						
	ок	Cancel				
			(in/lb)	3:36 PM	CAPS	NUM

Select a *Package Type* and then using the **Tab** key to move through the data fields, enter all the information for your new package.

O Add Primary Pack				×
<u>T</u> ools <u>H</u> elp				
Units of Measure Omm/kg in/lb	Inside/Dutside Dimensions O Inside Dimensions O Dutside Dimensions			
Select Pack Type Eco Seal (3.2,4)	Select Pack Name Carton	•		
	Length		₩idth	Height
Enter OD's		6	2	8
Enter Pack Weight Gross Ne	t _9			
	ОК	Cancel		
			(in/lb) 3:38	SPM CAPS NUM

When all the data has been entered, click **OK** to add the record to the database.

Databas	e Utility - Tutorial								×
<u>Inc</u> opti			1 of 1						
#	Name	Туре	Units	Length	(OD) Width	Height	Length	(ID) Width	
1	Carton	ECO Seal	in/lb	6.0000	2.0000	8.0000	6.0000	2.0000	
4									
	Close	e Add	Edit	Delet	e	Select All (in/lb)	3:37 PM	APS NU	M

# Exporting Database Information

You may have a need for a listing of the cases in your PP Database with all of the specifications for use in another application. This database, when customized for your operation, is an excellent source of information for packages used in your organization. Cape Pack provides a feature to export all the records in your database in ASCII (TXT) format.

Select the **File** menu and choose **Export Entire Database as ASCII File...** and then choose either the **Entire Database** or **Current Recordset.** A Save As dialog will appear.

The default path for your export will be your Private path and the default name will be your [database name].CDI. You may change either of these if you wish.

Click on **Save** and your database will be exported in a "flat" ASCII file format with a .cdi extension. You may open this file with Windows Notepad or any similar program.

Field Name	Data Type	Example
[General]	Section Heading	[General]
Field 1	Number of Pages	2
Туре	Database type	2
[Package #1]	Section Heading	[Package #1]
Field #1	Package Name	Carton
Field #4	Pack type:'	1
	1=Full Overlap Seal End (Seal End) 2=Part Overlap ECO Seal (ECO Seal) 3=Cover Tray (Cover Tray) 4=Tray (Tray) 5=Double Wall Tray (DW Tray) 6=Standard Reverse Tuck (REV Tuck) 7=Straight Tuck (STR Tuck) 8=Tuck Top/Auto Bottom (Auto Bottom) 9=Tapered Wall/Shadow * (TAP SHAD) 10=Hollow Wall/Shadow Box (HOL Shadow) 11=Surface Area (Surface) 1xyz=Custom-1000 series	
Field #6	Outside Length	6.0000
Filed #7	Outside Width	5.0000
Field #8	Outside Height	8.0000
Field #14	Units. 0=Metric, 1=Imperial	1
Field #15		
Field #16	Inside Length	5.5000
Field #17	Inside Width	4.5000
Field #18	Inside Height	7.000
Field #19	Gross Weight	1.0000
Field #20	Net Weight	0.8500
Field #22	Material thickness, Length	2
Field #23	Material thickness, Width	2
Field #24	Material thickness, Height	4
Field #25	Material thickness (caliper)	.0895
Field #26	Material weight (lb/msf)	80.000
Field #27	Glue Flap	1.0000
Field #28		1

Each database record will contain its own details, as follows:

# **Bundle Database**

The Bundle database is used to store all the standard bundle configurations used by your company. Once created, you can import your bundle setup from the database, and then return to data input.. This is especially helpful if you have a large number of products that use the same bundle arrangement. You have the option to create a new database or open and modify an existing database.

## Create New Database

Launch Cape Pack and the Arrange Group for any package type you wish.

Select the **Bundle** menu and **Define/Review Bundle Input**. The Bundle Wizard opens.

Bundle Wizard     File Format Tools Database Colors Add Graphics Help	
Bundle Package Bundle Name No Package 🔹	Divider/Partition None
Bundle 1 of 8         No.       Bundle Arrangement       Count       Bundle Package         1       1L x 1W x 1H       1       No Package          Delete       >         Bundle Arrangement       >         1       x U       1 x H         Dimension Vertical in Bundle         Olicertia       © Weith       © Weith	8.0000
Switch Direction	Close

Select the Database menu and choose Create New Bundle database. A dialog box opens.

Create a New Bundle Database	<b>—</b>
Name	Create Database
Description	Create & Set as Current
	Cancel

Enter a **Name** and **Description** in the appropriate fields and click on **Create & Set as Current**. The database will be created with no records.

Create a New Bundle Database	X
Name Bundles	Create Database
Description Sample Configurations	Create & Set as Current
	Cancel

Next we need to add a bundle to the database. Select **Add Current Bundle Input to Bundle Database** from the **Database** menu.



To view the contents of the database, select the **Database** menu and then **View/Edit Bundle Database**. The following screen appears.

View/Edit Bundle D	atabase							
Name	Length	Width	Height	Units	Qty	Qty in X	Qty in '	•
Bundle #1	374.0000	318.0000	256.0000	mm	24	3	4	
Bundle #2	632.0000	327.0000	257.0000	mm	40	5	4	
Bundle 1	12.0000	10.0000	16.0000	in	8	2	2	
4								•
	E	dit	Cancel	1			ŗ	

To edit your record for Bundle 1, highlight it and click on the **Edit** button. The following screen appears.



Here you can change whatever information you want and then save the changes. Let's make some changes to this record.

First select a Bundle Package type of **Tray**.

Next change the Bundle name to **Tray**.

Add a 2-way divider .

Select the **125 E Flute** material for both the tray and the partition.

Lets change the bundle to a 6-pack. Your screen should look like the following.
Edit Bundle Database							
<u>File</u> For <u>mat</u> Tools <u>D</u> atabase <u>C</u> olors <u>A</u> dd Graphics <u>H</u> e	lp						
Bundlo Packago	No	of Matori	al Thick			D: : I ID	
Tray Tray	4 x		v W	1	хН	Divider/Pa	rtition
						2-way	
Tray Wall Height	Package	Ihicknes	S	LB/M	SF	Divider Th	ickness
4.177	0.0630		<b>_</b>	80.000	U	0.0630	•
Bundle 2 of 8							
No Bundle Arrangement Count Bundle Pa	ackage					<u> </u>	
1 2L x 2W x 2H 8 No Pag	ckage			$\sim$	~ ~		
2 3L x 2W x 1H 6 Tray			<		~		
		$\left \right $	/	$\sim$	~		8.0630
			$\frown$		1		
< Delete >							
Bundle Arrangement						18.3780	
з <b>і і 2 w 1</b> н		10.1890					
Dimension Vertical in Bundle							
○Length ○Width ●Height							
Switch Direction				Sav	e Char	ndes	
● off O on					, end	.gee	

Last, select the **Colors** menu and change the Bundle Package color to yellow.



Click on Save Changes.

### **Bundle Database Fields**

The following fields are part of your Bundle database record.

Name:	A 15-character description of the bundle
Length OD:	Outside package length dimension
Width OD:	Outside package width dimension
Height OD:	Outside package height dimension
Units:	Metric or inches.
Qty:	Number of total primary packages in the bundle.
Qty in X:	Number of primary packages in the Length of the bundle.
Qty in Y:	Number of primary packages in the Width of the bundle.
Qty in Z:	Number of primary packages in the Height of the bundle.
Other Bundle Definition	Data
Bundle Package Type:	Type of package used for the bundle if any.
Divider/Partition:	Type of divider used for the bundle.
Tray Wall Height:	Sets the height of the walls for the tray style you select. In a tray, your product height can exceed the tray wall height.
Package Thickness:	Thickness of the corrugated material used for the bundle package.
LB/MSF:	Basis weight of the corrugated material used to make the bundle package.
Divider Thickness:	Thickness of the corrugated material used for the divider.
Colors:	Colors of the divider and/or bundle package.
Graphics:	3DImaging files associated with the bundle package.

So essentially, the Bundle Database is comprised of all the fields and options that are in the Bundle Wizard.

### **Maintaining Databases**

Database menu allows you to modify your existing bundles, add new bundles or delete bundles from your database. The following will demonstrate each of these options.

#### Adding Bundles to a Database

Set up your bundle the way you want it in the Bundle Wizard.

To add the bundle to your database, select the **Database** menu and then **Add Current Bundle Input to Bundle Database**. The bundle will be added to the current database.

### Deleting Bundles from a Database

To delete a bundle from your database that you no longer use, click on **Database**, **Delete from Bundle Database**. The following screen will appear.

In the **Delete** column, click on the bundle(s) you want to delete, then click on the **Delete** button.

#### Editing Bundles in a Database

Highlight the bundle in the list that you want to change and click on the **Edit** button.

Make your changes and click on **Save Changes** to update the database.

### Using your Bundle Database

To use the bundles in your database, you simply select them from the list.

Click on the **Database** menu and then **Import from Bundle Database**. The following screen appears.

Import Bundle Data	base							×
Name	Length	Width	Height	Import	Units	Qty	Qty in X	
Tray	18.3780	10.1890	8.0630	V	in	6	3	
Bundle #2	632.0000	327.0000	257.0000		mm	40	5	
Bundle 1	12.0000	10.0000	16.0000		in	8	2	
•							Þ	-
	Im	port	Cancel					

Click the **Import** column for whichever bundles you wish to use (no more than 8 per analysis), and then click on the **Import** button. Your bundles will appear in your list on the Bundle Wizard screen.



# Working with a Casefill Database

To understand how Casefill works you must be aware of the database from which it draws the case and pallet information. You will need to build your own database, or any number of different databases. However, for getting started in Casefill we have provided a small database.

Select the **Database** menu and choose **Open Database**. A dialog box opens.

Select the **casefill.mdb** and then click on **Open**. Behind the input screen the database will be open. The database name will appear in the title bar of your window.

To view the database being used select **DataBase Utility** from the **Database** menu. Or you can click on the Database Utility toolbar button. The following screen appears.

otal i	in Recordset = 2	20		1 of 20				
No.	Case Name	Pack Type	Rec. No.	Length	Case (ID) Width	Height	Tray Wall Height	Uni
1	Std. RSC	Case	1	14.2500	8.7500	10.7500	-	in/lb
2	End Loader	Case	2	14.2500	10.0000	6.0000	-	in/lb
3	Case4	Case	3	15.0000	9.4000	5.6000	-	in/lb
- 4	Case	Case	4	16.0000	12.0000	10.0000	-	in/lb
5	Box	Case	5	19.8750	14.5000	12.8750	-	in/lb
6	Shipper	Case	6	521.0000	369.0000	559.0000	-	mm/
7	Case2	Case	7	23.0000	17.0000	11.0000	-	in/lb
8	Case3	Case	8	23.0000	17.0000	7.0000	-	in/lb
9	test	Case	9	16.5000	16.5000	16.5000	-	in/lb
10	case	Case	10	16.0000	8.0000	8.0000	-	in/lb
11	carton	Case	11	400.0000	300.0000	200.0000	-	mm/
12	Eraser Box	Case	12	7.7500	4.1250	1.6250	-	in/lb
13	case	Case	13	16.0000	12.0000	10.0000	-	in/lb
14	case2	Case	14	15.5000	14.5000	13.5000	-	in/lb
15	case3	Case	15	15.0000	14.0000	13.0000	-	in/lb
16	case4	Case	16	10.0000	10.0000	10.0000	-	in/lb
17	<b>r</b>	0	43	0 0000	0 0000	0 0000		:_л∟ ≯
		Class	Doloto	Edit	Add	Select Al		
			Delete	Edit	Add	Select Al	·	

Here you can view the information for each record or you can modify an existing database.

### Navigating the Casefill Database

Casefill uses a locked Access database which gives you great flexibility. In addition to the spreadsheet and control buttons, you have a wide variety of menu options.

#### **Database Fields**

Number:	One up number that remains constant regardless of sort order.
Case Name:	A 15-character description of the case
Pack Type:	Select the type of Secondary Pack to be used
Rec:	One up number that remains with the case when sorted.
Length ID:	Inside package length dimension
Width ID:	Inside package width dimension
Height ID:	Inside package height dimension
Tray Wall:	Sets the height of the walls for the tray style you select. In a tray, your product can exceed this height restriction.
Units:	Sets program to Metric or English units
Length OD:	Outside package length dimension
Width OD:	Outside package width dimensions
Height OD:	Outside package height dimension

Volume:	A package volume figure calculated by the program
Material Weight:	Weight of packaging material
Cases per Load:	How many cases or shippers there are on the pallet load
Pallet Length:	The length dimension of the Pallet Base Style used
Pallet Width:	The width dimension of the Pallet Base Style used
Pallet Height:	The height of the Pallet Base Style used
Buttons	
Close:	Accepts your changes and returns you to the Casefill input screens.
Delete:	Removes the current record from the database
Edit:	Allows you to change the record number highlighted in the spreadsheet
Add:	Adds a new case and palletizing record to the database
Select All:	Highlights all records in the spreadsheet

# Menu Options

#### Casefill Database File Menu

The **File** menu has a number of features for managing your database.

Export Database as .cfi	This feature allows you to export the information in your Casefill database for use in other programs. You have the option to export either the Entire Database or just the Current Recordset.
Export Current Record to Case Size Database	This feature allows you to export the case size information to the Case Size Database for use in the Pallet Group program.
Import Database	This feature allows you to import a database from another data source such as Access or Excel.
Purge Duplicates	Eliminates duplicate records from the database.
Print	Prints the database.
Print Preview	Standard Windows Print Preview feature.
Print Setup	Standard Windows Print Setup feature.
Close	Closes the program and returns you to the Casefill input data tabs.

#### Casefill Database Options Menu

The **Options** menu assists you in using your database with features such as sort and search.

Sort By	You can sort your records by Case Size, Case Type, Case Name, or Record Number.
Find a Case/Tray	Search feature that allows you to quickly locate packages meeting your criteria. You can search by any of the datafields and use up to 3 of those fields in your search.
Show All Records	Clears the search list and returns you back to the full spreadsheet.
Select All	Highlights all the records in your database.
Unselect All	Removes highlighting from all records in your database.

### Creating and Maintaining Databases

The Casefill Group can help you consolidate the number of secondary package sizes your company uses. In order to do this Cape Pack requires you to specify information regarding the case sizes existing within your warehouse. The program can scan this information and report which existing case size will best suit the needs of the primary package (product) you are trying to load.

Depending on the nature of your business, you can set up many different databases containing certain case sizes, or set up one database containing all case sizes. It is at your discretion as to how you set up your databases.

Cape Pack includes a default database. So you can either add your case sizes to the existing database or create your own.

#### Creating a New Database

With Casefill started, choose **Create New DataBase** from the **Database** menu. A Create New Database dialog box will appear.

Enter a filename in the *File name* field. Click on **Save**. Your new *empty* database appears.

#### Adding Cases to a Database

Adding records is a simple task.

Click on the Add button under the spreadsheet area. The following screen appears.

📀 Add Case to Database	
-Case Information	11-3 - CM
Case Name	Pack Type Unit of Measure Volume (ID)
Case	CASE _ 0.0000
	Length Width Height
Case (ID)	0.0000 0.0000 0.0000
Case (OD)	0.0000 0.0000
Manager (all Mariada)	Number Des Lond
n aterial weight	
0.0000	
Pallet Dimensions	j
Length W	ïdth Height
0.0000	0.0000 0.0000
	OK Cancel

Using the **Tab** key to move through the data fields, enter all the information for your new case or tray. The Volume will calculate for you automatically. If you choose a tray style, an additional field will appear for **Tray Wall Height**.

O Add Case to Databas	e	
-Case Information		
Case Name	Pack Type Unit of Measure Volume (ID)	
Case	CASE   CASE  0.4526 cu ft	
	Length Width Height	
Case (ID)	13.75 8.75 6.5	
Case (OD)		
Material Weight .25	Number Per Load       1	
Pallet Dimension Length ¥	s Vidth Height 50 5.5	
	OK Cancel	

When all the data has been entered, click **OK** to add the record to the database.

Fotal i	in Recordset = 2	21		21 of 21				
No.	Case Name	Pack Type	Rec. No.	Length	Case (ID) Width	Height	Tray Wall Height	Un
6	Shipper	Case	6	521.0000	369.0000	559.0000	-	mm,
7	Case2	Case	7	23.0000	17.0000	11.0000	-	in/lt
8	Case3	Case	8	23.0000	17.0000	7.0000	-	in/lt
9	test	Case	9	16.5000	16.5000	16.5000	-	in/lt
10	case	Case	10	16.0000	8.0000	8.0000	-	in/lt
11	carton	Case	11	400.0000	300.0000	200.0000	-	mm,
12	Eraser Box	Case	12	7.7500	4.1250	1.6250	-	in/lt
13	case	Case	13	16.0000	12.0000	10.0000	-	in/lt
- 14	case2	Case	14	15.5000	14.5000	13.5000	-	in/lt
15	case3	Case	15	15.0000	14.0000	13.0000	-	in/lt
16	case4	Case	16	10.0000	10.0000	10.0000	-	in/lt
17	case5	Case	17	9.0000	9.0000	9.0000	-	in/lt
18	case6	Case	18	8.0000	8.0000	8.0000	-	in/lt
19	case7	Case	19	7.5000	7.5000	8.0000	-	in/lt
20	case8	Case	20	18.0000	12.0000	6.0000	-	in/lt
21	Case	Case	21	13.7500	8.7500	6.5000	-	in/lt
•								•
		Close	Delete	Edit	Add	Select Al	ı	

### Deleting Cases from a Database

Highlight the case in the list that you want to remove and click on the **Delete** button. Once a case is deleted, it cannot be recovered.

#### Editing Cases in a Database

Highlight the case in the list that you want to change and click on the **Edit** button.

Make your changes and click on **OK** to update the database.

#### Searching for Cases in a Database

Click on the **Options** menu and then **Find a Case/Tray**. The following dialog box appears.

Search Casefill Database					<b>X</b>
Search Keys/Fields	Operators	Values	Range	Values	Use Search
Case Name	= •		]		
<b>•</b>	<b>·</b>		]		
•	<b>•</b>		]		
	Close	•	Go		

Select a field to search by, and operator from the drop down list and then enter a value. You may use up to three criteria for your search. See the example below.

Search Keys/Field	s	Opera	ators	Values	Range	Values	Use Searc
Units	•	in/lb	•				
Case(OD) Length	•	>=	-	10			
Case(OD) Width	-	=	•	10			

#### Sorting Database Records

To sort the records in your database, click on the **Options** menu, then **Sort by**, and finally choose a field to sort by. The database sorts in ascending order.

### **Exporting Database Information**

You may have a need for a listing of the cases in your Casefill database with all of the specifications for use in another application. This database, when customized for your operation, is an excellent source of information for cases used in your organization. Cape Pack provides a feature to export all the records in your database in ASCII (TXT) format.

Select the **File** menu and choose **Export Database as .cfi** and then choose either the **Entire Database** or **Current Recordset.** A Save As dialog will appear.

The default path for your export will be your Private path and the default name will be your [database name].cfi. You may change either of these if you wish.

Click on **Save** and your database will be exported in a "flat" ASCII file format with a .cfi extension. You may open this file with Windows Notepad or any similar program.

Field Name	Data Type	Example
[Record Number]	[Record Number]	[Case 1]
Field #1	Case Name	Tray
Field #2	Volume	1340.4
Field #3	Inside Length	14.2500
Field #4	Inside Width	8.7500
Field #5	Inside Height	10.7500
Field #6	Number Per Load	20
Field #7	Outside Length	14.2500
Field #8	Outside Width	9.0000
Field #9	Outside Height	11.0000
Field #10	Material Weight	1.0000
Field #11	Pallet Length	48.0000
Field #12	Pallet Width	40.0000
Field #13	Pallet Height	5.5000
Field #14	Tray Wall Height	4.0000
Field #15	Package Type (1=RSC, 2=Regular Tray, 3=Variable Tray)	3
Field #16	Unit of Measure (0=Metric, 1=English)	1
Field #17	Dimension Vertical (1=Length, 2=Width, 3=Height)	3

Each database record will contain its own details, as follows:

### Purging Duplicate Records from your Database

Click on the **File** menu and **Purge Duplicates**.

Check the records you want to delete in the far right column.

Then click on **Delete** to remove the records. You will be prompted to confirm.

Click on **Yes** to delete the records. The screen returns to your spreadsheet with the records deleted.

### Importing Databases

You can import data into a new or existing Casefill database with the use of the .cfi ASCII file. You could export from one database and then import into another using this feature.

Click on **File**, **Import Database**, **As a new Database**. A file open box appears to allow you to select the cfi file that you want to use.

Click on the file you want to import and then on the **Open** button. The Import .cfi to new Database screen appears.

Enter a file name and click on the Save button. You will be prompted.

Click on **Yes** and your new database is imported and opened for your use.

# Creating Databases from an Excel Spreadsheet

Included in your program is a utility that allows you to create a Casefill database from an Excel spreadsheet. You can populate the spreadsheet provided and then use the included macro to create a new database for your Casefill program.

From the Fro	ont Menu in	Cape Pack,	click on	the File me	enu and <b>Open</b>	<b>MS Excel Examples</b>
--------------	-------------	------------	----------	-------------	---------------------	--------------------------

File	Programs	Create ShortCuts	Make a new Shape						
	Open Input	Data	Ctrl+O						
	Open CIF								
	Open Viewer/Open Saved Solutions								
	Program Settings								
	Open Netwo	ork Administrator							
	Change Priv	vate Path							
	Open MS Ex	cel Examples							
	1. C:\\M	NS STACK GRPS.CL	F						
	Exit								

A list of the Examples folder content appears.

) • Program F	iles (	x86) 🕨 cape213 🕨 Examples	•	Search Examples	
				:==	•
	^	Name	Date modified	Туре	Size
		🕙 cf_example.xls	10/13/2004 2:39 PM	Microsoft Excel 97	27 K
		🕮 runCAPE.xls	3/7/2011 2:49 PM	Microsoft Excel 97	131 K
		🕙 runDP.xls	3/7/2011 2:49 PM	Microsoft Excel 97	82 K
		🕙 runFCA.xls	4/28/2011 1:44 PM	Microsoft Excel 97	115 K
		🗐 runKDF.xls	3/7/2011 2:48 PM	Microsoft Excel 97	117 K
	=	TransferMyCasesTrays2Casefill.xls	12/9/2011 10:31 AM	Microsoft Excel 97	71 K
	-	TransferMyPrimaryPacks.xls	12/9/2011 10:28 AM	Microsoft Excel 97	59 K
		TransferMySecondaryPacks.xls	12/9/2011 10:28 AM	Microsoft Excel 97	57 K
		TransferPackages.xls	12/9/2011 10:27 AM	Microsoft Excel 97	51 K
	•				
ferMyCasesTray	/s2Ca	asefill.xls		MS Excel Example (	(*.xls)

Select transferMyCasesTrays2Casefill.xls and click on Open. The spread sheet will open.

86	-) - (	V · J v	Sec.	-				TransferM	yCasesTrays2Ca	sefiluls (Con	paribility M	ode] • Mice	osoft Excel	1	1.3	100		_		14		x
File	Но	me Insert	Page Layout	Formulat	Data	Review	View													6	0 - 1	F 83
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5 N		Name	Туре	Length(ID	Width(ID)	Height(10)	per Load	Length(OD)	Width(OD)	Height(OEV	Veight H	leight										18
6 1		Carton	1	14	10.5	11	60	15.5	11.25	11.625	0.45	0										
8 3		Quality Streets	1	15.75	7.086	7.875	92 64	9.84	7.875	7.875	0.45	0										
9 4		Book	1	11.25	10.23	7.086	48	11.81	10.827	7.875	0.33	0										
11 6		Tray	2	19.685	13.78	9.84	$\tilde{n}$	19.685	13.78	9.84	2.64	4.625										- 11
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From the tabs at the bottom, select the tab for the units of measure you prefer. Then populate the spreadsheet columns with your data for your cases. Don't forget to change the **No. of Cases/Trays** and the **Casefill Database** name fields at the top of the spreadsheet.

When you are finished, click on the Click here to Transfer Cases/Trays to Casefill Database.

The macro will run and Cape Pack will open, Casefill will open, a new database will be created for you to your specifications and it will open in Database Utility for you to review.

You can use this spreadsheet process to create as many databases as you wish.

### **Display Pallet Databases**

Display Pallet uses databases to store product information. You can build as many databases as you wish and cross-use them with different analyses. There are four options for your Databases: three from the **Database** menu and the **Import from Database** button which is used to pull cases from the database into your current analysis.

### Create New Package Database

This feature is used to create a new database for use in Display Pallet.

Click on the **Create New Package Database** option on the **Database** menu. The following screen appears.

Enter a name for your database and click on **Save**. The database will open for you to add packages.

O Eil	Packa e <u>O</u> p	age Database - tutor otions <u>H</u> elp	al.mdb									
	#	Package Name	Label	Package T	ypes	Units Leng		Width	Width Height Tray Wall	Wall	Weigl	
	1											*
			Close	Add		Edit	Delete		Select All			
									(in/lb)	3:56 PM	CAPS	NUM

# Navigating the database

Use the **Package Database Utility** option on the **Database** menu to open and edit or review your databases. You can change, add or delete packages.

e Opt	tions Help		,						
*	Package Name	Label	Package Types	Units	Length	Width	Height	Tray Wall Height	Weigl
1	Std. Box	1	Standard Box	mm/kg	350.0000	300.0000	250.0000	-	15.
2	Case	2	RSC Box	mm/kg	350.0000	200.0000	250.0000	-	20.
3	Box	3	End Loader Box	mm/kg	450.0000	350.0000	400.0000	-	20.
٩									
4		Close	Add	Edit	Delete	Se	elect All		

Buttons	
Close:	Closes the database and returns to the main Display Pallet window.
Add:	Adds a record to the database.
Edit:	Allows you edit a record currently in the database.
Delete:	Deletes the highlighted record(s) from the database.
Select All:	Allows you to highlight all the records showing.
Menu Options	
Display Pallet Database File menu	
Create New Package Database	Allows you to create a new database.
Open Package Database	Allows you to open a different database.
Export Package(s) to Analysis	Includes the selected packages in the current open analysis.
Import Package(s) from Analysis	Allows you to import packages in the current analysis to be included in the database.
Export Entire Database as ASCII File	Exports your database in ASCII format with a *.CDI extension.
Import .cdi from Database	Allows you to import database records from a CDI file and either save it as a new database, or to the existing open database.
Import SP from clf into database	Allows you to import database records from a clf file into the current database.
Purge Duplicates	Allows you to identify and eliminate duplicate database records.
Print	Prints the database.
Print Preview	Previews your document prior to printing.
Print Setup	Lets you setup your printer specifications.
Close	Closes the database utility function.
Display Pallet Database Options menu Sort By	Allows you sort your database according to Package Size, Package Type,
	Package Name or Record Number.
Search	Allows you to search your database based on your selected criteria. You can choose up to 3 different parameters with which to search.
Show All Records	Recovers the entire database after your search.
Select All	Selects all the records showing in the database.

#### **UnSelect All**

### Adding Packages to the Database

Click on the **Add** button to enter in data for a new package. The following screen appears.

📀 Add Package				×
<u>T</u> ools <u>C</u> olors Add Graphics <u>H</u>	elp			
Package Type     Package       Standard Box	ckage Name ▼	Label 5		
		Color		
Deskars Dissesions	Length	Width	Height	Weight
r ackage Dimensions	0.0000	0.0000	0.0000	0.0000
Quantity Allowed	Desired Min	1 Absolut	e Max 0	
Dimension Vertical	🗙 Length	🗙 Width	🗙 Height	
Max. in Column	0 Load P	riority	0	
Must Not be Stacked on Base				
Stacked Together				Cala Callina
				Laic Settings
	ОК	Cancel		

Select your **Package Type** and **Name** from the lists provided.

Enter a Label and select a Color.

Enter in your package dimensions, and quantity allows if desired.

Click on **OK** to enter the package into the database.

### Creating Databases from an Excel Spreadsheet

Included in your program is a utility that allows you to create a Casefill database from an Excel spreadsheet. You can populate the spreadsheet provided and then use the included macro to create a new database for your Casefill program.

From the Front Menu in Cape Pack, click on the File menu and Open MS Excel Examples.

File	Programs Create ShortCuts Ma	ake a new Shape
	Open Input Data	Ctrl+O
	Open CIF	
	Open Viewer/Open Saved Solutions	s 🔸
	Program Settings	×
	Open Network Administrator	
	Change Private Path	
	Open MS Excel Examples	
	1. C:\\MNS STACK GRPS.CLF	
	Exit	

A list of the Examples folder content appears.



Select transferMyPackages.xls and click on Open. The spread sheet will open.

Direct       Pige layout       Pointukt       Data       Review       Verve         A control       A control       Control       Bad       Control       Bad       Control       Control       Bad       Control       Control       Control       Bad       Control       Control<	Sun * Ar Anda Sun * Ar Anda Sunt & Find & Filter * Select * Editing
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Transfer My Display Pallet Packages to cape pack example.         Ho of Packages       S       Package Database Name - myPackages.mb         No.       Hame       Labe       Package       Lame       Package       Labe       Labe       Package       Labe       Package       Labe       Package       Labe       Labe       Package       Labe       Package       Labe       Labe       Labe       Labe<	UV
Ho of Packages     S     Package Database Name - myPackages.mdb       No.     Name     Las     Package     Length     Width     Tory Width     Max Height     Max Weight     Max Overal       v.     V.Tery     ST     3     11.8     13.8     12     6.7     0.8       2     Still Tray     ST     3     11.8     13.8     15.2     1       4     text Loover     Max     0     15.2     1       5     still     11.8     11.8     13.8     0       6     1     11.8     11.8     13.8     0       7     ratio     1     11.8     13.8     0       8     stol Doar     Stol     0     15.2     1       7     Tartifer my Packages to Display Pallet     1     1     1	
No.         Name         Label         Pype         Langth         Width         Height         Tray Weil         Max. Pickage         Max. Pickage         Min. Pickage           1         Vitray         VI         4         15/5         13.8         12         6/7         10         25         1           2         Stif Tray         VI         4         15/5         13.8         12         6/7         10         25         1           3         End Loader         VI         2         11.8         13.8         0         1.5         28         1           5         Stif Box         50         0         1.8         13.8         0         1.5         28         1           5         Stif Box         50         0         1.5         28         1         1           5         Stif Box         50         0         116.5         35         1         1           5         Stif Box         Stif         0         12.5         45         1         1           5         Transfer my Packages to Display Pallet	
No.         Name         Deckage         Deckage         Note the Height         Note the Height         Peckage         Package         Package           1         v.tray         4         15/3         13.4         13         12         6.4         Count           2         v.tray         5         3         11.8         13/2         5.7         10         20         1           3         End Loader         2         17.7         11.8         13.3         0         1.5         28         1           4         rsc box         80         0         17.7         1.3.8         0         1.5         28         1           5         36         0         17.7         1.3.8         0         1.5         28         1           5         36         0         17.7         1.3.8         0         1.5         28         1           5         36         0         17.7         1.3.8         0         1.5         36         1           5         36         0         17.7         7.87         1.3.8         1         15.5         46         1            13         1.5	
No.         Name         Letel         Type         Length         Width         Height         Height         Count           2         Sidi Tray         ST         3         11.8         13.8         12         6.7         19         25         1           2         Sidi Tray         ST         3         11.8         13.8         12         6.7         19         25         1           3         End Load         Head         11.8         11.8         13.8         0         15.2         2         1           4         nsc box         Hild         1         11.8         11.8         0         15.2         4         1           5         sid Box         1         11.8         11.8         0         15.2         4         1           5         0         17.7         7.47         13.8         0         15.5         45         1           Transfer my Packages to Display Pallet   The list describing "Package Types" is shown on the 'KEYS FOR Package Types' Sheet (below)	
2         Suff Tray         ST         3         14.5         15.3         6.8         26         1           3         End Loader         3         11.8         11.8         13.8         0         1.5         28         1           4         ms box         SB         0         11.8         13.8         0         1.55         28         1           5         stat box         SB         0         11.8         11.8         0         11.55         25         1           5         stat box         SB         0         11.8         11.8         0         11.55         25         1           5         stat box         SB         0         11.2         4.6         1           5         stat box         SB         0         11.8         11.8         0         11.5         28         1           5         stat box         SB         0         11.7         11.8         0         11.5         28         1           Transfer: my Packages to Display Pallet   The list describing "Package Types" is shown on the 'KEYS FOR Package Types' Sheet (below)	
Brad Leader         Construct         2         17.7         11.8         13.8         0         1.5         28         1           5         3td flox         80         0         1.55         35         1         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8         11.8	
S     Inc. box     Mail and	
Transfer my Packages to Display Pallet The list describing "Package Types" is shown on the 'KEYS FOR Package Types' Sheet (below)	
Transfer my Packages to Display Pallet The list describing "Package Types" is shown on the 'KEYS FOR Package Types' Sheet (below)	
The list describing "Package Types" is shown on the 'KEYS FOR Package Types' Sheet (below)	
The list describing "Package Types" is shown on the 'KEYS FOR Package Types' Sheet (below)	

From the tabs at the bottom, select the tab for the units of measure you prefer. Then populate the spreadsheet columns with your data for your cases. Don't forget to change the **No. of Products** and the **Package Database Name** fields at the top of the spreadsheet.

When you are finished, click on the Transfer My Packages to Display Pallet.

The macro will run and Cape Pack will open, Display Pallet will open, a new database will be created for you to your specifications and it will open in Database Utility for you to review.

You can use this spreadsheet process to create as many databases as you wish.

# Packaging Information Database

# Introduction

The principle of Cape Pack is that you run an analysis, get to the graphics, customize your solution and then print or export the results. And, if required, you can save the graphics for future recall from the **Open Viewer/Open Saved Solutions** options on the **File** menu at the Front Menu.

Packaging Information Database, referred to as PID, goes one step further and allows you to export the on-screen graphics and numerical data, for each solution, to a standard database format.

It is an extremely powerful and flexible tool in today's environment of storing and sharing packaging related information.

Exporting the results of your work to PID means you can now manage and maintain your solution information in an easily accessible format. You can search on previous results or specific criteria, or you can even use an existing database record as the input for a new analysis!

You can search on wide range of criteria, avoid duplication of effort, delete unwanted files and make individual or overall assessments of the solution information you have saved. And you can share both the numerical and graphical results with colleagues, customers or your suppliers – even if they don't have a Cape program. If they have a copy of the Cape Pack, simply send them a copy of your database and they can access it through the PID Setup program.

You can access PID from the **PID** menu at the Front Menu.

Or, from the input screens in the Pallet, Arrange, Design and Casefill Groups.

When you first enter PID, you will see the following screen.

Select Group (cap.czf)	×
Choose a Group      All Solutions      G. Belles Course Solutions	Open
Arrange Group Solutions     Design Group Solutions	Cancel
C Casefill Group Solutions	Update PID
C FCA Solutions	

Here you can choose which program group you want use or search or select **All Solutions** to search every solution in the database. We will choose the Pallet Group.

You can Search Across All Groups under the Options menu on both the database and Search screens.

Highlight the circle next to Pallet Group Solutions and then click on Open.

No.	Shape	SP Name	Length	SP (OD) Width	Height	SP/ Load	# / Layer	Layers	Length
1	Rect/Oval	Case	400.0000	300.0000	200.0000	70	10	7	1200.00
2	Rect/Oval	Case	450.0000	275.0000	250.0000	36	9	4	1175.00

Here you will see a listing of all the Pallet Group solutions in your database. The information that is available for each solution includes the following. Scroll across the screen to view all the data.

Package Shape (e.g. Cylinder, Rect/Oval, Trapezoid etc)SeNumber of Secondary Packs per LoadNuNumber of layers per palletPrArea efficiency (%)NaNumber of pallets per truckNaUnits of measure (mm/kg or in/lbs)Na

Secondary Pack length, width and height dimensions Number of Secondary Packs per layer Product dimensions on pallet (Length, width and height) Name of pallet style used Name of truck style used

# Getting Started with PID

The initial screen of the PID feature gives you several options.

### Select Group Functions

You can either select a group and open the database, or you can use the other features available as follows.

### **PID Setup**

**PID Setup** is used to select which database you want to use, add more databases, save a current database to another name or move a database to a different directory. Click on **PID Setup** to access this feature.

### Update PID

Using this option will ensure that all your information is saved to the "current" database if you move the database or try to send it to someone without using the features in PID Setup. Whenever you merge or modify your PID database, it is a good idea to update.

### **PID Setup**

Click on the **PID Setup** button. A message appears telling you that your database is being loaded, and then you see the following screen.

Packaging Information Database Setup	8
File	
User's PID Path : c:\cape216\databa~1\cap\	
Current PID : cap.czf	
List of Packaging Information Databases cap.czf	Close Add PID Save As
	Set As Current PID
	Merge PIDs

This screen allows you to manipulate and manage your databases. You have the following features.

Βı	ittons	
		,

Close	Returns you to the Select Group screen with your changes.
Add PID	Lets you add an existing database to the list. It can then be set as the "default" if required. This button is not for creating new databases.
Save As	Allows you to save a database to another name. This is a very useful feature if you want to maintain a master copy of a database and have a working copy.
Set As Current PID	Just highlight the database you want to use and click on this button. This action then sets the chosen database to be the "default" database to be used.
Merge PID's	Allows you to combine two or more databases to form one single database.

#### PID File Menu

New	Allows you to create a new PID database with a name of your choice. All new databases will contain four records – one for Pallet Group, Arrange Group, Design Group and Casefill Group. These records are necessary as "place holders" for the database structure.
Copy PID to	Allows you to locate a copy of a selected PID database to another directory (i.e. send it to your "attach" directory when you want to email a copy of a database to a colleague/customer).
Change Path	Lets you change the default path the program will store newly created databases. Cape Pack will also copy the current database to this path.
Delete PID	Lets you delete a PID database from your list.

# Exporting Information to a PID Database

Simply select the **Databases** menu in Multi-Viewer Graphics and click on **Export Current Solution to PID.** There are other options there as well as shown below.

s Databases Colors Add Graph	nics e-mail	Internet	Publisher	Help	
Packaging Information Datab	ase (PID) 🔸	PID Se	etup		
	Produ	Expor Updat	t Current So e Current P	olution to PID (ca ID (cap.czf)	ap.czf) –
	Deserve	at Rei	and a star	40.000	

### Menu Options

File Change Group T	This option allows you to switch between the PID records for the Pallet, Arrange, Design and Casefill Groups.
File Import Solutions A a s	Allows you to import the appropriate data from a previously saved solution file. This option applies mainly to users of previous versions of Cape Pack who have already saved the solutions in Multi-Viewer Graphics. PID will not import CLF files where there are no saved graphics/solutions. You must save your

To import a previously saved solution file, select **Import Solution(s)** from the **File** menu. The following screen appears where you can highlight the file or group of files.

Import Solutions				×
Computer +	Local Disk (C:) + cape216 + private	✓  Sea	rch private	Q
Organize 🔻 New folder			•== •	
★ Favorites	Name	Date modified	Туре	Size 🔺
📃 Desktop	Vcitoria 3.clf	5/20/2016 8:49 AM	CLF File	=
🚺 Downloads	sample 1.clf	3/4/2016 9:00 AM	CLF File	
📃 Recent Places	sampel 2.clf	3/4/2016 9:02 AM	CLF File	
	rudy design.clf	3/17/2016 3:33 AM	CLF File	
🥃 Libraries 🔤	Cpccap92.clf	4/28/2016 3:39 PM	CLF File	
Documents	Cpccap90.clf	4/28/2016 3:27 PM	CLF File	
J Music	rudhy arrange.clf	3/17/2016 3:34 AM	CLF File	
Pictures	Cpccap95.clf	4/28/2016 3:54 PM	CLF File	
😸 Videos	of2 0720.clf	7/20/2016 10:33 AM	CLF File	
	water bottle sample.clf	3/17/2016 8:07 AM	CLF File	
🖳 Computer	oscar.clf	8/26/2016 10:08 AM	CLF File	
🏭 Local Disk (C:)	tissue.clf	3/1/2016 11:54 AM	CLF File	
🙀 KIKA (\\egwusms00.	energy drink.clf	3/17/2016 8:28 AM	CLF File	
🙀 GlobalStorage (\\esl	kc tissue.clf	3/1/2016 11:43 AM	CLF File	
🚽 Shared Folders (\\vr 🚽	< <u></u>	1/20/2016 10 F2 ANA	OLD FIL	•
File <u>n</u> ame:	"tissue.clf" "sample 1.clf" "sampel 2.clf" "ru	udy design.clf" "• 🔻 🛛 Cape	Load file (*.clf)	-
			<u>O</u> pen	Cancel

If you try to import file that has not been "saved" correctly, you will see the **Failed Imports** message on the right side of the screen.

Solution Import Status	<b>X</b>
10 Successful Imports	1 Failed Imports - No Solutions contained in these load files.
sample 1.clf sampel 2.clf rudy design.clf cpccap92.clf cpccap90.clf rudhy arrange.clf cpccap95.clf water bottle sample.clf oscar.clf tissue clf	of2 0720.clf
	lose

Click on **Close** and your imported file(s) will be added to the list in the appropriate PID section (Pallet Group in our example).

File	Save Current Solution as CLF	Allows you to save the "current solution" to another filename as a CLF file. This can then be used to open an analysis in the appropriate program group.
File	Export Solutions	Export highlighted solutions to a new folder container one consolidated CSV file of all solution information and a JPG file of the report for each solution.
File	Print	Prints the database in columnar form.
File	Print Preview	Standard Windows Print Preview feature.
File	Close	This option closes PID and returns you to the Front Menu or the input screens depending on where you launched PID.
Options	Search	There are two options: Search Current Group and Search Across All Groups. Searching the Current Group allows you to search on a wide range of dimensional criteria, names and

	number per case, per pallet and truck, type of pallet and truck and even area efficiency.
	Search Across all Groups allows you to search across the Pallet, Arrange, Design and Casefill Group solutions on only those criteria that are common to solutions within all the groups.

#### You can set the **Search Key/Fields** to:

Secondary Pack (OD and ID) length, width and height	Solution reference
Product Name	Product Code
Units of measure (mm/kg or in/lbs)	Primary Packs per Secondary Pack (Arrange and Design solutions)
Secondary Packs per layer	Layers per pallet
Secondary Packs per load	Secondary Packs per truck
Secondary Packs per Slave Pallet	Product dimensions on the pallet (length, width and height)
Load dimensions for the pallet (length, width and height)	Slave Pallet load dimensions (length, width and height)
Pallet Load with Slave Pallets on (length, width and height	Loaded truck dimensions (length, width and height)
Number per truck	Name of pallet Base Style used
Name of truck style used	
You can set the search parameter <b>Operators</b> to:	

< less than > greater than = equal to "between" means a range to search within

The first field on the Search screen is a single search facility that lets you search just on Product Name or Product Code. You do not have to enter the full name as a search is carried out on partial words.

For example, do I have a case size greater than 12" in length, and 8" in width that has been palletized on a standard GMA pallet?

Packaging Information Databa File Options Layout Help	se (cap.c	zf) - [Search All G	roups]			
Search Keys/Fields		Operators	Values	Range	Values	Use
Select Product Name	•	= •				
	•	•				
	•	•				
	•	•				
	•	•				
	-	•				
			Go			
Select Product Name						
٩						•
					3:36 PM	APS NUM

Click on **Go** to see if there are any matching records.

Packaging Information Database (cap <u>File</u> <u>Options</u> <u>H</u> elp	.czf) - [Search Pall	et Group]					- • ×
Search Keys/Fields	Operators	Value	s	Range	Valu	ies	Use
Select Product Name	= •						
Secondary Pack Length(OD) 💌	> •		14				V
Secondary Pack Width(OD) 🔹	> •		8				
Pallet base Style Name	= •		48×40				
•	<b>_</b>						
<b></b>							
		Go					
Select Product Name Pallet L	oad with Trucks						
No. Shape SP Name	Length	SP (OD) Width	Height	PP/SP	PP / Load	SP / Load	SP / 🔺 Layer
1 Rect/Oval Case	15.3200	11.3200	10.5150	0	0	40	10
							_
4							•
					3:40		S NUM

You can search on just a single criteria, or you can search on several different criteria. However, the more search criteria you use the more it will narrow the range of potential solutions.

Options	View Solution	The information about each solution record can be viewed as a Summary of all solutions
	(Information)	

No.	Product Name	Product Code	SP Name	Program Group	Shape	PP/SP	PP / Load
1			Case	Pallet	Rect/Oval	0	
2	Cases with kits	12 pack	Case	Pallet	Rect/Oval	12	43
3	Pallet Load with T	Sample 1	Case	Pallet	Rect/Oval	0	
4	Master Pallet Exar	Sample 2	Case	Pallet	Rect/Oval	0	
5	Pallet Group	Sample file 1	Case	Pallet	Rect/Oval	20	16
6			Tray	Design	Cyl/Bot	12	38
7			Case	Arrange	Trapezoid	12	278
8	Product 2	250 gr	Case	Arrange	B/B/B	1	168
9	Design Group - Ca		Case	Design	B/B/B	12	210
10	Design Group	Sample 3	Case	Design	B/B/B	6	108
11	Design Group - Ca		Case	Arrange	B/B/B	12	144
12	Arrange Group - C		Case	Arrange	B/B/B	12	120
13	ASM Training	203984329048	Case	Arrange	Cyl/Bot	15	60
14	Tissue Sample	12345678	Case	Arrange	Cyl/Bot	8	48
15	FCA Group	Sample 6	Case	FCA	Folding Carton Arra	100	1260
16			CASE	Casefill	Box/Bag(Fixed)	96	1008
•							
•	_	1		_		1	

Or, to view as an Individual record, simply select the solution record you want to view and click on Individual.

P	roduct Name		Product Code	Filename
Cases with kits		12 g	pack	victoria 1
Case / Layer	Layers / Load	Case / Load	PP / Case	PP / Load
9 4		36	12	432
Pallet / Master Load	Load / Truck	Case / Truck	Pallet Area Eff (%)	Pallet Cube Eff (%)
0 4	12	1512	92.8	88.0
	Name	Length	Width	Height
Secondary Pack(OD)	Case	450.0000	275.0000	250.0000
Secondary Pack(ID)	Case	450.0000	275.0000	250.0000
Product on Pallet	Dim	1175.0000	1000.0000	1000.0000
Pallet Load	euro2	1200.0000	1000.0000	1145.0000
Master Load		0.0000	0.0000	0.0000
Truck	CONTR2	11988.8000	2336.8000	2336.8000
	< Previous	Next >	Close	

This screen contains all of the information available for your chosen record.

Options	Sort Order	This allows you to choose whether or not you want your data sorted in ascending or descending order. This selection remains the default until you change it. Once selected, to sort your data just click on the heading of the column you want to sort by. For example, if you want to sort by case name, click on the field labeled SP Name and the records will be sorted in that order.			
Options	Delete Selected Solution(s)	Allows you to delete individual or groups of records.			
Options	Recover Deleted	leted A back-up facility to recover any records you may accidentally delete.			
	Solutions	You can only recover these "deleted solutions" while you are in the current use of PID. If you close the PID program, you will lose the ability to recover these records.			
Options	View Current Solution (Graphics)	This option allows you to see the Multi-Viewer Graphics, exactly as they were when you exported the information to PID.			

Highlight the solution record you want to see the graphics for and select **View Current Solution (Graphics)**. You will then see the graphics for that record.



To return to the numerical information screens, in PID, simply select the File menu and click on Close.

Options	Launch as New	Allows you to use a selected solution record as the input for a new Pallet Group analysis.
	Analysis	When you select this option the program will automatically open the appropriate Pallet Group module (in our case Rectangle/Oval) and fill in all of the data input fields for you.
		modulo (modulo reotarigio, oval) and in mail of the data input holde for you.

### Arrange and Design Group Solutions

Basically, the records for Arrange and Design will contain more individual pieces of information because these programs involve the primary package size and the number of items per bundle/case.

Here is the information in view for Arrange solutions in PID. The essential differences are:

- The primary pack length, width and height.
- The number of primary packs per load.

When you execute the **Search** option you can set one of the criteria to be the number of primary packs in a secondary pack, the number of primary packs per bundle, etc.

Here are the extra search criteria available for the Arrange and Design solutions/records.

Primary Pack Length (OD) Primary Pack Height (OD) Bundle Length (OD) Bundle Height Primary Pack Width (OD) Primary Packs per Bundle Bundle Width Bundles per Secondary Pack

# Exporting Casefill Solutions to PID

Casefill works on finding the best "fit" for a single primary pack into a range of different case sizes. Thus, the information stored here is slightly different to the Pallet, Arrange and Design record.

The full range of information is as follows.

Secondary Pack Length, Width and Height (ID) Number of Primary Packs per Secondary Pack Number of Primary Packs per Load Cube Efficiency (%) Primary Pack Length, Width and Height (OD) Secondary Pack Length, Width and Height (OD) Area Efficiency (%)

# Exporting from PID

You can export a batch of solution information from the PID. Simply highlight the solutions you want to export and then select the option from the **File** menu while in your Packaging Information Database.

0	Packaging Information Data	ibase (cap.czf) - [All Solu					
<u>F</u> ile	<u>O</u> ptions <u>L</u> ayout <u>H</u> elp						
	Change Group	, te					
	Import Solution(s)						
	Save Current Solution As	CLF —					
	Export Solution(s)						
	Print	Ctrl+P					
	Print Preview						
	Close						
	8 Product 2	250 gr					

First highlight in your database all the solutions you want to export.

Click on File, Export Solutions and the following screen will appear.

Export Solution	×
No of Selected Solutions 16 Export Path	Report Filename (.jpg)  Rec  Product Name Product Code
c:\cape216\batchexports\cap\	
Export File	csv
OK	Cancel

Choose the report filename you want to use. You have the following options:

- **Rec**. This will export all your saved JPGs with a 1-up record number as the name of the file. For example, Rec1.jpg
- **Product Name**. This will name all of your JPGs the same thing you chose as your Product Name for the file.

• **Product Code**. This will name all of your JPGs the same thing you chose as your Product Code for the file.

Add in the Export file name for the CSV file and click on **OK**.

The program will create for you a JPG report for each highlighted item in your database and a consolidated CSV file of all the data for those same items.

When you have exported, you will have a CSV file with text (shown in the Excel window below) as well as a JPG file depicting the Cape Pack report for each of the records you selected (shown in the Explorer window below).

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🔮 🖉 Format Painter 🖪 🛛 🗓 -	⊞ • <u>∞</u> • <u>A</u>			Merge & Cent	n- \$-	% • 76	Formatting *	as Table * Styles *	Insert Delete Form	Clear +	Filter * Select *		
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1 Recl.jpg	11		8/6/2000	Case	Ukstd	0	0	1 0	0 0	0	0 0	0	10
2 Cases witi Cases witi 12	pack 4 D	victoria 1	nunnun Kit	Case	euro2	0	0	1 12	4 3	1	0 0	0	9
3 Pallet Loa Pallet Loa Sar	mple1 11	sample 1	3/4/2016	Case	48X40	1	0	1 0	0 0	0	0 0	0	10
4 Master Pa Master Pa Sar	mple 2 21	sampel 2	3/4/2016	Case	24X40	1	0	1 0	0 0	0	0 0	0	7
5 Pallet Gro Pallet Gro Sar	mple fil1C	cpccap90	######## Box	Case	EURO025	0	0	1 20	4 5	1	0 0	0	2
6 Rec6.jpg	11		8/6/2000 bott	tle Tray	Ukstd	0	2	4 12	0 0	0	0 0	0	8
7 Rec7.jpg	11		8/6/2000 Trap	ezoid Case	Ukstd	0	3	1 12	2 2	3	1 2	3	29
8 Product 2. Product 2 250	Ogr 1X	vcitoria 3	######## SO co	ount Case	euro2	0	1	1 1	1 1	1	1 2	3	112
9 Design Gr-Design Group	- Cartc1C	rudy desig	nununun Ova	I Bottl Case	48x40	0	6	1 12	6 2	1	2 1	3	35
10 Design Gri Design Gri Sar	mple 3 11	cpccap92	ининии Вох	Case	48X40	0	1	1 6	3 1	2	2 1	3	30
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# **Corrugated Compression Strength**

# Imperial Version of the Program

The Strength Program allows you to evaluate the effects of a number of loading parameters and environmental conditions on the predicted individual case compression strength and on the resulting stacking height of a pallet load.

This program and the McKee formula relate to a standard Regular Slotted Container (top loading) case style. To run the Metric version of this program, you must install the European English version of the software.

The Case Compression Strength program uses the North American version of the universally accepted McKee Formula for calculating initial case compression strength. As input to the calculations, the McKee formula requires the combined board Edge Crush Test (ECT), Caliper (CAL) and Case Perimeter (PER) information.

The McKee formula is expressed as

#### Compression Strength = 5.874 * ECT * CAL^{0.508} * PER ^{0.492}

(For more information on the McKee formula, please refer to the August 1963 issue of *Paperboard Packaging, Compression Strength Formula for Corrugated Boxes* by R. C. McKee, J. W. Gander, and J. R. Wachuta published by The Institute of Paper Chemistry, Appleton, Wisconsin, USA. Also reprinted in Chapter 11, Compression Strength Formula for Corrugated Board, *Performance and Evaluation of Shipping Containers*, George C. Maltenfort, copyright 1989.

For questions concerning compression strength of corrugated cases, two very good sources of information are *Performance* and Evaluation of Shipping Containers by George C. Maltenfort, Jelmar Publishing Company, Inc., 1989, and *Corrugated* Shipping Containers, An Engineering Approach by George C. Maltenfort, Jelmar Publishing Company, Inc., 1988.

# Accessing the Strength Program

Strength can be accessed from two different places.

From the Programs menu on the Front Menu screen, under Other Programs.



Or from the **Tools** menu in Multi-Viewer Graphics after you have calculated solutions in either the Pallet, Arrange or Design group programs.

Too	ls <u>D</u> atabases	<u>C</u> olors	<u>A</u> dd	Graphics
	Multi-Dimensi	ional Ana	lysis	
1	Economic Ana	alysis		1
]	Strength			ł
1	Maximizer			Ì
$\geq$				Area

Or you can click on the Strength icon on any of the appropriate toolbars.

The difference between the two analysis options is that running Strength from the Front Menu or data input area gives you the ability to evaluate compression strength for a single case or a user defined palletized load. If you run Strength from the **Tools** menu in Multi-Viewer Graphics, you are restricted to using one of the pallet patterns taken from one of the calculated solutions.

# Navigating the Strength Program

Like all parts of Cape Pack, the Strength program features menu options, buttons and right-clicks that allow you to accomplish the tasks you need. The following is a brief overview.

### File Menu

The following are the **File** menu options on the main Strength window.



### Reset to Environment

This will reload your environmental database to the last saved version of your Local data (str.cap).

#### Reset to Default Environment

This will reload your environmental database to the last saved version of your Default data (strength.stf).

#### Save Local Environmental Changes

This will save the currently active environmental database as the Local data (str.cap).

#### Update Default Environment

This will save the currently active environmental database as the Default data (strength.stf).

#### Close

Exits the Strength Program.

# **Options Menu**

The following are the Options menu items on the main Strength window.



### Work with Case

Allows you to evaluate the strength of a single case, rather than a palletized load. Dynamic Strength will not be active if this option is chosen.

### Work with Pallet

Allows you to evaluate the strength of a palletized load.

#### **Results in Metric**

Displays your results converted to metric units of measure.

#### Results in In/Ib

Displays your results in imperial units of measure.

#### Select New Configurations

Allows you to review strength for different solutions.

#### Analyze this Configuration

Calculates the strength of the input data showing on the screen.

#### Show Environmental Data

Takes you to the Environmental database tabs.

#### Show Partition Types

Shows you a picture of the Strength divider types. Press any key to close this screen.

### Show Formulas

Takes you to the Environmental database tabs, with the Formulas tab active.

### **Right-Click Options**

In the main Strength window, if you right click on any of the Solution Parameters fields, the program will take you to the Environmental database tabs.

If you right-click on the Partition Type field, the picture of the Strength divider types will appear. Press any key to close this screen.

# Understanding the Strength Program

The following section describes the North American version of the Cape Pack Strength program.

The edge crush values and calipers provided within the board grade combination databases are provided for demonstration purposes only. You should create your own board grade information to use within the program.

In this program, you have access to five databases which provide direct input for the McKee formula calculations. Together these databases make up the **Environmental Data**.

le <u>O</u> ptions <u>H</u> elp	×-			N				
Single Wall Materials	Double	e Wall Ma	iterials	Form	ulae			
torage Environment	Case Co	nfiguratio	n	Materia	al Fact	ors		
If Average Relative	lf (	Cases ar	e stored for:			lf Pallet Suri	face is:	
0-35% 1.1	0 Days	1	31 - 60 Days	0.55		Gapped	0.92	
36-45% 1.1	1 - 3 Days	0.7	61 - 90 Days	0.55		Solid	1	]
46-55% 1	4-10 Days	0.65	91 - 120 Days	0.5				
56-65% 0.9	11-30 Days	0.6	Over 121 Days	0.45				
66-75% 0.8								
76-85% 0.7	If Case overhangs I	Pallet:	If Cases are on t	neir:				
	None	1	Base	1				
86-100% 0.5	Up to 0.25	0.9	Side	0.9				
If Cases are:	Up to 0.75	0.8	End	0.8				
Stacked 1	Up to 1.00	0.7						
Interlocked 0.6	Over 1.00	0.6	All fields on this pa	.ge are re	quire	ed.	Print	
							<u>C</u> lose	
						0.05 014		

These databases are:

- The Single Wall Materials Database
- The Double Wall Materials Database
- The Storage Environment Database

- The Case Configuration Database
- Material Factors Database

To access these databases from the input screen Options menu, select Show Environmental Data.

The Single Wall and Double Wall features let you build databases of Single Wall and Double Wall board grade combinations along with their respective descriptions, flute types, caliper and edge crush values

The Storage Environment and Case Configuration Databases contain each of the environmental and case design parameters that can be used to affect the final compression strength value. For each individual parameter you can change the multiplication factor so that the final calculated compression strength matches, as closely as possible, your own distribution environment.

Once you have constructed the databases for your own board grade combinations, environmental factors and case design factors, you can run the Case Compression Analysis with all the relevant information incorporated within the McKee formula.

The McKee formula will calculate the initial case compression strength. The program will then multiply this value by the factors you have specified for the load parameters and environmental conditions. This methodology is designed to accurately predict the case compression strength at the end of your specified time period using the appropriate palletizing information and safety factor.

# Updating your data

If any of the data is changed in your Strength program including environmental data, printing options or Solution Parameters, you will be prompted to save this data when you exit the program.

The data has been changed in the areas in want to save the changes?	dicated. Do you
Environmental Data	
<ul> <li>Ring Crush Data</li> <li>Single Wall Data</li> </ul>	Save to Local
Double Wall Data	
Solution Parameters	<u>C</u> lose
Custom Strength Formula	<u></u>

Click on **Save to Local** to retain this data as part of your database.

Click on **Close** to disregard the changes.

# Material Factors Database

The Material Factors Database contains all of the Liner, Medium, take up and efficiency factors that are used to calculate the combined board edge crush value, from either the ring crush or STFI formulas. For each liner and medium, you can enter a ring crush and/or STFI value and caliper. For take up factors, you can enter any flute type with the corresponding take up factor. For efficiency factors you can enter any value for boards up to 200-pound burst and another for any board over 200 pound burst.

Before you can enter new Single or Double Wall board grades, you must make sure that their Liners and Mediums are in the Material Factors database.

ile <u>O</u> p	otions <u>H</u> e	elp		N.				N=				
Single	e Wali Ma	terials			uble Wall Mat	terials		For	mulae			
torage	e Environr	nent		Cas	e Configuratio	n		Mate	erial Fe	actors		
	Liner Ma	terials		Medium	Materials		Take Up Fa	actors	Effic	iency Factor	rs	_
vlati	RC St	fi Cal	Matl	RC	Stfi Cal	Flutes	Factor (	Dal		Up to 200 lb	s   0.	13
26	40	13.49	26	32	12.63	A	1.53	0.184		O		04
33	55	16.91	30	46	14.82	В	1.33	0.097		Over 200 lb		.21
38	68	18.87	33	51	16.47	С	1.42	0.142				
42	75	21.28	36	68	18.92	E	1.25	0.062				
47	83	00.00	40	70	22.19	F	1.23	0.045		New <u>I</u>	_iner	
52	114	00.00										
52	110	00.00								Edit I	inor	
59	120	33.86								Luite	Inter	
/4	150	44.00										
10	155	44.96										
											Drint	
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											<u>C</u> lose	•

Once entered, these factors are run through the formula on the formulae tab screen and the resulting edge crush value is entered in the appropriate field in the Single Wall or Double Wall database.

# Data Input Fields

The following data fields are included in the Material Factors Database.

Liner Materia	Is	As a description of the liner being defined, you can enter up to three numbers and two letters in the description field. Using the letter suffix you can distinguish between two liners of the same basis weight, but different characteristics and ring crush or STFI values.
	Matl (Material)	Enter the basis weight (lbs/msf) of the liner material to be used in a finished board in either the Single Wall or Double Wall database.
	RC (Ring Crush)	Enter the Ring Crush value for the liner.
	STFI (STFI)	Enter the STFI value for the liner.
	CAL (Caliper)	Enter the caliper of the liner.
Medium Materials		As a description of the medium being defined, you can enter up to three numbers and two letters in the description field. Using the letter suffix you can distinguish between two mediums of the same basis weight, but different characteristics and ring crush or STFI values.
	Matl (Material)	Enter the basis weight (lbs/msf) of the medium material to be used in a finished board in either the Single Wall or Double Wall database.
	RC (Ring Crush)	Enter the Ring Crush value for the medium.
	STFI (STFI)	Enter the STFI value for the medium.
	CAL (Caliper)	Enter the caliper of the medium.
Take Up Factors		The Take Up Factor is the conversion value from a flat sheet of paper to a fluted sheet of paper for the corresponding flute type.
	Flutes	Enter the flute type.
	Factor	Enter the take up factor for the flute.
	Caliper	Enter the caliper of the flute.

Efficiency	The Efficiency Factors are used to convert the ring crush test value to linear inches.
Factors	Enter the factor to be used in the conversion to edge crush formula for boards up to 200 lbs. burst
	and over 200 lbs. burst.

### Modifying Material Factor Information

To modify a liner or medium, double click on the row. Or you can click on the row and then the **Edit...** button.

The material information will appear in a new window for you to edit.

0	New Liner Materia	al 🔀
	*Mat1 ID *RC Factor Stfi Factor Caliper	
	<u>O</u> k	<u>C</u> ancel

Make your changes to existing entries and click on **OK**.

When you edit the Ring Crush or STFI values of existing materials and click on **Save**, the Edge Crush of any boards in your database that use these materials will automatically be updated.

To add materials to the list, click on the appropriate **New...** button.

Enter the appropriate values and click on **OK**. Your list will automatically be updated.

### Single Wall and Double Wall Materials Databases

The Single Wall and Double Wall Materials Databases will store up to 200 Single Wall and 100 Double Wall combinations along with their respective Description, Flute, Edge Crush and Caliper values.

When calculating initial case compression results, the Edge Crush and Caliper values from the database are used as direct input into the McKee formula. This value is then multiplied by any of the Storage Environment and Case Configuration factors you have selected:

Storage	Environn	nent		Case Configuration	l .		M	aterial Fa	ictors			
ngle V	all Mat	erials	Ì	Double Wall Materia	ls		For	nulae				
Test	Liners	Medium	_iners Descrip	tion	F	FlutesEC	C(rc) E	C(stfi) E	EC(cstm) C	aliper	Jse	
125	26	26	26 Ring Cr	ush ECT 28.8		A	28.8	30.7	23	0.196	Y	
125	26	26	26 Ring Cr	ush ECT 27.9		В	27.9	29.1	23.0	0.11	Y	
125	26	26	26 Ring Cr	ush ECT 28.3		С	28.3	29.8	23.0	0.153	Y	
125	26	26	26 Ring Cr	ush ECT 27.6		E	27.6	28.4	23.0	0.063	Y	
125	26	33	26 Ring Cr	ush ECT 32.5		А	32.5	34.4	23	0.199	Y	
125	26	33	26 Ring Cr	ush ECT 31.2		В	31.2	32.3	23.0	0.113	Y	
125	26	33	26 Ring Cr	ush ECT 31.8		С	31.8	33.3	23.0	0.156	Y	
125	26	33	26 Ring Cr	ush ECT 30.7		E	30.7	31.5	23.0	0.066	Y	
150	33	26	33 Ring Cr	ush ECT 32.7		Α	32.7	35.1	26.0	0.199	Y	
150	33	26	33 Ring Cr	ush ECT 31.8		В	31.8	33.4	26.0	0.113	Y	
150	33	26	33 Ring Cr	ush ECT 32.2		С	32.2	34.2	26.0	0.156	Y	
150	33	26	33 Ring Cr	ush ECT 31.5		E	31.5	32.8	26.0	0.069	Y	
150	33	33	33 Ring Cr	ush ECT 36.4		A	36.4	38.8	26.0	0.201	Y	
150	33	33	33 Ring Cr	ush ECT 35.1		В	35.1	36.7	26.0	0.116	Y	
150	33	33	33 Ring Cr	ush ECT 35.7		С	35.7	37.7	26.0	0.159	Y	
150	33	33	33 Ring Cr	ush ECT 34.6		E	34.6	35.9	26.0	0.072	Y	
			New Boa	urd Delete	Board	Ec	lit Board			Eri <u>C</u> lo	nt ose	

Liner: Med. 26 26 26 26 26 26	Double Wall Materials	Fit Fit A A	t EC(rc) B 43.	Formulae EC(stfi) 4 64.3	EC(cstm) Ca 42.0	iper Us 0.293 N	e
Liners Med. 26 26 26 26 26 26	Liners Description 33 Ring Crush ECT43.4 33 Ring Crush ECT 43.8 33 Ring Crush ECT 42.9	Flt Fl A	t EC(rc) B 43.	EC(stfi) 4 64.3	EC(cstm) Ca 42.0	iper Us 0.293 N	e
26 26 26 26 26 26	33 Ring Crush ECT43.4 33 Ring Crush ECT 43.8 33 Ring Crush ECT 42.9	A	B 43.	4 64.3	42.0	0.293 N	2
26 26 26 26	33 Ring Crush ECT 43.8 33 Ring Crush ECT 42.9	Α	C 43				
26 26	33 Bing Crush ECT 42 9		J.	8 64.9	42.0	0.325 N	
	so rang order Eor ie.e	В	C 42.	9 63.7	42.0	0.255 N	
26 26	42 Ring Crush ECT 53.1	Α	B 53.	1 68.5	48.0	0.301 N	
26 26	42 Ring Crush ECT 53.7	Α	C 53.	7 69.0	48.0	D.326 \	
26 26	i 42 Ring Crush ECT 52.4	В	C 52.	4 67.8	48.0	D.258 \	
69 26	42 Ring Crush ECT 69.9	Α	B 69.	9 78.1	51.0	D.316 \	
69 26	42 Ring Crush ECT 70.5	Α	C 70.	5 78.6	51.0	D.349 N	
69 26	42 Ring Crush ECT 69.2	В	C 69.	2 77.4	51.0	0.273 N	
42 26	90 Ring Crush ECT 94.1	Α	B 94.	1 94.5	71.0	D.336 \	
42 26	90 Ring Crush ECT 94.7	Α	C 94.	7 95.1	71.0	D.355 \	
42 26	90 Ring Crush ECT 93.3	В	C 93.	3 93.9	71.0	D.283 \	
90 26	90 Ring Crush ECT 110.9	Α	B 110.	9 105.7	82.0	0.35	
90 26	90 Ring Crush ECT 111.5	Α	C 111.	5 106.3	82.0	D.369 \	
90 26	90 Ring Crush ECT 110.1	В	C 110.	1 105.1	82.0	0.294 N	
	26 26 26 26 26 69 26 69 26 69 26 42 26 42 26 42 26 90 26	26         26         42 Ring Crush ECT 53.7           26         26         42 Ring Crush ECT 52.4           69         26         42 Ring Crush ECT 59.9           69         26         42 Ring Crush ECT 69.9           69         26         42 Ring Crush ECT 69.9           69         26         42 Ring Crush ECT 69.2           69         26         42 Ring Crush ECT 94.1           64         26         90 Ring Crush ECT 94.1           64         26         90 Ring Crush ECT 93.3           90         26         90 Ring Crush ECT 110.9           90         26         90 Ring Crush ECT 111.5           90         26         90 Ring Crush ECT 111.5           90         26         90 Ring Crush ECT 111.1	26         26         42 Ring Crush ECT 53.7         A           26         26         42 Ring Crush ECT 52.4         B           69         26         42 Ring Crush ECT 52.4         B           69         26         42 Ring Crush ECT 50.9         A           69         26         42 Ring Crush ECT 70.5         A           69         26         42 Ring Crush ECT 70.5         A           69         26         42 Ring Crush ECT 70.5         A           42         26         90 Ring Crush ECT 94.1         A           42         26         90 Ring Crush ECT 94.7         A           42         26         90 Ring Crush ECT 93.3         B           90         26         90 Ring Crush ECT 110.9         A           90         26         90 Ring Crush ECT 111.5         A           90         26         90 Ring Crush ECT 111.1         B	26         26         42 Pring Grush ECT 53.7         A         C         53.7           26         26         42 Ring Grush ECT 52.4         B         C         52.7           69         26         42 Ring Grush ECT 52.4         B         C         52.7           69         26         42 Ring Grush ECT 69.9         A         B         69.7           69         26         42 Ring Grush ECT 70.5         A         C         70.7           69         26         42 Ring Grush ECT 69.2         B         C         69.3           42         26         90 Ring Grush ECT 94.1         A         B         94.3           42         26         90 Ring Grush ECT 93.3         B         C         93.3           90         26         90 Ring Grush ECT 110.9         A         B         110.3           90         26         90 Ring Grush ECT 111.5         A         C         111.3           90         26         90 Ring Grush ECT 111.5         A         C         111.3           90         26         90 Ring Grush ECT 110.1         B         C         110.3	26         26         42 Pring Grush ECT 53.7         A         C         53.7         69.0           26         26         42 Ring Grush ECT 52.4         B         C         52.4         67.8           69         26         42 Ring Grush ECT 52.4         B         C         52.4         67.8           69         26         42 Ring Grush ECT 70.5         A         C         70.5         78.6           69         26         42 Ring Grush ECT 69.2         B         C         69.2         77.4           69         26         42 Ring Grush ECT 94.1         A         B         94.1         94.5           642         26         90 Ring Grush ECT 94.7         A         C         94.7         95.1           642         26         90 Ring Grush ECT 93.3         B         C         93.3         93.9           90         26         90 Ring Grush ECT 110.9         A         B         110.9         105.7           90         26         90 Ring Grush ECT 111.5         A         C         111.5         106.3           90         26         90 Ring Grush ECT 111.5         A         C         110.1         105.1	26       26       42 Pring Crush ECT 53.7       A       C       53.7       69.0       48.0       1         5       26       42 Ring Crush ECT 52.4       B       C       52.4       67.8       48.0       1         6       9       26       42 Ring Crush ECT 59.9       A       B       69.9       78.1       51.0       1         6       9       26       42 Ring Crush ECT 70.5       A       C       70.5       78.6       51.0       1         69       26       42 Ring Crush ECT 70.5       A       C       70.5       78.6       51.0       1         69       26       42 Ring Crush ECT 70.5       A       C       69.2       77.4       51.0       1         69       26       42 Ring Crush ECT 94.1       A       B       94.1       94.5       71.0       1         64       26       90 Ring Crush ECT 94.7       A       C       94.7       95.1       71.0       1         64       26       90 Ring Crush ECT 93.3       B       C       93.3       93.9       71.0       1         69       26       90 Ring Crush ECT 110.9       A       B       110.9       105.7	26         26         26         42 Pring Crush ECT 53.7         A         C         53.7         69.0         48.0         0.326         53.7           i         26         26         42 Ring Crush ECT 52.4         B         C         53.7         69.0         48.0         0.326         53.7           i         69         26         42 Ring Crush ECT 52.4         B         C         52.4         67.8         48.0         0.258         53.7           i         69         26         42 Ring Crush ECT 50.5         A         B         69.9         78.1         51.0         0.349         53.7           i         69         26         42 Ring Crush ECT 69.2         B         C         69.2         77.4         51.0         0.273         53.7           i         42         26         90 Ring Crush ECT 94.1         A         B         94.1         94.5         71.0         0.336         54.2           i         42         26         90 Ring Crush ECT 94.7         A         C         94.7         95.1         71.0         0.355         54.2           i         42         26         90 Ring Crush ECT 33.3         B         C         93.3

# Data Fields

The following fields are included in the Single Wall and Double Wall Materials Databases.

Test	The Mullen Burst Test value for the board grade. The database combinations are ranked by this value.
Liner/Medium/Liner	The Basis Weight of the paper used for each liner and the medium.

Description	A description identifying each board grade (up to 35 characters may be used).
Flute	Enter A, B, C or E to identify the flute type of each particular board.
Edge Crush	Enter the known (or estimated) Edge Crush value for each board combination which will be used as input into the McKee formula and run through the Compression calculations. The program allows for three different types of Edge Crush values: Ring Crush, STFI and Custom. The Ring Crush and STFI values are derived from their respective testing procedures. Both tests involve the testing of individual samples of paper, but differ slightly in sample size and testing method. When the results from these tests are entered into their respective Edge Crush formulas, the resulting values are used to predict the finished combined board compression strength. The Custom value is normally obtained from testing a sample of the board.
Ring Crush (RC)	Automatically calculated from Ring Crush values in the Material Factor Database.
STFI (STFI)	Automatically calculated from STFI values in the Material Factor Database.
Custom (Cstm)	Manually entered by the user.
Caliper	The caliper (thickness) of the board grade, in inches. This value goes directly into the McKee formula for compression calculations.
Use	This field gives you the ability to activate/deactivate board grades in your list. By clicking on this column you can toggle between Y (use the board) and N (don't use the board). Once changed and your solution data is saved, this data will remain as adjusted until you change it again (i.e., the board stays on until you go back into the database and turn it off).

### **Changing Board Information**

To modify a field, double-click on the row with that board, or click on the row and then on the **Edit Board** button.

😳 Edit Double Wall	
*Burst Test	003
*Composition	Liners Mediums Liners Mediums Liners
*Description	Ring Crush ECT 42.9
*Flutes	B V C V
*Caliper	0.255
*Custom EC	42.0
	OK <u>C</u> ancel

Change any information you want in the fields provided and click on **OK**.

### Adding Board Grades

To add a board, click on the **New Board** button.

Type in all the information for the board and click on **OK**.

### **Deleting Board Grades**

To delete a board from the database, select the row by clicking anywhere on the row. Click on the **Delete Board** button.
To save your changes to the database, click on the **File** menu and then **Close**.

In the main Strength screen, click on the **File** menu and then **Save Local Environmental Data** or **Save Default Environmental Data**.

The Strength program gives you the option of saving two different sets of data. The local environment data will be saved to your Tutor folder as STR.XXX, where the XXX represents your login ID. If you are not asked to Login to Cape Pack, the file will be called STR.CAP. The local environment is the "working" copy of your Strength database. When you exit the Strength program, you are prompted to save to this file

The default environment serves as a back-up to your Strength database. This way, should your database ever become corrupted, you can use the default to rebuild your local environment. The default environment is maintained in a file called Strength.stf in the Tutor folder. If you want to update this environment, you must select **File**, **Save Default Environmental Data**.

### Deactivating Boards in the Database without Deleting Them

To deactivate a board, click on the **Options** menu and **Select Boards to Use**.

ironme	ntal Factors - English	
e Opt	ions <u>H</u> elp	
itc	Clear Custom Column	
ig	Select Boards to Use	

The following box will appear.

Ring Crush ECT 43.4YRing Crush ECT 43.8YRing Crush ECT 42.9YRing Crush ECT 53.1YRing Crush ECT 53.7YRing Crush ECT 52.4YRing Crush ECT 69.9YRing Crush ECT 70.5YRing Crush ECT 69.2YRing Crush ECT 94.1YRing Crush ECT 93.3YRing Crush ECT 93.4Y	Single Wall Description	Used
Ring Crush ECT 43.8     Y       Ring Crush ECT 42.9     Y       Ring Crush ECT 53.1     Y       Ring Crush ECT 53.7     Y       Ring Crush ECT 52.4     Y       Ring Crush ECT 69.9     Y       Ring Crush ECT 70.5     Y       Ring Crush ECT 69.2     Y       Ring Crush ECT 94.1     Y       Ring Crush ECT 93.3     Y       Ring Crush ECT 93.4     Y	Ring Crush ECT 43.4	Y
Ring Crush ECT 42.9     Y       Ring Crush ECT 53.1     Y       Ring Crush ECT 53.7     Y       Ring Crush ECT 52.4     Y       Ring Crush ECT 69.9     Y       Ring Crush ECT 70.5     Y       Ring Crush ECT 69.2     Y       Ring Crush ECT 94.1     Y       Ring Crush ECT 94.7     Y       Ring Crush ECT 93.3     Y       Ring Crush ECT 91.9     Y	Ring Crush ECT 43.8	Y
Ring Crush ECT 53.1     Y       Ring Crush ECT 53.7     Y       Ring Crush ECT 52.4     Y       Ring Crush ECT 69.9     Y       Ring Crush ECT 70.5     Y       Ring Crush ECT 69.2     Y       Ring Crush ECT 94.1     Y       Ring Crush ECT 94.7     Y       Ring Crush ECT 93.3     Y       Ring Crush ECT 910.9     Y	Ring Crush ECT 42.9	Y
Ring Crush ECT 53.7     Y       Ring Crush ECT 52.4     Y       Ring Crush ECT 69.9     Y       Ring Crush ECT 70.5     Y       Ring Crush ECT 69.2     Y       Ring Crush ECT 94.1     Y       Ring Crush ECT 94.7     Y       Ring Crush ECT 93.3     Y       Ring Crush ECT 10.9     Y	Ring Crush ECT 53.1	Y
Ring Crush ECT 52.4     Y       Ring Crush ECT 69.9     Y       Ring Crush ECT 70.5     Y       Ring Crush ECT 69.2     Y       Ring Crush ECT 94.1     Y       Ring Crush ECT 94.7     Y       Ring Crush ECT 93.3     Y       Ring Crush ECT 10.9     Y	Ring Crush ECT 53.7	Y
Ring Crush ECT 69.9     Y       Ring Crush ECT 70.5     Y       Ring Crush ECT 69.2     Y       Ring Crush ECT 94.1     Y       Ring Crush ECT 94.7     Y       Ring Crush ECT 93.3     Y       Ring Crush ECT 10.9     Y	Ring Crush ECT 52.4	Y
Ring Crush ECT 70.5     Y       Ring Crush ECT 69.2     Y       Ring Crush ECT 94.1     Y       Ring Crush ECT 94.7     Y       Ring Crush ECT 93.3     Y       Ring Crush ECT 10.9     Y	Ring Crush ECT 69.9	Y
Ring Crush ECT 69.2     Y       Ring Crush ECT 94.1     Y       Ring Crush ECT 94.7     Y       Ring Crush ECT 93.3     Y       Ring Crush ECT 10.9     Y	Ring Crush ECT 70.5	Y
King Crush ECT 94.1         Y           Ring Crush ECT 94.7         Y           Ring Crush ECT 93.3         Y           Ring Crush ECT 110.9         Y	Ring Crush ECT 69.2	Y
Ring Crush ECT 94.7         Y           Ring Crush ECT 93.3         Y           Ring Crush ECT 110.9         Y	Ring Crush ECT 94.1	Y
Ring Crush ECT 93.3     Y       Ring Crush ECT 110.9     Y	Ring Crush ECT 94.7	Y
Ring Crush ECT 110.9 Y	Ring Crush ECT 93.3	Y
	Ring Crush ECT 110.9	Y
Ring Crush ECT 111.5	Ring Crush ECT 111.5	Y
Ring Crush ECT 110.1 Y	Ring Crush ECT 110.1	Y

Highlight the boards you want to deactivate and click on **Yes**. You can use the standard Windows Control and Shift key functions to highlight blocks of boards.

To reactivate the board, highlight them and click on **No**.

# Case Configuration Factors Database

The Case Configuration factors Database contains all of the case design factors along with their respective values which are used when factoring (multiplying by) the initial calculated compression value. For example, after the strength of a case is computed, that result may be increased or decreased based on how much printing is on the carton, which partition is being used or even what type of case you use. By taking these factors into consideration, the software gives a more "real world" result.

Rep Detrons Help		) Estimates		
torage Environment	Case Configuration	Material Factors	Material Factors	
-				
If Case proportions are	Case Types	Divider/Partition		
L>=H, H>1.5xW 0.9	5 RSC 1	Compression		
L>H, W>1.5xH	1 Die Cut Ω9	Type Factor		
		2 .260		
L>=H,W<=1.5xH &H<=1.5xW	1 Bliss 1.5	3 .270		
HN 1	E End Loader 12	4 .290		
	5 2.16 200001	6 500		
		7 .570		
Amount/Type of printing	Fluting Runs Parallel to	8 .580		
Simple	Base (Horizontal) 0.	8 9 .600		
Broad 0	9	10 .610		
Complicated	Height (Vertical)	1 12 .700		
Complicated	0	*** ***		
Complete coverage 0	7			
		Print		
All fields on this name are requir	a d	Clos	e	
All fields on this page are requi	eu.			

Once you have set the factors within the database to match the type of container you are evaluating, you can predict the required compression strength for a variety of different corrugated box styles and manufacturing methods.

# Data input fields

The following data fields are included in the Case Configuration Factors Database.

Case Proportions	A value used to reflect how your box would perform in relation to the panel dimensions. This also works in conjunction with Case Orientation if a tall narrow case is placed on its end.
Case Types	A value for different corrugated case styles.
Divider/Partition Type	A value for the additional compression strength added to the case as a percentage of the case compression strength. See the <i>Pack Types and Divider Styles</i> chapter for further information.
Amount/Type of Printing	A value for different amounts of printing.
Fluting	A value for the direction of fluting.
Length/Width Ratio	A value used to reflect how your corrugated case would perform in relation to one panel length to another. This also works in conjunction with Dimension Vertical if a tall, narrow case is placed on its end.

### Modifying Case Configuration Factors

For each of the individual factors, click on the field and enter a value. Your value is automatically saved. This value will be used in the final multiplication of initial compression strength to obtain the final predicted compression strength.

Click on any tab to move to another section.

### Storage Environment Database

The Storage Environment Database contains all of the environmental factors used in the predicted compression calculations and the respective values that are to be used when factoring (multiplying by) the initial calculated compression value. For example, if you choose a humidity of 90% and the respective factor value is .50, the initially calculated compression strength will be multiplied by .50 (or reduced by 50%) prior to displaying the predicted compression strength.

Once you select a series of environmental factors that will affect the estimated compression strength of the case, the program will use the corresponding numbered value for each of the environmental factors in the compression strength calculations.

Pingle Well Meteriole	Double Wall	Matariala	Formul	~~		
torage Environment	Case Configuration		Material	Factors		
If Average Relative	lf Cases	are stored for:		lf Pallet Sur	face is:	
0-35% 1.1	0 Days 1	31 - 60 Days	0.55	Gapped	0.92	
36-45% 1.1	1 - 3 Days 0.7	61 - 90 Days	0.55	Solid	1	
46-55% 1	4-10 Days 0.65	91 - 120 Days	0.5			
56-65% 0.9	11-30 Days 0.6	Over 121 Days	0.45			
66-75% 0.8						
76-85% 0.7	If Case overhangs Pallet:	If Cases are o Base	n their:			
86-100% 0.5	Up to 0.25 0.	g Side	0.9			
lf Cases are:	Up to 0.75 0.	8 End	0.8			
Stacked 1	Up to 1.00 0.	7				
Interlocked 0.6	Over 1.00 0.	- All fields on this p 6	oage are rec	juired.	<u>P</u> rint	
					<u>C</u> lose	П

Once you have set the factors within your database to match the theoretical conditions to which your corrugated cases will be subjected, it can be used within the initial calculations to replicate your own distribution environment. This will allow you to fine tune your corrugated requirements. Thus, you can ensure that you are only purchasing the strength of corrugated cases that you actually need.

### Data input fields

The following data fields are included in the Storage Environment Database.

Average Relative Humidity	A factor for each Relative Humidity range listed.
Days of Storage	A value for each range of days listed.

Case Orientation	A value for whichever panel of the corrugated case will be placed flat on the pallet.
Pallet Surface	A factor reflecting use of a gapped or solid surface on which the corrugated case will be placed.
Stacked/Interlocked	A factor to be used depending on whether or not you choose to rotate/alternate layers in the load. This especially impacts the second layer of cases from the bottom of the load.
Overhang	A value for each range of overhang listed. This is calculated for the maximum overhang on any one of the four pallet sides.

### Modifying Storage Environment Factors

For each of the individual factors, click on the field and enter a value. Your value is automatically saved. This value will be used in the final multiplication of initial compression strength to obtain the final predicted compression strength.

Click on any tab to move to another section.

# Using a Custom Formula

You can substitute your own data into the McKee Formula thereby creating your own custom formula.

Click on the **Options** menu and then choose **Show Formulas**.



From the screen that follows, click on the **Edit** button in the Custom Formula section.

Environmental Factors - English							
<u>File</u> Options <u>H</u> elp	•	•					
Storage Environment	orage Environment Case Configuration Material Factors						
Single Wall Materials	Double Wall Materials	Formulae	ormulae				
	Edge Crush Formulae						
For Ring Crush: ((Sum of (Medium Factor(s)×Takeu For up to 2001b Burst Test, add 12, el	o Factor(s))) + Sum of Liner Factor(s)) X Efficie se subtract 6	ency Factor.					
For STFI: Single Wall: (((Medium Factor 1 × Takeup Factor 1) + (Sum of Liner Factors)) × 0.642) + 0.948. Double Wall: ((((Medium Factor 1 × Takeup Factor 1) + (Medium Factor 2 × Takeup Factor 2)) + Sum of Liner Factors) × 0.473) + 24.853.							
	The McKee Formula:						
The Edge Crush Value $\times 5.874 \times$ (the Cal	iper Value ^0.508) X (Case Perimeter ^0.492)						
Cus	tom Formula (User Defined):						
((The Edge Crush ∨alue×5.874))× ((the 0.492))	9 Caliper Value ^ 0.508)) X ((Case Perimeter	^ Edi	t				
Enter name (2 digits and optional letter) for t	his material	in/lb	3:38 PM	CAPS			

The following Custom Formula Entry screen appears.

O Custom Formula Entry	/	- • •
Edge Crush Value Times Raised To Divided by 5.874	<ul> <li>Plus</li> <li>Minus</li> <li>0</li> </ul>	<ul> <li>Times</li> <li>Raised To</li> <li>Divided by</li> </ul>
Caliper Value Times Raised To Divided by 0.508	<ul> <li>Plus</li> <li>Minus</li> <li>0</li> </ul>	<ul> <li>Times</li> <li>Raised To</li> <li>Divided by</li> </ul>
Case Perimeter Times Raised To Divided by 0.492	<ul> <li>Plus</li> <li>Minus</li> <li>0</li> </ul>	Equals Empty Case Strength <u>S</u> ave <u>C</u> lose

Adjust the various fields to suit your own formula and click on Save. Your new formula will appear in the **Custom** section.

### Determining the Strength of a Single Case

To run the single case Strength Analysis option, click on **Programs**, **Other Programs**, **Strength** at the Front Menu screen.

The Single Case Compression Strength Analysis is used to simulate in-lab test conditions for a single case using the case depth vertical on a flat pallet.

You will notice that under the **Options** menu, **Work with Case** is checked. This is the default. You can switch to a pallet load analysis by clicking on **Work with Pallet**.

Enter the **Product Name**, **Product Code**, case dimensions, dimension vertical and the **Solution Parameters**. Once all necessary data is entered, the **Solve** button will activate.

Click on **Solve** to calculate compression strength solution information.

O Compression Analysis for Widget - (Results in in/lb)					
<u>File</u> <u>Options</u>		×			
Parameters	Single Wall	Double Wall			
Case Con	figuration Data	Display/Print			
Product Name : Widget Product Code : 062469		<ul> <li>All Materials</li> </ul>			
Case Length : 12.0000 in Case Width : 11.0000 in Case Height : 8.7500 in Case Weight : 21.0 lb Internal support is : 0.0 lbs	Partition Type is : 0 Partition Material is : Case Material Case Type is : RSC Level of primting is : Complicated	Successful materials     +/- Compression strength >			
Pallet Cor Overhang in Length : N/A Overhang in Width : N/A Cases Per Layer : N/A Layers per Pallet : N/A Height is vertical to pallet	nfiguration Data Pallet surface is : Gapped Layers are : Stacked Case Flutes are : vertical	SF = Empty box strength Weight on bottom case			
Load Data Pallets high : N/A Pallet Weight : N/A Weight on bottom tier : N/A Weight on bottom case : N/A	Order solutions          by Burst Test       Solve         by Flute Type       • by Compression Strength	SF = Dynamic Strength Weight on bottom case			
		McKee Ring Crush in/lb 3:40 PM			

Choose the appropriate **Display/Print** options and click on the Single Wall or Double Wall tabs.

Compression Analysis for Widget - (Resu	ılts in in/lb)				[	- • ×
Parameters	Single Wa	ll		Double Wall		
Description	Burs	t Material Combinati	on Flutes	Empty Strength	Static Strength	Dynamic 🔺
Bing Crush ECT 27.6	125	26-26-26	F	261.8	209.4	0.0
Ring Crush ECT 30.7	125	26-33-26	E	298.2	238.5	0.0
Ring Crush ECT 31.5	150	33-26-33	E	312.9	250.3	0.0
Ring Crush ECT 34.6	150	33-33-33	E	351.2	281.0	0.0
Ring Crush ECT 27.9	125	26-26-26	B	351.3	281.0	0.0
Ring Crush ECT 34.9	175	38-26-38	E	356.8	285.4	0.0
Ring Crush ECT 36.7	200	42-26-42	E	385.5	308.4	0.0
Ring Crush ECT 38.0	175	38-33-38	E	396.5	317.2	0.0
Ring Crush ECT 31.2	125	26-33-26	В	398.2	318.6	0.0
Ring Crush ECT 37.3	250	47-26-47	E	402.0	321.6	0.0
Ring Crush ECT 31.8	150	33-26-33	В	405.9	324.7	0.0
Ring Crush ECT 28.3	125	26-26-26	С	421.3	337.1	0.0
Ring Crush ECT 39.8	200	42-33-42	E	426.2	341.0	0.0
Ring Crush ECT 35.1	150	33-33-33	В	454.0	363.2	0.0
Ring Crush ECT 35.2	175	38-26-38	В	455.3	364.2	0.0 🔻
I I I I I I I I I I I I I I I I I I I						E.
Showing All Materials (using Formula Strength.	) , ordered by Cor	mpression	<ul> <li>Print All</li> <li>Print Selected</li> </ul>	Print		Close
				McKee R	ing Crush	in/lb 3:40 P

There will be no Dynamic Strength available for single case problems.

# Determining the Strength of a Palletized Case

The Palletized Case analysis is used to simulate a user-defined pallet loading situation where you input the case dimensions. This is useful for calculating compression strength and safe pallet load stacking heights for a particular pallet load configuration without having to run a palletizing analysis or if you only have limited palletizing information. It can also be used to plan 'what if' situations for potential pallet configurations when exact dimensions may not be known.

To run a Strength analysis on a palletized case, select **Strength** from the **Programs** menu, **Other Programs** at the Front Menu screen. The following screen will appear.

Case Compression Strength (Manual Entry Mode) File Options Help		
File Options Help  Product Name  Product Code  Which Dimension is vertical to the Pallet?  Width  Width  Output  Case Dimensions Length  Output  Width  Output  Height  Output  Height  Uutput  Height  Height  Uutput  Height  Height  Height  Uutput  Height  Height	<u>S</u> olve Close	Solution Parameters         Humidity Level is       90 *         Cases stored for       120 *         Days         Internal Support       0.0 *         Pallets are Stacked       2 *         Partition Type       0 *         Partition Material       *         Case Type       RSC *         Amount of Case Printing       *         Complicated       *         Parting Runs Horizontal       *         Pallet Surface is Solial       *
Enter the case weight in lbs.	Case	IN/ID 3:41 PM CAPS NUL

Click on the **Options** menu and **Work with Pallet**. The screen changes.

Case Compression Strength <u>File Options H</u> elp	(Manual Entry Mode)			
Product Name				Solution Parameters
Product Code				Humidity Level is 90 🔹 %
				Cases stored for 120
Which Dimension is vertical to the Pallet?	Case Dimensions	Pallet Dimensions	Overhang	Internal Support
	Length 0.0000	Length	Length	Pallets are Stacked 2 High
			l'anne i	Partition Type 0
	Width	Width	Width	Partition Material
🚽 🔿 Width	0.0000			Case Material
	Height	Height	Cases/Layer	
C Length	0.0000			Case Type RSC 🔹
	Weight	Weight	Layers/Pallet	Amount of Case Printing
	0.0			Complicated 🗨
				Layers are Interlocked
н	eight			Fluting Runs Horizontal
	-		Solve	Pallet Surface is Solid
_ Wie	łth			Solution Mode
i← Length			Close	Ring Crush
Enter the case weight in lbs.			Pallet	in/lb 3:41 PM CAPS NUI

#### Enter your **Product Name** and **Product Code**.

Enter your case dimensions and weight.

Enter your **Pallet Dimensions** and **weight**. This information refers to the pallet itself, not the load.

Enter any overhang.

Enter the number of cases on a single layer of the load and the number of layers on the pallet.

Last, enter your Solution Parameters.

### Data Fields

The following data fields are included in the Solution Parameters window.

Humidity	The maximum humidity your product will be subjected to through its shipping cycle (0-100%). Bear in mind that once humidity adversely affects corrugated, lowering the humidity will not repair the damage incurred under loading.
Days in Storage	The length of time the corrugated will be subjected to the specified conditions (0-999). As an alternative, this can also be used to find the proper board grade needed to survive a given number of days in storage.
Additional Internal Support	Enter (in lb.) the amount of additional support your product adds to the calculated corrugated case compression strength (0-9999). With this value at 0, only the strength of the case is calculated. Any other value will add the entered value to the calculated compression strength prior to displaying the final value on the Solution Report. If you do not know this value and cannot estimate a value, use a straight percentage of the case total. It is entirely possible that if you have a rigid or solid product this value could be more than the actual case compression strength value.
Pallet Stack Height	The number of pallets stacked one on top of another, for compression calculations.
Partition Type	From the list of available partition types (which all add support to the case) choose the type that most closely represents the one you use. If there is not an exact match, choose a style that uses a bigger or smaller factor, or change any factor to meet your own needs. The partition type factor, in the Case Configuration Database, is the percentage of the individual initial case compression strength added to the initial value prior to displaying the final calculated value on the Solution Report.
Partition Material	If the partition is made up of a material different than that of the case, select the material that most closely matches your partition material.
Case Type	Choose the case type that most closely matches your case type.
Amount of Printing	Choose the amount of printing that most closely matches your case.
Interlock of Load Layers	Click on this box if you are alternating the pattern arrangement for layers (or if at least the second layer from the bottom of the load).
Horizontal Fluting	Check this box if your case is made with horizontal fluting.
Gapped or Solid Pallet	If there are any gaps in the pallet surface, click on this field. You can then fine-tune the Gapped Input Factor in the Environmental Factors Database to reflect the amount of gap in your pallet surface relative to the panel lengths of the case you are evaluating.
Solution Mode	Specify the method of calculating the Edge Crush for the boards in the Single Wall and Double Wall databases.

Your completed screen should look something like the following.

e <u>O</u> ptions <u>H</u> elp				
Product Name Wid Product Code 062	dget1 (469a			Solution Parameters
Which Dimension is vertical to the Pallet?	Case Dimensions	Pallet Dimensions	Overhang	Internal Support
<ul> <li>Height</li> </ul>	16.0000 Width	48.0000 Width	0.0000 Width	Pallets are Stacked 2 Hig Partition Type 0
⊂ Width	11.0000 Height	40.0000 Height	0.0000 Cases/Layer	Partition Material
C Length	8.7500 Weight 21.0	5.5000 Weight 50.0	10 Layers/Pallet 5	Case Type RSC  Amount of Case Printing Complicated
Length	Height		Solve Close	Layers are Interlocked Fluting Runs Horizontal Fluting Runs Horizontal Solid Solution Mode

Click on the **Solve** button to view the Parameters tab.



Parameters	Single Wall	Double Wall
Case C	Configuration Data	Display/Print
Product Name : Widget1 Product Code : 062469a Case Length : 16.0000 in Case Width : 11.0000 in Case Height : 8.7500 in Case Weight : 21.0 lb	Partition Type is : 0 Partition Material is : Case Material Case Type is : RSC	All Materials     Successful materials     +/- Compression strength >
Pallet C	Level of printing is : Complicated	C Materials w/SF > SF = Empty box strength Weight on bottom case
Overhang in Length : 0.0000 in Overhang in Width : 0.0000 in Cases Per Layer : 10 Layers per Pallet : 5	Pallet surface is : Gapped Layers are : Stacked Case Flutes are : vertical	C Materials w/SF > SF = Static Strength Weight on bottom case
Load Data Load Data Pallets high : 2 Pallet Weight : 1100.0 lb Weight on bottom tier : 1940.0 lb Weight on bottom case : 194.0 lb	Order solutions C by Burst Test by Flute Type by Compression Strength	SF = Dynamic Strength Weight on bottom case

Click on the Single Wall or Double Wall tabs to see calculated strengths of the different boards in those databases. You will notice that Dynamic Strength is now filled in. This represents the Strength of your palletized load with the factors for humidity, days in storage, etc. included.

°arameters								
	Sing	le Wall		Doubl	e Wall			
Description	Burst Test	Material Combination	Flutes	Empty Strength	Static Strength	Dynamic Li Strength H	oads igh	-
Ring Crush ECT 27.6	125	26-26-26	E	283.3	226.6	52.1	.7	
Ring Crush ECT 30.7	125	26-33-26	E	322.7	258.1	59.4	.8	
Ring Crush ECT 31.5	150	33-26-33	E	338.6	270.9	62.3	.8	
Ring Crush ECT 34.6	150	33-33-33	E	380.1	304.1	69.9	.9	
Ring Crush ECT 27.9	125	26-26-26	В	380.1	304.1	69.9	.9	
Ring Crush ECT 34.9	175	38-26-38	E	386.1	308.9	71.0	.9	
Ring Crush ECT 36.7	200	42-26-42	E	417.1	333.7	76.8	.9	
Ring Crush ECT 38.0	175	38-33-38	E	429.1	343.2	78.9	1.0	
Ring Crush ECT 31.2	125	26-33-26	В	430.9	344.7	79.3	1.0	
Ring Crush ECT 37.3	250	47-26-47	E	435.0	348.0	80.0	1.0	
Ring Crush ECT 31.8	150	33-26-33	в	439.2	351.4	80.8	1.0	
Ring Crush ECT 28.3	125	26-26-26	С	455.9	364.7	83.9	1.0	
Ring Crush ECT 39.8	200	42-33-42	E	461.2	369.0	84.9	1.0	
Ring Crush ECT 35.1	150	33-33-33	В	491.3	393.0	90.4	1.1	
Ring Crush ECT 35.2	175	38-26-38	В	492.7	394.1	90.7	1.1	-
< 🗍							Þ	

# Determining Strength for a Cape Pack Solution

The program can calculate the strength of a load designed in Pallet Group for cases, the Arrange Group, or the Design Group. The program cannot reliably calculate the strength of a mixed load or of a load that uses trays rather than cases.

Start the Strength program by clicking on **Strength** on the **Tools** menu in Multi-Viewer Graphics after calculating solutions for Pallet, Arrange or Design.

< <u>T</u> oo	ols <u>D</u> atabases (	Colors	Add Graphics
ŝ	Multi-Dimension	nal Anal	ysis
~	Economic Analy	sis	1
3	Strength		ł
1	Maximizer		i.

You will be presented with the following screen.

		Casas	Casas		Prod	Prod	Land	Longth
Sol #	Layers	/Layer	/Pallet	v	Length	Width	Height	Over
l	4	10	40	н	48.000	40.000	45.500	0
2	4	10	40	Η	48.000	40.000	45.500	0
}	4	9	36	Η	48.000	36.000	45.500	0
ŀ	4	9	36	Η	48.000	40.000	45.500	0
ī	4	9	36	H	48.000	40.000	45.500	0
5	4	9	36	H	48.000	40.000	45.500	0
7	4	9	36	Η	44.000	40.000	45.500	0
}	4	9	36	Η	48.000	40.000	45.500	0
}	4	9	36	Η	48.000	40.000	45.500	0
p	4	9	36	Н	48 000	40 000	45 500	n
-	Select 9	olution for c	alculation		Se	lect <u>A</u> ll	Continue	<u>C</u> ancel

Click on the solution number to highlight the row(s) you want to evaluate and then click on **Continue**.

Bear in mind that when running a Pallet Analysis, each solution number represents the same size case dimensions (OD). In the Arrange or Design Analysis, each solution number represents a different size case dimension (OD).

The Case Compression Strength input screen will be displayed.

Product Name Pa	llet Group-Cases/Tray	s/Ovals		Solution Parameters
Which Dimension is vertical to the Pallet?	Case Dimensions	Pallet Dimensions	Overhang	Cases stored for 120 - De
• Height	16.0000 Width	48.0000 Width	Vidth	Pallets are Stacked 2 Hi Partition Type 0 + Partition Material
C Width	Height	Height 5.5000	Cases/Layer	Case Material  Case Type RSC
	Weight	Weight 50.0	Layers/Pallet 4	Amount of Case Printing Complicated
	Height	Prev Set	Solve	Layers are Interlocked
Length	uu	Next Set	Close	Ring Crush

All of the Case, Pallet and Load information has been entered for you.

Enter your Solution Parameters information.

# Data Fields

The following data fields are included in the Solution Parameters window.

Humidity	The maximum humidity your product will be subjected to through its shipping cycle (0-100%). Bear in mind that once humidity adversely affects corrugated, lowering the humidity will not repair the damage incurred under loading.
Days in Storage	The length of time the corrugated will be subjected to the specified conditions (0-999). As an alternative, this can also be used to find the proper board grade needed to survive a given number of days in storage.
Additional Internal Support	Enter (in lb.) the amount of additional support your product adds to the calculated corrugated case compression strength (0-9999). With this value at 0, only the strength of the case is calculated. Any other value will add the entered value to the calculated compression strength prior to displaying the final value on the Solution Report. If you do not know this value and cannot estimate a value, use a straight percentage of the case total. It is entirely possible that if you have a rigid or solid product this value could be more than the actual case compression strength value.
Pallet Stack Height	The number of pallets stacked one on top of another, for compression calculations.
Partition Type	From the list of available partition types (which all add support to the case) choose the type that most closely represents the one you use. If there is not an exact match, choose a style that uses a bigger or smaller factor, or change any factor to meet your own needs. The partition type factor, in the Case Configuration Database, is the percentage of the individual initial case compression strength added to the initial value prior to displaying the final calculated value on the Solution Report.
Partition Material	If the partition is made up of a material different than that of the case, select the material that most closely matches your partition material.
Case Type	Choose the case type that most closely matches your case type.
Amount of Printing	Choose the amount of printing that most closely matches your case.
Interlock of Load Layers	Click on this box if you are alternating the pattern arrangement for layers (or if at least the second layer from the bottom of the load).
Horizontal Fluting	Check this box if your case is made with horizontal fluting.
Gapped or Solid Pallet	If there are any gaps in the pallet surface, click on this field. You can then fine-tune the Gapped Input Factor in the Environmental Factors Database to reflect the amount of gap in your pallet surface relative to the panel lengths of the case you are evaluating.
Solution Mode	Specify the method of calculating the Edge Crush for the boards in the Single Wall and Double Wall databases.

To calculate solutions, click on the **Solve** button and you will be taken to the Parameters Screen.

Compression Analysis for Pallet Group-Cas	es/Trays/Ovals - (Results in in/Ib)	
File Options	<b>A</b>	A
Parameters	Single Wall	Double Wall
Case Conf	iguration Data	Display/Print
Product Code :		<ul> <li>All Materials</li> </ul>
Case Length : 16.0000 in Case Width : 12.0000 in	Partition Type is : 0 Partition Material is :	<ul> <li>Successful materials</li> </ul>
Case Height : 10.0000 in Case Weight : 22.0 lb	Case Material Case Type is : RSC	
Internal support is : 0.0 lbs	Level of printing is : Complicated	○ Materials w/SF > SF = Empty box strength
Pallet Con	figuration Data	Weight on bottom case
Overhang in Length :0 in Overhang in Width :0 in Cases Per Layer :10 Layers per Pallet :4	Pallet surface is : Gapped Layers are : Stacked Case Flutes are : vertical	C Materials w/SF ➤ SF = <u>Static Strength</u> Weight on bottom case
Height is vertical to pallet		C Materials w/SF >
Load Data Pallets high : 2 Pallet Weight : 930.0 lb Weight on bottom tier : 1590.0 lb	Order solutions       Order solutions       O by Burst Test       O by Flute Type	Weight on bottom case
Weight on bottom case : 159.0 lb	• by Compression Strength	McKee Ring Crush in/lb 3:31 PM

# **Reviewing the Results**

If you do not agree with the values shown or would like to investigate another set of circumstances, you can either change these inputs or modify the appropriate factors. Regardless of which compression analysis program option you run, the calculated compression strengths for each board grade selected from the database will be displayed on these tabs.

O Compression Analysis for Pallet Group-Cas	es/Trays/Ovals - (Results in in/Ib)	_ = ×
File Options		
Parameters	Single Wall	Double Wall
Case Conf	iguration Data	Display/Print
Product Name : Pallet Product Code :		<ul> <li>All Materials</li> </ul>
Case Length : 16.0000 in	Partition Type is : 0	<ul> <li>Successful materials</li> </ul>
Case Width : 12.0000 in Case Height : 10.0000 in	Partition Material is : Case Material	C +/- Compression strength >
Case Weight : 22.0 lb	Case Type is : RSC	
Internal support is : 0.0 lbs	Level of printing is : Complicated	C Materials w/SF > SE_ Empty box strength
Pallet Cont	figuration Data	Weight on bottom case
Overhang in Length : 0 in	Pallet surface is : Gapped	
Overhang in Width : 0 in	Layers are : Stacked	Static Strength
Cases Per Layer : 10	Case Flutes are : vertical	SF = Weight on bettern soon
Layers per Pallet : 4		Weight on Dottom Case
Height is vertical to pallet		Materials w/SF >
		SE = Dynamic Strength
Load Data Pallets high : 2 Pallet Weight : 930.0 lb Weight on bottom tier : 1590.0 lb	Order solutions       by Burst Test     Solve       by Flute Type     Solve	Weight on bottom case
Weight on bottom case : 159.0 lb	<ul> <li>by Compression Strength</li> </ul>	McKee Ring Crush in/lb 3:31 PM

Click on the Single Wall tab and the Solution Report will display all the board grades in the database along with their respective compression strengths.

	Sing	le Wall	le Wall					
Description	Burst Test	Material Combination	Flutes	Empty Strength	Static Strength	Dynamic L Strength H	.oads liqh	ſ
Ring Crush ECT 27.6	125	26-26-26	E	288.4	230.7	53.1	.9	-
Ring Crush ECT 30.7	125	26-33-26	E	328.5	262.8	60.4	.9	
Ring Crush ECT 31.5	150	33-26-33	E	344.7	275.8	63.4	1.0	
Ring Crush ECT 34.6	150	33-33-33	E	386.9	309.6	71.2	1.1	
Ring Crush ECT 27.9	125	26-26-26	В	387.0	309.6	71.2	1.1	
Ring Crush ECT 34.9	175	38-26-38	E	393.0	314.4	72.3	1.1	
Ring Crush ECT 36.7	200	42-26-42	E	424.7	339.7	78.1	1.1	
Ring Crush ECT 38.0	175	38-33-38	E	436.8	349.4	80.4	1.2	
Ring Crush ECT 31.2	125	26-33-26	В	438.7	351.0	80.7	1.2	
Ring Crush ECT 37.3	250	47-26-47	E	442.9	354.3	81.5	1.2	
Ring Crush ECT 31.8	150	33-26-33	В	447.1	357.7	82.3	1.2	
Ring Crush ECT 28.3	125	26-26-26	С	464.1	371.3	85.4	1.2	
Ring Crush ECT 39.8	200	42-33-42	E	469.6	375.7	86.4	1.2	
Ring Crush ECT 35.1	150	33-33-33	В	500.1	400.1	92.0	1.3	
Ring Crush ECT 35.2	175	38-26-38	В	501.6	401.3	92.3	1.3	
< 📋							•	

You can scroll through the table by using the arrows on the right-hand side of the screen.

# Solution Report Information

The new information calculated from your input data is as follows.

Safety Factor	This column added only if a Safety Factor has been selected on the Parameters tab.
Empty Strength	The case compression strength (lbs.) calculated as if the case were brand new or in a laboratory test environment at optimum conditions. It is derived from the McKee formula value multiplied by factors for flute direction, case position, case proportions and case type.
Static Strength	The empty case strength plus the printing and divider/partition factors.
Dynamic Strength	Compression Strength of the case remaining at the number of days you specified on the Solution Parameters input tab. This value is derived by taking the static value and multiplying it by each factor selected (e.g., humidity, days of storage, overhang, dimension vertical, pallet surface type, interlocked layers and additional internal support). It does take into account the number of pallet loads high specified. That parameter is used for sorting successful from unsuccessful materials.
Loads High	This figure represents the number of loads high you can stack this case under the environmental conditions you requested. It is determined using the Dynamic Strength of the case.
Safety Margin	The Safety Margin expresses a percentage of the effectiveness of this board compared to the required strength (weight on the bottom case). A positive percentage means that there is strength in excess of requirements (i.e., 33% means the board is 33% stronger than you need), and a negative number means you are lacking in required strength (-33% means that the board is lacking 33% of the required board strength). This gives you an accurate assessment of each board and a much better way to compare different boards than just using Loads High or straight Dynamic Strength.

# Printing Results

The **Print** buttons on the tabs will print all or part of your information as follows.

- Parameters tab **Print** button: Prints all solution information for the analysis including the Parameters tab, the Single Wall and Double Wall solutions.
- Single Wall **Print** button: Prints the Parameters and Single Wall tabs only.
- Double Wall **Print** button: Prints the Parameters and Double Wall tabs only.

You can also select specific boards to print if you do not wish to print all of the data.

Click on the **Print Selected** field at the bottom of the screen next to the **Print** button, and then click on the **Print** button. The following box appears.

Single Wall Materials	To print	
Ring Crush ECT 27.6	Y	*
Ring Crush ECT 30.7	Y	
Ring Crush ECT 31.5	Y	
Ring Crush ECT 34.6	Y	Ξ
Ring Crush ECT 27.9	Y	
Ring Crush ECT 34.9	Y	
Ring Crush ECT 36.7	Y	
Ring Crush ECT 38.0	Y	
Ring Crush ECT 31.2	Y	_
Ring Crush ECT 37.3	Y	_
Ring Crush ECT 31.8	Y	_
Ring Crush ECT 28.3	Y	_
Ring Crush ECT 39.8	Y	_
Ring Crush ECT 35.1	Y	_
Ring Crush ECT 35.2	Y	_
Ring Crush ECT 42.2	Y	_
Ring Crush ECT 31.8	Y	_
Ring Crush ECT 32.2	Y	_
Ring Crush ECT 28.8	Y	_
Bina Crush ECT 37.0	ly	
OK Cancel	Yes	No

Highlight the boards you want to print and click on **Yes**, or highlight the boards you don't want to print and click on **No**.

Click on **OK** to print your report.

When you click on **Close**, the program will prompt you about saving your data for your graphical solution report.

O Multi-Viewer Graphics Strength report options	×
🤟 iS we mu Strength report for Multi Viewer Graphics	
Print All boards?	
Print Selected boards?	
Close	

If you want to save the data for inclusion in your normal Cape Pack report from the MultiViewer Graphics screen, mark that option. Then you can select if you want to print all boards or only the ones you selected. If you simply chose to print successful materials, that will be considered "selected" boards by the program.

If you choose to Print Selected boards, the following screen will appear when you click on Close.

Single Wall Materials	To print		Double Wall Materials	To print
Ring Crush ECT 27.6	Y	*	Ring Crush ECT 42.9	Y
Ring Crush ECT 30.7	Y		Ring Crush ECT 43.4	Y
Ring Crush ECT 31.5	Y		Ring Crush ECT 43.8	Y
Ring Crush ECT 34.6	Y	Ξ	Ring Crush ECT 52.4	Y
Ring Crush ECT 27.9	Y		Ring Crush ECT 53.1	Y
Ring Crush ECT 34.9	Y		Ring Crush ECT 53.7	Y
Ring Crush ECT 36.7	Y		Ring Crush ECT 69.2	Y
Ring Crush ECT 38.0	Y		Ring Crush ECT 69.9	Y
Ring Crush ECT 31.2	Y	_	Ring Crush ECT 70.5	Y
Ring Crush ECT 37.3	Y	_	Ring Crush ECT 93.3	Y
Ring Crush ECT 31.8	Y	_	Ring Crush ECT 94.1	Y
Ring Crush ECT 28.3	Y	_	Ring Crush ECT 94.7	Y
Ring Crush ECT 39.8	Y		Ring Crush ECT 110.1	Y
Ring Crush ECT 35.1	Y		Ring Crush ECT 110.9	Y
Ring Crush ECT 35.2	Y		Ring Crush ECT 111.5	Y
Ring Crush ECT 42.2	Y			
Ring Crush ECT 31.8	Y	_		
Ring Crush ECT 32.2	Y			
Ring Crush ECT 28.8	Y			
Bing Crush ECT 37.0	Y	-		

Your Cape Pack graphical solution report will include the Strength data on additional pages.

# **Establishing Safety Factors**

After you have clicked on the **Solve** button on the Solution Parameters data input screen, you will see the Parameters output tab.

On the screen you will choose what factors will be used to display the board grades which successfully meet your chosen requirements. Your **Display/Print** options are:

All Materials	Will display the solution for all the materials in the Single Wall and Double Wall databases.
Successful Materials	Will display only those solutions in which the dynamic strength will support the projected weight.
+/- Compression Strength >	Lets you set a percentage that will be applied to the weight on the bottom case figure to search for solutions whose Dynamic Strength falls within that range. Be aware that the percentage relates to the weight of an individual case.
Materials with Safety Factor >	In the corrugated industry, and any theory related to the estimated compression strength of corrugated containers, the term safety factor means different things to different people who estimate it and calculate it many different ways.
	In theory, the safety factor is a estimation that, based on the various conditions the container will be subjected to, including its design, tells the designer how much stronger to design a container than the actual weight on the bottom container in a load. Usually, the more severe the shipping and distribution environment, the higher the safety factor you would want. For instance, if you want a container to be four times stronger than the greatest weight it will have to support, this means the initial compression strength of the container should be four times the most weight it will ever have to support. You would enter a safety factor of four. Keep in mind, everyone has a different idea of what their safety factor should be, but a rule of thumb in the corrugated industry is between 3 and 5. This means for a corrugated container, it should be designed to be 3 to 5 times stronger upon initial testing that the greatest load it will have to support.
	In the compression strength program, you can select the safety factor you want to use, and only those board combinations which meet or exceed the chosen safety factor will be displayed. For example, if your pallet loads will never be stacked more than two loads high, the greatest weight on the bottom container will never exceed the weight of the two pallet loads. If you ask for a safety factor of four, the calculations will only provide you with those board grade combinations in the database that meet or exceed four times the weight on the bottom container of the bottom pallet load.

Enter the Safety Factor you wish to use along with the <b>Empty</b> , <b>Static</b> or <b>Dynamic</b> Strength. Only those solutions
that meet or exceed the specified Safety Factor will be added to the report.

### **Order Solutions**

Choose the way you want the Single Wall and Double Wall databases ranked, either by **Burst Test**, **Flute Type** or **Compression Strength**.

### Load Data

Displays the chosen number of pallets high and corresponding weight on the bottom case. This weight is the starting point for the calculation of the safety factors chosen.

On the Task Bar in the lower right-hand corner of the screen you will see the method of calculating the edge crush (i.e. ring crush), the units of measure, and the method of calculating the initial compression strength.

# **Exporting Solution Data**

You can either copy your data to the clipboard and paste it into another application, such as Excel, or you can export the data to a text (TXT) file.



All data for this configuration will be exported/copied to the clipboard. You cannot export just a single board grade.

To exit the solution, click on **Close**.

To exit Strength, select the File menu and then choose Close, or use the Close button.

# Metric Version of the Program

The McKee formula will calculate the initial (empty) case compression strength. The program will then multiply this value by the factors you have specified for the load parameters and environmental conditions. This methodology is designed to predict the case compression strength (dynamic strength) at the end of your specified time period.

The Strength Program uses the European version of the universally accepted McKee Formula for calculating the empty case, initial case compression strength (at "test conditions). It then degrades the result by a series of user defined "environmental factors" - to predict the remaining strength of the case at the end of the storage period.

As input to the calculations, the McKee formula requires the combined board Edge Crush Test (ECT) in kN/m, Caliper (CAL) in mm and Case Perimeter (PER) in cm. The McKee formula is expressed as:

#### Compression Strength = 1.82 x ECT x 1.0194 x CAL0.508 x PER 0.492

Note: This program and the McKee formula relate to a standard RSC (top loading) case style.

### Creating new Compression Strength Formulas

You can substitute your own data into the McKee formula - creating your own custom formula.

Once you enter the **Strength** program you will see a list of all the palletizing solutions available:

List or Solutions									
Sol #	Layers	Cases /Layer	Cases /Pallet	D V	Prod. Length	Prod. Width	Load Height	Length Over	
1	7	10	70	Н	1200.000	1000.000	1550.000	0	
2	7	10	70	Н	1200.000	1000.000	1550.000	0	
3	7	9	63	н	1200.000	900.000	1550.000	0	
4	7	9	63	Н	1200.000	1000.000	1550.000	0	
5	7	9	63	Н	1200.000	1000.000	1550.000	0	
6	7	9	63	Н	1200.000	1000.000	1550.000	0	
7	7	9	63	Н	1100.000	1000.000	1550.000	0	
8	7	9	63	н	1200.000	1000.000	1550.000	0	
9	7	9	63	н	1200.000	1000.000	1550.000	0	
10	7	9	63	н	1200 000	1000 000	1550 000	0	

Click on **Cancel** and then select the **Options** menu and then choose **Show Formulas**:



You will see the following screen:

Environmental Factors - Metric						
File Help						
Storage Environment	Case/Divider Settings	) Fi	or Future (	ise		
Single Wall Materials	Double Wall Materials	Fo	rmulae			
	Edge Crush Formulae					
	For a Future version of	Саре				
	For a Future version of	Саре				
	The European McKee Formula	a				
1.82 * The Edge Crush Value X1.	0194×(the Caliper Value ^0.508)×(Case Per	rimeter ^0.4	92)			
	Custom Formula (User defined)	l)				
1.82 * The Edge Crush Value X 1	.0194 X (the Caliper Value ^0.508) X (Case Pe	erimeter ^0.4	492)		<u>E</u> dit	
			mm/kg	3:50 PM	CAPS	NUM

You will see the **McKee formula** displayed and below that the "Custom Formula" fields.

Click on the **Edit** button:

Custom Formula Entr Edge Crush Value Times Raised To Divided by 1.0194	y Plus Minus 0	<ul> <li>Times</li> <li>Raised To</li> <li>Divided by</li> </ul>	Formula Multiplier Times Raised To Divided by 1.82
Caliper Value Times Raised To Divided by 0.508	Plus     Minus     0	<ul> <li>Times</li> <li>Raised To</li> <li>Divided by</li> </ul>	
Case Perimeter Times Raised To Divided by 0.492	Plus Minus 0	Equals Empty Case Strength Save	

Adjust the various fields to suit your own formula and click on **Save**. Your new formula will then appear in the **Custom** section.

### **Getting Started**

The Strength Program can be accessed from two places:

From the **Programs** menu on the **Front Menu**:



Or, from the **Tools** menu (on the graphics screen) in the Pallet, Arrange or Design programs or from the "bar-bell" Strength icon:



If you access Strength from the **Tools** menu in the Pallet, Arrange and Design programs, the **Single Case** option **is not available**.

Note: The difference between the two analytical options is that running Strength from the **Main Menu** gives you the ability to evaluate compression strength for a single case OR a user defined palletized load. If you run Strength from the **Tools** menu, you are restricted to using one of the pallet patterns taken from one of the calculated solutions.

The basic data needed for the Strength program is stored in one of three databases:

- Singlewall Board Combination Factors (Board Grades)
- Doublewall Board Combination Factors (Board Grades)
- Storage Environment Factors

In addition you can change the basic McKee formula, choose the order your solutions are shown in and adjust a number of specialized parameters.

### Board Grade Combination Database?

The Board Grade Combination Database will store up to 200 Singlewall and 100 Doublewall combinations along with their respective Description, Flute, Caliper and Edge Crush values.

When calculating initial case compression results the Edge Crush and Caliper values from the database are used as direct input into the McKee formula. This value is then multiplied by any of the Environmental Factors you have selected:

e Help Diana a Facilitation			N.C			
Storage Environment	Case/Divider Settings			se		
ingle Wall Materials	Double Wall Materials		Formulae			
Des	cription	Flutes	Edge Crush	Caliper	Use	•
Sample 2		A	10.5	2	Y	
Sample 4		A	12	3	Y	
Sample 3		A	13	2.5	Y	
Sample 1		A	14	3	Y	
Sample 5		Α	9.5	2	Y	
Sample 8		В	11	4	Y	
Sample 6		В	12.5	2.5	Y	
Sample 10		В	14	3.5	Y	
Sample 9		В	15	3.5	Y	
Sample 7		В	17	3.5	Y	
4			[			•

NOTE: The edge crush values and calipers provided within the Board Grade Combinations Database are provided for demonstration purposes only. Do not use these values. You should create your own board grade information to use within the Cape Pack programs.

#### Data Fields

The following fields are included in the Board Grade Combinations Database:

#### Description

A description identifying each board grade (up to 35 characters may be used).

#### Flutes

Enter A, B, C or E to identify the flute type of each particular board.

#### Edge Crush

Enter the known (or estimated) Edge Crush value for each board combination, which will be used as input into the McKee formula and run through the Compression calculations.

#### Caliper

The caliper (thickness) of the board grade in millimeters. This value goes directly into the McKee formula for the compression calculations.

#### Use

Enter a Y if a particular board combination is to be used in compression calculations and displayed on the Solution Report.

Note: Over time, you will see how you can use this field in the calculations to fine tune each of your board grades for the exact compression strength you require.

### Modifying your boards

To modify a field double click on that field (or use the **Edit** button) and enter the value(s) you wish to use:

📀 Edit Single Wall 🗾
*Description Sample 5
*Flutes A
*Edge Crush 9.5
*Caliper 2
OK Cancel

To delete a row from the database select that row by clicking on the row number. Click on the **Delete button**.

Your changes will be automatically saved for you.

## Storage Environment Factors

The Storage Environment Factors contain all of the environmental factors used in the predicted compression calculations and the respective values that are to be used when factoring (multiplying by) the initial calculated compression value. For example, if you only choose a humidity of 90% and the respective factor value is .50, the initially calculated compression strength will be multiplied by .50 (or reduced by 50%) prior to displaying the predicted compression strength.

If you select a series of environmental factors the program generate a series of calculations that will progressively influence the final results for the predicted case strength:

Environmental Factors - Metric File Help						
Single Wall Materials	Double Wall M	laterials	Formulae			
Storage Environment	Case/Divider Se	ettings	For Future	use		,
If Average Relative	If Cases a	re stored for:		lf Pallet Sur	ace is:	
Humidity is: 0-35% 1.1	0 Days 1	31 - 60 Days	0.55	Gapped	0.92	
36-45% 1.1	1 - 3 Days 0.7	61 - 90 Days	0.55	Solid	1	1
46-55% 1	4-10 Days 0.65	91 - 120 Days	0.5			
56-65% 0.9	11-30 Days 0.6	Over 121 Days	0.45			
66-75% 0.8						
76-85% 0.7	If Case overhangs Pallet:	If Cases are on	their:			
06 100%	None 1	Height	1			
0.5	Up to 10 0.9	Width	0.9			
If Cases are:	Up to 20 0.8	Length	0.8			
Stacked 1	Up to 30 0.7	All fields on this n	ago aro rogu	irod		
Interlocked 0.6	Over 30 0.6	Air rieids on this p	aye are requ	ileu.		
Enter the board description (12	characters).		mm/kg	3:56 PM	CAPS	NUM

Note: To change a value in any field – simply highlight that field and type in a new value

Once you have set the factors within your database to match the theoretical conditions to which your corrugated cases will be subjected, it can be used within the initial calculations to replicate your own distribution environment. This will allow you to fine-tune your corrugated requirements. Thus, you can ensure that you are only purchasing the strength of corrugated cases that you actually need.

### Data Fields

The following data fields are included in the Environmental Factors Database:

#### **Percent Humidity**

A factor for each Relative Humidity range listed.

#### Days of Storage

A value for each range of days listed.

#### **Case Dimension Vertical**

A value for whichever dimension of the corrugated case will be placed vertically in the load.

#### Pallet Surface

A factor reflecting use of a gapped or solid surface on which the corrugated case will be placed.

#### Interlock

A factor to be used when you choose to rotate alternate layers, in the load. (This especially impacts the second layer of cases from the bottom of the load.)

#### Overhang

A value for each range of overhang listed. This is calculated for the maximum overhang on any one of the four pallet sides.

#### Additional Internal Support

Enter (in kg) the amount of additional support your product adds to the calculated corrugated case compression strength (0-999). With this value at 0, only the strength of the case is calculated. Any other value will add the entered value to the calculated compression strength prior to displaying the final value on the Solution Report. If you do not know this value and cannot estimate a value, use a straight percentage of the case total. It is entirely possible that if you have a rigid or solid product this value could be more than the actual case compression strength value.

### Case Configuration

#### Case Proportions (Length/Width Ratio)

A value used to reflect how your corrugated case will perform in relation to one panel length to another. (It also works in conjunction with Dimension Vertical if a tall, narrow case is placed on its end).

#### Amount of Printing

Factors used to reflect the effect of the type and amount of printing on the corrugated case.

#### Case Types

As the McKee formula is based on a standard top-loading case (RSC style) these factors adjust the calculations for other case styles.

#### Direction of Fluting

The McKee formula is based on a case with the fluting running from the top to the bottom of the case (vertical). Therefore, an alternative factor for horizontal fluting is provided.

#### **Divider Type**

From the list of available divider types (which all add support to the case) choose the type that most closely represents the one you use. If there is not an exact match, choose another style that uses a bigger or smaller factor, or change any factor to meet your own needs. The divider type factor is the percentage of the empty case compression strength added to the initial value prior to displaying the final calculated value on the Solution Report.

# Calculating Strength of a Cape solution?

To select a solution file choose **Strength** from the **Tools** menu:

	ls Databases	Colours	Add Graphics
	Multi-Dimensi	onal Analy	rsis
<u> </u>	Economic Ana	lysis	1
۲ 📃	Strength		ł
5	Maximizer		

You will be presented with the following screen showing details of all the available solutions:

ist of So.	lutions								
				Li	st of Solutions				
Sol #	Layers	Cases /Layer	Cases /Pallet	D V	Prod. Length	Prod. Width	Load Height	Length Over	-
1	7	10	70	Н	1200.000	1000.000	1550.000	0	
2	7	10	70	Н	1200.000	1000.000	1550.000	0	Γ-
3	7	9	63	Н	1200.000	900.000	1550.000	0	T
4	7	9	63	Н	1200.000	1000.000	1550.000	0	T
5	7	9	63	Н	1200.000	1000.000	1550.000	0	T
6	7	9	63	Н	1200.000	1000.000	1550.000	0	T
7	7	9	63	Н	1100.000	1000.000	1550.000	0	T
8	7	9	63	Н	1200.000	1000.000	1550.000	0	T
9	7	9	63	Н	1200.000	1000.000	1550.000	0	Τ
10	7	9	63	н	1200 000	1000 000	1550 000	n	-
1∩ ∢	7 Select S	9 Solution for c	63 alculation	H	12NN NNN Con	tinue	1550 000 Select <u>A</u> ll	<b>n</b> <u>C</u> ar	) ncel

Note: When running a Pallet Analysis, each solution number represents the same size case dimensions (OD). In the Arrange or Design Analysis, each solution number represents a different size case dimension (OD). As a result, compression strengths can vary between solution numbers in the Arrange and Design programs.

Select a Solution (e.g. #1) and click on **Continue** and you will see all of the relevant information for that particular solution:

Case Compression Strength	(Solution 1)				- • ×
File Options Help					
Product Name Pall	et Group			Solution Pa	rameters
Dreduct Code				Humidity Level is	70 - %
Product Code Code	esrinay/ovais				
Case vertical to the Pallet	Case Dimensions	Pallet Dimensions	Overhang /	Days in Storage	120
	Lenath	Lenath	Quantities Length	Internal Support	10 • kg
• Height	400.0000	1200.0000	0	Pallets are Stacked	
	Width	Width	Width		∠ • nign
_	300.0000	1000.0000	0	Partition Type	5
○ Width	Height	Height	Cases/Layer	Case Type BS	SC/E0201 -
	200.0000	150.0000	10		
C Length	Weight	Weight	Layers/Pallet	Amount of Case Prin	ting
	1.5	25.0	7	Simple	•
				Layers are Interloc	ked 🗌
	Previous Solution	1	Solve	Fluting Runs Horizo	ontal 🗌
				Pallet Surface is S	olid 🗖
	Next Solution	1	Close		
Enter the relative humidity th	e Pallet will be stored	lin.	Pallet		CAPS NUL

In addition, on the right-hand side of the screen, you will see the values for the **Storage Environment Factors**. If these are okay then click on the **Solve** button and you will see the following **Parameters** screen:

en Alexand	- A V	
Parameters	Single Wall	Double Wall
Case Con	figuration Data	Display/Print
Product Name : Pallet Group		All Materials
Product Code : Cases/Tray/Ovals Case Length : 400.0000 mm Case Width : 300.0000 mm Case Height : 200.0000 mm	Partition type is : 5 Partition Material is	C Successful Materials
Case Weight : 1.5 kg Internal support is : 10 kg	Case type is : RSC/F0201 Level of printing is : Simple	C +/- Dynamic Strength >
Pallet Con	figuration Data	
Overhang in Length : 0 mm Overhang in Width : 0 mm	Pallet surface is : Gapped Lavers are : Stacked	C Materials w/SF
Cases Per Layer : 10	Case Flutes are : vertical	SF = Empty Box Strength Weight on bottom case
Height is vertical to pallet		
Load Data Pallets high : 2 Pallet Weight : 130.0 kg Weight on bottom tier : 220.0 kg Weight on bottom case : 22.0 kg	Order Solution by Flute Type by Compression Strength <u>Solve</u>	

Essentially, the details on the left-hand side of the screen are provided for information purposes only.

The options on the right-hand side of the screen allow you to choose the way you want to **View/Print** the results:

- All Materials: Meaning to display all the materials in your database.
- Successful Materials: Those materials that meet the required parameters.
- **+/- Dynamic Compression Strength**: Lets you set a % that will be applied to the "weight on the bottom case" figure to search for solutions that fall within that range. Be aware that the % (shown as +/-) relates to the weight of a single case.
- **Materials with Safety Factor** greater than your input figure: Allows you to set a minimum safety factor for your results.

If you change any of these settings, you will need to click on the **Solve** button once again to resort your report.

Now click on the **Single Wall Tab** to see the results:

Compression Analysis for Pallet G	roup - (Results in Metric)					
File Options	Cingle Well		Dou	blo Well		
r urumeters	olingie mail			DIE WUII		
Description		Flutes	Empty Strength	Static Strength	Dynamic Strength	Loads High
Sample 5		A	256.6	369.5	146.0	11.5
Sample 2		A	283.6	408.3	160.3	12.6
Sample 6		В	378.1	544.5	210.4	16.5
Sample 3		A	393.2	566.3	218.4	17.1
Sample 4		A	398.2	573.4	221.0	17.3
Sample 8		В	422.5	608.4	233.9	18.3
Sample 1		A	464.6	669.0	256.2	20.0
Sample 10		В	502.4	723.5	276.2	21.6
Sample 9		В	538.3	775.2	295.3	23.0
Sample 7		В	610.1	878.5	333.3	25.9
Showing All Materials (using M Compression Strength.	ckee Formula) , ordered by	<ul> <li>Prir</li> <li>Prir</li> </ul>	it All it Selected	Print		<u>C</u> lose
			МсКее	mm/kg 3:5	57 PM CA	PS NUN

You can see the effect of the Storage Environment Factors – they have reduced the initial, Empty Case, figure by more than 50%.

If you do not agree with the values shown or would like to investigate another set of circumstances, you can either change the inputs or modify the appropriate factors in the Storage Environment Factors database.

### **Reviewing Your Results**

The information calculated from your input data is explained as follows:

#### Empty Case Strength

The case compression strength (KN.) calculated as if the case were brand new or in a laboratory test environment at optimum conditions. It is derived from the McKee formula value multiplied by the Length/ Width Panel Ratio factor.

#### Static Case Strength

The case compression enhanced by any divider type or Additional Internal Support that is offered by the product itself.

#### **Dynamic Strength**

Compression Strength of the case remaining at the number of days you specified on the Storage Environment Factors screen. This value is derived by taking the initial value and multiplying it by each factor selected (e.g., humidity, days of storage, overhang, dimension vertical, pallet surface type, interlocked layers and additional internal support).

#### Pallet Loads High

This is the value that you should use to determine if your existing board grade is strong enough to suit your distribution requirements. If this is too low, select a stronger board or re-evaluate your input information.

# Calculating the strength of a single case

The single Case Strength Analysis is used to simulate in-lab test conditions for a single case using the case depth vertical on a flat pallet. However, you can also calculate the predicted compression strength for some point of time in the future and compare that information to the initial value(s).

Go the **Front Menu** and then select the **Programs** menu. Then select **Other Programs** and then choose **Strength**. Here is the Input Window:

Case Compression Strength <u>File</u> Options <u>H</u> elp	(Solution)					×
Product Name			Solut	ion Parar	neters	
Product Code			Humidity Level	lis 7	0 *	%
Case vertical to the Pallet	Case Dimensions		Days in Storag	ie 1	20 🗼	1
	Length		Internal Suppo	rt 1	0 *	kg
• Height			Pallets are Sta	icked 2	*	High
	Width		Partition Type	5	•	1
	Height		Case Type	RSC/	F0201 🔻	]
C Length	Weight		Amount of Cas	e Printing	1	1
			Simple	vievlevelve	• •	
		Calua	Fluting Runs	Horizont	al E	
		<u>201/6</u>				
		Close				
Enter the Product name.		Case	mm/kg 3	:58 PM	CAPS	NUI

Enter the appropriate information for the **Product Name** and **Code**, **Case Dimensions**, **Case Dimension Vertical** and the **Storage Environment Factors**.

Click on **Solve** to calculate compression strength solution information:

O Compression Analysis for Widget	t1 - (Results in Metric)			[	
<u>File</u> <u>Options</u> Parameters	Single Wall		Double Wall		
Description		Flutes	Empty Strength	Static Strength	Dynamic Strength
Sample 5		A	256.6	369.5	0.0
Sample 2		A	283.6	408.3	0.0
Sample 6		в	378.1	544.5	0.0
Sample 3		A	393.2	566.3	0.0
Sample 4		A	398.2	573.4	0.0
Sample 8		в	422.5	608.4	0.0
Sample 1		A	464.6	669.0	0.0
Sample 10		в	502.4	723.5	0.0
Sample 9		В	538.3	775.2	0.0
Sample 7		B	610.1	878.5	0.0
Showing All Materials (using M Compression Strength.	lckee Formula) , ordered by	<ul> <li>Print All</li> <li>Print Selecte</li> </ul>	ed Prir	t	<u>C</u> lose
			McKee mm/kg	3:59 PM	CAPS NUN

Notice that the fields **for Dynamic Strength** display zero. This is because it is a single case and the case is not being palletized.

# **Opening Saved Graphics Files**

### Introduction

**Open Saved Solutions** is a feature that has been provided to let you view saved graphics files at a later date/time. It can also be used in a network environment, to let your colleagues see the results of your work with Cape Pack.

The idea is that you run an analysis, choose a solution, manipulate the graphics and then save that graphics solution. Then, instead of having to rerun the analysis, you can use the conveniently located **Open Viewer\Open Saved Solutions** function under the **File** menu on the Front Menu screen.

<mark>)</mark> w	/elcome to C	ape Pack 16.0 (Cape	Advanced) - [From	nt Me	enu]					_
File	Programs	Create ShortCuts	Make a new Shap	e [	Databases	Resolutions	Internet	Publis	her Help	
	Open Input	Data	Ctrl+O	1						
	Open CIF				dior los	nd a truck	1			
	Open Viewe	er/Open Saved Solut	ions	•	Cape F	ack		•	Solution Dialog	
	WebCenter	Connector Browser			Display	Pallet (Club-s	store)	•	Standard Dialog	
	Program Se	ttings		r I					- U	
	Open Cape	Pack Administrator			- Pallet'	?			-Truck?	
	Change Priv	vate Path			Yes	<ul> <li>No</li> </ul>	0		Yes 💿	No C
	Open MS Ex	cel Examples		ni	na for :	a new or e	nniteixe	nrod	uct and nalle	tize it)
	1. C:\\WID	OGET.CLF			ing for t		, as any	prod		120 10
	2. C:\\BOL	LSA.CLF			- Σ	🗅 💰				-
	3. C:\\TRA	APEZOIDS 2.CLF				· •		V	-urea	
	Exit								_	
	9 W File	Welcome to C File Programs Open Input Open CIF Open Viewe WebCenter Program Se Open Cape Change Prin Open MS E 1. C:\\WII 2. C:\\WII 2. C:\\TR4 Exit	Welcome to Cape Pack 16.0 (Cape File Programs Create ShortCuts     Open Input Data     Open CIF     Open Viewer/Open Saved Solut     WebCenter Connector Browser     Program Settings     Open Cape Pack Administrator     Change Private Path     Open MS Excel Examples     1. C:\\WIDGET.CLF     2. C:\\BOLSA.CLF     3. C:\\TRAPEZOIDS 2.CLF     Exit	Welcome to Cape Pack 16.0 (Cape Advanced) - [Froi           File         Programs         Create ShortCuts         Make a new Shap           Open Input Data         Ctrl+O           Open CIF         Open Viewer/Open Saved Solutions           WebCenter Connector Browser         Program Settings           Open Cape Pack Administrator         Change Private Path           Open MS Excel Examples         1. C:\\WIDGET.CLF           2. C:\\BOLSA.CLF         3. C:\\TRAPEZOIDS 2.CLF	Welcome to Cape Pack 16.0 (Cape Advanced) - [Front Me File Programs Create ShortCuts Make a new Shape D Open Input Data Ctrl+O Open CIF Open Viewer/Open Saved Solutions WebCenter Connector Browser Program Settings Open Cape Pack Administrator Change Private Path Open MS Excel Examples 1. C:\\WIDGET.CLF 2. C:\\BOLSA.CLF 3. C:\\TRAPEZOIDS 2.CLF Exit	Welcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]         File       Programs       Create ShortCuts       Make a new Shape       Databases         Open Input Data       Ctrl+O         Open CIF       Cape F         Open Viewer/Open Saved Solutions       Cape F         WebCenter Connector Browser       Display         Program Settings       Open Cape Pack Administrator         Change Private Path       Yes         Open MS Excel Examples       ing for a         1. C:\\WIDGET.CLF       C:\\KBOLSA.CLF         2. C:\\TRAPEZOIDS 2.CLF       Exit	Welcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]         File       Programs       Create ShortCuts       Make a new Shape       Databases       Resolutions         Open Input Data       Ctrl+O       Open CIF       Display Palet (Club-s)         Open Viewer/Open Saved Solutions       VebCenter Connector Browser       Display Pallet (Club-s)         Program Settings       VebCenter Connector Browser         Program Settings       VebCenter Pack Administrator         Change Private Path       Open MS Excel Examples         1. C:\\WIDGET.CLF       . C:\\KBOLSA.CLF         3. C:\\TRAPEZOIDS 2.CLF       Exit	Welcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]         File       Programs       Create ShortCuts       Make a new Shape       Databases       Resolutions       Internet         Open Input Data       Ctrl+O       Open CIF       Indior load a truck)       Cape Pack         Open Viewer/Open Saved Solutions       Indior load a truck)       Cape Pack         WebCenter Connector Browser       Display Pallet (Club-store)         Program Settings       Indior load a truck)         Open Cape Pack Administrator       Pallet?         Change Private Path       Pallet?         Open MS Excel Examples       Ing for a new or existing         I. C:\\WIDGET.CLF       Ing for a new or existing         S. C:\\TRAPEZOIDS 2.CLF       Exit	Welcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]         File       Programs       Create ShortCuts       Make a new Shape       Databases       Resolutions       Internet       Publis         Open Input Data       Ctrl+O       Open CIF       Indior load a truck)       Open Cape Pack       Internet       Publis         WebCenter Connector Browser       WebCenter Connector Browser       Internet       Display Pallet (Club-store)       Internet       Pallet?         Program Settings       Internet       Pallet?       Yes       No       Internet         Open MS Excel Examples       Internet       Internet       Internet       Internet       Internet         I. C:\\WIDGET.CLF       C:       Internet       Internet       Internet       Internet       Internet         Exit       Internet       Internet       Internet       Internet       Internet       Internet	Welcome to Cape Pack 16.0 (Cape Advanced) - [Front Menu]         File       Programs       Create ShortCuts       Make a new Shape       Databases       Resolutions       Internet       Publisher       Help         Open Input Data       Ctrl+O       Open CIF       Internet       Publisher       Help         Open Viewer/Open Saved Solutions        Cape Pack       Solution Dialog         WebCenter Connector Browser        Display Pallet (Club-store)       Standard Dialog         Program Settings          Pallet?          Truck?         Open MS Excel Examples

You have these two choices when opening saved solutions for either the normal Cape Pack single product solutions or the Display Pallet (Club-store) solutions.

• Solution Dialog: Shows only those CLF files with saved graphical solutions.

Name	Module Type	Units	SP Length	SP Width	SP Height	
102938901238	FCA/New Case Size/Nest	(mm/kg)	332.000	248.000	186.000	
🙂 aw snap 1.clf	Arrange - Cylinders/Bottles	(in/lb)	16.640	16.320	19.160	
🙂 aw snap 2.clf	Arrange - Cylinders/Bottles	(in/lb)	16.640	16.320	19.160	
🙂 aw snap 3.clf	Arrange - Cylinders/Bottles	(in/lb)	16.640	16.320	18.160	
🙂 aw snap 4.clf	Arrange - Cartons/Bags/O	(in/lb)	16.640	13.320	8.160	
🙂 aw snap 5.clf	Arrange - Cartons/Bags/O	(in/lb)	16.640	13.320	8.160	
aw snap 6.clf	Pallet - Cylinders/Bottles	(in/lb)	12.000	12.000	20.000	
					1	

Open Saved Graphics							×
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Organize 🔻 New fold	er					i≡ <b>•</b> 🚺	?
🛠 Favorites	•	I	Name	Da	te modified	Туре	<u>^</u>
Marktop			drupak.clf	9/9	9/2016 4:52 AM	CLF File	
Downloads			widget.clf	9/8	3/2016 11:16 AM	CLF File	E
🖳 Recent Places			casefill tutorial.clf	9/7	7/2016 3:16 PM	CLF File	
			foottest1.clf	9/7	7/2016 11:15 AM	CLF File	
🥃 Libraries			oscar.clf	8/2	26/2016 10:08 AM	CLF File	
Documents			aman2.clf	8/2	22/2016 4:35 PM	CLF File	
J Music	=		🖬 aman.clf	8/2	22/2016 4:35 PM	CLF File	
Pictures			🔟 viki test.clf	8/1	L1/2016 7:18 AM	CLF File	
📑 Videos			hamin.clf	8/1	L0/2016 8:29 PM	CLF File	
			🖬 solo cup.clf	8/5	5/2016 9:14 AM	CLF File	
🜉 Computer			🖬 po.clf	8/4	4/2016 10:18 AM	CLF File	
🚢 Local Disk (C:)			D10293890123890a.clf	8/3	3/2016 3:54 AM	CLF File	
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🙀 GlobalStorage (\\esl			🔟 yogi revised container - c - metric.clf	8/2	2/2016 2:49 PM	CLF File	
🕎 Shared Folders (\\vr			🔟 yogi revised container - c - imperial.clf	8/2	2/2016 2:42 PM	CLF File	
			Yogi Revised container - b - imperial.clf	8/2	2/2016 2:42 PM	CLF File	
📬 Network			vogi revised container - b - metric.clf	8/2	2/2016 2:41 PM	CLF File	<b>T</b>
EV///1/1/1/1/2	Ŧ	•		_			•
File <u>n</u>	am	e:		•	Cape Load file	(*.clf)	-
					<u>O</u> pen	Cancel	

• Standard Dialog: Shows all files in a standard Windows Open box.

If you have a large number of clf files in your private folder, it is recommended that you use the Standard Dialog method. The program response time will be much quicker this way.

# **Saving Graphics**

Here is your screen in the Multi-Viewer Graphics.



From the **File** menu, select **Save Solution** to save your graphic solutions with your input data to the same file name, or **Save Solution As** to use a different file name.

# **Opening your Saved Graphics file**

Go to the Front Menu and select the **File** menu. Choose **Open Viewer/Open Saved Solutions, cape pack, Solution dialog.** The program will display all the files in your Private path that have saved solutions.

Name	Module Type	Units	SP Length	SP Width	SP Height	
🙂 kc tissue.clf	Arrange - Cylinders/Bottles	(in/lb)	11.570	7.820	9.640	
🙂 kika 3.clf	Pallet - Cases/Trays/Ovals	(in/lb)	15.000	13.750	8.000	
🙂 lift cover.clf	Arrange - Cylinders/Bottles	(in/lb)	24.823	16.697	10.703	
🙂 mda for moshu	Pallet - Cases/Trays/Ovals	(in/lb)	16.000	12.000	10.000	
🙂 oscar.clf	Arrange - Cylinders/Bottles	(in/lb)	18.320	11.320	8.640	
🛞 recall.clf	Arrange - Cartons/Bags/O	(in/lb)	18.320	10.820	8.640	
🙂 report 3.clf	Arrange - Cartons/Bags/O	(in/lb)	15.320	12.320	8.640	
<u></u>						Þ.

Each file is identified by the name, the program module used to create it, the units of measure, the secondary package dimensions and the product name and code. Highlight the file you want to open and click on the **Select** button. Your file will be opened in the Multi-Viewer.

# Points to remember about Saved Solutions

It is important to remember that you are saving the graphics for a single solution. If you rerun the data input, you will lose the saved graphics.

If you have saved the graphics for a particular solution and then try to re-run the analysis you will see a warning message when you select Save Input Data. In this situation you should choose the **Save As** option and give your saved graphics file another name. This will retain your original file with its saved graphics.

# Data Import and Export

## Introduction

Cape Pack has extensive and versatile import and export capabilities which make interfacing with other systems and programs an easy process. You can import your data from your existing files or systems with the use of our CIF file and a simple command line. We have provided examples of this process in the form of Excel and Access documents.

In addition, you can export ASCII text of your load results as well as standard graphics forms of your diagrams. These industry-standard file types can be used in virtually all systems that are used in the market place today.

# Automating Your Input Data

The Cape Interface Files have been provided to allow users to import any or all of the data input required to automatically fill out the input fields for an individual Cape Pack program module (i.e. Pallet - Bags).

This approach avoids the user having to manually enter data that may already be available in existing databases or other proprietary programs. See below.



#### Data Import & Export Capabilities

Once the data has been imported, via a macro, it is the responsibility of the user to check/validate the data before executing the Save or Save As commands, within Cape Pack.

The Cape Interface Files (CIF), supplied with your Cape Pack program, are in a Windows .INI format and they are located in the Tutor Path of Cape Pack. However, you can create as many CIF files as you need and locate them in a directory of your choice.

Remember, in the command line instruction, you must identify the name of your CIF file and where it is located.

There is a CIF for each of the following program modules in the Cape Pack Tutor directory.

#### Pallet Group

Rectangle/Oval	(PAL1.CIF)			
Cylinder/Bottle	(PAL2.CIF)			
Bags	(PAL3.CIF)			
Trapezoids	(PAL4.CIF)			
Arrange Group				
Box/Bag/Bottle	(ARR1.CIF)			
Cylinder/Bottle	(ARR2.CIF)			
Trapezoids	(ARR3.CIF)			
Folding Carton Arrange				
New, Cartons Alternated in Bundles	(ARR4.CIF)			
New, Bundles Alternated in Cases	(ARR5.CIF)			
Fixed, Nested Cartons in Bundles, All Patterns	(ARR6.CIF)			
Fixed, Nested Cartons in Bundles, Row/Column	(ARR7.CIF)			
Fixed, Nested Bundles in Cases, Row/Column	(ARR8.CIF)			
Design Group				
Box/bag/Bottle	(DGN1.CIF)			
Cylinder/Bottle	(DGN2.CIF)			
Trapezoids	(DGN3.CIF)			
Casefill Group				
Box/Bag/Bottle - Fixed	(CF1.CIF)			
Cylinder/Bottle - Fixed	(CF2.CIF)			
	Box/Bag/Bottle – Variable	(CF3.CIF)		
-----------	---------------------------	------------	--	--
KDF Group				
	Flatblank	(KDF1.CIF)		
	Made up Case	(KDF2.CIF)		
	Bale Flatblank	(KDF3.CIF)		
	Blae Made up Case	(KDF4.CIF)		

You can create as many CIF files as you need **and** you are not restricted to using the filenames listed above. Any file name can be used. Just remember to include the name and location of your CIF file in your command line instruction.

# Running Cape Pack using CIF Files

To operate the CIF file format you will need to create a macro that extracts the relevant data (for any or all fields within the required CIF) from another program or application. The macro must also place the appropriate information in the correct field for each piece of data input that might be available from the other program/application.

Any input data not available from another program/application can be entered manually by the user once the command line instruction has been activated and the fields on the Cape Pack input screens have been populated.

# Use of Command Line Instructions

Once the CIF has been populated with the required input data, you will need to issue a command line instruction to run the appropriate CIF and start the Cape Pack program.

This action will initiate the appropriate program module, bypass the normal Cape Pack Licensing and Front Menu screens, and load the selected program module with the appropriate data input fields already populated.

Here is an example of the command line instruction to run a Pallet Group - Rectangle/Square (PAL1.CIF).

### "C:\Program Files(x86)\cape16\Cmenu32.exe" /CIF C:\Program Files(x86)\cape16\Tutor\Pal1.cif

Once the CIF file is created you use the command line instruction to begin the process. You will not see the normal Cape License screen or the Front Menu. All you will see is the "Loading xxx Module" screen, followed by the first input screen (for your selected module) with your data already loaded.

O Pallet - [Data Input]			
File Programs Make a new Shape Input Datab	ases Tools Fill Wizard Colors	s Add Graphics Internet	Help
🔚 D 🗁 🖬 🖩 🖨 🎙 🦻 🖻 🔟 🗣 🎽	🍇 🖓 💋 🖓 🔒 ?? -	<b>A</b>	
Case 48x40	Pallet 2	Pallet 3	53footer
Select Pack Type Sele	ct Pack Name		
RSC (2,2,4)	<u> </u>		
	Length	Width	Height
Enter OD's	16.0000	12.0000	10.0000
Set Dimensions Vertical			x
Enter Pack Weight Gross Weight 10.0000 10.0000	Input Settings Save/Calc.	Product Name	e/Product Code
Case		(in/lb)	2:34 PM CAPS NUM

# Opening CIF Files for Data Input

We have added the option for you to open your previously created or saved CIF (Cape Interface File) from the Front Menu in Cape Pack, simply select it from the file menu and it will open the program group and the input data from the CIF as well.

<b>0</b> w	elcome to Cape Pack 16.0 (Cape	Advanced) - [Front	Men	
File	Programs Create ShortCuts	Make a new Shape	Da	
	Open Input Data	Ctrl+O	1	
	Open CIF		hd	
	Open Viewer/Open Saved Solut	ions 🕨		
	WebCenter Connector Browser		L	
	Program Settings			
	Open Cape Pack Administrator			
	Change Private Path			
	Open MS Excel Examples		iin	
	1. C:\\BOLSA.CLF			
	2. C:\\TRAPEZOIDS 2.CLF			
	Exit			
_				

Your program will open with the data preloaded.

O Pallet - [Data Input]			- • •
File     Programs     Make a new Shape     Input     Databases       Image: Section of the secti	Tools Fill Wizard Colors	Add Graphics Internet	Help 53footer
Select Pack Type Select P RSC (2,2,4)	Yack Name		
	Length	Width	Height
Enter OD's Set Dimensions Vertical	16.0000	12.0000	10.0000 ×
Enter Pack Weight Gross Weight 10.0000 10.0000	Input Settings Save/Calc.	Product Name	e/Product Code
Case		(in/lb)	2:34 PM CAPS NUM

And if you have the CIF designed to calculate, the program will automatically take you to Multi-Viewer Graphics.



# Saving CIF Files

In the Program Setings under the File menu, choose More Settings.

<b>O</b> v	/elcome to C	ape Pack 16.0 (Cape	Advanced) - [Front I	Menu]				
File	Programs	Create ShortCuts	Make a new Shape	Databases	Resolutions	Internet	Publisher	Help
	Open Input Open CIF Open Viewe WebCenter	Data r/Open Saved Solut Connector Browser	Ctrl+O ions ►	nd/or loa	ad a truck	);		
	Program Set	ttings	+	Progra	m Language			• • • • •
	Open Cape Change Priv	Pack Administrator /ate Path		More S Transf	Settings er Help Files to	My Local	Drive	ruck? 'es
	Open MS Ex	cel Examples		ling for :		vietina	product	t and r
	1. C:\\BOL 2. C:\\TRA	SA.CLF APEZOIDS 2.CLF						
	Exit							

The following screen appears.



Click on Activate CIF to activate ths feature.

# **CIF Files Structure**

Here is a separate listing and detailed description of the file structures for all of the CIF files for each of the program modules.

The Fil	e Extension	CIF
I HC I H	C LATCHSION	

The File Type

Windows INI

# File Format for Pallet - Rectangle/Oval

#### [General] - Section Name

Field #1 = 1 ( Pallet - Rectangle/Oval)
Field #3 = Product Name (Maximum 50 characters)
Field #4 = Product Code (Maximum 25 characters)
Field #5 = Inside or Outside Dimensions (1=Inside Dimensions, 2=Outside Dimensions)
Field #7 = Bulge Allowed (1=Yes, 0= No)
Field #9 = Palletizing Type (1=Objects onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck)
Field #10 = Units of Measure (0=mm/kg, 1=in/lb)
Field #12 = Problem Date

Field #19 = Number of Pallets (Range=1 to 3) Field #20 = Show Flap Indicator (1=Yes, 0=No) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Secondary Pack Data [Secondary Pack] - Section Name Field #1 = Outside Length Dimension Field #2 = Outside Width Dimension Field #3 = Outside Height Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #12 = Pack Type 1 = RSC(2,2,4)2 = FOL(2,2,6)3 = CSSC(2,2,4)4 = SURFACE(2,2,2)5 = SLEEVE(2,2,0)6 = TRAY(4,2,1)7 = END(2,2,4)8 = Custom (Specify Mat. Thicknesses in Field #15 - 17) 9 = None10 = No Package 11 = Shrink Wrap 1000 = Custom Shape Name (Enter shape name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #15 = Number of thicknesses in Length Field #16 = Number of thicknesses in Width Field #17 = Number of thicknesses in Height Field #18 = Material thickness Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Field #59 = Tray Wall height Field #64 = Inside Length Dimension Field #65 = Inside Width Dimension Field #66 = Inside Height Dimension Pallet Restrictions Data

### [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height

Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Percentage - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#2] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Percentage - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Percentage - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target Master Pallet Base Data (Optional) [Master Base] - Section Name Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang Truck Restrictions Data [Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) *.pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17 = Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images. 2. A maximum of 4 decimal places can be used. 3. If Inside Dimensions (Field #5 in the General Section) for the Secondary Pack are selected then Fields 15-18 will need to be completed. 4. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General

Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required. Also, Field #3 and Field #4 in the Truck Restriction section are replaced by Field #5 and Field #6 respectively, also, Field #7 will now be relevant since this Field only works with Cylinders. The reason for this is since cylinders will be palletized into Trucks the patterns applied change from the Cape six standard patterns to Row / Columns or Nested.

# File Format for Pallet - Bag

## [General] - Section Name

Field #1= 3 (Pallet – Bag)

Field #3 = Product Name (Maximum 50 characters)

Field #4 = Product Code (Maximum 25 characters)

Field #7 = Bulge Allowed (1=Yes, 0=No)

Field #9 = Palletizing Type (1=Objects onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb)

Field #12 = Problem Date Field #19 = Number of Pallets (Range=1 to 3) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Secondary Pack Data [Secondary Pack] - Section Name Field #1 = Length Outside Dimension Field #2 = Width Outside Dimension Field #3 = Height Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #12 = Pack Type 1 = Default 1000 = Custom Shape Name (Enter shape name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length

Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#2] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

Master Pallet Base Data (Optional) [Master Base] - Section Name Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang

Truck Restrictions Data [Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) *.pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Lenath Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No. 1=Yes)Field #17=Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images.

2. A maximum of 4 decimal places can be used.

3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required. Also, Field #3 and Field #4 in the Truck Restriction section are replaced by Field #5 and Field #6 respectively, also, Field #7 will now be relevant since this Field only works with Cylinders. The reason for this is since cylinders will be palletized into Trucks the patterns applied change from the Cape six standard patterns to Row / Columns or Nested.

File Format for Pallet - Cylinder/Bottle

### [General] - Section Name

Field #1 = 2 (Pallet Cylinder/Bottle) Field #3 = Product Name (Maximum 50 characters) Field #4 = Product Code (Maximum 25 characters) Field #6 = Recessed Allowed (1=Yes, 0=No)Field #9 = Palletizing Type (1=Objects onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #19 = Number of Pallets (Range=1 to 3) Field #21 = Allow vary cylinder size (1=Yes, 0=No) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Secondary Pack Data

[Secondary Pack] - Section Name Field #3 = Height Outside Dimension Field #4 = Top Outside Diameter Field #5 = Bottom Outside Diameter Field #10 = Gross Weight Field #11 = Nett Weight Field #12 = Pack Type 1 = Default 1000 = Custom Shape Name (Enter shape name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #34 = Allow On Side Orientation on Pallet (1=Yes, 0=No) Field #35 = Allow Upright Orientation on Pallet (1=Yes, 0=No) Field #36 = Recess Factor Field #50 = Diameter Dimensional Variance (+) Field #51 = Height Dimensional Variance (+) Field #52 = Diameter Dimensional Variance (-) Field #53 = Height Dimensional Variance (-) Field #54 = Diameter Dimensional Increment Field #55 = Height Dimensional Increment Field #56= Vary Volume By (Percentage - %) Field #57 = Vary Weight with Volume (1=Yes, 0=No) Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #20 = Row / Column Pattern Allowed on Pallet (1=Yes, 0=No) Field #21 = Nested Pattern Allowed on Pallet (1=Yes, 0=No) Field #22 = Hybrid Pattern Allowed on Pallet (1=Yes, 0=No) Field #23 = Space Between Field #24 = Partial Top Layer Permitted (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #29 = Pallet Height Field #30 = Pallet Weight Field #37 = Load Target [Pallet Restrictions#2] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #20 = Row/Column Pattern Allowed on Pallet (1=Yes, 0=No) Field #21 = Nested Pattern Allowed on Pallet (1=Yes, 0=No) Field #22 = Hybrid Pattern Allowed on Pallet (1=Yes, 0=No) Field #23 = Space Between Field #24 = Partial Top Layer Permitted (1=Yes, 0=No) Field #27 = Pallet Length

Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #20 = Row / Column Pattern Allowed on Pallet (1=Yes, 0=No) Field #21 = Nested Pattern Allowed on Pallet (1=Yes, 0=No) Field #22 = Hybrid Pattern Allowed on Pallet (1=Yes, 0=No) Field #23 = Space Between Field #24 = Partial Top Layer Permitted (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target Master Pallet Base Data (Optional) [Master Base] - Section Name Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang **Truck Restrictions Data** [Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) *.pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #5 = Row / Column Loading Pattern Applied (1=Yes, 0=No) Field #6 = Nested Loading Pattern Applied (1=Yes, 0=No) Field #7 = Space Between Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17=Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images. 2. A maximum of 4 decimal places can be used.

3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required. Also, Field #3 and Field #4 in the Truck Restriction section are replaced by Field #5 and Field #6 respectively, also, Field #7 will now be relevant since this Field only works with Cylinders. The reason for this is since cylinders will be palletized into Trucks the patterns applied change from the Cape six standard patterns to Row / Columns or Nested.

## File Format for Pallet - Trapezoid

# [General] - Section Name

Field #1 = 4 (Pallet – Trapezoid) Field #3 = Product Name (Maximum 50 characters) Field #4 = Product Code (Maximum 25 characters) Field #6 = Recessed Allowed (1=Yes, 0=No) Field #7 = Bulae Allowed (1=Yes, 0=No) Field #9 = Palletizing Type (1=Objects onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #19 = Number of Pallets (Range=1 to 3) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Secondary Pack Data [Secondary Pack] - Section Name Field #3 = Height Outside Dimension Field #6 = Top Length Outside Dimension Field #7 = Bottom Length Outside Dimension Field #8 = Top Width Outside Dimension Field #9 = Bottom Width Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #12 = Pack Type (1 = Default) Field #14 = Pack Name (Maximum 15 characters) Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #36 = Recess Factor Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No)

Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#2] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Percentage - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width at Fields #27 and 28) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Width Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No)

Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

Master Pallet Base Data (Optional) **[Master Base] - Section Name** Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang

#### Truck Restrictions Data [Truck Restrictions] - Section Name

Field #1 = Truck Base Style (e.g. 40stan.pa4) *.pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17=Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images. 2. A maximum of 4 decimal places can be used. 3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General

Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required. Also, Field #3 and Field #4 in the Truck Restriction section are replaced by Field #5 and Field #6 respectively, also, Field #7 will now be relevant since this Field only works with Cylinders. The reason for this is since cylinders will be palletized into Trucks the patterns applied change from the Cape six standard patterns to Row / Columns or Nested.

### File Format for Arrange - Box/Bag/Bottle

### [General] - Section Name

Field #1= 5 (Arrange - Box/Bag/Bottle)

Field #3= Product Name (Max. 50 Characters)

Field #4= Product Code (Max. 25 Characters)

Field #5= Inside or Outside Dimensions (1= Inside Dimensions, 2=Outside Dimensions)

Field #7 = Bulge Allowed (1=Yes, 0=No)

Field #9 = Palletizing Type (1=Object onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck)

Field #10 = Units of Measure (0=mm/kg, 1=in/lb)

Field #12 = Problem Date

Field #13 = Product Allowed (1=Yes, 0=No)

Field #19 = Number of Pallets (Range=1 to 3)

Field #20 = Show Flap Indicator (1=Yes, 0=No)

Field #22 = Secondary Pack Count Type (1=8 Single Counts, 2=Min./Max. Count)

Field #23 = Allow Secondary Pack Minimum Outside Dimensions (1=Yes, 0=No)

Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No)

Field #26 = AutoCalc (1=Yes, 0-No)

Field #41= User Text free flow line 1

Field #42= User Text free flow line 2

Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Product Data [Product] - Section Name Field #1= Product Name Field #2 = Pack Type (1000 = Custom Shape Name) Field #3 = Shape Name Primary Pack Data [Primary Pack] - Section Name Field #1 = Length Outside Dimension Field #2 = Width Outside Dimension Field #9 = Height Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #23 = Allow Length Vertical in Secondary Pack (1=Yes, 0=No) Field #24 = Allow Width Vertical in Secondary Pack (1=Yes, 0=No) Field #25 = Allow Height Vertical in Secondary Pack (1=Yes, 0=No) Field #29 = Length Bulge Allowance Field #30 = Width Bulge Allowance Field #31 = Height Bulge Allowance Field #32 = Pack Type 1 = Seal End (3.2.6)2 = Eco Seal (3,2,4)3 = Cover Tray (6,3,2)4 = Tray(4, 2, 1)5 = DW Tray(8,4,1)6 = REV Tuck (3,2,4)7 = STR Tuck (3,2,4)8 =Auto Bottom (3,2,5) 9 = TAP SHAD (2,2,2)10 = HOL Shadow (2,3,4)11 =Surface (2,2,2) 12 = Custom (Specify Mat. Thicknesses in Field Numbers 42-44) 1000 = Custom Shape Name (Enter shape name in Field #33) Field #33 = Shape Name Field #34 = Pack Name (Maximum 15 characters) Field #42 = Number of thicknesses in Length Field #43 = Number of thicknesses in Width Field #44 = Number of thicknesses in Height Field #45= Material thickness Field #46= Material Weight Field #47= Glue Flap Width Field #52 = Length Inside Dimension Field #53 = Width Inside Dimension Field #54 = Height Inside Dimension Secondary Pack Data

[Secondary Pack] - Section Name

Field #12 = Pack Type 1 = RSC(2,2,4)2 = FOL(2,2,6)3 = CSSC(2,2,4)4 = SURFACE(2,2,2)5 = SLEEVE (2,2,0)6 = TRAY(4,2,1)7 = END(2,2,4)8 = Custom (Specify Mat. Thicknesses in Field #15 - #17) 9 = None10 = No Package 11 = Shrink Wrap 1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #15 = Number of thicknesses in Length Field #16 = Number of thicknesses in Width Field #17 = Number of thicknesses in Height Field #18= Material thickness Field #19= Material Weight Field #20= Glue Flap Width Field #21= Primary Pack Count per Secondary Pack #1 Field #22= Primary Pack Count per Secondary Pack #2 Field #23= Primary Pack Count per Secondary Pack #3 Field #24= Primary Pack Count per Secondary Pack #4 Field #25= Primary Pack Count per Secondary Pack #5 Field #26= Primary Pack Count per Secondary Pack #6 Field #27= Primary Pack Count per Secondary Pack #7 Field #28= Primary Pack Count per Secondary Pack #8 Field #29= Minimum Count per Secondary Pack Field #30= Maximum Count per Secondary Pack Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Field #40 = Slack Length Allowance Field #41 = Slack Width Allowance Field #42 = Slack Height Allowance Field #43 = Maximum Weight Field #44 = Minimum Length Outside Dimension Field #45 = Minimum Width Outside Dimension Field #46 = Minimum Height Outside Dimension Field #47 = Maximum Length Outside Dimension Field #48 = Maximum Width Outside Dimension Field #49 = Maximum Height Outside Dimension Field #58 = Round to the nearest 1/16" (1=Yes, 0=No) - Only applies if you are working in (in/lb) Units. Field #59 = Tray Wall height Field #60 = Divider / Partition 0 = None1 = 1 - Wav2 = 2-Way 3 = 3-Wav 4 = Sleeve5 = H-Pad

6 = S-Strip7 = 8-Strip 8 = Divides Length 9 = Divides Width 10 = Divides Height 11 = Divide Rows 12 = Divide Columns 13 = Z-Strip 14 = Surface1000 = Custom Divider / Partition Field #61 = Divider / Partition thickness Field #62 = Divider / Partition material weight Field #63 = Divider / Partition Glue flap width Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target [Pallet Restrictions#2] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width

- Field #8 = Minimum Area Efficiency
- Field #9 = No Pattern Gaps (1=Yes, 0=No)
- Field #10 =Clamp in Length (1=Yes, 0=No)
- Field #11 = Clamp in Width (1=Yes, 0=No)
- Field #12 = Maximum offset
- Field #13 = Minimum Contact (Integer %)
- Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No)

Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

Master Pallet Base Data (Optional) **[Master Base] - Section Name** Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang

Truck Restrictions Data [Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) * .pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17=Maximum Truck Load Height

Notes:

1. No Fields are available to select 3D Images.

2. A maximum of 4 decimal places can be used.

3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required.

# File Format for Arrange - Cylinder / Bottle

#### [General] - Section Name

Field #1= 6 (Arrange Cylinder / Bottle) Field #3 = Product Name (Max. 50 Characters) Field #4 = Product Code (Max. 25 Characters) Field #6 = Recessed Allowed (1=Yes, 0=No) Field #7 = Bulge Allowed (1=Yes, 0=No) Field #9 = Palletizing Type (1=Object onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #19 = Number of Pallets (Range=1 to 3) Field #20 = Show Flap Indicator (1=Yes, 0=No) Field #22 = Secondary Pack Count Type (1=8 Single Counts, 2=Min./Max. Count) Field #23 = Allow Secondary Pack Minimum Outside Dimensions (1=Yes, 0=No) Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 **Primary Pack Data** [Primary Pack] - Section Name Field #3 = Top Outside Diameter Field #4 = Bottom Outside Diameter Field #9 = Outside Height Field #10 = Gross Weight Field #11 = Nett Weight Field #26 = Allow On Side Orientation in Secondary Pack (1=Yes, 0=No) Field #27 = Allow upright Orientation in Secondary Pack (1=Yes, 0=No) Field #28 = Recess Factor Field #32 = Pack Type 1 = Default 1000 = Custom Shape (Write Shape Name to Field #33) Field #33 = Shape Name Field #34 = Pack Name (Maximum 15 characters) Field #41 = Allow nested pattern (1=Yes, 0=No) Secondary Pack Data

[Secondary Pack] - Section Name Field #12 = Pack Type 1 = RSC (2,2,4) 2 = FOL (2,2,6)

3 = CSSC(2,2,4)4 = SURFACE(2,2,2)5 = SLEEVE(2,2,0)6 = TRAY(4,2,1)7 = END(2,2,4)8 = Custom (Specify Mat. Thicknesses in Field numbers 15 - 17) 9 = None10 = No Package 11 = Shrink Wrap 1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #15 = Number of thicknesses in Length Field #16 = Number of thicknesses in Width Field #17 = Number of thicknesses in Height Field #18= Material thickness Field #19= Material Weight Field #20= Glue Flap Width Field #21= Primary Pack Count per Secondary Pack #1 Field #22= Primary Pack Count per Secondary Pack #2 Field #23= Primary Pack Count per Secondary Pack #3 Field #24= Primary Pack Count per Secondary Pack #4 Field #25= Primary Pack Count per Secondary Pack #5 Field #26= Primary Pack Count per Secondary Pack #6 Field #27= Primary Pack Count per Secondary Pack #7 Field #28= Primary Pack Count per Secondary Pack #8 Field #29= Minimum Count per Secondary Pack Field #30= Maximum Count per Secondary Pack Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Field #40 = Slack Length Allowance Field #41 = Slack Width Allowance Field #42 = Slack Height Allowance Field #43 = Maximum Weight Field #44 = Minimum Outside Length Dimension Field #45 = Minimum Outside Width Dimension Field #46 = Minimum Outside Height Dimension Field #47 = Maximum Outside Length Dimension Field #48 = Maximum Outside Width Dimension Field #49 = Maximum Outside Height Dimension Field #58 = Round to the nearest 1/16" (1=Yes, 0=No) – [Valid only for in/lb units] Field #59 = Tray Wall height Field #60 = Divider / Partition 0 = None1 = 1 - Way2 = 2-Way 3 = 3-Way 4 = Sleeve5 = H-Pad6 = S-Strip 7 = 8-Strip

8 = Divides Length

9 = Divides Width 10 = Divides Height 11 = Divide Rows 12 = Divide Columns 13 = Z-Strip 14 = Surface 1000 = Custom Divider / Partition Field #61 = Divider / Partition thickness Field #62 = Divider / Partition material weight Field #63 = Divider / Partition Glue flap width Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target [Pallet Restrictions#2] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency

- Field #9 = No Pattern Gaps (1=Yes, 0=No)
- Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No)
- Field #12 = Maximum offset
- Field #13 = Minimum Contact (Integer %)
- Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No)
- Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No)
- Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No)
- Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No)

Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No)Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target Master Pallet Base Data (Optional) [Master Base] - Section Name Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang **Truck Restrictions Data** 

[Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) *.pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17=Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images. 2. A maximum of 4 decimal places can be used.

3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required. Also,

## File Format for Arrange - Trapezoid

#### [General] - Section Name

Field #1 = 7 (Arrange – Trapezoid) Field #3 = Product Name (Max. 50 Characters) Field #4 = Product Code (Max. 25 Characters) Field #6 = Recessed Allowed (1=Yes, 0=No) Field #7 = Bulge Allowed (1=Yes, 0=No) Field #9 = Palletizing Type (1=Object onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #19 = Number of Pallets (Range=1 to 3) Field #20 = Show Flap Indicator (1=Yes, 0=No) Field #22 = Secondary Pack Count Type (1=8 Single Counts, 2=Min./Max. Count) Field #23 = Allow Secondary Pack Minimum Outside Dimensions (1=Yes, 0=No) Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Primary Pack Data [Primary Pack] - Section Name Field #5= Top Outside Length Field #6 = Bottom Outside Length Field #7 = Top Outside Width Field #8 = Bottom Outside Width Field #9 = Outside Height Field #10 = Gross Weight Field #11 = Nett Weight Field #23 = Allow Length Vertical in Secondary Pack (1=Yes, 0=No) Field #24 = Allow Width Vertical in Secondary Pack (1=Yes, 0=No) Field #25 = Allow Height Vertical in Secondary Pack (1=Yes, 0=No) Field #28 = Recess Factor Field #29 = Length Bulge Allowance Field #30 = Width Bulge Allowance Field #31 = Height Bulge Allowance Field #32 = Pack Type, 1 = Default Field #34 = Pack Name (Maximum 15 characters)

Secondary Pack Data **[Secondary Pack] - Section Name** Field #12 = Pack Type 1 = RSC (2,2,4) 2 = FOL (2,2,6) 3 = CSSC (2,2,4)

4 = SURFACE(2,2,2)5 = SLEEVE (2,2,0)6 = TRAY(4,2,1)7 = END(2,2,4)8 = Custom (Specify Mat. Thicknesses in Field numbers 15 - 17) 9 = None10 = No Package 11 = Shrink Wrap 1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #15 = Number of thicknesses in Length Field #16 = Number of thicknesses in Width Field #17 = Number of thicknesses in Height Field #18= Material thickness Field #19= Material Weight Field #20= Glue Flap Width Field #21= Primary Pack Count per Secondary Pack #1 Field #22= Primary Pack Count per Secondary Pack #2 Field #23= Primary Pack Count per Secondary Pack #3 Field #24= Primary Pack Count per Secondary Pack #4 Field #25= Primary Pack Count per Secondary Pack #5 Field #26= Primary Pack Count per Secondary Pack #6 Field #27= Primary Pack Count per Secondary Pack #7 Field #28= Primary Pack Count per Secondary Pack #8 Field #29= Minimum Count per Secondary Pack Field #30= Maximum Count per Secondary Pack Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Field #40 = Slack Length Allowance Field #41 = Slack Width Allowance Field #42 = Slack Height Allowance Field #43 = Maximum Weight Field #44 = Minimum Outside Length Dimension Field #45 = Minimum Outside Width Dimension Field #46 = Minimum Outside Height Dimension Field #47 = Maximum Outside Length Dimension Field #48 = Maximum Outside Width Dimension Field #49 = Maximum Outside Height Dimension Field #58 = Round to the nearest 1/16" (1=Yes, 0=No) – [Valid only for in/lb units] Field #59 = Tray Wall height Field #60 = Divider / Partition 0 = None1 = 1 - Way2 = 2-Way 3 = 3-Way 4 = Sleeve5 = H-Pad6 = S-Strip 7 = 8-Strip 8 = Divides Lenath 9 = Divides Width 10 = Divides Height

11 = Divide Rows 12 = Divide Columns 13 = Z-Strip 14 = Surface 1000 = Custom Divider / Partition Field #61 = Divider / Partition thickness Field #62 = Divider / Partition material weight Field #63 = Divider / Partition Glue flap width Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target [Pallet Restrictions#2] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight

Field #4 = Maximum Length Overhang

- Field #5 = Maximum Length Overhang
- Field #6 = Minimum Load Length
- Field #7 = Minimum Load Width
- Field #8 = Minimum Area Efficiency
- Field #9 = No Pattern Gaps (1=Yes, 0=No)
- Field #10 = Clamp in Length (1=Yes, 0=No)
- Field #11 = Clamp in Width (1=Yes, 0=No)
- Field #12 = Maximum offset
- Field #13 = Minimum Contact (Integer %)
- Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No)
- Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No)
- Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No)
- Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No)
- Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No)
- Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No)

Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

Master Pallet Base Data (Optional) **[Master Base] - Section Name** Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang

**Truck Restrictions Data** [Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) *.pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17 = Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images. 2. A maximum of 4 decimal places can be used.

3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required.

File Format for Folding Carton Arrange, New

[General] - Section Name Field #1= 24 FCA, new, Nested Bundles in Case Field #3= Product Name (Max. 50 Characters) Field #4= Product Code (Max. 25 Characters) Field #9 = Palletizing Type (1=Object onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #13 = Product Allowed (1=Yes, 0=No) Field #19 = Number of Pallets (Range=1 to 3) Field #20 = Show Flap Indicator (1=Yes, 0=No) Field #22 = Secondary Pack Count Type (1=8 Single Counts, 2=Min./Max. Count) Field #23 = Allow Secondary Pack Minimum Outside Dimensions (1=Yes, 0=No) Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #26 = AutoCalc (1=Yes, 0-No) Field #31= use the default 0 (no idea what this is) Field #39 = use the default 1 (no idea what this is) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 **Primary Pack Data** [Primary Pack] - Section Name Field #1 = Length Outside Dimension Field #2 = Width Outside Dimension Field #9 = Height Outside Dimension (use 0) Field #10 = carton Weight Field #23 = Allow Length Vertical in Secondary Pack (1=Yes, 0=No) - always 0 Field #24 = Allow Width Vertical in Secondary Pack (1=Yes, 0=No) always 1 Field #25 = Allow Height Vertical in Secondary Pack (1=Yes, 0=No) always 0 Field #34 = Pack Name (Maximum 15 characters) Always Carton Field #56 = 0 unknown Field #57 = min bundle countField #58 = max bundle count Field #59 = Thickness 1 Field #60 = thickness 2 Secondary Pack Data [Secondary Pack] - Section Name Field #12 = Pack Type 1 = RSC(2,2,4)2 = FOL(2,2,6)3 = CSSC(2,2,4)

4 = SURFACE (2,2,2)

5 = SLEEVE(2,2,0)6 = TRAY(4,2,1)7 = END(2,2,4)8 = Custom (Specify Mat. Thicknesses in Field #15 - #17) 9 = None10 = No Package 11 = Shrink Wrap 1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #15 = Number of thicknesses in Length Field #16 = Number of thicknesses in Width Field #17 = Number of thicknesses in Height Field #18= Material thickness Field #19= Material Weight Field #20= Glue Flap Width Field #21= Primary Pack Count per Secondary Pack #1 Field #22= Primary Pack Count per Secondary Pack #2 Field #23= Primary Pack Count per Secondary Pack #3 Field #24= Primary Pack Count per Secondary Pack #4 Field #25= Primary Pack Count per Secondary Pack #5 Field #26= Primary Pack Count per Secondary Pack #6 Field #27= Primary Pack Count per Secondary Pack #7 Field #28= Primary Pack Count per Secondary Pack #8 Field #29= Minimum Count per Secondary Pack Field #30= Maximum Count per Secondary Pack Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Field #40 = Slack Length Allowance Field #41 = Slack Width Allowance Field #42 = Slack Height Allowance Field #43 = Maximum Weight Field #44 = Minimum Length Outside Dimension Field #45 = Minimum Width Outside Dimension Field #46 = Minimum Height Outside Dimension Field #47 = Maximum Length Outside Dimension Field #48 = Maximum Width Outside Dimension Field #49 = Maximum Height Outside Dimension Field #58 = Round to the nearest 1/16" (1=Yes, 0=No) - Only applies if you are working in (in/lb) Units. Field #59 = Tray Wall height Field #60 = Divider / Partition 0 = None1 = 1 - Way2 = 2-Way 3 = 3-Way 4 = Sleeve5 = H-Pad6 = S-Strip 7 = 8-Strip 8 = Divides Lenath 9 = Divides Width 10 = Divides Height

11 = Divide Rows 12 = Divide Columns 13 = Z-Strip 14 = Surface 1000 = Custom Divider / Partition Field #61 = Divider / Partition thickness Field #62 = Divider / Partition material weight Field #63 = Divider / Partition Glue flap width Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target [Pallet Restrictions#2] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight

- Field #4 = Maximum Length Overhang
- Field #5 = Maximum Length Overhang
- Field #6 = Minimum Load Length
- Field #7 = Minimum Load Width
- Field #8 = Minimum Area Efficiency
- Field #9 = No Pattern Gaps (1=Yes, 0=No)
- Field #10 = Clamp in Length (1=Yes, 0=No)
- Field #11 = Clamp in Width (1=Yes, 0=No)
- Field #12 = Maximum offset
- Field #13 = Minimum Contact (Integer %)
- Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No)
- Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No)
- Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No)
- Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No)
- Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No)
- Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No)

Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target Master Pallet Base Data (Optional) [Master Base] - Section Name Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang

**Truck Restrictions Data** [Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) * .pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17=Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images.

3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required.

## File Format for Design - Box / Bag / Bottle

#### [General] - Section Name

Field #1 = 8 (Design - Box / Bag / Bottle) Field #3=Product Name (max. 50 characters) Field #4=Product Code (max. 25 characters) Field #5= Inside or Outside Dimensions (1=Inside Dimensions, 2=Outside Dimensions) Field #7 = Bulge Allowed (1=Yes, 0=No) Field #9 = Palletizing Type (1=Objects onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #13 = Product Allowed (1=Yes, 0=No) Field #19 = Number of Pallets (Range=1 to 3) Field #20 = Show Flap Indicator (1=Yes, 0=No) Field #22 = Secondary Pack Count Type (1=8 Single Counts, 2=Min./Max. Count) Field #23 = Allow Secondary Pack Minimum Outside Dimensions (1=Yes, 0=No) Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Product Data [Product] - Section Name Field #1= Product Name Field #2 = Pack Type (1000 = Custom Shape Name) Field #3 = Shape Name **Primary Pack Data** [Primary Pack] - Section Name Field #1 = Length Outside Dimension Field #2 = Width Outside Dimension Field #9 = Height Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #12 = Length Dimensional Variance (+) Field #13 = Width Dimensional Variance (+) Field #14 = Height Dimensional Variance (+) Field #15 = Length Dimensional Variance (-) Field #16 = Width Dimensional Variance (-) Field #17 = Height Dimensional Variance (-) Field #18 = Length Dimensional Increment Field #19 = Width Dimensional Increment Field #20 = Height Dimensional Increment Field #21= Vary Volume By (Percentages - %) Field #22 = Vary Weight with Volume (1=Yes, 0=No)

Field #23 = Allow Length Vertical in Secondary Pack (1=Yes, 0=No) Field #24 = Allow Width Vertical in Secondary Pack (1=Yes, 0=No) Field #25 = Allow Height Vertical in Secondary Pack (1=Yes, 0=No) Field #29 = Length Bulge Allowance Field #30 = Width Bulge Allowance Field #31 = Height Bulge Allowance Field #32 = Pack Type 1 = Seal End (3, 2, 6)2 = Eco Seal (3,2,4)3 = Cover Tray(6,3,2)4 = Tray(4,2,1)5 = DW Tray (8,4,1)6 = REV Tuck (3,2,4)7 = STR Tuck (3,2,4)8 =Auto Bottom (3,2,5) 9 = TAP SHAD (2,2,2)10 = HOL Shadow (2,3,4) 11 =Surface (2.2.2) 12 = Custom (Specify Mat. Thicknesses in Field Numbers 42-44) 1000 = Custom Shape Name (Enter shape name in Field #33) Field #33 = Shape Name Field #34 = Pack Name (Maximum 15 characters) Field #42 = Number of thicknesses in Length Field #43 = Number of thicknesses in Width Field #44 = Number of thicknesses in Height Field #45= Material thickness Field #46= Material Weight Field #47= Glue Flap Width Field #52 = Length Inside Dimension Field #53 = Width Inside Dimension Field #54 = Height Inside Dimension Secondary Pack Data [Secondary Pack] - Section Name Field #12 = Pack Type 1 = RSC(2,2,4)2 = FOL(2,2,6)3 = CSSC(2,2,4)4 = SURFACE(2,2,2)5 = SLEEVE(2,2,0)6 = TRAY(4,2,1)7 = END(2,2,4)8 = Custom (Specify Mat. Thicknesses in Field numbers 15 - 17) 9 = None10 = No Package 11 = Shrink Wrap 1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #15 = Number of thicknesses in Length Field #16 = Number of thicknesses in Width Field #17 = Number of thicknesses in Height Field #18= Material thickness Field #19= Material Weight Field #20= Glue Flap Width

Field #21= Primary Pack Count per Secondary Pack #1 Field #22= Primary Pack Count per Secondary Pack #2 Field #23= Primary Pack Count per Secondary Pack #3 Field #24= Primary Pack Count per Secondary Pack #4 Field #25= Primary Pack Count per Secondary Pack #5 Field #26= Primary Pack Count per Secondary Pack #6 Field #27= Primary Pack Count per Secondary Pack #7 Field #28= Primary Pack Count per Secondary Pack #8 Field #29= Minimum Count per Secondary Pack Field #30= Maximum Count per Secondary Pack Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Field #40 = Slack Length Allowance Field #41 = Slack Width Allowance Field #42 = Slack Height Allowance Field #43 = Maximum Weight Field #44 = Minimum Length Outside Dimension Field #45 = Minimum Width Outside Dimension Field #46 = Minimum Height Outside Dimension Field #47 = Maximum Length Outside Dimension Field #48 = Maximum Width Outside Dimension Field #49 = Maximum Height Outside Dimension Field #58 = Round to the nearest 1/16" (1=Yes, 0=No) - [Valid only in in/lb units] Field #59 = Tray Wall height Field #60 = Divider / Partition 0 = None1 = 1 - Way2 = 2-Way 3 = 3-Way 4 = Sleeve5 = H-Pad6 = S-Strip7 = 8-Strip 8 = Divides Length 9 = Divides Width 10 = Divides Height 11 = Divide Rows 12 = Divide Columns 13 = Z-Strip 14 = Surface1000 = Custom Divider / Partition Field #61 = Divider / Partition thickness Field #62 = Divider / Partition material weight Field #63 = Divider / Partition Glue flap width Pallet Restrictions Data

[Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#2] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #7 = Minimum Area Efficiency Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

Master Pallet Base Data (Optional)

### [Master Base] - Section Name

Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang

Truck Restrictions Data

### [Truck Restrictions] - Section Name

Field #1 = Truck Base Style (e.g. 40stan.pa4) * .pa4 = Valid name for a named Truck Base Style

Field #2 = Maximum Weight

Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No)

Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No)

Field #8 = Truck Length

Field #9 = Truck Width

Field #10 = Truck Height

Field #11 = Truck Tare weight

Field #12 = Hybrid pattern applied (0=No, 1=Yes)

Field #13 = Trilock pattern applied (0=No, 1=Yes)

Field #14 = Diagonal pattern applied (0=No, 1=Yes)

Field #15 = Spiral pattern applied (0=No, 1=Yes)

Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes)

Field #17=Maximum Truck Load Height

Notes:

1. No Fields are available to select 3D Images.

2. A maximum of 4 decimal places can be used.

3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required.

# File Format for Design - Cylinder/Bottle

### [General] - Section Name

Field #1 = 9 (Design - Cylinder/Bottle) Field #3 = Product Name (Max. 50 characters) Field #4 = Product Code (Max. 25 characters) Field #6 = Recessed Allowed (1=Yes, 0=No) Field #7 = Bulge Allowed (1=Yes, 0=No) Field #9 = Palletizing Type (1=Objects onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #19 = Number of Pallets (Range=1 to 3) Field #20 = Show Flap Indicator (1=Yes, 0=No) Field #22 = Secondary Pack Count Type (1=8 Single Counts, 2=Min./Max. Count) Field #23 = Allow Secondary Pack Minimum Outside Dimensions (1=Yes, 0=No)
Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 **Primary Pack Data** [Primary Pack] - Section Name Field #3 = Top Outside Diameter Field #4 = Bottom Outside Diameter Field #9 = Height Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #14 = Height Dimensional Variance (+) Field #17 = Height Dimensional Variance (-) Field #20 = Height Dimensional Increment Field #21= Vary Volume By (Percentage - %) Field #22 = Vary Weight with Volume (1=Yes, 0=No) Field #26 = Allow On Side Orientation in Secondary Pack (1=Yes, 0=No) Field #27 = Allow upright Orientation in Secondary Pack (1=Yes, 0=No) Field #28 = Recess Factor Field #32 = Pack Type 1 = Default 1000 = Custom Shape (Write Shape Name to Field #33) Field #33 = Shape Name Field #34 = Pack Name (Maximum 15 characters) Field #41 = Allow nested pattern (1=Yes, 0=No) Field #48 = Diameter Dimensional Variance (+) Field #49 = Diameter Dimensional Variance (-) Field #50 = Diameter Dimensional Increment Secondary Pack Data [Secondary Pack] - Section Name Field #12 = Pack Type 1 = RSC(2,2,4)2 = FOL(2,2,6)3 = CSSC(2,2,4)4 = SURFACE(2,2,2)5 = SLEEVE(2,2,0)6 = TRAY(4,2,1)7 = END(2,2,4)8 = Custom (Specify Mat. Thicknesses in Field #15 - 17) 9 = None10 = No Package 11 = Shrink Wrap 1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #15 = Number of thicknesses in Length

Field #16 = Number of thicknesses in Width Field #17 = Number of thicknesses in Height Field #18= Material thickness Field #19= Material Weight Field #20= Glue Flap Width Field #21= Primary Pack Count per Secondary Pack #1 Field #22= Primary Pack Count per Secondary Pack #2 Field #23= Primary Pack Count per Secondary Pack #3 Field #24= Primary Pack Count per Secondary Pack #4 Field #25= Primary Pack Count per Secondary Pack #5 Field #26= Primary Pack Count per Secondary Pack #6 Field #27= Primary Pack Count per Secondary Pack #7 Field #28= Primary Pack Count per Secondary Pack #8 Field #29= Minimum Count per Secondary Pack Field #30= Maximum Count per Secondary Pack Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Field #40 = Slack Length Allowance Field #41 = Slack Width Allowance Field #42 = Slack Height Allowance Field #43 = Maximum Weight Field #44 = Minimum Length Outside Dimension Field #45 = Minimum Width Outside Dimension Field #46 = Minimum Height Outside Dimension Field #47 = Maximum Length Outside Dimension Field #48 = Maximum Width Outside Dimension Field #49 = Maximum Height Outside Dimension Field #58 = Round to the nearest 1/16" (1=Yes, 0=No) – [Valid only in in/lb units] Field #59 = Tray Wall height Field #60 = Divider / Partition 0 = None1 = 1 - Way2 = 2-Way 3 = 3-Way 4 =Sleeve 5 = H-Pad6 = S-Strip7 = 8-Strip 8 = Divides Length 9 = Divides Width 10 = Divides Height 11 = Divide Rows 12 = Divide Columns 13 = Z-Strip 14 = Surface1000 = Custom Divider / Partition Field #61 = Divider / Partition thickness Field #62 = Divider / Partition material weight Field #63 = Divider / Partition Glue flap width

Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#2] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target Master Pallet Base Data (Optional) [Master Base] - Section Name Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang Truck Restrictions Data [Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) * .pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17 = Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images. 2. A maximum of 4 decimal places can be used. 3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required. File Format for Design - Trapezoid

### [General] - Section Name

Field #1 = 10 (Design – Trapezoid) Field #3 = Product Name (Max. 50 characters) Field #4 = Product Code (Max. 25 characters) Field #6 = Recessed Allowed (1=Yes, 0=No) Field #7 = Bulge Allowed (1=Yes, 0=No) Field #9 = Palletizing Type (1=Objects onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #19 = Number of Pallets (Range=1 to 3) Field #20 = Show Flap Indicator (1=Yes, 0=No) Field #22 = Secondary Pack Count Type (1=8 Single Counts, 2=Min./Max. Count) Field #23 = Allow Secondary Pack Minimum Outside Dimensions (1=Yes, 0=No) Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Primary Pack Data [Primary Pack] - Section Name Field #5 = Top Length Outside Dimension Field #6 = Bottom Length Outside Dimension Field #7 = Top Width Outside Dimension Field #8 = Bottom Width Outside Dimension Field #9 = Height Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #12 = Length Dimensional Variance (+) Field #13 = Width Dimensional Variance (+) Field #14 = Height Dimensional Variance (+) Field #15 = Length Dimensional Variance (-) Field #16 = Width Dimensional Variance (-) Field #17 = Height Dimensional Variance (-) Field #18 = Length Dimensional Increment Field #19 = Width Dimensional Increment Field #20 = Height Dimensional Increment Field #21= Vary Volume By (Percentage - %) Field #22 = Vary Weight with Volume (1=Yes, 0=No) Field #23 = Allow Length Vertical in Secondary Pack (1=Yes, 0=No) Field #24 = Allow Width Vertical in Secondary Pack (1=Yes, 0=No) Field #25 = Allow Height Vertical in Secondary Pack (1=Yes, 0=No) Field #28 = Recess Factor Field #29 = Length Bulge Allowance Field #30 = Width Bulge Allowance Field #31 = Height Bulge Allowance Field #32 = Pack Type (1 = Default) Field #34 = Pack Name (Maximum 15 characters) Secondary Pack Data [Secondary Pack] - Section Name Field #12 = Pack Type 1 = RSC(2,2,4)2 = FOL(2.2.6)3 = CSSC(2,2,4)

- 4 = SURFACE(2,2,2)
- 5 = SLEEVE (2,2,0)6 = TRAY (4,2,1)

7 = END(2,2,4)8 = Custom (Specify Mat. Thicknesses in Field #15 - 17) 9 = None10 = No Package 11 = Shrink Wrap 1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #13 = Shape Name Field #14 = Pack Name (Maximum 15 characters) Field #15 = Number of thicknesses in Length Field #16 = Number of thicknesses in Width Field #17 = Number of thicknesses in Height Field #18= Material thickness Field #19= Material Weight Field #20= Glue Flap Width Field #21= Primary Pack Count per Secondary Pack #1 Field #22= Primary Pack Count per Secondary Pack #2 Field #23= Primary Pack Count per Secondary Pack #3 Field #24= Primary Pack Count per Secondary Pack #4 Field #25= Primary Pack Count per Secondary Pack #5 Field #26= Primary Pack Count per Secondary Pack #6 Field #27= Primary Pack Count per Secondary Pack #7 Field #28= Primary Pack Count per Secondary Pack #8 Field #29= Minimum Count per Secondary Pack Field #30= Maximum Count per Secondary Pack Field #31 = Allow Length Vertical on Pallet (1=Yes, 0=No) Field #32 = Allow Width Vertical on Pallet (1=Yes, 0=No) Field #33 = Allow Height Vertical on Pallet (1=Yes, 0=No) Field #37 = Length Bulge Allowance Field #38 = Width Bulge Allowance Field #39 = Height Bulge Allowance Field #40 = Slack Length Allowance Field #41 = Slack Width Allowance Field #42 = Slack Height Allowance Field #43 = Maximum Weight Field #44 = Minimum Outside Length Dimension Field #45 = Minimum Outside Width Dimension Field #46 = Minimum Outside Height Dimension Field #47 = Maximum Outside Length Dimension Field #48 = Maximum Outside Width Dimension Field #49 = Maximum Outside Height Dimension Field #58 = Round to the nearest 1/16" (1=Yes, 0=No) – [Valid only in/lb units] Field #59 = Tray Wall height Field #60 = Divider / Partition 0 = None1 = 1 - Way2 = 2-Way 3 = 3-Way 4 =Sleeve 5 = H-Pad6 = S-Strip7 = 8-Strip 8 = Divides Lenath 9 = Divides Width 10 = Divides Height 11 = Divide Rows 12 = Divide Columns

13 = Z-Strip 14 = Surface1000 = Custom Divider / Partition Field #61 = Divider/Partition thickness Field #62 = Divider/Partition material weight Field #63 = Divider/Partition Glue flap width Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

### [Pallet Restrictions#2] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width

Field #37 = Load Target

Restriction data is required

#### [Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target Master Pallet Base Data (Optional) [Master Base] - Section Name Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang **Truck Restrictions Data** [Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) * .pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17 = Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images. 2. A maximum of 4 decimal places can be used. 3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet

### File Format for Casefill - Box/Bag/Bottle(Fixed)

### [General] - Section Name

Field #1 = 11 (Casefill - Box/Bag/Bottle(Fixed)) Field #3 = Product Name (Maximum 50 characters) Field #4 = Product Code (Maximum 25 characters) Field #7 = Bulge Allowed (1=Yes, 0=No) Field #10 = Units of Measure (0=mm/kg, 1=in/lb)Field #12 = Problem Date Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #25=Primary Pack Count Type (1=8 Single Counts, 0=Min/Max Count) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 **Primary Pack Data** [Primary Pack] - Section Name Field #1 = Length Outside Dimension Field #2 = Width Outside Dimension Field #9 = Height Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #23 = Allow Length Vertical in Secondary Pack (1=Yes, 0=No) Field #24 = Allow Width Vertical in Secondary Pack (1=Yes, 0=No) Field #25 = Allow Height Vertical in Secondary Pack (1=Yes, 0=No) Field #29 = Length Bulge Allowance Field #30 = Width Bulge Allowance Field #31 = Height Bulge Allowance Field #32 = Pack Type 1 = Seal End(3,2,6)2 = Eco Seal (3, 2, 4)3 = Cover Tray (6,3,2)4 = Tray(4, 2, 1)5 = DW Tray (8,4,1)6 = REV Tuck (3,2,4)7 = STR Tuck (3,2,4)8 =Auto Bottom (3,2,5) 9 = TAP SHAD (2,2,2)10 = HOL Shadow (2,3,4)11 = Surface (2,2,2)1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #33 = Shape Name Field #34 = Pack Name (Maximum 15 characters) Field #35 = Minimum Slack (ID) in Length Field #36 = Minimum Slack (ID) in Width Field #37 = Minimum Slack (ID) in Height Field #38 = Number of UnitPack Per Primary Pack

Casefill Data

[Casefill] - Section Name Field #1 = Maximum Case Weight Field #2 = Database record #1 to Use Field #3 = Database record #2 to Use Field #4 = Database record #3 to Use Field #5 = Database record #4 to Use Field #6 = Database record #5 to Use Field #7 = Database record #6 to Use Field #8 = Database record #7 to Use Field #9 = Database record #8 to Use Field #10 = Database record #9 to Use Field #11 = Database record #10 to Use Field #12 = Pallet footprint Length Field #13 = Pallet footprint Width Field #14 = Simple Loading Patterns to use for filling Secondary Pack (1=Yes, 0=No) Field #15 = Medium Loading Patterns to use for filling Secondary Pack (1=Yes, 0=No) Field #16 = Complex Loading Patterns to use for filling Secondary Pack (1=Yes, 0=No) Field #17 = VacantField #18 = Multi-Dimensional Solutions Allowed (1=Yes, 0=No) Field #23 = Casefill Database to Use (Filename must include full path) Field #24 = All Records flag (1=Yes, 0=No) Field #25 = Primary Pack Count per Secondary Pack #1 Field #26 = Primary Pack Count per Secondary Pack #2 Field #27 = Primary Pack Count per Secondary Pack #3 Field #28 = Primary Pack Count per Secondary Pack #4 Field #29 = Primary Pack Count per Secondary Pack #5 Field #30 = Primary Pack Count per Secondary Pack #6 Field #31 = Primary Pack Count per Secondary Pack #7 Field #32 = Primary Pack Count per Secondary Pack #8 Field #33 = Minimum PP per SP count Field #34 = Maximum PP per SP count Field #35 = Pallet Size flag (0=all, 1=Select)

### File Format for Casefill - Cylinder/Bottle(Fixed)

### [General] - Section Name

Field #1 = 12 (Casefill - Cylinder/Bottle(Fixed)) Field #3 = Product Name (Maximum 50 characters) Field #4 = Product Code (Maximum 25 characters) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #25 = Primary Pack Count Type (1=8 Single Counts, 0=Min/Max Count) Field #26 = AutoCalc (1=Yes, 0-No)Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4

Primary Pack Data [Primary Pack] - Section Name Field #3 = Outside Diameter Field #9 = Height Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #26 = Allow On Side Orientation in Secondary Pack (1=Yes, 0=No) Field #27 = Allow Upright Orientation in Secondary Pack (1=Yes, 0=No) Field #32 = Pack Type 1 = Default1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #33 = Shape Name Field #34 = Pack Name (Maximum 15 characters) Field #35 = Minimum Slack (ID) in Length Field #36 = Minimum Slack (ID) in Width Field #37 = Minimum Slack (ID) in Height Field #38 = Number of UnitPack Per Primary Pack Casefill Data [Casefill] - Section Name Field #1 = Maximum Case Weight Field #2 = Database record #1 to Use Field #3 = Database record #2 to Use Field #4 = Database record #3 to Use Field #5 = Database record #4 to Use Field #6 = Database record #5 to Use Field #7 = Database record #6 to Use Field #8 = Database record #7 to Use Field #9 = Database record #8 to Use Field #10 = Database record #9 to Use Field #11 = Database record #10 to Use Field #12 = Pallet footprint Length Field #13 = Pallet footprint Width Field #19 = Row/Column Pattern Allowed in Secondary Pack (1=Yes, 0=No) Field #20 = Nested Pattern Allowed in Secondary Pack (1=Yes, 0=No) Field #21 = Partial Top Layer Permitted (1=Yes, 0=No) Field #23 = Casefill Database to Use (Filename must include full path) Field #24 = All Records flag (1=Yes, 0=No) Field #25 = Primary Pack Count per Secondary Pack #1 Field #26 = Primary Pack Count per Secondary Pack #2 Field #27 = Primary Pack Count per Secondary Pack #3 Field #28 = Primary Pack Count per Secondary Pack #4 Field #29 = Primary Pack Count per Secondary Pack #5 Field #30 = Primary Pack Count per Secondary Pack #6 Field #31 = Primary Pack Count per Secondary Pack #7 Field #32 = Primary Pack Count per Secondary Pack #8 Field #33 = Minimum PP per SP count Field #34 = Maximum PP per SP count Field #35 = Pallet Size flag (0=all, 1=Select)

## File Format for Casefill - Box/Bag/Bottle(Variable)

### [General] - Section Name

Field #1 = 13 (Casefill - Box/Bag/Bottle(Variable)) Field #3 = Product Name (Maximum 50 characters) Field #4 = Product Code (Maximum 25 characters) Field #7 = Bulge Allowed (1=Yes, 0=No) Field #10 = Units of Measure (0=mm/kg, 1=in/lb) Field #12 = Problem Date Field #24 = Allow Slack in Secondary Pack. (1=Yes, 0=No) Field #25=Primary Pack Count Type (1=8 Single Counts, 0=Min/Max Count) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 **Primary Pack Data** [Primary Pack] - Section Name Field #1 = Length Outside Dimension Field #2 = Width Outside Dimension Field #9 = Height Outside Dimension Field #10 = Gross Weight Field #11 = Nett Weight Field #12 = Length Dimensional Variance (+) Field #13 = Width Dimensional Variance (+) Field #14 = Height Dimensional Variance (+) Field #15 = Length Dimensional Variance (-) Field #16 = Width Dimensional Variance (-) Field #17 = Height Dimensional Variance (-) Field #18 = Length Dimensional Increment Field #19 = Width Dimensional Increment Field #20 = Height Dimensional Increment Field #21= Vary Volume By (Percentage - %) Field #29 = Length Bulge Allowance Field #30 = Width Bulge Allowance Field #31 = Height Bulge Allowance Field #32 = Pack Type 1 = Seal End(3,2,6)2 = Eco Seal (3,2,4)3 = Cover Tray (6.3,2)4 = Tray(4, 2, 1)5 = DW Tray (8,4,1)6 = REV Tuck (3,2,4)7 = STR Tuck (3,2,4)8 =Auto Bottom (3,2,5) 9 = TAP SHAD (2,2,2)10 = HOL Shadow (2,3,4)11 =Surface (2,2,2) 1000 = Custom Shape Name (Enter Shape Name in Field #13) Field #33 = Shape Name Field #34 = Pack Name (Maximum 15 characters) Field #35 = Minimum Slack (ID) in Length Field #36 = Minimum Slack (ID) in Width Field #37 = Minimum Slack (ID) in Height Field #38 = Number of UnitPack Per Primary Pack Field #51 = Dimension Vertical in Case (1= Length, 2=Width, 3=Height.)

Casefill Data

#### [Casefill] - Section Name

Field #1 = Maximum Case Weight Field #2 = Database record #1 to Use Field #12 = Pallet footprint Length Field #13 = Pallet footprint Width Field #14 = Simple Loading Patterns to use for filling Secondary Pack (1=Yes, 0=No) Field #15 = Medium Loading Patterns to use for filling Secondary Pack (1=Yes.0=No) Field #16 = Complex Loading Patterns to use for filling Secondary Pack(1=Yes,0=No) Field #23 = Casefill Database to Use (Filename must include full path) Field #25 = Primary Pack Count per Secondary Pack #1 Field #26 = Primary Pack Count per Secondary Pack #2 Field #27 = Primary Pack Count per Secondary Pack #3 Field #28 = Primary Pack Count per Secondary Pack #4 Field #29 = Primary Pack Count per Secondary Pack #5 Field #30 = Primary Pack Count per Secondary Pack #6 Field #31 = Primary Pack Count per Secondary Pack #7 Field #32 = Primary Pack Count per Secondary Pack #8 Field #33 = Minimum PP per SP count Field #34 = Maximum PP per SP count Field #35 = Pallet Size flag (0=all, 1=Select)

### File Format for KDF-Flatblank

#### [General] - Section Name Field #1 = 19 KDF/Flatblank Field #3 = Product name (Max. 50 Characters) Field #4 = Product code (Max. 25 Characters) Field #7 = Bulge allowed (1=Yes, 0=No) Field #9 = Palletizing type (1=Object onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of measure (0=mm/kg, 1=in/lb)Field #12 = Problem date Field #19 = Number of pallets (Range=1 to 3) Field #26 = AutoCalc (1=Yes, 0-No)Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 Primary Pack Data [Primary Pack] - Section Name Field #1 = Flatblank length Field #2 = Flatblank width Field #9 = Flatblank height Field #10 = Flatblank weight Field #11 = Add, bundle weight Field #34 = Flatblank name Field #45 = Flat thickness Field #56 = Height factor (1 – 100 %)

Secondary Pack Data [Secondary Pack] - Section Name Field #14 = Pack name (Maximum 15 characters) Field #29= Min. Flat count per bundle Field #30= Max. Flat count per bundle Field #31 = Allow length vertical on pallet (1=Yes, 0=No) Field #32 = Allow width vertical on pallet (1=Yes, 0=No) Field #33 = Allow height vertical on pallet (1=Yes, 0=No) Field #37 = Bundle length bulge allowance Field #38 = bundle width bulge allowance Fields #68 = Formula number Field #69 = Number of straps across length Field #70 = Number of straps across width Field #71 = Width of straps (1-100 (%)) Field #72 = KDF length Field #73 = KDF width Field #74 = KDF height Pallet Restrictions Data [Pallet Restrictions#1] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#2] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #5 = Maximum Load Length Field #7 = Minimum Load Length Field #7 = Minimum Area Efficiency Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target [Pallet Restrictions#3] - Section Name Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length

Field #7 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No)

Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No)

Field #27 = Pallet Length Field #28 = Pallet Width

Field #37 = Load Target

Master Pallet Base Data (Optional) **[Master Base] - Section Name** Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang

Truck Restrictions Data **[Truck Restrictions] - Section Name** Field #1 = Truck Base Style (e.g. 40stan.pa4) * .pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes)
Field #17=Maximum Truck Load Height
Notes: 1. No Fields are available to select 3D Images.
2. A maximum of 4 decimal places can be used.
3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then both Pallet and Truck Restriction data are required. When Field #9=3 in the General Section then No Pallet Restriction data is required.

### File Format for KDF-Made-up Case

### [General] - Section Name

Field #1 = 20 (KDF/Made-up Case) Field #3 = Product name (Max. 50 Characters) Field #4 = Product code (Max. 25 Characters) Field #7 = Bulge allowed (1=Yes, 0=No) Field #9 = Palletizing type (1=Object onto Pallet, 2=Objects onto Pallet into Truck, 3=Objects into Truck) Field #10 = Units of measure (0=mm/kg, 1=in/lb) Field #12 = Problem date Field #19 = Number of pallets (Range=1 to 3) Field #26 = AutoCalc (1=Yes, 0-No) Field #41= User Text free flow line 1 Field #42= User Text free flow line 2 Field #43= User Text free flow line 3 Field #44= User Text free flow line 4 Field #45= User Text free flow line 5 Field #46= User Text free flow line 6 Field #47= User Field 1 Field #48= User Field 2 Field #49= User Field 3 Field #50= User Field 4 **Primary Pack Data** [Primary Pack] - Section Name Field #1 = Made-up Case length Field #2 = Made-up Case width Field #9 = Made-up Case height Field #10 = Made-up Case weight Field #11 = Add. Bundle weight Field #45 = Made-up Case thickness Field #56 = Height factor (1 – 100 %) Field #34 = Made-up Case name Secondary Pack Data [Secondary Pack] - Section Name Field #14 = pack name (Maximum 15 characters) Field #29= Min. Made-up Case count per bundle Field #30= Max. Made-up Case count per bundle Field #31 = Allow length vertical on pallet (1=Yes, 0=No) Field #32 = Allow width vertical on pallet (1=Yes, 0=No) Field #33 = Allow height vertical on pallet (1=Yes, 0=No) Field #37 = Bundle length bulge allowance Field #38 = Bundle width bulge allowance Field #68 = Formula number Field #69 = Number of straps across length Field #70 = Number of straps across width Field #71 = Width of straps (1-100 (%)) Field #72 = KDF length

Field #73 = KDF width Field #74 = KDF height

#### Pallet Restrictions Data

#### [Pallet Restrictions#1] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length. Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

#### [Pallet Restrictions#2] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

[Pallet Restrictions#3] - Section Name

Field #1 = Pallet Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style 0 = No Pallet (Specify Length, Width and Height at Fields # 27 - 29) Field #2 = Maximum Height Field #3 = Maximum Weight Field #4 = Maximum Length Overhang Field #5 = Maximum Length Overhang Field #6 = Minimum Load Length Field #7 = Minimum Load Width Field #8 = Minimum Area Efficiency Field #9 = No Pattern Gaps (1=Yes, 0=No) Field #10 = Clamp in Length (1=Yes, 0=No) Field #11 = Clamp in Width (1=Yes, 0=No) Field #12 = Maximum offset Field #13 = Minimum Contact (Integer - %) Field #14 = Column Pallet Pattern Allowed (1=Yes, 0=No) Field #15 = Interlock Pallet Pattern Allowed (1=Yes, 0=No) Field #16 = Trilock Pallet Pattern Allowed (1=Yes, 0=No) Field #17 = Diagonal Pallet Pattern Allowed (1=Yes, 0=No) Field #18 = Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #19 = Expanded Spiral Pallet Pattern Allowed (1=Yes, 0=No) Field #27 = Pallet Length Field #28 = Pallet Width Field #37 = Load Target

### Master Pallet Base Data (Optional)

[Master Base] - Section Name

Field #1 = Master Base Style (e.g. ukstd.pa4) *.pa4 = Valid name for a named Pallet Base Style Field #2 = Maximum Length Overhang Field #3 = Maximum Width Overhang

Truck Restrictions Data

[Truck Restrictions] - Section Name Field #1 = Truck Base Style (e.g. 40stan.pa4) * .pa4 = Valid name for a named Truck Base Style Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #12 = Hybrid pattern applied (0=No, 1=Yes) Field #13 = Trilock pattern applied (0=No, 1=Yes) Field #14 = Diagonal pattern applied (0=No, 1=Yes) Field #15 = Spiral pattern applied (0=No, 1=Yes) Field #16 = Expanded Spiral pattern applied (0=No, 1=Yes) Field #17=Maximum Truck Load Height Notes: 1. No Fields are available to select 3D Images. 2. A maximum of 4 decimal places can be used. 3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General

3. When Field #9=1 in the General Section then No Truck Restriction data is required. When Field #9=2 in the General Section then No Pallet Restriction data is required. When Field #9=3 in the General Section then No Pallet Restriction data is required.

### File Format for Display Pallet

### [General] - Section Name

Field #1 = Module program you want to run. (0 = Normal Run, 15 = Display Pallet) Field #3 = Product Name (Maximum 50 characters). Field #4 = Product Code (Maximum 25 characters).

Field #5 = Box Description Allowed

Field #6 = Palletising Type (1=Pallet, 2=Pallet and Truck)

- Field #7 = Units of Measure (0=Metric, 1=English)
- Field #8 = Problem Date

Field #9 = Total Number of Secondary Packs in Display Pallet

Field #18 = Pallet Maker (Alvey) export path.

Field #26 = AutoCalc (1=Yes, 2 = No)

### Secondary Pack Data for Display Pallet

#### [Secondary Pack#x] - Where "#x" is the secondary pack number

Field #1 = Box Name (Max. of 12 characters)

Field #2 = Label (Max. of 2 characters)

Field #3 = Box Type (To select a box type, assign the number that corresponds to the box type of your choice. See list below). If you choose box type 4 or 5 as stated below. Get shape name from Field #4.

- 1 = Standard Box
- 2 = RSC Box
- 3 = End Loader box
- 4 = Display Case
- 5 = Variable Tray

Field #4 = Shape name (CSF name).

Field #5 = Tray wall height

- Field #8 = Color (To select a color, assign the number that corresponds to the color of your choice. See list below)
  - 1 = Red
    - 2 = Green
    - 3 = Blue
    - 4 = Cyan
    - 5 = Pink
    - 6 = Yellow
    - 7 = Brown
    - 8 = Magenta
    - 9 = Dark Cyan
    - 10 = Dark Blue
    - 11 = Dark Green
    - 12 = Dark Red
- Field #9 = Length Dimension
- Field #10 = Width Dimension
- Field #11 = Height Dimension
- Field #12 = Weight
- Field #13 = Box Description (Max. of 25 Characters)
- Field #14 = Absolute maximum
- Field #15 = Desired Minimum
- Field #35 = Allow Length Vertical on Pallet (1=Yes, 0=No)
- Field #36 = Allow Width Vertical on Pallet (1=Yes, 0=No)
- Field #37 = Allow Height Vertical on Pallet (1=Yes, 0=No)
- Field #38 = Quantity Allowed (Order Fulfilment ONLY)
- Field #39 = Max. in Column
- Field #40 = Load Priority
- Field #41 = Must not be stacked on Base; (0=No, 1=Yes)
- Field #42 = Stacked together; (0=No, 1=Yes).

**Display Pallet Build Data** 

[Display Pallet Build] - Section Name

Field #1 = Algorithm to use. (Select from the list below, a number that corresponds to the algorithm of your choice, then assign to field #1)

- 1 = Column Algorithm
- 2 = Column Editor
- 3 = Layer Algorithm
- 4 = Layer Editor
- 5 = Mixed Load Editor
- Field #2 = Time limit for each strategy (in seconds)
- Field #8 = Do not allow mixed top (0=No, 1=Yes)
- Field #9 = Do not allow mixed layers (0=No, 1=Yes)
- Field #10 = Spread to biggest layer (0=No, 1=Yes)
- Field #11 = Maximum spread (0=No, 1=Yes)
- Field #12 = Type of Optimization (0=Single Pallet method (Default), 1=Order Fulfilment)
- Field #13 = Package Loading rules (0=No Loading Restrictions (Default), 1=Limit Column Height, 2=Load Priority)
- Field #14 = Allow Mixed Columns (0=Do not Allow Mixed Columns (Default), 1=Allow Mixed Columns)

#### Pallet Restrictions Data

#### [Pallet Restrictions] - Section Name

Field #1 = Pallet Base Style (e.g. UKSTD.PA4)

*.pa4 = Valid name for a named Pallet Base Style
0 = No Pallet (Specify Length, Width at Fields 27 and 28)

Field #2 = Maximum Height

Field #3 = Maximum Weight
Field #4 = Maximum Length Overhang
Field #5 = Maximum Width Overhang
Field #27 = Pallet Length
Field #28 = Pallet Width
Field #29 = Pallet Height
Field #30 = Pallet Weight
Field #31 = Acceptable center of gravity cylinder height
Field #32 = Acceptable center of gravity cylinder radius
Field #33 = Maximum Boxes

### **Truck Restrictions Data**

### [Truck Restrictions] - Section Name

Field #1 = Truck Base Style (e.g. 40stan.pa4) (*.pa4 = Valid name for a named Truck Base Style) Field #2 = Maximum Weight Field #3 = Simple Loading Pattern Applied (1=Yes, 0=No) Field #4 = Complex Loading Pattern Applied (1=Yes, 0=No) Field #8 = Truck Length Field #9 = Truck Width Field #10 = Truck Height Field #11 = Truck Tare Weight Field #17 = Maximum Truck Load Height

## **Export Features**

Cape Pack allows you to export numerical data, graphics images and standard Cape reports for use in other program applications.

These capabilities mean you can maintain or create your own printouts/reports and pass information to the other program applications that you use within your department or company.

Here is the Export Settings screen.

age Split	User Text	User Fields	Export Setting	21	
)iagram Width (in)	Diagram Height (in)	Report Width (in)	Report Heigh	t (in)	Decimal Places
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<b>eft Margin (in)</b> .0000	<b>Top Margin (in)</b> 0.0000	Use Actual Rep	ort Height		
xport Language	Report Type	Report Units	Color		
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Actual Net Weight		Show Legend	d 🗌 🗆 Show (	Cube	
Attachment Name					
Show One-Line Text/	System Date				
O No Text	Date	◯ Text			
1					

This screen is very similar to the Page Setup screen for printing. The essential differences are:

Export Width and Height: Allows you to set the size of the image you want to export.

**Decimal Places:** Allows you to specify the number of decimal places for the information you are exporting.

# Export Features

Cape Pack allows you to export numerical data, graphics images and standard Cape reports for use in other program applications.

These capabilities mean you can maintain or create your own printouts/reports and pass information to the other program applications that you use within your department or company.

Here is the Export Settings screen.

Set Options				
Page Split	User Text	User Fields	Export Settings	)
Diagram Width (in) 6.4000	Diagram Height (in) 10.0000	Report Width (in) 6.9000	Report Height (in) 9.8000	Decimal Places
Left Margin (in) 0.0000	<b>Top Margin (in)</b> 0.0000	Use Actual Report H	leight	
Export Language	Report Type Standard	Report Units	Color Color	
🗙 Show Logo	Logo Width (in) 1.0000	C:\cape216\Images\Cape_	Pack_256c.bmp	
🛪 Show Header	Show Overhang	🕱 Show Use	r Text 🕱 SI	how Product
🗆 Actual Net Weight	🕱 Show Package I	D 🗌 Show Leg	end 🕱 SI	how Cube
🗌 Attachment Name	Show Column M	apping		
Attachment Name     Show Column Mapping       Show One-Line Text/System Date       No Text     Date				
	OK	Cancel		

This screen is very similar to the Page Setup screen for printing. The essential differences are:

Export Width and Height: Allows you to set the size of the image you want to export.

**Decimal Places:** Allows you to specify the number of decimal places for the information you are exporting.

# **Export Options**

There are a variety of export types available.

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	Expo	rt Truck Tools Databases	Colors	Ad	d Graphics e-mail Internet	Publisher	Help
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		Export Information Only	•		Case Size	•	Case Size Database
5		Export Cape Diagram	×		Pallet Load	۲ –	
_		Export Cape Report	•		ASCII Solution Info		
h		Export to Databases	•		XML		
~		Robot	•		Comma Separated Values (.csv)		
		Export to ESKO			Layers	4	
		Export to KASEMAKE			Case /Load	40	
		Export to ImpactCAD/WEBcnx					
1		SAP	•				
8	-	48.000	_				

## Export Information Only

Refers to numerical and text information. These are provided in the form of a "flat ASCII" file.

# Export Cape Diagram

Refers to diagrams or images that can be exported in a variety of graphics file formats.

# Export Cape Report

Refers to Standard Cape reports (diagrams and numerical header information) or full Cape Reports plus an ASCII file. These reports can be exported in a variety of graphics file formats.

# Export to Databases

Allows you to export your solution information to a Casefill database for use in the Casefill programs, your case information to either the Display Pallet or Secondary Pack databases, and your primary pack information to your Primary Pack Database.

## Robot

Allows you to export information in the Cape Robotics File format for use by automatic palletizers.

## Export to Esko

Allows you to export information to several different Esko programs including the Cape Pack cloud database.

## SAP

Allows you to export information for use in SAP as either XML, ASCII or comma-separated value data.

## **Export Information Only**

Here are the options.

-										
	Export	Truck Tools	Databases	Colors	Ad	ld Graphics e-mail	Internet	Publisher	Help	
ī	S	ettings			- <u>50</u> 16	?? WPF 🖪 🔁	🖽 🙆 '	10 💿 🚯		
	E	xport Information	Only	×		Case Size		•	Case Size	Database
<	E	xport Cape Diagra	m	•		Pallet Load		T		
-	E	xport Cape Report		•		ASCII Solution Info				
Γ	E	xport to Databases	5	•		XML				
	R	obot		•		Comma Separated \	/alues (.csv	)		
	E	xport to ESKO				Layers		4		
	E	xport to KASEMAK	Œ			Case /Load		40		
	E	xport to ImpactCA	D/WEBcnx							
ī	S	AP		•						
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## Pallet Load

This option is designed to work with a new program to be launched later in the year.

## **ASCII Solution Information**

You can export the ASCII Solution Data (the text and numerical information from your analysis) in the form of a text (.TXT) file. You can then write a macro to extract any or all of the information to another program application.

Because you can calculate on up to three pallets, at the same time, you will be prompted to select either Pallet 1, 2 or 3 depending on the number of pallets you selected at the input stage.

Choose Pallet Load to use for ASCII Text     Use Pallet Load #1	Close
◯ Use Pallet Load #2	
Use Pallet Load #3	

The details of what is exported is contained in a key file in the Tutor folder after your first export. The file is called Soln Header.TXT. As we add fields to this export information, that file will be updated with current info. Here is a sample file.

### Solution Data Text File – Single Product Modules

Field Number	Information
Field #1	Product Name
Field #2	Product Code
Field #3	Solution Reference
Field #4	.CLF File Name
Field #5	Analysis Create Date
Field #6	Primary Pack Name
Field #7	Secondary Pack Name
Field #8	Pallet Base Name
Field #9	Units of Measure
Field #10	Primary Pack Type
Field #11	Secondary Pack Type
Field #12	PP per SP
Field #13	PP Arrangement in SP Length
Field #14	PP Arrangement in SP Width
Field #15	PP Arrangement in SP Height
Field #16	PP Dimension in SP Length
Field #17	PP Dimension in SP Width
Field #18	PP Dimension in SP Height
Field #19	Secondary Packs per Layer
Field #20	Layers per Load
Field #21	Secondary Packs per Load
Field #22	Primary Pack Length (ID)
Field #23	Primary Pack Width (ID)
Field #24	Primary Pack Height (ID)
Field #25	Primary Pack Length (OD)
Field #26	Primary Pack Width (OD)
Field #27	Primary Pack Height (OD)
Field #28	Primary Pack Nett Weight
Field #29	Primary Pack Gross Weight

Field #30	Primary Pack Material Thickness
Field #31	Primary Pack Material Weight
Field #32	Secondary Pack Length (ID)
Field #33	Secondary Pack Width (ID)
Field #34	Secondary Pack Height (ID)
Field #35	Secondary Pack Length (OD)
Field #36	Secondary Pack Width (OD)
Field #37	Secondary Pack Height (OD)
Field #38	Secondary Pack Nett Weight
Field #39	Secondary Pack Gross Weight
Field #40	Secondary Pack Material Thickness
Field #41	Secondary Pack Material Weight
Field #42	Pallet Load Area Efficiency
Field #43	Pallet Load Cubic Efficiency
Field #44	Pallet Base length
Field #45	Pallet Base Width
Field #46	Pallet Base Height
Field #47	Pallet Base Weight
Field #48	Product Length
Field #49	Product Width
Field #50	Product Height
Field #51	Load Nett Weight
Field #52	Load Gross Weight
Field #53	Load Length
Field #54	Load Width
Field #55	Load Height
Field #56	Bundles per Secondary Pack
Field #57	Bundles per Pallet Load
Field #58	Primary Pack per Bundle
Field #59	Primary Packs per Load
Field #60	Bundle Length (OD)
Field #61	Bundle Width (OD)
Field #62	Bundle Height (OD)
Field #63	Bundle Nett Weight
Field #64	Bundle Gross Weight
Field #65	Bundle Name
Field #66	User Text Line #1
Field #67	User Text Line #2
Field #68	User Text Line #3
Field #69	User Text Line #4
Field #70	User Text Line #5
Field #71	User Text Line #6
Field #72	User Field Line #1
Field #73	User Field Line #2

Field #74	User Field Line #3
Field #75	User Field Line #4
Field #76	Truck Load Length
Field #77	Truck Load Width
Field #78	Truck Load Height
Field #79	Truck Load gross Weight
Field #80	Truck Load Nett Weight
Field #81	Pallet Loads per Truck
Field #82	Secondary Packs per Truck
Field #83	Truck Name
Field #84	Secondary Packs per Multi-Dimensional Load
Field #85	Secondary Pack Blank Area
Field #86	Divider Type
Field #87	No of Dividers in Length
Field #88	No of Dividers in Width
Field #89	No of Dividers in Height
Field #90	Divider Blank Area
Field #91	Num of Layer Pads per Load
Field #92	Secondary Packs per Max. Load
Field #93	Primary Pack Additional Weight
Field #94	Secondary Pack Additional Weight
Field #95	Primary Packs per Truck Load
Field #96	Per Layer Quantities after editing Pallet Load
Field #97	Secondary Pack Dimension Vertical on Pallet
Field #98	Product_Nett_Weight
Field #99	Product_Gross_Weight
Field #100	Truck Product Length
Field #101	Truck Product Width
Field #102	Truck Product Height
Field #103	Truck Product Nett Weight
Field #104	Truck Product Gross Weight
Field #105	Pallet Load Accessories Weight
Field #106	Secondary Pack Material Saved
Field #107	Layers per Truck Load
Field #108	Truck Load Ref
Field #109	Secondary Pack Area Eff.
Field #110	Secondary Pack SlackID Length
Field #111	Secondary Pack SlackID Width
Field #112	Secondary Pack SlackID Height
Field #113	Truck Cube Used
Field #114	Truck Area Eff.
Field #115	MD Load length
Field #116	MD Load Width
Field #117	MD Load Height

Field #118	MD Load Net Weight
Field #119	MD Load Gross Weight
Field #120	MD Load Product Length
Field #121	MD Load Product Width
Field #122	MD Load Product Height
Field #123	MD Load Product Net Weight
Field #124	MD Load Product Gross Weight[sp-123]
Field #125	MD Load Area Eff.
Field #126	MD Load Cube Eff.
Field #127	Max Load Length
Field #128	Max Load Width
Field #129	Max Load Height
Field #130	Max Load Length
Field #131	Max Load Width
Field #132	Max Load Height
Field #133	Max Product Gross Weight
Field #134	Max Load Net Weight
Field #135	Max Load Gross Weight
Field #136	Max Load Area Eff.
Field #137	Max Load Cube Eff.
Field #138	Secondary Pack Tray Wall Height
Field #139	Product Weight
Field #140	Bundle Length (ID)
Field #141	Bundle Width (ID)
Field #142	Bundle Height (ID)
Field #143	Master Pallet Base Style
Field #144	Master Load Length
Field #145	Master Load Width
Field #146	Master Load Height
Field #147	Master Product Length
Field #148	Master Product Width
Field #149	Master Product Height
Field #150	Master Load Nett Weight
Field #151	Master Load Gross Weight
Field #152	UnitLoad per Master Load
Field #153	Secondary pack per Master Load
Field #154	Master Load Cube Efficiency
Field #155	Master Load Area Efficiency
Field #156	ArtiosCAD ARD Filename
Field #157	Primary Pack Volume (cm^3/cuft)
Field #158	Secondary Pack Volume (cm^3/cuft)
Field #159	Bundle Volume (cm^3/cuft)
Field #160	Pallet Load Volume (cm^3/cuft)
Field #161	Master Load Volume (cm^3/cuft)

Field #162	MDA Load Volume (cm^3/cuft)
Field #163	Maximizer Load Volume (cm^3/cuft)
Field #164	Truck Load Volume (cm^3/cuft)

# Solution Data Text File – Display Pallet

Line Number	Information
Line 1	Product Name
Line 2	Product Code
Line 3	Solution Reference
Line 4	File Name
Line 5	File Date
Line 6	Pallet Name
Line 7	Units of Measure (0=Metric;1=English)
Line 8	Packages per Load
Line 9	Pallet Load Cubit Efficiency
Line 10	Pallet Length
Line 11	Pallet Width
Line 12	Pallet Height
Line 13	Pallet Weight
Line 14	Product Length
Line 15	Product Width
Line 16	Product Height
Line 17	Product Gross Weight
Line 18	Load Length
Line 19	Load Width
Line 20	Load Height
Line 21	Load Net Weight
Line 22	Load Gross Weight
Line 23	Pallet Loads per Truck
Line 24	Packages per Truck
Line 25	Truck Name
Line 26	Truck Length
Line 27	Truck Width
Line 28	Truck Height
Line 29	Truck Product Length
Line 30	Truck Product Width
Line 31	Truck Product Height
Line 32	Truck Load Gross Weight
Line 33	Truck Load Net Weight
Line 34	Truck Product Net Weight
Line 35	Truck Product Gross Weight
Line 36	Number of Package Types per Load
The following lines are repeated for each	

different package on the load, but are numbered sequentially.	
Line 37	Package Name (#1)
Line 38	Package Length (#1)
Line 39	Package Width (#1)
Line 40	Package Height (#1)
Line 41	Package Weight (#1)
Line 42	Primary Packs Per Package (#1)
Line 43	Number of this Package Type per Load (#1)
Line 44	Package Type (#1)
Line 45	Package RGB Component (#1)
Line 46	Package Label (#1)

## XML

You can export the same data as in the ASCII Solution Data (the text and numerical information from your analysis) in XML format. You can then write a macro to extract any or all of the information to another program application.

### **Comma-Separated Values**

You can export the same data as in the ASCII Solution Data (the text and numerical information from your analysis) in CSV format. You can then write a macro to extract any or all of the information to another program application.

# **Exporting Cape Diagrams**

There are several ways you can export diagrams to other software applications.



### **Diagram Only**

Here you export the on-screens diagrams in a wide range of graphics file formats.

Click on **PCX** or any of the other file formats.

## Diagram and ASCII

This option not only exports the diagram as in **Diagram Only**, but also sends the ASCII file solution information to the directory of your choice.

## Single Diagrams and ASCII

This feature allows you to save each diagram on the screen as a separate file. Thus, a screen with four diagrams would save out **four** individual bitmap files. The ASCII file for a single pallet load will be just one file.

If you have more than one pallet load on the screen then the diagrams will be exported as normal, but a separate ASCII file will be exported for each pallet load.

The file extension for the individual diagrams is name.BM1 through name.BM4. You can instruct another program application to read this file or you can rename the file name.BMP.

The file extension for the ASCII file(s) is name.TX1 through name.TX3. Again, you can instruct your program application to read this file extension or you can rename it.

# Cape's Web Page (Html format)

This format is an ideal attachment to an email. You can export either the Diagram Only or the full Cape Report:

Simply click on the Cape's Web Page (html format) option and a Save As dialog box appears.

Enter a filename and the target directory. The HTML style file, in a JPEG format, will be saved to that directory.

## 3D PDF Output

We have added a new feature that allows users to create a 3D PDF file that can be viewed and manipulated in Adobe PDF Viewer. Users can change the view of the pallet load by clicking on it and dragging it to the desired angle.

The feature can be accessed from the 3D PDF button in the toolbar.

### Create a .PDF Diagram

This option lets you create a PDF file of only your Cape Pack diagrams rather than the full report.

### Sending Email Attachments

Using your normal email program, write your email and then attach the Cape JPEG file to your email

This is a very easy way to communicate the results of a Cape analysis with anyone, anywhere in the world.

Please also refer to the email menu where you automatically attach the Cape Report or Diagrams to an email.

# **Exporting Cape Reports**

Here are the options.

napriics		
Export Truck Tools Databases Colors	Add Graphics e-mail Internet Publishe	r Help
1 Settings	🕀 ?? WPF 🖪 🖪 🖽 🧿 🕄 💿 🄇	<b>D</b>
Export Information Only	Product Length 48.000	)
Export Cape Diagram	Product Width 40.000	
Export Cape Report	Report Only	ZSoft Format (PCX)
Export to Databases	Report and ASCII	Tagged Image File Format (TIF)
- Robot >	Cape's web page (html format)	Encapsulated Postscript (EPS)
Export to ESKO 🕨	Create a PDF Report	Adobe Photoshop 3.0 (PSD)
Export to KASEMAKE	3D PDF	Windows Bitmap (BMP)
Export to ImpactCAD/WEBcnx		OS/2 Bitmap (BMP)
SAP 🕨		Windows Metafile - WMF
48.000	·	JPEG

# **Report Only**

This works in a similar fashion to the previously explained **Diagram Only** option, except that here you are exporting the entire Cape Report. You can use the Export settings to customize the report and set the exact size you want.

# Cape Report and ASCII

This option not only exports the report as in **Report Only**, it also sends the ASCII solution file information to a directory of your choice.

## Web Page (Html format)

This option exports the Cape Pack report to a graphics HTML file. All settings for the normal exported report apply to this format.

## Create a PDF Report

This option lets you create a PDF of your exported Cape Pack report.

# Other Export Options

## Using the Clipboard

The information sent from the Multi-Viewer to the Clipboard is in a graphical format, even if it contains some text. This means that you cannot manipulate or edit the text once it has been pasted into another Windows application.

If you want to manipulate the solution information (text), you should use the **Copy** command in the Solution Report screen.

The solution shown in the Multi-Viewer Graphics is the solution which is sent to the Clipboard.

#### Choose Copy Cape Report from the Edit menu.

To send a copy of just the diagrams to the Windows Clipboard, choose **Copy Diagram** from the **Edit** menu.

You can import the information on the Clipboard into any other application using the **Paste** command under the **Edit** menu.

# Exporting Graphics from Print Preview

Using the **Export** button you can export a graphics file to a directory/destination of your choice.



# Exporting Information from the Solution Report

The data from the Solution Report and Alternate Solution Report can be copied to the Clipboard for use in another Windows application. You can also export the information to a comma separated value (csv) format. Use the **Edit** menu to accomplish this task.

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Multi-Viewer Graphics										5		
File E	Edit Vie	ew Expo	rt Truc	k Tools	Databas	es Colo	ors Add	Graphics e-mail	Internet Publ	isher Help		
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1 89.9				100.0	0.00	0.00	0.00	0.00				
2	Expo	rt Solution	п кероп	as .csv		89.9	100.0	0.00	0.00	0.00	0.00	
3	С	36	9	4	н	80.9	90.0	0.00	0.00	2.00	0.00	
4	Т	36	9	4	н	80.9	90.0	2.00	0.00	2.00	0.00	
5	Т	36	9	4	Н	80.9	90.0	4.00	0.00	2.00	0.00	
6	Т	36	9	4	н	80.9	90.0	2.00	0.00	4.00	0.00	
7	S	36	9	4	Н	80.9	90.0	2.00	0.00	0.00	0.00	
8	S	36	9	4	н	80.9	90.0	4.00	0.00	0.00	0.00	
9	S	36	9	4	Н	80.9	90.0	2.00	0.00	0.00	0.00	
10	S	36	9	4	н	80.9	90.0	4.00	0.00	0.00	0.00	
•	-		-								· · · · · · · · · · · · · · · · · · ·	H
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# Exporting Information for a Palletizing Robot

You can do this through the **Export** menu **Robot** option.

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Exp	ort Truck Tools Databases	Colors	Add Graphics e-mail Internet Publisher Help	
1	Settings		🕀 ?? WPF 🖪 🖪 🖽 🧿 📆 💿 🚳	
	Export Information Only	•	Product Length 48.000	
5	Export Cape Diagram	•	Product Width 40.000	
1	Export Cape Report	+	Product Height 40.000	
	Export to Databases	•	Area Used 100.0%	
-	Robot	•	Robotic Interface	.CRF
	Export to ESKO	►	Show Length-side (Face B) around Pallet Load	.XML
	Export to KASEMAKE		Show Width-side (Face C) around Pallet Load	
-	Export to ImpactCAD/WEBcnx	L		
Ţ	SAP	•		

### **Robotic Interface**

This option creates a "flat ASCII file" containing the entire pallet load information and the XYZ coordinates of the cases. This data can then be transferred, via an external interface, to the PLC of the robotic palletizer.

Select this option and you will be prompted for a file name and location.

Provide a file name and path and the program will save the Cape Robotic Interface file and send it to your chosen directory. The file extension is .CRF.

### Cape Robotic Interface File Format

[LoadHeader]

sPDNAME SolRef

[LoadInfo]

**iLDBNUM ILDTNUM** SLDTIME fLDM1 AreaEff fLDDIM1 fLDDIM2 fLDDIM3 **fLDLWGT** fLDDIM1E fLDDIM2E fLDDIM3E *fLDLWGTE* LoadX LoadY LoadZ LoadWgt [ProbDef] **sPDSDESC** sPDLDESC SPDDATE **sPDUNITS iPDSCALE** Utext1 Utext2 Utext3 Utext4 Utext5 Utext6 Ufield1 Ufield2 Ufield3 Ufield4 [PalRest] sLBFILE **fLBLEN fLBWID fLBHGT** 

* Load FileName

* Solution Reference

* Number of Pallet Base style used * Number of SP per Load * Create Date and Time * Cube Efficiency * Area Efficiency * Product Length (Metric) * Product Width (Metric) * Product Height (Metric) * Product Weight (Metric) * Product Length (English) * Product Width (English) * Product Height (English) * Product Weight (English) * Load Length * Load Width * Load Height * Load Weight * Product Code * Product Name * Problem Date * Units of Measure (0=Metric, 1=English) * Scale Factor (25.4) * User Text Line 1 * User Text Line 2 * User Text Line 3 * User Text Line 4 * User Text Line 5 * User Text Line 6 * User Fields Line 1 * User Fields Line 2 * User Fields Line 3 * User Fields Line 4 * Name of Pallet Base style * Pallet Length (Metric) * Pallet Width (Metric) * Pallet Height (Metric) * Pallet Weight (Metric) * Maximum Load Height * Maximum Load Weight * Pallet Length (English) * Pallet Width (English) * Pallet Height (English) * Pallet Weight (English)

[SPInfo] SPName SPODLength

**fLBWGT** 

**fLBMAXLH** 

**fLBMAXLW** 

**fLBLENE** 

fLBWIDE fLBHGTE

**fLBWGTE** 

- * Secondary Pack Name
- * Secondary Pack Outside Length

SPODWidth	* Secondary Pack Outside Width
SPODHeight	* Secondary Pack Outside Height
SPIDLength	* Secondary Pack Inside Length
SPIDWidth	* Secondary Pack Inside Width
SPIDHeight	* Secondary Pack Inside Height
SPNWeight	* Secondary Pack Net Weight
SPGWeight	* Secondary Pack Gross Weight
SPMatThick	* Secondary Pack Material Thickness
SPMatWeight	* Secondary Pack Material Weight

[SolutionInfo]LayersPerLoad* Layer per LoadSPperLoad* Secondary Pack per LoadSPperLayer* Secondary Pack per Layer

[PalletLocation] PalletLoc=xPos,yPos,zPos

[BoxLocations] ;iLDK=SpNo,No current use,Orientation,x,y,z Example : 1=1,0,6,0,0,0

[SPDLayerN] Notes: Where N is the Layer Number, e.g. If Layer 1 then section name will be "[SPDLayer1]"

LayerLevel	* The bottom height of Layer			
LayerTray/Pad	* Identifies if Layer Tray or Pad is present at Layer Level. (0=No, 1=Yes).			
LayerTray/PadThickness	* LayerTray/Pad Thickness, if Layer Tray or Pad is present.			
ТорСар	* Identifies if Top Cap is present at Layer Level. (0=No, 1=Yes).			
TopCapThickness	* LayerTray/Pad Thickness, if Layer Tray or Pad is present.			
Dimension Vertical	* Dimension vertical of Secondary Pack at Layer Level			
Pos_z	* Middle Z position			
SecondaryPackperLayer	* Number of Secondary Packs per Layer			
SPno.=Middle X,Middle Y,SP Turn(L/W). Example : 1=203,162,L				

The above example denotes the first SP on layer Level has a mid X distance of 203 and a middle Y distance of 162 and going by the orientation of the SP whatever dimension falls in the Length is in the X-direction and whatever dimension falls in the Width is in the Y-direction.

#### Here is an example of the CRF file generated by the Pallet Group - Rectangle/Square program:

[LoadHeader] sPDNAME=3DIEXAM2 SolRef=1 I [LoadInfo] iLDBNUM=1 iLDTNUM=40 iLDTime=29/04/97 19:02:12 fLDM1=100.0 fLDDIM1=1200.0 fLDDIM2=1000.0 fLDDIM3=1500.0 fLDLWGT=65.0 LoadX=1200.0 LoadY=1000.0

```
LoadZ=1650.0
LoadWgt=90
[ProbDef]
sPDSDESC=bill
sPDLDESC=peter
sPDDATE=22/06/96
sPDSUNITS=0
sPDSCALE=1
UTEXT1=
UTEXT2=
UTEXT3=
UTEXT4=
UTEXT5=
UTEXT6=
UFIELD1=peter
UFIELD2=********** USER FIELD 2 ************
UFIELD3=*** USER FIELD 3 ***
UFIELD4=*** USER FIELD 4 ***
[PalRest]
sLBFILE=UKSTD
fLBMAXLH=1650
fLBMAXLW=9999
fLBLEN=1200.0
fLBWID=1000.0
fLBHGT=150.0
fLBWGT=25.0
[SPInfo]
SPName=CASETWO
SPODLength=400.0
SPODWidth=300.0
SPODHeight=375.0
SPIDLength=400.0
SPIDWidth=300.0
SPIDHeight=375.0
SPNWeight=0.0
SPGWeight=1.0
SPMatThick=3.0
SPMatWeight=0.0
[SolutionInfo]
LayersPerLoad=4
SPperLoad=40
SPperLayer=10
[PalletLocation]
PalletLoc=0,0,0
[BoxLocations]
1=1,0,1,0,0,150
2=1,0,1,400,0,150
3=1,0,1,800,0,150
4=1,0,1,0,300,150
5=1,0,1,400,300,150
```
6=1,0,1,800,300,150 7=1,0,4,0,600,150 8=1,0,4,300,600,150 9=1,0,4,600,600,150 10=1,0,4,900,600,150 11=1,0,1,0,0,525 12=1,0,1,400,0,525 13=1,0,1,800,0,525 14=1,0,1,0,300,525 15=1,0,1,400,300,525 16=1,0,1,800,300,525 17=1,0,4,0,600,525 18=1,0,4,300,600,525 19=1,0,4,600,600,525 20=1,0,4,900,600,525 21=1,0,1,0,0,900 22=1,0,1,400,0,900 23=1.0.1.800.0.900 24=1,0,1,0,300,900 25=1,0,1,400,300,900 26=1,0,1,800,300,900 27=1,0,4,0,600,900 28=1,0,4,300,600,900 29=1,0,4,600,600,900 30=1,0,4,900,600,900 31=1,0,1,0,0,1275 32=1,0,1,400,0,1275 33=1,0,1,800,0,1275 34=1,0,1,0,300,1275 35=1,0,1,400,300,1275 36=1,0,1,800,300,1275 37=1,0,4,0,600,1275 38=1,0,4,300,600,1275 39=1,0,4,600,600,1275 40=1,0,4,900,600,1275 [SPDLayer1] LayerLevel=150 LayerTray/Pad=0 TopCap=0 Dimension Vertical=H Pos Z=337 SecondaryPackPerLayer=10 1=200,150,L 2=200,450,L 3=150,800,W 4=450,800,W 5=600,150,L 6=600,450,L 7=750,800,W 8=1000,150,L 9=1000.450.L 10=1050,800,W [SPDLayer2]

LayerLevel=525

LayerTray/Pad=0 TopCap=0 Dimension Vertical=H Pos_Z=712 SecondaryPackPerLayer=10 1=200,150,L 2=200,450,L 3=150,800,W 4=450,800,W 5=600,150,L 6=600,450,L 7=750,800,W 8=1000,150,L 9=1000,450,L 10=1050,800,W [SPDLayer3] LayerLevel=900 LayerTray/Pad=0 TopCap=0 Dimension Vertical=H Pos_Z=1087 SecondaryPackPerLayer=10 1=200,150,L 2=200,450,L 3=150,800,W 4=450,800,W 5=600,150,L 6=600,450,L 7=750,800,W 8=1000,150,L 9=1000,450,L 10=1050,800,W [SPDLayer4] LayerLevel=1275 LayerTray/Pad=0 TopCap=0 Dimension Vertical=H Pos Z=1462 SecondaryPackPerLayer=10 1=200,150,L 2=200,450,L 3=150,800,W 4=450,800,W 5=600,150,L 6=600,450,L 7=750,800,W 8=1000,150,L 9=1000,450,L 10=1050,800,W

No.	Orientation	X-axis	Y-axis	Z-axis
1	1	Length	Width	Height
2	2	Width	Length	Height
3	3	Length	Width	Height
4	4	Width	Length	Height
5	15	Length	Width	Height
6	16	Width	Height	Height
7	13	Length	Width	Height
8	14	Width	Length	Height
9	19	Length	Height	Width
10	20	Height	Length	Width
11	17	Length	Height	Width
12	18	Height	Length	Width
13	5	Length	Height	Width
14	6	Height	Length	Width
15	7	Length	Height	Width
16	8	Height	Length	Width
17	9	Height	Width	Length
18	10	Width	Height	Length
19	11	Height	Width	Length
20	12	Width	Height	Length
21	21	Height	Width	Length
22	22	Width	Height	Length
23	23	Height	Width	Length
24	24	Width	Height	Length

# Orientation Guide for Robotic Interface (CRF)

# Exporting Information use in CAD Programs

raphics

We currently have 3 separate interface options for CAD programs, with the Esko interfaces being the most complex.

Export Truck Tools Databases	Colors	Add Graphics e-mail Internet Publisher Help			
Settings		🕀 ?? WPF 🖪 🖀 🖸 📆 💿 📀			
Export Information Only Export Cape Diagram Export Cape Report Export to Databases Robot	• • •	Product Length48.000Product Width40.000Product Height40.000Load Ref.1 IArea Used100.0%Cube Used89.9%			
Export to ESKO	+	Send to ArtiosCAD			
Export to KASEMAKE Export to ImpactCAD/WEBcnx SAP 48.000	Þ	Send to WebCenter CRF/VRML Show XML Export Pallet Load (XML)			
		Configure Cape Pack Cloud upload Connection			

### Export to Esko

These options create several different file types that can be sent to ArtiosCAD and Artios WebCenter.

#### Send to ArtiosCAD

This option send dimensional data to ArtiosCAD and recreates flat drawings of standard box types in that program.

#### XML and JPEG Report

This option creates XML and JPEG files for inclusion in WebCenter

#### CRF/VRML

This option creates a CRF/VRML for use in ArtiosCADs 3D graphics rendering programs.

#### Show XML

This option opens the XML data for the analysis.

#### Export Pallet Load (XML)

This option exports the pallet load information in XML format

#### Configure Cape Pack Cloud Connection

This option allows you to setup the parameters for the cloud or proxy settings if required. Normally the cloud confinguration will be set during installation. If there is an issue, this will allow you to make changes.

Graph	ics			
/ Exp	port Truck Tools Databases	Colors	Add Graphics e-mail Internet Publisher Help	
1	Settings		🕀 ?? WP 🖪 🖀 🔛 🧿 🔞 💿 🔕	
	Export Information Only	•	Product Length 48.000	
5	Export Cape Diagram	•	Product Width 40.000	
- 1	Export Cape Report	•	Product Height 40.000	
	Event to Detabases		Load Ref. 1 I	
	Export to Databases		Area Used 100.0%	
~	Robot	•	Cube Used 89.9%	_
	Export to ESKO	÷	Send to ArtiosCAD	11
Export to KASEMAKE			Send to WebCenter	
Export to ImpactCAD/WEBcnx			CRF/VRML	
7	SAP	•	Show XML	
0	48.000		Export Pallet Load (XML)	H
			Send to Cape Cloud	plut
			Configure Cape Pack Cloud upload Connection	

Make whatever changes are required and then click on OK.

Configure Cape Pack Cloud upload Con	nection	
Cane Pack Cloud Server Name		
https://cape.eskocloud.com/		
Login Type		
EskolD	○ EskoRD	
Esko Cloud Connection choice		
Auto detect Proxy Server	O Manually Configure Proxy Server	
Auto detect Proxy Server		
🔲 Use PAC File		
PAC file URL		
Requires Authentication		
llsername		
Password		
ОК	Cancel	

#### Send to Cape Cloud

This feature starts the upload action to the Cape cloud database. You can also use the orange cloud button in the tool bar.

iraphics				
Export Truck Tools Databases	Colors	Add Graphics e-mail Internet Publisher Help		
Settings     Export Information Only     Export Cape Diagram     Export Cape Report     Export to Databases	* * * *	?? WH         Image: Constraint of the state of the		
- Robot	•	Cube Used 89.9%		
Export to ESKO	•	Send to ArtiosCAD		
Export to KASEMAKE Export to ImpactCAD/WEBcnx SAP	Þ	Send to WebCenter CRF/VRML Show XML		
40.000		Send to Cape Cloud		
Configure Cape Pack Cloud upload Connection				

You will be presented with a field to categorize the analysis further if you wish. You can enter Customer Name and Project information then click on OK.

Set Cloud only data t	ïelds			
	Custo	omer Name		
Project				
	ОК	Cancel		

Type in your Esko ID and password and click on Sign In.

The program will upload your informtaion for the analysis and then ask if you wish to review it on the cloud. Click Yes to open the cloud.



You will be asked to sign into the cloud.

Sign In	
Email Address	
kim.karl@esko.com	1
Password	
••••••	
Sign In	Remember me 🔞
Forgot password?	Help

# Export to KASEMAKE

This option creates a text file that can be read into KASEMAKE CAD programs for processing

## Export to ImpactCAD/WEBcnx

This option creates a text file that can be read into ImpactCAD/WEBcnx programs for processing

# **Other Features of Cape Pack**

## **Data Input Features**

### **Open Input Data**

Allows you to select and open your previously saved data input files. Cape Pack defaults to your Private folder when opening and saving files.

You can open either .clf files created in the Pallet, Arrange, Design, Casefill, KDF groups or the Display Pallet program. Cape Pack will open the correct program with the file you choose.

### Inside/Outside Dimensions

The Cape Pack default is set for Outside Dimensions. If you wish to work with Inside Dimensions, click on the **Enter ID's** option. When you return to the input screen there will be some additional fields. They are **Material Thickness** box and the **Number of Material Thicknesses** in the length, width and height of your object.

O Pallet - [Data Input]			
File Programs Make a new Shape Input Data	ibases Tools Fill Wizard Colors	Add Graphics Internet	Help
Case 48x40	Pallet 2	Pallet 3	53footer
Select Pack Type Sel RSC (2,2,4) This 0.16	ect Pack Name  ckness		
Enter ID's	Length 16.0000	Width 12.0000	Height 10.0000
Number of Thicknesses	2	2	4
Enter OD's	16.0000	12.0000	10.0000
Set Dimensions Vertical		Γ.	X
Enter Pack Weight Gross Weight Net Weight 10.0000 10.0000	Input Settings Save/Calc.	Product Nam	e/Product Code
Enter Length of Inside Dimension		(in/lb)	4:11 PM CAPS NUM

### Show Flap Indicator

This option is available under the **Input Settings** feature on the **Input** menu.

O Input Settings	<b>×</b>
Input Product Name/Product Code	Number of Pallets
Inside/Outside Dimensions Enter ID's C Enter OD's	O 2 x Pallet O 3 x Pallet
Additional Options           Image: Show Flap Indicator           Image: Bulge allowed           Image: Allow Bulge entry by percentages           Image: Allow Bulge entry by percentages	Analysis Type O Objects onto Pallet O Dbjects onto Pallet into Truck O Objects into Truck Enable Floor loading
Partial Top Layer/Skip Old Patterns enabled	Omm/kg
Cylinders	● in/lb
Recessed Objects allowed	Charu Cantral Essa Direction
🔽 Vary Cylinder size	Default
ОК	Cancel

It turns the flap indicators on so that they automatically appear on the Multi-Viewer Graphics screen. Here is an example.



### **Bulge Allowed**

Bulge is a factor which can be added to some object shapes to take account of ballooning or outward distortion of the sides of the object. If you select this option on the **Input Settings** feature of the **Input** menu, an extra set of fields for **Bulge Allowance** will appear, permitting a bulge factor to be added to the length, width and height of the object.

You have 3 options for bulge which are all available on the Input Settings screen.

Input Settings	
Input Product Name/Product Code	Number of Pallets  I x Pallet
Inside/Outside Dimensions	O 2 x Pallet O 3 x Pallet
Enter UD's      Additional Options      Product Allowed      Glue Flap Allowed      Alternate Layers      Additional Weight Allowed      Partial Top Layer/Skip Old Patterns enabled	Analysis Type Dijects onto Pallet Dijects onto Pallet into Truck Dijects into Truck Enable Floor loading
Bulge Options           Primary Pack Bulge Allowed           Allow Bulge entry by percentages           Primary Pack Min/Max Bulge Input           Secondary Pack Count Type           Min/Max Count           8 x Single Count           Secondary Pack           Secondary Pack           Show Flap Indicator	Cylinders Recessed Objects allowed Units of Measure Omm/kg in/lb Arrangement Pattern Column (C) Interlock (I) Min. Fit %
Round up to the Nearest 1/16"      OK	Show Control Face Direction Default Cancel

• Regular Bulge including negative Bulge. Enter the positive or negative amount of bulge you wish to include in each dimension of the carton or case.

O Arrange - [Data Input]						
File Programs Make a new Sh	ape Input Databases	Tools Bundle	Colors Ar	dd Graphics Inter	rnet Help	
🔙 🗅 🗁 🖬 🗟 🎒 🕼 🛙	) 🔟 🔓 🦉 🏹 👌	i 🖓 💋 🔂 🖇	¥ 8 ??	>		
Box Case	48×40	P	allet 2	Palle	et 3	Truck
,						
Select Pack Type				S	elect Pack I	Name
Seal End (3,2,6)	<u> </u>			B	iox	<b>•</b>
	Length	Width		Height		
Enter Pack (OD)	6.000	0 5.0	000	8.0000		
Set Pack Dim Vertical				x		
Estas Dalas Allamas as		-				
Enter Buige Allowance		5	.5	.5		
				L		
Enter Pack	Weight			Input Settings		Save/Calc.
Gross Weight	Net Weight					
1.0000	1.0000			Produc	t Name/Produ	ict Code
Enter Amount of Bulge in the P	rimary Pack Height			(in/lb)	4:13 PM	CAPS NUM

• Percentage of Bulge

O Arrange - [Data Input]	
<u>File Programs</u> <u>Make a new Shape</u> Input <u>Databases</u> <u>T</u> ools <u>B</u> undle <u>C</u> olors	Add Graphics Internet Help
🔚 🗅 🗁 🖶 🖩 🍜 🍽 🖻 🔟 🗗 🦉 🏠 🧏 🍎 🌾 🖇	??
Box Case 48x40 Pallet 2	Pallet 3 Truck
Select Pack Type	Select Pack Name
Seal End (3,2,6) 🔹	Box
LengthWidthEnter Pack (OD)6.0000Set Pack Dim Vertical\$Enter Bulge Allowance (%)5.5.5	Height 8.0000 × & .5 ÷
Enter Pack Weight	Input Settings Save/Calc
Gross Weight Net Weight 1.0000 1.0000	Product Name/Product Code
Enter Amount of Bulge in the Primary Pack Height	(in/lb) 4:13 PM CAPS NUM

Enter the percentage of bulge you want to include for each dimension, or you can use the scroll arrows to select this amount.

• Minimum or maximum Bulge. After you activate this option, use the Input menu and Min/Max PP Bulge Input to enter the parameters.

	<u>I</u> npu	t <u>D</u> atabases	<u>T</u> ools	<u>B</u> undle	<u>C</u> olors		
	ī	Input Settings					
		Select Master	Pallet Ba	se	2		
		Additional Pa	i i				
		Dim. Label De					
	Min/Max PP Bulge Input						
		Vary Volume/	Weight				
	_						
O Min/Max Primar	y Pack E	ulge input					3
		Le	ngth	Wie	ith	Height	
Min Bulge		0.000	1		0.0000	0.0000	
Max Bulge			0.0000		0.0000	0.0000	
Bulge Increme	nt		0.0000		0.0000	0.0000	
		ОК		Cancel			

Fill in the minimum and maximum bulge allowed along with an incremental variant. Your screen will populate like this.

📀 Arrange - [Data Input]					- • •
File Programs Make a new Shape I	nput Databases To	ools Bundle Color	s Add Graphics Int	ernet Help	
🔚 🗅 🗁 🖬 🗟 🎒 ኈ 🖹 🔟	• 왕 암 삼 삼	- 🧏 🖨 🤀 🧏 🖯	1 ??		
Box Case	48×40	Pallet	2 🏻 🏻 🏻 Pal	let 3	Truck
Select Pack Type				Select Pack N -	lame
Seal End (3,2,6)				Box	<u> </u>
	Length	Width	Height		$\frown$
Enter Pack (OD)	6.0000	5.0000	8.0000	$\sim$	
Set Pack Dim Vertical			×		
5 ·					
Enter Bulge Allowance	Min 0.5, Max 1.0, i	Min 0.5, Max 1.0, j	Min 0.5, Max 0.5, I		
			l		
Enter Pack Waig	ht		Input Sotting		SavolCalc
Linter Fack Werg	in and the second secon		Input Setting	<u> </u>	Save/Caic.
Gross Weight Net	Weight				
1.0000	1.0000		Produ	ict Name/Produ	ct Code
Enter Primary Pack Type			(in/lb	) 4·16 PM	CAPS NUM
Enter Annaly Fack Type			[(iii)]		

### Additional Palletizing Input

If you wish to restrict the solutions displayed in Cape Pack, you can specify a minimum load efficiency or the minimum load dimensions.

These specifications are optional and do not need to be entered. They are designed to eliminate less efficient solutions from the Solution Report and to deal with the parameters for Clamp Trucks.

To enter these types of restrictions click on **Additional Palletizing Input** on the **Input** menu. A dialog box will appear.

Additional Palletizing Input		
No Pattern Gaps	Clampable Information	ОК
Minimum Load Dimensions	Clamp in Length	Cancel
0.0000 0.0000 Min Area Efficiency 0% Max Back	Maximum OffsetMinimum Contact0.00000 %	
Height 0.0000		

If you want the load generated to pack the boxes together so there is no space between them, mark the *No Pattern Gaps* field.

If you know you want the load to be at least so many inches by so many inches, enter those dimensions in the *Length* and *Width* fields of the *Minimum Load Dimensions* box. Cape Pack will not report on any solutions that do not meet the dimensions you specify in this field.

If you know you want the load to have at least a certain area efficiency, enter the percentage in the *Min Area Efficiency* field.

The *Load Target* field is for you to enter a target load quantity. The program will still calculate all possible solutions, but the solution report will only show answers with the specific quantity you have entered.

If you are going to use clamp trucks in your warehouse to move pallet loads, specify the options in the *Clamp Requirements* section.

#### **Dimension Label Decimal Places**

This option is provided if you need to work in the Primary Pack Input, Bundle Wizard, Multi-Viewer graphics screens and your reports/printouts in a specified number of decimal places.

```
English versions of the program default to two decimal places.
```

If you want to change the decimal places, select the **Dim Label Decimal Places** option from the **Input** menu. The following screen will appear.



Changing this setting does **not** change the number of decimal places on the input fields. These are fixed at four decimal places.

Type in the number of decimal places you require and click on **OK**.

### **Glue Flap Allowed**

Another option available on **Input Settings** in Arrange, this feature opens up a field on the Secondary Pack tab for you to enter the size of the Glue Flap to be used in the calculations of the case blank area.

Input Product Name/Product Code         Inside/Outside Dimensions         Enter ID's         Enter OD's         Additional Options         Product Allowed         Froduct Allowed         Additional Weight Allowed         Partial Top Layer/Skip Old Patterns enabled         Bulge Options         Primary Pack Bulge Allowed         Allow Bulge entry by percentages         Primary Pack Kount Type         Min/Max Count         8 x Single Count         Secondary Pack         Secondary Pack	
Inside/Outside Dimensions       2 x Pallet         Enter ID's       3 x Pallet         Additional Options       7 Supervision Pallet         Product Allowed       Objects onto Pallet         Maditional Veight Allowed       Objects into Truck         Additional Weight Allowed       Objects into Truck         Partial Top Layer/Skip Old Patterns enabled       Cylinders         Primary Pack Bulge Allowed       Recessed Objects allowed         Primary Pack Min/Max Bulge Input       mm/kg         Secondary Pack       Min. Fit %         Secondary Pack       Interlock (I)	
Inside/Outside Dimensions       0       2 × Pallet         © Enter ID's       3 × Pallet         Additional Options       Objects onto Pallet         Product Allowed       Objects onto Pallet         Additional Weight Allowed       Objects into Truck         Additional Weight Allowed       Objects into Truck         Partial Top Layer/Skip Old Patterns enabled       Cylinders         Primary Pack Bulge Allowed       Recessed Objects allowed         Vinits of Measure       mm/kg         Primary Pack Kount Type       in/lb         Min/Max Count       Secondary Pack         Secondary Pack       Interlock (I)	
<ul> <li>Enter ID's</li> <li>Additional Options</li> <li>Product Allowed</li> <li>Alternate Layers</li> <li>Additional Weight Allowed</li> <li>Partial Top Layer/Skip Old Patterns enabled</li> <li>Bulge Options</li> <li>Primary Pack Bulge Allowed</li> <li>Allow Bulge entry by percentages</li> <li>Primary Pack Min/Max Bulge Input</li> <li>Secondary Pack</li> <li>Vertice Secondary Pack</li> <li>Secondary Pack</li></ul>	
Analysis Type         Additional Options         Product Allowed         Xitemate Layers         Additional Weight Allowed         Partial Top Layer/Skip Old Patterns enabled         Bulge Options         Primary Pack Bulge Allowed         Allow Bulge entry by percentages         Primary Pack Kin/Max Bulge Input         Secondary Pack         Secondary Pack	
Additional Options <ul> <li>Dijects onto Pallet</li> <li>Dijects onto Palet<td></td></li></ul>	
<ul> <li>Product Allowed</li> <li>Product Allowed</li> <li>Glue Flap Allowed</li> <li>Alternate Layers</li> <li>Additional Weight Allowed</li> <li>Partial Top Layer/Skip Old Patterns enabled</li> <li>Bulge Options</li> <li>Primary Pack Bulge Allowed</li> <li>Allow Bulge entry by percentages</li> <li>Primary Pack Min/Max Bulge Input</li> <li>Secondary Pack Count Type</li> <li>Min/Max Count</li> <li>8 x Single Count</li> <li>Secondary Pack</li> </ul>	
I× [Glue Flap Allowed]       ○ Dbjects into Truck         Alternate Layers       Additional Weight Allowed         Partial Top Layer/Skip Old Patterns enabled       ○ Upinders         Bulge Options       □ Recessed Objects allowed         Primary Pack Bulge Allowed       □ Units of Measure         Primary Pack Min/Max Bulge Input       ○ mm/kg         Secondary Pack Count Type       ○ in/lb         Arrangement Pattern       ○ Min. Fit %         Secondary Pack       □ 100 ->	
Alternate Layers       Additional Weight Allowed         Partial Top Layer/Skip Old Patterns enabled         Bulge Options       Cylinders         Primary Pack Bulge Allowed         Allow Bulge entry by percentages         Primary Pack Min/Max Bulge Input         Secondary Pack Count Type            Min/Max Count         8 x Single Count         Secondary Pack	
Additional Weight Allowed         Partial Top Layer/Skip Old Patterns enabled         Bulge Options         Primary Pack Bulge Allowed         Allow Bulge entry by percentages         Primary Pack Min/Max Bulge Input         Secondary Pack Count Type            Min/Max Count         8 x Single Count         Secondary Pack         Minref         Column (C)         Interlock (I)	
Partial 10p Layer/Skip bid Paterins enabled         Bulge Options         Primary Pack Bulge Allowed         Allow Bulge entry by percentages         Primary Pack Min/Max Bulge Input         Secondary Pack Count Type         Image: Min/Max Count         8 x Single Count         Secondary Pack         Min/Max Count         Secondary Pack	
Bulge Options       Recessed Objects allowed         Primary Pack Bulge Allowed       Units of Measure         Primary Pack Min/Max Bulge Input       mm/kg         Secondary Pack Count Type       in/lb         Min/Max Count       Column (C)         Secondary Pack       100 ->	
Primary Pack Bulge Allowed         Allow Bulge entry by percentages         Primary Pack Min/Max Bulge Input         Secondary Pack Count Type         Min/Max Count         8 x Single Count         Secondary Pack         Min./Max Count         O B x Single Count         Secondary Pack	
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Primary Pack Min/Max Bulge Input <ul> <li>mm/kg</li> <li>in/lb</li> </ul> Min/Max Count <ul> <li>8 x Single Count</li> <li>Column (C)</li> <li>Interlock (I)</li> </ul> Min. Fit % <ul> <li>100 ÷ %</li> </ul>	
Secondary Pack Count Type <ul> <li>in/lb</li> <li>Min/Max Count</li> <li>8 x Single Count</li> <li>Column (C)</li> <li>Interlock (I)</li> </ul> Min. Fit % <ul> <li>Column (C)</li> <li>Interlock (I)</li> </ul> 100 ÷ %	
Min/Max Count     S x Single Count     Secondary Pack	
○ 8 x Single Count     Arrangement Hattern     Min. Fit %       ○ Column (C)     ○ Interlock (I)     100 ÷ %	
Secondary Pack	
Show Elap Indicator	
Bound up to the Nearest 1/16"     Show Control Face Direction	
Default	
OK Cancel	
Arrange - [Data Input]	
ile <u>P</u> rograms <u>M</u> ake a new Shape Input <u>D</u> atabases <u>T</u> ools <u>B</u> undle <u>C</u> olors Add Graphics Internet <u>H</u> elp	
🔚 🗅 🗁 🖶 🗐 🎒 Խ 🖹 🔟 다 🦉 😭 🧏 🧏 🦓 🍎 😚 🦂 🕴 ??	
Box Case 48x40 Pallet 2 Pallet 3 Truck	
Select Pack Type Number of Material Thicknesses Select Pack Name	
Thickness LB/MSF Glue Flap	
U.1600 <u>112.0000</u>	
Select Partition Type	
None	
None  Box Per Case Minimum 12 Maximum 24	
None  Box Per Case Minimum 12 Maximum 24	
None Box Per Case Minimum 12 Maximum 24 Enter Max Case Weight En oppo	
None Box Per Case Minimum 12 Maximum 24 Enter Max Case Weight 50.0000	
None Box Per Case Minimum 12 Maximum 24 Enter Max Case Weight 50.0000	
None   Box Per Case Minimum 12 Maximum 24  Enter Max Case Weight Case Settings	
None  Box Per Case Minimum 12 Maximum 24 Enter Max Case Weight Case Settings	
None Box Per Case Minimum 12 Maximum 24 Enter Max Case Weight 50.0000 Case Settings Input Settings Save/Calc.	
None     Image: Second strain st	
None     Image: Second strain st	
None       Image: Second	
None       Image: Second	

## Vary Volume/Weight

Cape Pack has always given you the ability to modify your primary pack volume based on a percentage of change, or to keep that amount constant. We now offer you a third option to fix a specific volume.

To change your volume, click on the Input menu and Vary Volume/Weight.



The following screen will open.

Vary Volume Specific Volume Calculation	UK
<ul> <li>Fluid measurement (Litres)</li> <li>Cubic measurement (cm³)</li> </ul>	Cancel
Vary Volume By 0	
Vary Volume/Weight	

Your three choices are:

Keep volume as it is now by setting your Vary Volume By setting at 0% as shown above.

Change your volume variance by entering a percentage of change.

/ary Volume Input		
<ul> <li>Vary Volume</li> <li>Specific Volume Calculation</li> </ul>	1	ОК
Fluid measurement (Litres Cubic measurement (cm ² )	) 3)	Cancel
Vary Volume By	5	
Vary Volume/Weight		
Vary Volume Increased by 5.0%	= 0.15 cu ft	
Primary Pack Volume	= 0.14 cu ft	
	- 0.12 ou 8	

Set your volume to a specific measurement as shown below.

O Varu Volume		пк
<ul> <li>Specific Volume Calculat</li> </ul>	tion	
Fluid measurement (Lit)	res)	Cancel
O Cubic measurement (c	m^3)	
Achievable volume (cu Vary Volume/Weight	ft) 0625	
raly rolandr hoight		

### Customizing the Pack Names List

When you are specifying an object you should give it a pack name. That way, when a report is generated, a label will appear to identify related information. You can manually type in a pack name in the *Pack Name* field on the input tab. Alternatively, you can build your own list of Pack Names and then choose one where required. Cape Pack is supplied with a small list of generic names (e.g., Carton, Box, Case and Tray).

#### Adding a Pack Name

Select <b>Pack Names</b> from the <b>Tools</b> menu.	А	dialog box	will	appear.
------------------------------------------------------	---	------------	------	---------

	Pack. Name	Include in List	ŀ
Bag		M	
Book		<b>1</b>	
Bottle		 <u> </u>	
Bundle		 <u> </u>	
Carton		 <u> </u>	
Case		<u> </u>	
Cylinder			
Insert			
Lift			
51g Cianatura			
Signature			
,		 _	
4		•	
	Const	 Dalaha	

Click on the **Add** button. A new row will become available at the bottom of the list. The Pack Name column will be highlighted by a double lined rectangle.

Type a name for the pack name you are defining. For example, **Drum**.

Pack Names	;			x
	Pack. Name	1	nclude in List	
Bag			V	1
Book			M	1
Bottle			M	1
Bundle			V	1
Carton			V	1
Case			M	1 1
Cylinder			M	1 1
Insert			V	1 1
Lift			V	1
Sig			M	1
Signature			M	1 1
Tray			V	1
Drum			1	1
				1
				•
4			•	
				-
ОК	Cancel	Add	Delete	
				_

You can continue to follow these steps until all your pack names have been defined. If at a later date, you need to add another one, repeat the same steps.

When you are finished click on **OK**. All of your Pack Names will now be added to the pull down list. The list will be available throughout the Cape Pack programs.

😡 Design - [Data I	nput]					
<u>File</u> Programs	Make a new Shape Inp	ut <u>D</u> atabases <u>T</u> ools	<u>B</u> undle <u>C</u> olors	Add Graphics Inte	ernet <u>H</u> elp	
🦕 🗅 🗁 🖬	🗟 🎒 🔓 🗎 🧕	) 🦉 🖆 🍇 🏹	i 🤌 😚 🧏 🔒	??		
Box	Case	48×40	Pallet 2	Palli	et 3	Truck
Release Dead	Tur					
Select Paci	(Type			2	Belect Pack	Name
	J, Z, U) ·			(	Case	
				(	Cylinder	
				l l	nsert _ift	
				5	Sig Signatura	E
		Langth	LLT: JAL		Fray	
Enter Pack (	וחס	6 0000	5 0000		Drum	
Cat Da als Di		0.0000	0.0000			
Set Pack Di	m verucai			×		
Dimensiona	l Variance (+)	0.0000	0.0000	0.0000		
Dimensiona	l Variance (-)	0.0000	0.0000	0.0000		
Dimensiona	Increment	0.0000	0.0000	0.0000		
	Enter Pack Weight			Input Settings	,	Save/Calc.
Gross V	Veight Net V	/eight				
	1.0000	1.0000		Produc	ct Name/Prod	uct Code
Enter Primary Pa	ck Name			(in/lb)	4:19 PM	CAPS NUM

#### **Deleting a Pack Name**

Highlight the row of the Pack Name you wish to delete. Click on the **Delete** button. A message box will appear confirming that you really want to delete the pack name associated with the highlighted row.

Click on **OK**. The entry will now disappear from the list.

#### Temporarily Removing a Pack Name

If you find that you no longer use a particular pack name you can hide it from view on the Pack Name pull down list.

In the list, find the pack name you wish to hide. Click once on the red check mark associated with that pack name. The check mark will go away.

Pack Names	×
Pack. Name	Include  in List
Bag	
Book	
Bottle	
Bundle	
Carton	
Case	
Cylinder	
Drum	
Insert	
Lift	
Sig	
Signature	
Tray	
٩	• •
OK Cancel Add	Delete

Click on **OK**. The pack name will no longer be on the pull down list.

### Customizing the Material Thicknesses List

When you are specifying the inside dimensions of an object, you must specify the thickness of the material from which the object is made. Cape Pack can then calculate an outside dimension for your object. On the input tab, you can manually type in the thickness of the material (board) in the *Thickness* field.

However, if you cannot remember the thickness of a particular board, you can choose it from the pull down list. Cape Pack is provided with a small English units list as well as a small Metric units list. However, you can customize these lists by selecting **Material Thicknesses** from the **Tools** menu.

When you are working in metric units, the metric list will be available for customizing. When you are working in English units, the English units list will be available. The program will not convert these lists between English and metric units.

#### Adding a Material Thickness

From the Tools menu, select Material Thicknesses. A dialog box will appear.

Thickness Description	Thickness	Mat. Weight LB/MSF	Include in List
125 A Flute	0.1960	80.0000	1
125 B Flute	0.1100	80.0000	<b>1</b>
125 C Flute 26-26-26	0.1530	80.0000	<b>1</b>
125 E Flute	0.0630	80.0000	<b>1</b>
200 A Flute	0.2030	112.0000	
200 B Flute	0.1200	112.0000	
200 C Flute 42-26-42	0.1600	112.0000	
200 Double Wall	0.3125	145.0000	
200 E Flute	0.0770	112.0000	
275 A Flute	0.2170	145.0000	M
275 B Flute	0.1340	145.0000	<b>1</b>
275 C Flute 69-26-69	0.1730	145.0000	M
275 Double Wall	0.3125	165.0000	<b>1</b>
275 E Flute	0.0930	145.0000	<b>1</b>
350 Double Wall	0.3125	185.0000	<b>1</b>
500 Double Wall	0.3125	230.0000	
600 Double Wall	0.3125	325.0000	<u>×</u>
•			•

Click on the **Add** button. A new row will become available at the bottom of the list. The Thickness Description column will be highlighted by a double lined rectangle.

O Material Thicknesses			×	
Thickness Description	Thickness	Mat. Weight LB/MSF	Include 🔺 in List	
125 A Flute	0.1960	80.0000	<u>v</u>	
125 B Flute	0.1100	80.0000	<u>v</u>	
125 C Flute 26-26-26	0.1530	80.0000	<u>v</u>	
125 E Flute	0.0630	80.0000	<u>v</u>	
200 A Flute	0.2030	112.0000	<u>v</u>	
200 B Flute	0.1200	112.0000	<u>×</u>	
200 C Flute 42-26-42	0.1600	112.0000	<u>v</u>	
200 Double Wall	0.3125	145.0000	<u>v</u>	
200 E Flute	0.0770	112.0000	¥	
275 A Flute	0.2170	145.0000	<u>v</u>	
275 B Flute	0.1340	145.0000	¥	
275 C Flute 69-26-69	0.1730	145.0000	¥	
275 Double Wall	0.3125	165.0000	<b>V</b>	
275 E Flute	0.0930	145.0000	¥	
350 Double Wall	0.3125	185.0000	V	
500 Double Wall	0.3125	230.0000	<b>V</b>	
600 Double Wall	0.3125	325.0000	<b>V</b>	
	0.0000	0.0000	¥ -	
•			•	
OK Cancel Add Delete				

Type a name for the material thickness you are defining. For example, **32 ECT, C-Flute.** 

Move the mouse over and click on the Material column. Type the thickness of the board. For example, .15 inches.

Now click on the Material Weight column and enter **80**. This represents the weight of 1000 square feet of board if you are using English units, or grams per meter of board if you are using Metric units.

When you have finished click on **OK**. Your descriptions and material specifications will now be added to the pull down list. This information will then be available in the Pallet, Arrange and Design Programs.

#### **Deleting a Material Thickness**

Highlight any column in the row of the material thickness you wish to delete. Click on the **Delete** button.

A message box will appear asking you to confirm that you really want to delete the material thickness associated with the highlighted row. Click on **OK** and the item will be deleted.

#### Temporarily Removing a Material Thickness

If you find that you no longer use a particular material thickness, you can hide it from view.

In the list, find the material thickness you wish to hide. Click once on the red check mark associated with that material thickness. The check mark will go away. The material thickness will not appear on the list.

### Change Pallet Weight

This feature allows you to modify the weight of any pallet base style within Cape Pack. You must be on one of the Pallet tabs to activate this feature.

Select Change Pallet Weight from the Tools menu.

Pallet Base Tool	8
Select Pallet Base Style 48×40 US GMA 4-Way Pallet	
Pallet Descriptions	
48x40 US GMA 4-Way Palle Pallet Weight 50.0000 lb	
<u>Save</u> Cancel	

Select the pallet you want to change.

Type in the new weight and click on **Save**. You will see the Save As dialog box. Enter the same name or a new name and the pallet base will be saved with the new weight.

### **Change Pallet Color**

Cape Pack gives you the ability to change the color of your pallet and then save it as the original file or as a new file.

Click on the Colors menu and then select Change Pallet Color.

Select the pallet base style you want to work with. Then click on the **Color** button.

Select a color from the palette and click on **OK**.

Pallet Base Tool	8
Select Pallet Rase Stule	
48X40.PA4 48x40 US GMA 4-Way Pallet 💌	
Pallet Descriptions 48x40 US GMA 4-Way Palle	
Pallet Weight Color	
<u>Save</u> Cancel	

Click on the **Save** button to save the pallet file. You may change the file name, or save over the original file if you wish.

### **Right-Click Shortcuts**

The following demonstrate the right-click shortcuts available in the groups indicated.

#### Pallet Group

The following options can be accessed by right-clicking on the data input tabs in the Pallet Group.

For Data Entry options, right click on the active tab.



To access the ounce to decimal conversion, right click on the weights field.. This same option is available in the Arrange and Design groups.

Convert Weight	×	Convert kg	to lb
1/4 oz	•	Convert Ib	to kg
2 oz	•		
3 oz	+		
4 oz	•	Length	Width
5 oz	•	6.0000	5.00
бoz	+		_
7 oz	×.		_
8 oz	×.		
9 oz	+	0.0000	0.00
10 oz	•		
11 oz	+	0.0000	0.00
12 oz	•	0.0000	0.00
13 oz	•		
14 oz	•		
15 oz	•	ght	

There is also a new feature for converting weights entered in metric to pounds, or vice versa. So if you know that your product weights 3.2 kilos, but don't know the pound equivalent, you can use this feature to convert it.

To deselect loading patterns on the Truck tab, right-click in the pattern selection box.

O Design - [Data Input]	
File Programs Make a new Shape Input Databases Tools Bundle Colors Add Gr	aphics Internet Help
]듦 🗅 🔄 🖬 🖶 🍜 🍽 🖻 🔟 🗘 🦉 🚰 🖓 🦓 🍎 🦄 🕴 ?? 👘	
Box Case 48x40 Pallet 2	Pallet 3 Truck
Select Truck Style	
123 Make new Truck/Container	
Truck Internal Dimensions	
Lanath Width Liniaht	
Weight Max.Weight Max.Height	
10000.0000 55000.0000 102.0000	
	T 1011 D
	I ruck Style Directory
	Select Loading Patterns
	X Simple
	IX √ Trilock
	🗆 🗸 Diagonal ed
	Spiral
Input Settings Product Name/Product Code	✓ Expanded Spiral
Select Container Type	(in/lb) 4:22 PM CAPS NUM

# Multi-Viewer Graphics Features

### Formatting your Graphics

If you are new to the Multi-Viewer, here are some tips for setting up your screen.

Select the solution you want to manipulate by using the **Solution Report** button or the arrow icons.

Using the Format Screen button, set the number of screen panels or diagrams you want to view and print.

Next, using the **Format Panel** option, set each panel to a particular type of diagram.

If you need to use the Layer Editor, use it at this point.

Use **Format Load** to alternate layers, add layer pads, etc.

Run your Truck Analysis.

Use the Format Objects option to open the case, shrink-wrap objects, etc.

Finally, use the **Review** function from the **Format** menu as a final quality check on your work.

You can now print, copy or export your diagrams.

### **Diagram Types and Views**

After you have chosen the number of diagrams, you can choose which types of diagrams you want in each panel. You then choose which view of the diagram types you want to view and print.

There are many different diagram types depending on the options and type of program you ran. All the different diagram types are listed below. If you do not see one of the diagram types in your list, then you did not select the option at input. The following is a complete list of the diagram types with available views.

Diagram Type	Diagram Views		
Pallet Load (1, 2, or 3)	Corner View	Break Load	
	Single Steps	Multi-Stack	
	Top View	Multi-Break	
	Top View (outline)	Indicators	
	Bottom View	Remove Indicators	
	Bottom View (outline)	Pallet Base Cap (upright)	
	Twin Top View	Pallet Base Cap (inverted)	
	Side Views	Remove Pallet Base Cap	
Truck	Corner View	Bottom View	
	Single Steps	Bottom View (outline)	
	Top View	Side Views	
	Top View (outline)	Multi Stack	
Pallet + Layer	Corner View	Indicators	
	Top View	Remove Indicators	
Custom Arrangement (Pallet only)	Corner View		
(only appears if you used Fill Wizard in the Pallet –	Side Views		
Rectangle/Square)	Invert Content		
Bundle 1	Corner View		
(only appears if you have specified bundles in Arrange or	Side Views		
Design)	Invert Content		
Primary Pack	Corner View	Side Views	
	Default View		

Product	Corner View	
Secondary Pack	Corner View	Pop Last Item
	Top View	Unpop Last Item
	Side Views	Rotate Content
	Default View	Invert Content

### Inverting the contents of the Secondary Pack

This option inverts the contents of the secondary package.

Using the **Invert** function in the *Diagram View* list, the product can be turned upside down.

### Customizing Materials for Top Caps, Corner Posts and Layer Pads/Trays

In the **Format Load** feature you can add Tops Caps, Corner Posts, Layer Pads, Layer Trays and Top Boards. All these options require you to enter material weights, thicknesses and heights. Entering this data every time you use the program can be a laborious process. To make this easier, we have provided three **Material Databases**, under the **Tools** menu on the Format Load screen.

	-		Logram Luna
Fo	ormat	t Load	
e	Too	ls	
		Material Database for Top Caps/La	yer Trays
		Material Database for Vertical Corr	er Posts
		Material Database for Layer Pads	M
	_		

These databases are very easy to complete. Here is an example for Tops Caps and Layer Trays.

Mate	erial Database - Top Caps/Layer Trays				×	
No.	Description	Material Thickness	Material Height	Material Weight	Include in List	Ĥ
1	123 F Flute	0.6000	6.0000	1.2800	V	
2	125 A Flute	0.1960	6.0000	1.2800	1	
3	125 B Flute	0.1100	6.0000	1.2800	1	
4	125 C Flute 26-26-26	0.1530	6.0000	1.2800	×.	
5	125 E Flute	0.0630	6.0000	1.2800	<b>1</b>	
6	200 A Flute	0.2030	6.0000	1.7900	×	
7	200 B Flute	0.1200	6.0000	1.7900	×	
8	200 Double Wall	0.3125	6.0000	2.3200	1	
9	200 E Flute	0.0770	6.0000	1.7900	<b>1</b>	_
10	275 A Flute	0.2170	6.0000	2.3200	1	
11	275 B Flute	0.1340	6.0000	2.3200	<b>1</b>	
12	275 C Flute 69-26-69	0.1730	6.0000	2.3200	<b>1</b>	
13	275 Double Wall	0.3125	6.0000	2.6400	<b>1</b>	
14	275 E Flute	0.0930	6.0000	2.3200	1	
15	350 Double Wall	0.3125	6.0000	2.9600	<b>1</b>	_
16	500 Double Wall	0.3125	6.0000	3.6800	1	
17	600 Double Wall	0.3125	6.0000	5.2000	<b>1</b>	
10	C Eluis 40 00 40	0 1000	C 0000	1 7000		
C	lose Add	Delete	Sort	Res	set	

To create your own specifications, simply click on **Add** and fill out the *Description*, *Thickness*, *Height* and *Weight* fields.

Click on **OK** and your entry will be saved in the database.

### Formatting the Objects in the Load

The many features available for formatting objects (**Format Object** button) provide a very powerful and useful way to enhance your final diagram printouts. The features available depend on which object you are dealing with. For example, you can open the flaps on a case or show the contents of a case, but you cannot show the contents of a cylindrical object. The controls for formatting objects look like this.

Show Shrink Wrap
Show Cutaway
🗖 Open flaps
Show Content
Show Case Content

#### Show Wrap

This option provides the ability to shrink-wrap an object. Here is the pallet load when shrink-wrapped.



Right-click on the show wrap field to see more options for your wrap.

ОК
Cancel

#### Show Cutaway

This removes or adds a cut away wrapping from bundle packs.



#### **Open Flaps**

This option opens or closes the flaps on a case and lifts the contents out of the case.



#### Show Contents

This removes three sides of the secondary pack to show the contents inside.



#### Show Case Content

Allows you to reveal the contents of the case on the top corner of the pallet load.



### Zoom

This menu item lets you expand the diagram in a selected panel.



### **Default Graphics View**

This option allows you to set up a default number of panels and diagram views that appear every time you run an analysis. Here is an example where we have set the screen for three panels with the pallet load, pallet layer and secondary pack as our default.

<u>V</u> iew	E <u>x</u> port	Truck	<u>T</u> ools	<u>D</u> atabases	<u>C</u> olors				
	Zoom	- 1							
	Default Graphics View								
	Set Dimension Label to								
	Show dim	ension a	around P	allet Load	F				
	Set Packa	ge Dime	nsion La	bel to					
	Review Pr	oduct N	ame/Co	de					
	Review Fu	inction			- 1				
	Set Decim	al Place	s (Dim. L	abels)	- 1				
	Reset Aler	t Screen			- +				
	Default Sc	lution R	eport		- +				
	Default Pa	allet Load	d to 90°		- 1				
	Apply Default Format Load Settings Show Dimension Labels								
	Rotate Lo	ad 90°							
	Report Ty	pe			- + 1				

. 00

The next time we run an analysis with different input data the same screen with the same diagram layout appears.

## Set Dimension Label to

This option lets you set the dimensions around the Pallet Load to either those of the **Product**, the actual **Load** dimensions or the **Product with Load Height**.



### **Right-Click Shortcuts**

The following demonstrate the right-click shortcuts available for the diagrams indicated.

#### Pallet Load



### Truck Load

	Corner View	
	Side Views	
R	Top View	
THE A	Show View at	
	Page Setup	
į,	Print Preview	
	Print	
_	Export Settings	[
	Edit User Text	
	Show Thumbnails Solution Report	
	Cape's Web Page Publisher	
, ,	Export Diagram/Report	•



### Secondary Package

	C Ob and Ocartant	
	Corner View	I
	Default View	l
	Show Content	l
	Show Shrink Wrap	l
	Invert Content	f
	Open flaps	P
	Show View at	l
	Rotate Content	
	Page Setup	
	Print Preview	
	Print	
	Export Settings	
	Edit User Text	ľ
	Show Thumbnails Solution Report	l
	Cape's Web Page Publisher	ļ
	Add Graphics	}
	Quick Wizard	
	Export Diagram/Report	l
	Lift Cover (on)	
	Lift Cover (off)	
TT	1	1

#### Bundle



#### **Primary Package**

Corner View
Default View
Show View at
Page Setup
Print Preview
Print
Export Settings
Edit User Text
Show Thumbnails Solution Report
Export to Primary Pack Database
Cape's Web Page Publisher
Add Graphics
Export Diagram/Report

# Calculation of Weights in Cape Pack

The following table describes the methods used by the program for calculation of weights.

Primary Pack (PP) figures (ID)	PP Net Weight = Input PP Net Weight PP Gross Weight = Input PP Net + Add Weight + PP material weight
Primary Pack (PP) figures (OD)	PP Net = Input PP Net Weight PP Gross = Input PP Net + Add Weight
Bundle figures	Bundle Net Weight = Gross Weight of PP x PP per bundle Bundle Gross Weight = Gross Weight of PP x PP per bundle + bundle material weights
Secondary Pack (SP) figures (no bundles)	SP Net Weight = PP Gross Weight x PP per SP SP Gross Weight = PP Gross Weight x PP per SP + SP material and divider weights
Secondary Pack (SP) figures (with Bundles)	SP Net Weight = Bundle Gross Weight x Bundles per SP SP Gross weight = Bundle Gross Weight x Bundles per SP + SP material and divider weights

Pallet figures in Pallet, Arrange and Design	Product Net Weight = SP Net Weight x SP per load Product Gross Weight = SP Gross Weight x SP per load Load Net Weight = SP Gross Weight x SP per load Load Gross Weight = SP Gross Weight x SP per load + pallet weight
Truck figures	Truck Net Weight = Gross Weight of Pallet x pallets per truck. Truck Gross Weight = Truck Net Weight + weight of truck
Product Weight in Arrange and Design (for Pack Report only)	Product weight = PP Net Weight x PP per load
Working from ID's in Arrange and Design	PP Gross Weight = PP Net + Add Weight + PP material weight

# Adding or Changing Print Languages for Reports

This feature allows you modify your printed verbiage for your reports, or create an entirely new language for use on reports. English, French, German, Spanish, Swedish and Italian languages are available.

In Multi-Viewer Graphics, click on the File menu and then Print Language Options.

File	Edit	View	Export	Truck	Tools	Database						
	Change Input Data											
	Return to Front Menu											
	Save (	Graphics	C	trl+S								
	Save (	Graphics	C	trl+A								
	WebCenter Connector Browser											
	Print Custom Report (Word)											
	Page Setup											
	Print P	Preview				- 1						
	Print S	Standaro	d Report		C	trl+P						
	Print S	Setup										
	Print l	anguag	ge Optior	ns								
	Exit											

The following screen appears.

Print Language Options				×
Default	English	Туре	Available Lar	nguages
Layer	Layer	8 Characters 🔷 🔺	English	•
Load	Load	8 Characters		
Length	Length	8 Characters 🗧		
Width	Width	8 Characters		
Height	Height	8 Characters		
Weights	Weights	8 Characters		
Net	Net	8 Characters		
Gross	Gross	8 Characters		
Volume	Volume	8 Characters		
Overhang	Overhang	8 Characters		
MD Load	MD Load	8 Characters		
Master Ld	Master L	8 Characters 🔻		
Edit Phrase				
Layer				
Close Save	Add/Remove Langua	iges		
Edit Print Language for English			4:32 PM	CAPS NUM

Select the language that you want to use for printing from the Available Languages drop down list in the upper right corner. The lists of languages will change.

Default	Deutsch	Туре		Available La	nguages	:
Layer	Lage	8 Characters		Deutsch		
Load	Ladung	8 Characters				
Length	Länge	8 Characters	=			
Width	Breite	8 Characters				
Height	Höhe	8 Characters				
Weights	Gewicht	8 Characters				
Net	Netto	8 Characters				
Gross	Brutto	8 Characters				
Volume	Volumen	8 Characters				
Overhang	Tats.Lad	8 Characters	_			
MD Load	MDA Lad.	8 Characters				
Master Ld	S. Lad.	8 Characters	Ŧ			
Edit Phrase						
Lage						
Close	ave Add/Remo	ove Languages				

You will see the default of English in the left column, followed by the Chosen Language in the middle column, and the number of characters available in the last column.

## Changing Languages Lists

To change any of the language items, simply click on the line you want to change and type over the phrase. Here is an example in English. We will change "Layer" to "Tier".

Print Language Options									
Default	English	Туре	Available Languages						
Layer	Tier	8 Characters 🔷 🔺	English	-					
Load	Load	8 Characters							
Length	Length	8 Characters 🗧							
Width	Width	8 Characters							
Height	Height	8 Characters							
Weights	Weights	8 Characters							
Net	Net	8 Characters							
Gross	Gross	8 Characters							
Volume	Volume	8 Characters							
Overhang	Overhang	8 Characters							
MD Load	MD Load	8 Characters							
Master Ld	Master L	8 Characters 🔹							
Edit Phrase									
Tier									
Close Save	Add/Bemove Langua	anes							
Edit Print Language for English			4:32 PM CAPS	NUM					

After you have made all your changes click on **Save**. And then click on **Close** to exist the Print Language Option screen.

Here is Print Preview with our changes.

O Print Preview - Cape Standard Report												
Zoom		1 Laure						1				
100%	▼ Exp	oort 🖌	( <b>)</b>	1 of 1	<u>C</u> lose		Print	Draft	t	Fast Print	Annotation	
-					Sa	turda	v, Se	ptember	r 17,	2016		-
Product Name		Arrange	Group - C	vlinders	,			•				
Product Code												
Datafile Name (9/17/2016)												
Load Ref.		1 I			16	Cyl	inder/	/Cone / (	Case			
Cube Used		81.3 %			640	Cyl	inder/	/Cone / I	Load			
Area Used		83.8 %			8			Case / 1	Tier		_	-11
Pallet type		48X40			5			Tier / I	Load			
					40			Case / I	Load			
Truck Ref.		1 C			2400			Case / S	53foo	ter		
Truck Area U	sed	94.3 %			60			Load / S	53foo	ter		
Truck Cube U	sed	90.1 %			38400	Cyl	inder/	/Cone / S	53foo	ter		
	Length	Width	Height		Net	Gross		Volume				
Cylinder(OD)	4.000	4.000	6.000	in 1.	000	1.000	lb	0.04	cuft			
Case (OD)	16.320	12.320	8.640	in 16.	000 1	6.934	lb	1.01	cuft			
Product	44.960	36.960	43.200	in 640.	000 67	7.360	lb	41.54	cuft			
Load	48.000	40.000	48.700	in 677.	360 72	7.360	lb	54.11	cuft			
Product	600.000	96.000	97.400	in 4064	1.1 43	641.1	lb	3246.67	cuft			
53footer	636.000	96.000	102.000	in 4364	1.1 53	641.1	lb	3604.00	cuft			
							_	$\sim$				
			_			/				_		
										_		
			Sattle				_					
		<u> </u>										-
•											۲.	

# Creating a New Language for Printing

Cape Pack is capable of storing the printed labels and text for up to ten languages. In addition to the six provided, you have the ability to create four additional languages. To create a new language, you simply define what each of the "labels" should say.

In the Print Language Options screen, click on the **Add/Remove Languages** button at the bottom.

Print Language Options					×
Default	English	Туре	wailable Lan	guages	
Layer	Layer	8 Characters 📃 🔺	English		•
Load	Load	8 Characters			
Length	Length	8 Characters 🗧			
Width	Width	8 Characters			
Height	Height	8 Characters			
Weights	Weights	8 Characters			
Net	Net	8 Characters			
Gross	Gross	8 Characters			
Volume	Volume	8 Characters			
Overhang	Overhang	8 Characters			
MD Load	MD Load	8 Characters			
Master Ld	Master L	8 Characters 🔻			
Edit Phrase					
Layer					
Close Saus	Add/Romous Longus				
		iges			
Edit Print Language for English	4:34 PM	CAPS	NUM		

The following will appear.

Language	Show (on/off)
English	
Français	×
Deutsch	M
Español	<b>1</b>
Svenska	<b>V</b>
Italiano	<b>1</b>

Add your new language (ours is Lingo) at the bottom of the list and click the **Show** column.

0	Available Language	s 💌
	Language	Show (on/off)
	English	
	Français	
	Deutsch	
	Español	
	Svenska	
	Italiano	
	Lingo	
	ок	Cancel

Click **OK**, then select your language from the list of available languages.
Print Language Options	~~~~~	Th	xaduat Width 40
· · · · · · · · · · · · · · · · · · ·			
Default	English	Туре	Available Languages
Layer	Layer	8 Characters 🛛 🔺	English 💌
Load	Load	8 Characters	English
Length	Length	8 Characters 🛛 🗏	Deutsch
Width	Width	8 Characters	Español Svonska
Height	Height	8 Characters	Italiano
Weights	Weights	8 Characters	Lingo
Net	Net	8 Characters	
Gross	Gross	8 Characters	
Volume	Volume	8 Characters	
Overhang	Overhang	8 Characters	
MD Load	MD Load	8 Characters	
Master Ld	Master L	8 Characters 🔻	
Edit Phrase			
Layer			
Close Save	Add/Remove Langua	iges	
Edit Print Language for English			4:35 PM CAPS NUM

Type in the terms you want to use for your language. You must enter something for each line in the language.

	Lingo	Туре	A	vailable Lan	guages
Layer	Tier	8 Characters	🔺 📙 Li	ngo	
Load	Total	8 Characters			
Length	Longness	8 Characters	E		
Width	Wideness	8 Characters			
Height	Tallness	8 Characters			
Weights	Density	8 Characters			
Net	Smaller	8 Characters			
Gross	Larger	8 Characters			
Volume	Cuft	8 Characters			
Overhang	Overage	8 Characters			
MD Load	MD Load	8 Characters			
Master Ld	Master	8 Characters	Ŧ		

After you have created your language, select it in Page Setup as your Print Language.

Page Setup	Page Split	User Text	User Fields	)	
ligo ookap		1	1		
Copies	Left Margin (in)	Top Margin (i	n) Print Lange	Jage Pi	rint Quality
· ·	0.0000	0.0000	English	I ^P	resentation
Color	Cape Report Font	Report Type	Français		
Color 🗾	Courier New	Standard	<ul> <li>Deutsch</li> <li>Español</li> </ul>		
Show Logo	Logo Width (in)	c:\cape16\image	es\Cape_Pack_Svenska		
-	5.0000	]	Lingo		
🗙 Show Header	🗆 Show Overl	hang [	Driver fix	× Show	Product
Skip Driver Copies	🕱 Speed Print	: ſ	Actual Net Weight	🗆 Show	Legend
🕱 Update Export Settin	gs 🕱 Show User	Text	Show Package ID	🗙 Show	Cube
Show Column Mappin	ig				
-Show One-Line Text/9	ystem Date				
🔘 No Text	<ul> <li>Date</li> </ul>	О T	ext		
,					

Here is your language being used in Print Preview.



# Adding Graphics With 3D Imaging

# Introduction

The 3D Imaging Program allows you to transfer scanned images or artwork files onto the surface of the packaging components in Cape Pack programs. This provides a very high level of "visual reality" and brings your packaging to life!

You can work with boxes, cases, trays, cans, bottles, bags, cones, trapezoids, ovals, gable-ended packages and many more.

The idea behind the 3D Imaging Program is to transfer scanned images or artwork files to the surfaces of the packaging components that are already available within Cape Pack or are created using the Make a new Shape feature. The combination is remarkable!



To start the program:

From the Multi-Viewer Graphics screens: In this mode you can work with the current file and objects. You can create or add graphics.

From the input screens: In this mode you can only add graphics to the current file.

Regardless of where you start the program, to create a 3D Imaging file (*.3DI), you must run a Cape Pack analysis and save the resulting Cape Load File. This provides the file structure necessary for a 3D Imaging file to recognize the shapes and types of packaging components used in a particular analysis. Once created, 3D Imaging files can be used with different load files.

# Graphic File Types

Image files (source files) that contain "flat" graphics can come from a wide variety of programs and different sources. They can also be saved in many different file formats. They can be artwork files that have been converted to another format or they can be scanned images that have been saved to a file format.

The following table lists some of the file formats (256 color) that can be imported into the 3D Imaging Program.

File Format	File Extensions	Notes
Windows &OS/2 Bitmap	BMP	Windows independent Bitmap
CALS Raster	CAL	A 1-bit standard set by the US government
LEAD	CMP	LEAD Technologies' own compressed format

Postscript Raster	EPS	Encapsulated PostScript
GEM Image	IMG	
JPEG	JPG JEF JTF	Includes SPEG File interchange Format and Tagged Interchange Format which are industry standards
MacPaint	MAC	
Microsoft Paint	MSP	A Windows Version 2.0 Format
PhotoCD	PCD	A Kodak Format
Macintosh Pict	PCT	
PC Paintbrush	PCX	ZSoft Format
SUN Raster	RAS	
Truevision	TGA	
Tagged Image File	TIF	High Quality file format
WordPerfect Graphic	WPG	

# Image Sizes

It is important to understand that the size of the image being used must relate to the size of the object onto which you are going to place the image.

Imagine if you scanned a postage stamp and tried to put it onto a panel of a case measuring 16 x 12 inches. The image would have to be stretched so much that the result would be distorted and very grainy and you would probably find it unacceptable.

Here is an example of a small Cape logo put onto the side of a case as label.



Here is the same size logo use on the entire side panel of the case.



As you can see, the logo is now distorted and will appear very grainy. For best results, make sure the image is the right size for the package you want to use.

# Types of 3D Imaging Wizards

There are two types of 3D Imaging Wizards.

The new Quick Wizard lets you quickly and easily design graphics for cases. In this wizard, you will be able to apply graphics to the entire side of cases, trays and cartons only.

Standard Wizard allows you to create more customized graphic imaging files for any type of packaging in Cape Pack. This wizard allows you to use the masking and transparency features as well as design labels for bottles.

Once created, the 3DI files will be added to the list of graphics and can be added to any package of the same basic shape.

### **Quick Wizard**

Here is an example of creating a 3DI file for a case using the Quick Wizard.

First select the Add Graphics menu, and then click on Quick Wizard.



The following screen Quick Wizard appears.

Quick Wizard	
<u>Eile</u> <u>H</u> elp	
Showing: View 1 (0')	Select face(s) to add Image
	Add Image to all faces
	Open New Image Add Image Save and Exit Cancel
Accept changes and apply to Multi-viewer graphics screen	(in/lb) 2:55 PM CAPS NUM

The screen shows you a 3D view of the case at 0 degrees and scroll buttons to change the view. Beneath that picture are pictures depicting sides A through F of the case with labels to indicate where they are positioned on the case. This screen has very limited controls.

Select face(s) to add Image: this drop down list lets you select the face or side of the case that you want the image to appear on.

Add Image to all faces	-
Add Image to all faces	~
Add Image to front view faces (A,B,C)	
Add Image to back view faces (D,E,C)	
Add Image to face A	
Add Image to face B	
Add Image to face C	
Add Image to face D	
Add Image to face E	~

Open New Image: allows you to browse to find the graphic file you want to use.

Add Image: places the graphics file on the panel(s) you selected from the drop down box.

Save and Exit prompts you for a name to save your new 3DI file and exits you back to Multi-Viewer Graphics.

Let's add an image to **Face** A.

Select **Face A** from the drop down list.

Click on **Open New Image** and select a graphic to use.

Quick Wizard	
Eie Help	
Showing: View 1 (0')	Select face(s) to add Image Add Image Add Image Gpen New Image Add Image Save and Exit Cancel
Open a new Image	(in/lb) 2:55 PM CAPS NUM

Click on **Add Image**. Your image is added to the top of the case.

Quick Wizard	
Eie Help	
Showing: View 1 (0*)	Select face(s) to add Image
	Add Image to face A   Open New Image Add Image Save and Exit Cancel
Add Image to object	(in/lb) 2:55 PM CAPS NUM

Complete this process with as many sides of the case as you wish, and then click on **Save and Exit**. You will be prompted for a file name. Enter a name and click on save.

When you return to Multi-Viewer Graphics, your new 3DI file has been applied to the case.



You will also find it in the drop down list under Add Graphics, Add Graphics.



# Standard Wizard

Here is an example of creating a 3DI file for a case.

First select the Add Graphics menu, and then click on Standard Wizard.



The **Choose a package** screen will appear.

Choose a packa	ge	
Packages	3D1s	Package Preview
Case Case Cylinder/Drum		
		OK Cancel

This screen allows you to select which package type you want to work with. In our example, we have only a case or a truck to choose from. Click on **Case** and then on **OK**. You will then see the following screen.

💞 3dicap.clf - 3DImage				
<u> Eile V</u> iew <u>P</u> ackage <u>3</u> DI <u>I</u> mage <u>H</u> elp				
🕘 🛛 O° Corner 🔻	🖻 ⊾ 🛛	100% 💌		
For Help, press F1		3DI:	Image:	1

You will see the case in the top left corner panel. Now select **3DI** from the menu bar and Click on **New** as we are creating a new graphic file.

💞 3dicap.clf - 3DImage		
<u>E</u> ile <u>V</u> iew <u>P</u> ackage <u>3</u> DI <u>I</u> mage <u>H</u> elp		
🖨 🛛 O° Corner 🔻	🖻 📐 100% 🔽 🛄 🕮	
For Help, press F1	3DI: test.3di Imag	je: //

A Save As dialog box appears. Enter a file name (TEST) and click on Save.

You will see a line drawing of your case in the top left corner and the flat-blank of the case in the bottom left of the screen. Creating a 3DI file for a case means putting an image on one or more of the panels and then creating the 3D shape.

To begin we must locate the images we have for the surfaces of this case. We have provided some bitmaps for you in the **Tutor** folder. These bitmaps are called Capea25.bmp, Capeb25.BMP ...... Capef25.BMP. The letter a, b, c, d, e, and f after the name Cape, represents each of the six panels of the case.

Select the **3DI** menu and then select **Panel Names.** The following diagram appears to show you which panel is which. All you have to do is match the Capea25.BMP to the panel A, and so on.



Select the **Image** menu and then select **Open.** A File Open dialog box appears.

Select the **Images** folder and scroll down/across the contents of the **Faces** folder, and then find the file **Capea25.bmp**. Double-click on this file and the following screen will appear.

💞 3dicap.clf - 3DImage		
<u>Eile V</u> iew <u>P</u> ackage <u>3</u> DI <u>I</u> mage <u>H</u> elp		
🖨 🛛 O° Corner 💌	🖻 🕒 100% 🔹 🔲 🛎	1
	<b>A</b>	
For Help, press F1	3DI: test.3di	Image: capea25.bmp

Now click on panel **A** (the panel marked A in the lower left corner of the screen).



You will see that all the panels **except panel A** are grayed out. This identifies where the image will be placed. Now select the camera on the tool bar. It will display a message saying **Snapshot**.

Click on the camera.

💞 3dicap.clf - 3DImage		
<u>File View Package 3</u> DI <u>I</u> mage <u>H</u> elp		
🕘 0° Corner 🔻	🖻 ៤ 100% 🔹 🗖 🛱	
		<u>`</u>
E D C B		
For Help, press F1	3DI: test.3di Image: d	apea25.bmp

The image for panel A appears on the flat-blank and on the top of the 3D case. Now repeat this procedure for panel B.

Click on panel **B**. Then select the **Image** menu, and **Open**.

Select the Images directory, faces and click on **Capeb25.BMP**. Click on the **Open** button.



Click on the camera.



Now repeat this procedure for panels **C**, **D**, **E** and **F**. Your completed case should look like this.

Double-click on the white area around the flat-blank. All the "gray" panels on your screen become brighter.



To see your case in greater detail, click on the View menu and then select Maximize Package.



All we have to do now is save the case with the images on each panel. Select the **3DI** menu and then choose **Save**.

Remember, we already selected a file name when we entered the program. So now the file has been saved as TEST.3DI. This file can now be used with a case or rectangular object in Pallet, Arrange, Design or Casefill programs.

To leave the program, select the **File** menu and then choose **Exit**.

In some circumstances you will be prompted to save the 3DI file with your CLF file. If you select **Yes**, this will attach the files together. If you select **No**, the 3DI file will be saved to the specified folder without being attached to the CLF.

### Using 3D Image Files

Having created our TEST.3DI file, let's use it in a Arrange Group analysis.

Launch the Arrange Group for Cartons program and calculate a solution.

Click on the picture of the case.

Now select the Add Graphics menu and then choose Add 3D Graphics.



You will see this screen. Select the **Test.3DI** file that you saved.

Add Graphics		<b>×</b>
Available Graphics	Preview	
DO NOT FREEZE.3DI DO NOT ROLL.3DI DO NOT STACK.3DI DO NOT TILT.3DI DO NOT TILT.3DI DO NOT TUMBLE.3DI ESKO.3DI EXPLOSIVES.3DI FLAMMABLE GAS.3DI FLAMMABLE SOLID.3DI FLAMMABLE SOLID.3DI FOTO.3DI		ESKOG
		OK Cancel

#### Click on **OK**.



## Labeling Bottles

Create a bottle in the Make a New Shape feature, run an Arrange (Cylinders) analysis using that bottle.

Go to the Multi-Viewer and then select **Create Graphics** from the **Add Graphics** menu.

Highlight **Bottle** in the list.



Click on **OK** and the 3D Imaging program will open.

Now select  $\ensuremath{\text{New}}$  from the  $\ensuremath{\text{3DI}}$  menu

The Save As dialog box appears. Give your image a file name (NewBott.3DI) and click on Save.

Now select the **3DI** menu and choose **Default Fill Color**.



Select a color and click on **OK**.

Be careful when selecting your Default Fill Color. Make sure that **Color** you select and the **Solid** color are compatible. Some dark colors can become a solid black and some light colors can become a solid white.

Now select the **Image** menu and then **Open**.

Select the folder and image you want to use. We are using the Cape1.BMP from the PACK99 folder. The image will appear in the right hand box of the screen.



Click on the flat bottle in the bottom left panel, and the small circles (top and bottom of the bottle) change to a darker color.



Now select the **Image** menu and choose **Mask**.



The right screen panel will turn gray and a white outline of the bottle will appear around your image.

You can resize the white bottle by grabbing the corners or you can move it by clicking on the bottle and dragging it. You cannot move the image. However, you can resize it with the zoom drop-down box.

Resize the image to **50%** and then reposition the bottle panel as shown.



Now click on the camera to Snapshot the image to the bottle.



Now let's add a blue cap to the bottle. To add a cap or neck label we need to avoid moving or affecting the body label already on the bottle.

Select the **Image** menu and choose **Transparency**.

Resize the bottle so that the image fits into the neck of the bottle. Resize the image if necessary.



Once you are satisfied with the location of the neck label click on the camera to Snapshot the label to the bottle.



Now do the same for the top of the cap.

Double-click in the white area of the flat black panel to lighten the pictures.



Select Save from the 3DI menu.

Select **Exit** from the **File** menu.

Your 3D Image can then be used in the Cape Pack programs on any cylindrical object.

In Multi-Viewer Graphics, select the **Add Graphics** menu and then **Add 3D Graphics**. Select your NewBott 3dimage file and apply it to the bottle.

### Menu Options

The menu options of the 3D Imaging program provide a vehicle for you to easily switch between the different features and settings, as well as to perform different tasks. The following table describes the options found on the menus.

Menu	Option	Description
File	Open	Display a File Open dialog box allowing you to open a CLF.
	Save	Saves the current CLF with any associated 3DI files.
	Save As	Saves the existing CLF with a new name.
	Print	Generates a standard 3D Imaging Report showing the 3D image of the current package from all 10 alternate view angles, and a diagram of the Image Wrap from the current 3DI file.
	Print Preview	Displays a screen image of the standard 3D Imaging Report.
	Print Setup	Allows you to change your printer settings.
	List of Previous CLFs	Listing of the last four CLFs opened in the program. Clicking on any of these files will open it for your use.
	Exit	Exits the 3D Imaging program.
Edit	Undo	Allows you to back up one step and undo selected operations. This feature is not yet available in version 1.0 of the 3D Imaging Program.
View	Standard	Shows the program main screen with the package window, ImageWrap window and the source image window.
	Maximize Package	Shows an enlarged version of the package.
	Maximize 3DI	Shows an enlarged version of the ImageWrap Window.
	Maximize Image	Shows an enlarged version of the source image Window
	Summary Information	Provides information about the file names, folders, sizes for the current CLF, 3DI file and source image file.
	Toolbar	Turns the toolbar on or off.
	Status Bar	Turns the status bar on or off.
Package	Choose	Allows you to select an available package from the CLF.
	0° Corner	A view of the package as if the viewer was above, in front and to the left of it.
	90°	A view of the package as if the viewer was above, in front and to the left of it.
	180°	A view of the package as if the viewer was above, behind and to the right of it.
	270°	A view of the package as if the viewer was above, in front and to the right of it.
	Side 1	A view from the front of side 1 of the package.
	Side 2	A view from the front of side 2 of the package.
	Side 3	A view from the front of side 3 of the package.
	Side 4	A view from the front of side 4 of the package.
	Тор	A top-down view of the package.
	Bottom	A bottom up view from the package.
3DI	New	Creates a new 3DI file.
	Open	Opens existing 3DI file.
	Save	Saves the current 3DI file to the Images folder of your program.
	Save As	Saves the 3DI file to the 3DI folder with a new filename.
	Clear	Clears all the images from the active 3DI ImageWrap.
	Remove	Removes the association between the active 3DI file and the active package. It does not modify or change the last saved version of the 3DI file.
	Load Bitmap Series	Automatically loads a series of Bitmap images that have been saved for all panels of the 3DI ImageWrap.
	Panel Names	Panel names are used to identify each panel in the ImageWrap. When they are tuned on, they show up as "letter labels" in all panels that do not have an image assigned.
	Edit Inside Panels	Allows you to assign images to the inside panels of a package. The inside panels of a package are automatically set to default fill color.
	Default Fill Color	Allows you to set a default fill color for the currently activated panel.

	Current Panel - Fill Color	Allows you to select a fill color for the current panel, you need to toggle this selection in order to activate the fill color.
	Current Panel - Clear	Clears the panel of the image in that panel.
Image	Acquire	Activates the scanning process for the scanner attached to your machine so that you may import a source image from that device.
	Open	Opens a source image file of your choice.
	Get from Current Panel	Captures the current panel in the 3DI ImageWrap window and loads it into the source image window.
	Save	Saves the contents of the source image windows to the file it was originally imported from.
	Mask	Activates the Masking option.
	Snapshot	Sends the image or masked image to the current panel in the ImageWrap window.
	Flip Vertically	Flips the image in the source image window vertically.
	Transparency	This is a toggle feature that allows you to "protect" an image that has been applied to a part of the panel so that additional images can be applied to other parts of the same panel.
	Flip Horizontally	Flips the image in the source image window horizontally.
	Rotate 90°	Rotates the image in the source image windows 90° clockwise.
	Zoom	Allows you to "zoom in" on the source image by the percentage chosen from the submenu.
	Сору	Copies the contents of the source image window to the Windows Clipboard.
	Paste	Pastes the contents of the Windows Clipboard into the source image window.
Help	Index	Launches the 3DI help feature.
	Using Help	Assists you in navigating through the Help feature.
	About 3D Image	Lists information about your version of the 3D Imaging program.

# Using Image Files

There are three basic methods of importing a source image into the 3D Imaging Program. Once imported, some or all of that image can be applied to one or more of the ImageWrap panels of the package.

### Use an existing Graphics File

Use the **Open** option on the **Image** menu to open an existing graphics file that you want to include on your package.

## Use a Screen Capture Program

Use a standard graphics program such as Paintbrush, Corel Draw, Quark Express, etc., to display the image on your screen. Then you can use a screen capture utility such as Paint Shop Pro or Hijack to capture the portion of screen that contains the desired source image. Save the result in one of the acceptable graphics formats (Bitmap, PCX or TIF). Once saved, you can import the graphics into the 3D Imaging Program.

#### Use a Scanner

Use a standard scanning device connected to your PC to capture a source image directly into the 3D Imaging program. This procedure requires that:

- You have a printed page with the desired source image.
- You have an actual printed flat-blank with your package's artwork.
- You can place one or more sides of the package directly on the scanner to capture the desired source image.

Use the **Acquire** option on the **Image** menu to start the scanning process. Your scanner has a dialog box that you can use to control the scanning process. Refer to the user's manual of your scanner for specified instructions on the required options and settings needed.

# Size and Resolution of Graphics Files

Graphics files come in all sizes and in a wide variety of resolutions. These characteristics are determined at the time they are created. They can be high resolution, have large color depths, and be quite large.

If you have worked with the graphics in other applications, you know that it takes a very fast PC or a long processing time for every editing or printing operation you may want to perform using graphics. There are many millions of calculations and read/writes to be accomplished when working with very large graphics files.

However, Cape Pack is only designed to handle a reasonable representation of the 3D Image. In addition, the packages are usually depicted as small objects in the context of a bigger package, pallet load, truck, etc. Thus, a 3DI file does not need to maintain the high resolution and color depth frequently found in original packaging artwork images. The 3D Imaging Program will automatically reduce the color depth to 256 colors and will sometimes reduce the resolution of the image to a more manageable size.

This compromise is needed in order to reduce the processing time. If the original color depth and resolution were maintained, the processing time would quickly exceed your patience in moving from one analysis step to the next.

Remember, the purpose of the 3D Imaging program is to provide realistic shapes of packages and their associated images. It is not intended to provide artwork quality or detail and it is not intended to be a high-end CAD program. It is meant to provide good, useable images in a realistic time frame on a standard Windows PC.

# 3DI ImageWrap Panel - Masking Techniques

The portion of the source image contained inside of the mask is transferred to the current ImageWrap panel during the snapshot operation.



Notice that the mask has been moved from its original position centered on the source image. Sometimes it is also necessary to resize the mask.

### Moving the Mask

A

When your mouse cursor is inside the mask, it turns into a 4-pointed arrow.

Click your left mouse button and drag the mask to any point in the source image window. When you release the mouse button, the mask will be in its new position.

If you drag the mask off the screen or outside of the image window, the mask may disappear. To get it back, simply select the panel of your choice in the 3DI ImageWrap window and click on the mask button on the toolbar.

#### Resizing the Mask

When your mouse cursor is on the corner of the mask, it turns into a 2-pointed arrow.

Click on your left mouse button and drag the mouse in one of the directions of the arrow. This will make the mask either larger or smaller depending on which direction you moved. When you release the mouse button, the mask will be resized as specified.

The diagram below shows the results of moving and re-sizing the mask. Notice that the portion of the source image contained inside of the mask is transferred to the current ImageWrap panel.



Remember that when the mask is not turned on, the entire contents of the source image is warped to fit the current panel.

# **Composite Images**

Sometimes it is necessary to combine several source images onto one ImageWrap panel. Examples of situations where this may be necessary include:

- Two different labels that need to be placed on the side of a bottle.
- Two different source images representing the two flaps on the top panel of a box.
- Adding a company logo to a panel that already has an image on it.
- Adding a texture image first that covers the entire panel, such as corrugated texture, and then adding a smaller label image in the center of the panel.

Here is a label image that needs to be split in two and reversed before applying to a can.



To reverse the front and back images first use **Clear** option on the **3DI** menu to clear the contents of the 3DI file and the ImageWrap panels, but retain the package and the source image.



Select the side panel and position the left portion of the mask over the back portion of the image and click on the Snapshot button. You will then see the following results.



Notice that only the back portion of the image was transferred to the panel.

Select **Transparency** from the **Image** menu. This needs to be done so that the next time we Snapshot an image to the right side of the ImageWrap panel, the image that we have already copied will not be overwritten with the default fill color.

Finally, select the side panel once again, but this time, position the right portion of the mask over the Front portion of the image and click on the **Snapshot** button.



This example is meant to show you the basic method of placing multiple images onto one ImageWrap panel. Although we took both of our images from the same source image, it would have been possible to use portions of images from several different sources.

# Pallet Audit

### Introduction

The Pallet Audit module offers a very powerful and easy way to evaluate the benefits of

- Considering the pallet loading efficiency of an existing range of case sizes on up to four different pallet sizes.
- Potential or proposed case sizes, as additions, within an existing product range or overall product mix.
- Changing your palletizing loading parameters (e.g. adding overhang, reducing overhang, changing pallet size etc.)
- Marginal changes to existing case sizes to improve overall palletizing efficiency.
- Pallet loading improvements that might be obtained by using better or Industry Standard pallet sizes.

Pallet Audit has been designed to allow the user to enter very simple input information so the program can create a database of ALL possible 2 dimensional Case Footprint sizes (length and width dimension only), for ALL Cape's pallet patterns, on up to four different pallet sizes. While the database can take several hours to complete the potential millions of calculations that might be involved - it can often be time well spent.

The completed Audit Database contains a wealth of information at a glance. In addition, it can be exported for use in other applications.

# **Getting Started**

From the Front Menu of Cape Pack, click on the Programs menu, Other Programs and Audit.



Your program will open and you will see the following screen.

O Audit - [Data Input] File Help				, • 🔀
Analysis Definition Pallet 1	Pallet 2	Pallet 3	Pallet 4	
Title	Number of Palletizing C	Criteria -	Units of Measur C mm/kg € in/lb	9
Minimum Case Footprint Dimension 0.0000	Maximum Case Footpri 0.0000	nt Dimension		
Review Audit Database	Save/Ca	ılc.		

On this screen you have 2 options. You can either create a new database or review an existing one. We will start by creating a new database.

#### Creating a New Database

The example we will create will show us how different case footprints (case length and width dimensions) palletize on two different pallet sizes. Each of these pallet sizes will be specified in a set of Palletising Criteria. Once the calculations have been completed and the Audit Database has been created, we will be able to see how well certain Case Footprints palletize, under both criteria.

#### Analysis Definition

On the Analysis Definition tab we need to specify basic information. Fill in the following data items.

Enter Audit Training in the *Title* field.

Select **2** from the drop down list in the *Number of Palletizing Criteria* field. When you do this, the second Criteria tab will activate.

Select **In/Lb** from the *Units of Measure* box.

Enter **8.00** in the Minimum Case Footprint field. This is the smallest case length or width that we want to consider.

Enter **24.00** in the Maximum Case Footprint field. This is the largest case length or width that we want to consider. Your finished definition will look like this.

Audit (Data Jacut)						
Vaudit - [Data Input]						
	10-11-10	10-11-12		10-	U - 1 - 4	
Analysis Definition	Pallet 2	Pallet 3		Pa	llet 4	
Title	Number of Palle	etizing Criteria		Units of I	Vleasure	
Audit Training	2		•	O mm/k	g	
	] )-			onym 👻		
Minimum Case Footprint Dimension	Maximum Case	Footprint Dimen	sion			
8	24					
Review Audit Database	5	Save/Calc.				
Maximum Case Footprint that either the Length or	Width can attain		(in/lb)	2:58 PM	CAPS	NUM

These parameters will give us the smallest case size of 8" x 8" and the largest case size of 24" x 24". The program will calculate incremental increases in the case sizes for every  $1/16^{th}$  inch. So the first case size will be 8x8, the second will be 8.0625x8. This process will continue in  $1/16^{th}$  inch increments up to 24x24.

Next we need to complete our palletizing criteria.

#### Pallet Criteria

We have 2 palletizing critera, one for each of our different pallet sizes that we want to use. The first screen looks like this.

O Audit - [Data Input]						
<u>File</u> <u>H</u> elp						
Analysis Definition Pallet 1	Pallet 2	Pallet 3		Pal	llet 4	
Criteria Name						
Criteria Description	Pallet #1					
Pallet Dimensions						
Select	Pallet	•				
	Length	Width				
Pallet Dimensions	0.0000	0.0000				
Maximum Overhang	0.0000	0.0000				
Minimum Load	0.0000	0.0000				
Minimum Area Efficiency		0				
			Dallot D	attorne To	Bolleo	d
					De Ose	u 🛛
Clamp Bequired				nek		
- clamp (colored				J.		
Clamp In Length						
Clamp In Width			× Spira			
Maximum Offset 0	0000		× Diago	onal		
Minimum Contact 0	0000		× Expa	nded Spira	1	
Dimension Specifications For Pallet 1			(in/lb)	2:58 PM	CAPS	NUM

Fill in the information according to the following.

Enter **US Pallet** for the *Criteria Name*.

Enter Standard US GMA Pallet for the *Criteria Description*.

Select **48x40.pa4** as the pallet base style to use from the *Pallet Dimensions* drop down list. The pallet dimensions will fill in for you.

Overhang is the amount that the load on the pallet can extend past the edges of the pallet. For the *Maximum Overhang*, leave both the *Length* and *Width* at **zero**. We do not want to consider overhang for this database.

The *Minimum Load* is the smallest footprint that you want to consider for your pallet load. For the *Minimum Load*, leave both the *Length* and *Width* at **zero**.

The *Minimum Area Efficiency* is the smallest percentage of pallet space that will create an acceptable load. Leave the *Minimum Area Efficiency* at **zero** as well.

We are not using *Clamp Trucks* so that bock can remain unchecked.

Leave all the *Pallet Pattern Types to be Used* turned on. Your completed Criteria screen should look like the following.

O Audit - [Data Input]						• 💌
Analysis Definition 48x40	Pallet 2	Pallet 3		Pa	llet 4	
Criteria Name	US Pallet					
Criteria Description	Standard US GMA Pa	llet				
Pallet Dimensions						
48X40.PA4 48x40 US	GMA 4-Way Pallet	<b></b>				
	Length	Width			5	
Pallet Dimensions	48.0000	40.0000	R			
Maximum Overhang	0.0000	0.0000				
Minimum Load	0.0000	0.0000				
Minimum Area Efficiency		0				
		-	Pallet Pa	atterns To	Be Use	d
			× Colum	in		
Clamp Required			🗵 Interio	ck		
Clamp In Length			🗵 Triloc	k		
Clamp In Width	-		🗷 Spiral			
Maximum Offset	10		🗵 Diago	nal		
Minimum Contact 0.00			🗵 Expan	ided Spira	վ	
0.00						
Pallet Name Used for Palletisation of this	Criteria		(in/lb)	2:59 PM	CAPS	NUM

Let's move to the second criteria tab and fill it in.

🕓 Audit - [Data Input]						• 🗙
<u>F</u> ile <u>H</u> elp						
🚋 🗁 🖬 📙						
Analysis Definition 48x40	Pallet 2	Pallet :	3	Pε	allet 4	
Criteria Name				`		
Criteria Description	Pallet #2					
Pallet Dimensions						
Select Pa	llet	-				
	Length	Width				
Pallet Dimensions	0.0000	0.0000				
Maximum Overhang	0.0000	0.0000				
Minimum Load	0.0000	0.0000				
Minimum Area Efficiency						
			Pallet P	atterns To	Be Use	d
			Colun	nn		
Clamp Required			🗵 Interle	ock		
Clamp In Length			▼ Triloc	ck		
Clamp In Width			🗵 Spira	d		
Maximum Offset 0.00	00		🗵 Diago	onal		
Minimum Contact 0.00	00		🛛 Expa	nded Spira	al	
Dimension Specifications For Pallet 2			(in/lb)	2:59 PM	CAPS	NUM

Enter **Euro Pallet** for the *Criteria Name*.

#### Enter Standard European Pallet for the Criteria Description.

Select **Euro1.pa4** as the pallet base style to use from the *Pallet Dimensions* drop down list. The pallet dimensions will fill in for you.

Leave all the rest of the criteria fields as they are. Your completed screen should look like this.

O Audit - [Data Input]					• 🔀
<u>File</u> <u>H</u> elp					
book 🗁 🖬 📙					
Analysis Definition 48x40	euro1	Pallet 3		Pallet 4	
Criteria Name	Euro Pallet				
Criteria Description	Standard Europea	n Pallet			
Pallet Dimensions					
EUR01.PA4 Europalle	et 1200x800x145	<b>•</b>			
	Length	Width			
Pallet Dimensions	47.2441	31.4961			
Maximum Overhang	0.0000	0.0000	~~**		
Minimum Load	0.0000	0.0000			
Minimum Area Efficiency					
			Pallet P	atterns To Be Use	d
			🗙 Colur	nn	
Clamp Required			V Interl	ock	
Clamp In Length			× I riloc	ck	
Clamp In Width			🗵 Spira	d	
Maximum Offset 0.00	000		🗵 Diago	onal	
Minimum Contact 0.00	100		🕱 Expa	nded Spiral	
	,00				
Any Solutions Bolow this Area Efficiency	will be Discarded		(in/lb)		NUM
Any boldions below this Area Elliciency	will be Disculted		(00/00)	S.OOT WILL CAPS	

Our data entry is completed and we are ready to build our database.

#### **Calculating Results**

Calculating the results of the database could take some time depending your criteria and case dimensions. Remember that the program will calculate every case size in 1/16" increments from the smallest dimension to the largest selected.

Click on the Analysis Definition tab.

At the bottom of this tab you will see a **Save/Calc**. button. You can click on that, the diskette button in the tool bar or use the File menu to save and calculate your database.

Whichever method you choose, you will see this PreCalculation Status screen informing you of how many case sizes will be generated.



Click **OK** and you will be prompted for a file name.

Enter **Audit Training** as a file name and click on **Save**. The calculation process will start and you will see a progress screen.

Calculating Solutions for Database :	audit training.mdb
Pallet (1 of 2): 48×40	Case 13.688 × 10.125
4221 of 3	33153
Cancel	Stop

When your database is complete, you will see the Solution Report screen with your results.

le Edit loc	ols Help								
	<b>M</b>			1000	~		You	4	
Criteria 2			Uniteria	J		Crite	ria 4		
Page 01 of	166								
Criteria Name			AUDIT	Databas	е		Maximum Product Height		
JS Pallet			audit tra	aining.mo	db		0.0000		
riteria Des	cription		Title						
Standard U	S GMA Pallet		Audit T	raining					
			Le	Length Width					
8X40 Dim	ensions		48.0000	48.0000 40.0000		1			
verhang A	llowed		0.0000		0.0000				
linimum Lo	ad Dimensions		0.0000		0.0000				
Rec. No.	Footprint Length	Footprint Width	с	1	т	S	D	×	Area Eff.%
1	8.0000	8.0000	30	30	30	30	25	30	100.00
2	8.0625	8.0000	25	24	24	21	20	23	83.98
3	8.0625	8.0625	20	20	20	20	20	20	67.71
4	8.1250	8.0000	25	24	24	21	20	23	84.64
5	8.1250	8.0625	20	20	20	20	20	20	68.24
5	8.1250	8.1250	20	20	20	20	20	20	85.29
, 8	8 1875	8 0625	20	24	24	21	20	2J 20	68.76
9	8 1875	8 1250	20	20	20	20	20	20	69.30

# Reviewing the Results

Your completed Audit database looks like the following.

Solution Report	ort- (c:\cape216\databa	ses\audit\audit train	ing.mdb)							x
File Edit Too	ls Help									
🦕 🎒 🕕 🖩	<b>#</b> 4									
Criteria 1	Ci	iteria 2		Criteria	3		Criter	ria 4		
Page 01 of 1										
Criteria Name			AUDIT	Databas	е		Maximum Product Height			
US Pallet			audit tra	aining.m	db		0.0000			
Criteria Des	cription		Title							
Standard US	S GMA Pallet		Audit T	raining						
		Le	Length Width		dth					
48×40 Dim	48X40 Dimensions		48.0000	48.0000 40.0000						
Overhang A	llowed		0.0000		0.0000					
Minimum Lo	ad Dimensions		0.0000		0.0000					
Rec. No.	Footprint Length	Footprint Width	с	I	т	S	D	×	Area Eff.%	
1	8.0000	8.0000	30	30	30	30	25	30	100.00	
2	8.0625	8.0000	25	24	24	21	20	23	83.98	
3	8.0625	8.0625	20	20	20	20	20	20	67.71	
4	8.1250	8.0000	25	24	24	21	20	23	84.64	
5	8.1250	8.0625	20	20	20	20	20	20	68.24	
6	8.1250	8.1250	20	20	20	20	20	20	68.77	
/	8.1875	8.0000	25	24	24	21	20	23	85.29	
8	8.1875	0.0625	20	20	20	20	20	20	68.76 C0.20	<b>.</b>
н Н	0.1075	0.1750	211	20	211	20	211	211	na .10	·
Use > Button to	Load Next Criteria o	r≺to Load Previou	IS			(in/lb	) 3:03	PM CAP	S NUM	

All of your basic information appears on this screen along with the database name, the page number and a spreadsheet at the bottom. The spreadsheet information is defined as follows.

- **Rec. No**.: The record number is a 1-up number that numbers the cases from smallest to largest in incremental order. It is for reference only.
- Footprint Length: Length of the case.
- **Footprint Width**: Width of the case.
- **C**: Column type pattern. Listed in this column is the number of cases per layer of this footprint that can fit on the pallet. There is a column for each of Cape's 6 pallet patterns.
- I: Interlock type pattern.
- **T**: Trilock type pattern.
- **S**: Spiral type pattern.
- **D**: Diagonal type pattern.
- X: Expanded spiral type pattern.
- Area Eff. %: Area efficiency of the pallet pattern considering the highest case per layer count. This is calculated based on the area of the case footprint times the number of cases per layer, divided by the total space available.

By click on the Criteria 2 tab, you can review the other set of criteria for a comparison.

Solution Repo	rt- (c:\cape216\datal	ases\audit\audit train	ing.mdb)							×
<u>F</u> ile <u>E</u> dit <u>T</u> ool	ls <u>H</u> elp									
🚋 🖨 🛛 🖩	<b>#</b> \$									
Criteria 1	Ì	Criteria 2		Criteria	3		Criter	ria 4		
Page 01 of 1	66 <u>+</u>									
Criteria Name			AUDIT	Databas	е		Maximum Product Height			
Euro Pallet			audit tr	aining.m	db		0.0000			
Criteria Desc	Criteria Description		Title							
Standard Eu	ropean Pallet		Audit T	raining						
			Le	ngth	Wi	dth				
EUR01 Din	nensions		47.2441	-	31.4961					
Overhang Al	lowed		0.0000		0.0000					
Minimum Loa	ad Dimensions		0.0000		0.0000					
Rec. No.	Footprint Length	Footprint Width	С	1	т	S	D	×	Area Eff.%	
1	8.0000	8.0000	15	15	15	15	14	15	64.52	
2	8.0625	8.0000	15	15	15	15	14	15	65.02	
3	8.0625	8.0625	15	15	15	15	14	15	65.53	
4	8.1250	8.0000	15	15	15	15	14	15	65.52	
5	8.1250	8.0625	15	15	15	15	14	15	66.04	
6	8.1250	8.1250	15	15	15	15	14	15	66.55	
7	8.1875	8.0000	15	15	15	15	14	15	66.03	
8	8.1875	8.0625	15	15	15	15	14	15	66.54	
9	8 1875	8 1250	15	15	15	15	14	15	67.06	Н
Use > Button to	Load Next Criteria	or < to Load Previou	IS			(in/lk	) 3:04		S NUM	

By doing this we can see that the 8"x8" case palletizes at 100% area efficiency on the US GMA pallet, but less than 65% on the Euro Pallet.

### Database Sorting and Searching

Audit has 2 separate features included to make your data easier to manipulate: Sorting and Searching. You can sort the database by either the footprint size (which is the default) or by Area Efficiency. In addition, you can search for record number, case sizes or area efficiencies in either ascending or descending order.

#### Sorting

To sort your database, click on the **Tools** menu and then **Sort By**, and then choose either **Footprint Size** or **Area Efficiency** and the order you wish. Here is an example of **Area Efficiency**, **Descending** order.

					11
O Solution Re	port- (c:\cape216\databases\audit\audit t	raining.mdb	)		
<u>File Edit T</u>	pols <u>H</u> elp				
5000k 🞒 🔲	Solution Summary	F4			
Criteria 1	Calculate Product height/Load Info		Criteria 3		Criteria 4
	Calculate Pallet Load	- E			
Page 01	Goto Record/Search	F8			
Criteria I	Sort By	•	Footprint Size	_ → [I	Maximum Pro
US Pallet		a	Area Efficiency	•	Ascending
Criteria De	scription	Title			Descending

The following results return with our most efficient case sizes at the top of the list.

Solution Report	rt- (c:\cape216\databa	ses\audit\audit train	ing.mdb)							x
<u>File Edit T</u> ools	s <u>H</u> elp									
🚋 🖨 🔲 🖩	桷									
Criteria 1 Criteria 2				Criteria	3		Criter	ia 4		
Page 01 of 1	66 🔹									
Criteria Name			AUDIT	Databas	е		Maximum Product Height			
US Pallet			audit tr	aining.m	db		0.0000			
Criteria Description			Title							
Standard US	GMA Pallet		Audit T	raining						
			Le	Length Width						
48×40 Dime	nsions		48.0000	)	40.0000	1				
Overhang All	owed		0.0000 0.0000							
Minimum Loa	d Dimensions		0.0000		0.0000					
Rec. No.	Footprint Length	Footprint Width	с	I	т	S	D	×	Area Eff.%	
8289	16.0000	10.0000	12	10	11	10	10	8	100.00	
2081	12.0000	8.0000	20	20	20	19	16	18	100.00	
529	10.0000	8.0000	24	24	23	21	20	23	100.00	
2113	12.0000	10.0000	16	15	15	12	12	14	100.00	
8321	16.0000	12.0000	9	10	9	9	9	8	100.00	
18657	20.0000	16.0000	6	5	5	0	4	0	100.00	
8257	16.0000	8.0000	15	15	15	15	14	15	100.00	
18593	20.0000	12.0000	8	7	7	0	4	0	100.00	
1	8 0000	8 0000	30	30	30	30	25	30	100.00	H
Use > Button to L	Load Next Criteria o	r < to Load Previou	ıs			(in/lb	) 3:05		S NUM	

You can change the sort order whenever you wish and sort each of your criteria differently.

#### Searching

To search for a particular record or type of information menu, you can use the **Tools** menu and click on **Goto Record/Search**, or you can hit the **F8** key on your keyboard.

	·	
allet		audit
ria I	Sort By	וסי 🔸
÷ U1	Goto Record/Search	F8
	Calculate Pallet Load	- 6
ia 1	Calculate Product height/Load Info	
· CC	Solution Summary	F4
dit To	ools Help	
tion Rep	port- (c:\cape216\databases\audit\audit ti	raining.mdb)
tion Rep	port- (c:\cape216\databases\audit\audit t	raining.mdb)

Either option brings up this screen.

oto Record Number/Search	
Enter Footprint Size  Length  Width	Cancel
Enter Area Efficiency	

From here you choose to either search for a **Record Number**, a **Footprint Size**, or an **Area Efficiency**. Here is an example of searching for a footprint size of  $10.5 \times 10^{\circ}$ .
Goto Record Number/Search		
Enter Record Number		OK Cancel
Enter Footprint Size		
Length	Width	
10.5	10	
O Enter Area Efficiency		

And your screen returns with the selected record.

<u>File Edit Tools H</u> elp											
🔚 🖨 🕕 🖩 🛤											
Criteria 1	Ì	riteria 2		Criteria	3		Crite	ria 4			
Page 54 of 1	66 🔹										
Criteria Nam	B		AUDIT	Databas	e		Maxim	ım Produ	ct Height		
US Pallet			audit tra	aining.mo	db		0.0000			_	
Criteria Desc	ription		Title								
Standard US	GMA Pallet		Audit T	raining							
			Ler	ngth	W	idth					
48X40 Dime	nsions		48.0000	-	40.0000						
Overhang All	owed		0.0000		0.0000						
Minimum Loa	d Dimensions		0.0000 0.0000								
Rec. No.	Footprint Length	Footprint Width	с	ı	т	S	D	×	Area Eff.%	-	
22704	21.2500	15.8125	4	5	4	0	4	0	87.50		
30484	23.3750	14.3750	4	5	4	0	4	0	87.50		
11757	17.5000	16.0000	6	5	5	0	4	0	87.50	-	
18569	20.0000	10.5000	8	7	7	0	4	0	87.50		
4657	14.0000	8.0000	15	15	15	14	14	15	87.50		
11693	17.5000	12.0000	8	8	7	6	6	7	87.50		
8297	16.0000	10.5000	9	10	10	10	9	8	87.50		
855 105000 10000 16 15 15 12 12 14 87.50 8269 16 0000 8 7500 12 11 11 10 10 9 87.50											
Se > Button to Load Next Criteria or < to Load Previous     (in/lb) 3:06 PM CAPS NUM											

# **Comparing Solutions Across Criteria**

To compare results on a particular record across all of your criteria we have given you the Solution Summary. To access this feature, click on the **Tools** menu and **Solution Summary**. The following screen appears.

Solution Information Report	t										
<u>F</u> ile <u>H</u> elp											
Record Number Cas	e Footprint				715						
10686 10.5	000 x 10.0000										
AUDIT Database											
audit training.mdb											
<b>_</b>											
AUDIT Title											
Audit Training											
	Maxim	umloa	4		Minimu	mload				Datto	The second
Criteria Name	Length	W	u idth	Le	nath	Wid	th	міп. Area	С		S D X
LIS Pallet	48 0000	40.000	0		ingun			n	וקו		
Euro Pallet	47.2441	31.496	1	0.0000		0.0000		0	۱÷		
								-			
0.11			<b></b>			0				<b>D</b>	
Description		Clamp	Pai Nar	iet ne	MOST C	Lases	/Laye	er p	er S	D	Type X
Standard US GMA Palle	et 🛛	N	48×40		16	15		15	12	1	2 14
Standard European Pal	let	N	EUR01		4	5		5	0		4 (
•											•
Use < and > to move throug	h the list of Soluti	ons					(in/lb)	3:07	PM	CAPS	NUM

This screen shows comparative information for both critera for the single case size rquested.

# **Calculating Load Dimensions**

Audit allows you to calculate the dimensions of the load for your database records, based on the cubic volume you require for the case. To use this option, click on the **Tools** menu and **Calculate Product height/Load Info** option.

alle	t	au	dit t
ial	Sort By	•	DIT
54	Goto Record/Search	F8	
-	Calculate Pallet Load		
a 1	Calculate Product height/Load Info		
α	Solution Summary	F4	
lit (	Tools Help		
ion	Report- (c:\cape216\databases\audit\audit tr	aining.m	db)

The following screen appears.

Load Specifications - (Criteria 1)		
Inside / Outside Dimensions	Area:	ea Information 64.00
O Dutside Volume	24 x 24 Area:	576.00
Inside Volume Cubic feet 0.0000	Material Thic 0 L x 0 W	ckness Caliper x 0 H 0.0000 -
Maximum Product Height 0.0000		
	OK Cancel	

Fill in the information on this screen as follows.

Choose the **Inside Volume** measurement rather than the **Outside**.

For the Inside Volume Cubic Feet, enter **1.5.** 

Enter **30** for the *Maximum Product Height*. This is the largest case height that you will accept. Select a *Caliper* and enter material thicknesses if you wish. Here is your completed screen.

Load Specifications - (Criteria 1)		
Inside / Outside Dimensions	Area Information	
Inside Volume	8 x 8 Area: 64.00	
O Outside Volume	24 x 24 Area: 576.00	
Inside Volume Cubic feet 1.5000	Material Thickness	Caliper 0.1600 -
Maximum Product Height 30.0000		
	OK Cancel	

Click on **OK** and your calculations begin.

Calculating product height and load information									

When completed, the following screen appears.

O Solution Report- (c:\cape216\databases\audit\audit training.mdb)													
File Edit	Tools Help												
🔙 🖨 🕕													
Criteria 1		Criteri	ia 2		T	Criteria	3			Crit	teria 4		
Page 01 of 166													
Criteria N	ame			AUE	)IT Da	tabas	е			Maxin	num Prod	uct Heig	jht
US Palle	t			aud	it train	ing.mo	db			30.00	00		
Criteria D	escription			Title	•								
Standard	US GMA Pa	allet		Aud	it Trai	ning							
					Leng	th		Widt	า				
48X40 D	imensions			48.0	000		40.0	000					
Overhang	Allowed			0.00	0.0000 0.0000								
Minimum	Load Dimen	sions		0.00	00		0.00	00		1			
Rec. No.	Footprint Length	Footprint Width	Footprint Height	с	I	т	s	D	x	Area Eff.%	No. of Layers	No./ Load	Cub Eff.
8289	16.00	10.00	16.20	12	10	11	10	8	10	100.00	1	12	54.
2081	12.00	8.00	27.00	20	20	20	19	18	19	100.00	1	20	90.(
529	10.00	8.00	32.40	24	24	23	21	23	21	100.00	0	0	0.1
2113	12.00	10.00	21.60	16	15	15	12	14	12	100.00	1	16	72.1
8321	16.00	12.00	13.50	9	10	9	9	8	9	100.00	2	20	90.1
18657	20.00	16.00	8.10	6	5	5	0	0	0	100.00	3	18	81.0
8257	16.00	8.00	20.25	15	15	15	15	15	15	100.00	1	15	67.!
18593	20.00	12.00	10.80	8	7	7	0	0	0	100.00	2	16	72.1
↓ ↓	8 00	8 00	40 50	30	30	30	30	30	30	100 00	0		•
Use > Butto	n to Load Nex	t Criteria or < to	o Load Previou	IS					(in/lk	) 3:1	2 PM 🛛 🖓	APS N	JM //

This screen contains more information calculated based on the parameters you specified.

- Footprint Height: This is the height of the case based on the volume of 1.5 cubic feet.
- No. of Layers: The number of layers on the pallet load given the 30" height restriction.
- **No. per Load**: Number of cases on the pallet load.
- **Cube Eff**.: Cubic Efficiency of the load based on the total height available.

# Calculating Pallet Load

You can also use the Audit program to build your pallet load diagrams.

Click on the **Tools** menu and then **Calculate Pallet Load** to calculate the load of your selected case size.

n Repo	ort- (c:\cape216\databases\audit\audit t	raining.mdl
Too	ols Help	
I	Solution Summary	F4
1	Calculate Product height/Load Info	- 1
	Calculate Pallet Load	
1	Goto Record/Search	F8
	Sort By	· · ·

The following screen appears.

Palletize Case	<b>—</b>
Secondary Pack Height	Maximum Load Height
16.2000	0
Calculate	Cancel

Fill in the Maximum Load Height for your pallet load. We are entering 65.

Palletize Case	<b>X</b>
Secondary Pack Height 16.2000	Maximum Load Height 65
Calculate	Cancel

Click on the **Calculate** button and next you will see a solution viewer for your pallet load.

Palletised	Case Solution	n Report									<b>X</b>
<u>F</u> ile <u>H</u> elp											
<u>r</u> ile <u>H</u> elp					Proc Proc SP /	luct Leng luct Widt luct Heig / Load	rth h ht	48 40 54	.0000 .0000 .1000 36		
Sol.	Pat	# Per	# Per	# of	D	Cube	Area	Load	Load	Load	<u> </u>
NO.	Type	26 LOBO	Layer	Layers	V	EΠ. 01.7	EΠ. 100.0	Length		Height	
2	Т	33	11	3	Н	74.9	91.7	48.00	40.00	54.10	
3	T	33	11	3	н	74.9	91.7	48.00	40.00	54.10	
4	I	30	10	3	Н	68.1	83.3	48.00	40.00	54.10	
5	I	30	10	3	н	68.1	83.3	48.00	40.00	54.10	
6	I	30	10	3	н	68.1	83.3	48.00	40.00	54.10	
7	1	30	10	3	н	68.1	83.3	48.00	40.00	54.10	
								(in/lb)	3:13 PM	CAPS	NUM

This screen will allow you to see the different pallet patterns that are available for this new case size you have developed based on your Audit Database footprint size and your volume measure with subsequent height.

Select the pallet pattern that you want and then click on the File menu and Open Current Solution.

1	<b>O</b> P.	alletised Case Solution Report
	<u>F</u> ile	<u>H</u> elp
		Open Current Solution
		Return to Palletized Solution Report
1		

Your MultiViewer Graphics screen will appear where you can customize and output your design by whatever method you choose.



When you are finished with this analysis, click on File, Return to Pallet Audit.

# Printing and Exporting

Printing the audit database could take quite a bit of time and paper. The database we created for this user guide is 166 pages long. So we have given you the ability to only print a portion of the database if you wish.

#### Click on File, Print Preview.

📀 s	olution Report- (c:\cape210	5\databases	\aud	
File	Edit Tools Help		_	
	Change Input Data			
	Print	Ctrl+P	a 2	
	Print Preview			
	Print Setup			
	Return to Front Menu		F	
Cri	teria Description			

The following screen appears.

Print / Export Options	
Print Specified Records	ОК
From 1 To 1	Cancel
<ul> <li>Print Current Record</li> <li>Print All Records</li> <li>Only Print Input Data</li> </ul>	
Omit Input Data From Printout	

You have a ability to print a section of records, print only the current record, all recorts or just the input data. Make your selections and click on **OK**. You will see a print preview of what you requested.

0						
200m 100% ▼ Export < >	1 of 2	<u>C</u> lose	<u>P</u> rint	Draft	Fast Print	Annotation
						-
AUDIT Input Data						
Units of Measure	: Engli	sh				
Title	: Audit	Training				
Number of Palletizing Criteria	: 2					
Minimum Case Footprint Dimension	: 8.000	0				
Maximum Case Footprint Dimension	: 24.00	00				
Outside Volume	: 1.5					
Maximum Product Height	: 30.00	00				
Criteria #1						
49V40 Dimonsions	Lengt	h <u>Width</u>	0			
Maximum Overhang	0.000	0 0.000	0			
Minimum Load	0.000	0 0.000	0			
Minimum Area Efficiency	0.000	0				-
						<u> </u>

# Notes on Using the Audit Program

- 1. Once you understand the power of Pallet Audit it will become a major source of information relating to your existing palletizing needs and how to improve them in the future.
- 2. When an Audit Database has been calculated the records are retained under your specified Audit Database name until you actually delete that database. Thus, it is possible to return to the same Audit Database, as and when you need to.
- 3. It might be a good idea to think about constructing an Audit database that covers your entire range of existing case sizes. Remember though, depending on the size range you allow, the calculations could take quite a while.
- 4. Returning to the Audit Database is a simple process known as Review Audit Database.
- 5. To exit the Solution Report screen, either Change Input Data or Return to Front Menu.
- 6.

# Making New Shapes

### Introduction

The **Make a new Shape** feature is a group of easy-to-use programs designed to create packaging and loading shapes for use in your Cape Pack programs. These shapes include rectangular bottles, bags, oval bottles, gable-end cartons, round bottles, other cylindrical shapes, cases, trays, pallet blocks, pallet bins and trucks or shipping containers. These "component designs" can be used within the Pallet, Arrange, Design, Casefill, Folding Cartong Arrange, KDF and 3D Imaging programs. Once you have created your shape/package style you can apply color to part or all of the object and save it for later use. You can also add graphics to any of the shapes that you create with the Make a new Shape feature.

It is important to understand that this feature saves the relative proportions of the shape you design and save. Thus, you can use one shape and apply several different dimensions to that shape in the other Cape Pack programs.

In the **Make a new Shape** feature, all measurements are in units. These can represent inches, millimeters, or any other units you want to use. It is helpful to use small whole increments when designing shapes rather than decimals. We recommend you use either millimeters or hundreds of inches (i.e., 5 inches would be entered as 500).

You can access this feature on either the Front Menu screen, or in the Pallet, Arrange, Design or Casefill groups. If you launch this feature from the Pallet, Arrange or Design groups, you will have the option to create new Pallet Blocks, Pallet bins or Trucks/Containers.

To make a shape, click on the Make a New Shape menu and select the shape you want to work with.



Or, you can select this option with the icon on the toolbar.

Either way you will be presented with a screen similar to the one below.

Cre	Create a new Shape File ( Make a new Case )				
	Overall Initial Height:	200.0000			
	Overall Initial Length:	200.0000			
	Overall Initial Width:	200.0000			
	OK	Cancel			

You have two choices. You can create a new file or open an existing file.

To create a new file, you simply fill in the Initial Parameters.

To open an existing file, click on **Cancel**. Then select **Open** from the **File** menu.

# Shape Files Storage

The files are saved in separate folders within Cape Pack.

🔍 🗢 📕 🕨 Computer 🕨 OS (C:) 🕨	Program	Files (x86)   cape213   DisplayCase		<b>▼</b> <del>*</del> <del>9</del>	Search DisplayCase		
e <u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp							
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퉬 blister		carrier.cst	9/24/2001 5:06 AM	CSF File	1 KB		
Description CusRpt		CASELCSF	12/2/1997 11:59 AM	CSF File	1 KB		
Cylinder		CASEZ.CSF	12/2/199/11:59 AM	CSF File	1 KB		
Databases	E	CASE3.CSF	12/2/199/11:59 AM	CSF File	1 KB		
DieCuts		CASE4.CSF	12/2/1997 12:00 PM	CSF File	1 KB		
DisplayCase		CASE5.CSF	12/2/1997 12:00 PM	CSF File	1 KB		
Examples		CASE6.CSF	12/2/1997 12:02 PM	CSF File	1 KB		
GableEnd		CASE7.CSF	12/2/1997 12:03 PM	CSF File	1 KB		
GERM		CASE8.CSF	12/2/1997 12:03 PM	CSF File	1 KB		
GishallWDD		CASE9.CSF	12/2/1997 12:03 PM	CSF File	1 KB		
		Case10.csf	5/30/2002 11:00 AM	CSF File	1 KB		
v 🚛 images		center special full overlap slotted contain	3/2/2009 10:35 AM	CSF File	1 KB		
ji Oval		center special overlap slotted container(2	3/2/2009 10:34 AM	CSF File	1 KB		
iii private		center special slotted container(2-2-6).csf	3/2/2009 10:34 AM	CSF File	1 KB		
RectBottle		cookie tin case.csf	11/28/2001 8:34 AM	CSF File	1 KB		
Inter State		End Caps.csf	1/10/2002 10:38 AM	CSF File	1 KB		
VariableTray		FEFCO 0200.csf	2/6/2002 7:02 AM	CSF File	1 KB		
webPages		FEFCO 0201.csf	2/6/2002 7:04 AM	CSF File	1 KB		
UVPPShared		FFECO 0202.csf	2/6/2002 7:04 AM	CSE File	1 KB		
b b capeTF213		FEECO 0203.csf	2/6/2002 7:05 AM	CSE File	1 KB		
Cisco		fefco 0204.csf	2/6/2002 7:05 AM	CSF File	1 KB		
🖻 퉲 Citrix		fefco 0205.csf	2/6/2002 7:06 AM	CSE File	1 KB		
D b Common Files		fefce 0205.csf	2/6/2002 7:06 AM	CSE File	1 //P		
🖻 퉲 Dell		fefco 0200.csf	2/6/2002 7:07 AM	CSE Eila	1 KD		
Dell DataSafe Local Backup	-	fefee 0200AB ast	2/6/2002 7:07 AIVI	CSE Ella	1 KB		
		Terco 0500Ab.csi	2/0/2002 7:09 AM	Cor rile	1 ND		

When you select **Save As**, the appropriate folder for the shape you are working on will be opened. You cannot save the file to another folder. You can share your shape files with other users. However, they must place the shape in the respective folder of their program. For example, if you share a tray shape, it will be retrieved from your VariableTray folder and the recipient will need to place it in their VariableTray folder.

When you save the shape files they become available in the Pack Type lists in Pallet, Arrange, Design and Casefill programs as follows.

Shape Type	Programs Where Used
Bags	Pallet Group – Bags, Arrange and Design Groups – Box/Bag/Bottle and Casefill Box/Bag/Bottle (Fixed and Variable)
Blisters	Pallet Group – Rectangle/Oval, Arrange and Design Groups – Box/Bag/Bottle and Casefill Box/Bag/Bottle (Fixed and Variable)
Cylindrical Shapes	Pallet Group - Cylinders, Arrange and Design Group – Cylinders and Casefill – Cylinders Fixed
Display Cases	Pallet Group – Rectangle/Oval, Arrange Group, Design Group, Folding Carton Arrange, Casefill
Gable-End Shapes	Pallet Group – Rectangle/Oval, Arrange and Design Groups – Box/Bag/Bottle and Casefill Box/Bag/Bottle (Fixed and Variable)
Oval Bottles	Pallet Group - Rectangle/Oval, Arrange and Design Groups – Box/Bag/Bottle and Casefill Box/Bag/Bottle (Fixed and Variable)
Rectangular/Square Bottles	Pallet Group – Rectangle/Oval, Arrange and Design Groups – Box/Bag/Bottle and Casefill Box/bag/Bottle (Fixed and Variable)
Pallet Blocks, Pallet Bins, Pallet Crates	Pallet Group, Arrange and Design Groups and KDF Group
Pallet Base Styles	Pallet Group, Arrange and Design Groups and KDF Group
Truck/Container	Pallet Group, Arrange and Design Groups and KDF Group

We have included examples for you in this chapter that can act as tutorials to get you started. In addition, the program is supplied with a large variety of shapes that have been created using this feature. You can modify these shapes as you see fit, or simply create your own.

Remember, in the **Make a new Shape** feature, all measurements are in units. These can represent inches, millimeters, or any other units you want to use. It is helpful to use small whole increments when designing shapes rather than decimals. We recommend you use either millimeters or hundreds of inches (i.e., 5 inches would be entered as 500).

# Designing Cases

The **Make a new Case** lets you create a variety of "cut-away" or "display" case styles. You can represent many types of display packs, shipping trays and cases. Once you have created your case style, you can give it an overall color or you can select a color for each face within your case design.

Your program is provided with a variety of special case styles. These can be found under the Pack Type lists in the analysis programs. You can either modify these existing case styles or develop your own completely new designs.

#### Click on the Make a new Shape menu, and then on Make a new Case.



You will be presented with the following screen.

Сте	Create a new Shape File ( Make a new Case )					
	Overall Initia	l Height:	200.0000			
	Overall Initia	l Length:	200.0000	1		
	Overall Initia	l Width:	200.0000			
	OK		Cancel			

Enter the following numbers into the appropriate fields.

For the *Overall Initial Height* enter **1000** and press the **Tab** key.

For the *Overall Initial Length* enter **1200** and press the **Tab** key.

For the *Overall Initial Width* enter **1600** and press the **Tab** key.

Create a new Shape File ( Make a new Case )				
Overall Initial Height:	1000.0000			
Overall Initial Length:	1600.0000			
Overall Initial Width:	1200.0000			
OK	Cancel			

Click on **OK**. You will then see the following screen.

Make a new Case -	
File       Option       Help         Shape Name       Make a new Case         Face       B       C       D       E       F       Overall       Face       Match         Face       B       C       D       E       F       Overall       Face       Match         Face       B       C       D       E       F       Overall       Face       Match         Face       B       C       D       E       F       Overall       Face       Match         Face       B       C       D       E       F       Overall       Face       Match         Face       B       C       D       E       F       Overall       Face       Match         Face       B       C       D       E       F       Overall       Face       Match         Image: Color       Color       Top       Match       Top       Height       Right Width	

You are presented with a case and one face (face B) on the left side of the screen. Face B is highlighted in the row of buttons marked A, B, C, D, E, and F.

The buttons marked A, B, C, D, E and F represent the six panels of the case and are labeled in accordance with the face/panel naming conventions of the 3D Imaging Program. Face A represents the top of the case and F represents the bottom. Thus, by maintaining this convention throughout Cape Pack, you can transfer images to the appropriate panels of the case in exactly the same way as you would for other packaging components.

Notice how, on this screen, there are four sections marked on face B on the left side of the screen. And that there are two sets of fields across the bottom of the screen. One row of fields is for setting the *Bottom* and *Top Height* and other row is for setting the *Right* and *Left Width*.

When you work with this screen, think of the face you are working on as a two dimensional (flat) drawing and that the changes you make to each section are like opening or closing the vertical or horizontal blinds on a window. The lower the number entered, the wider the gap on the face.

The changes you make are then shown in both 2D on the left side of the screen and 3D on the right side of the screen.

Let's remove all of face C. We need to reduce the numbers to zero in both the height and width settings. If you change the bottom height, the appropriate section will move up or down on the left side of the screen and the change will be immediately reflected in the three dimensional case on the right hand side. The same will happen when you change the top height.

Click on the button marked **C**.

The *Bottom Height* is set at **300** and the *Top Height* is also **300**. Change the *Bottom Height* to **0** and press the **Tab** key.

Now change the *Top Height* to **0**. Notice how the small inset diagram (2D) has changed.



Change the *Left Width* to **0** and press the **Tab** key.



You can see that half of face C has disappeared. Change the *Right Width* to **0**.

Make a new Case -	
File Option Help          Shape Name       Make a new Case         Face       B       C       D       E       F       Overall       Face       Match         Face       A       B       C       D       E       F       Overall       Face       Match         Face       A       B       C       D       E       F       Overall       Face       Match         Face       A       B       C       D       E       F       Overall       Face       Match         Face       A       B       C       D       E       F       Overall       Face       Match         Face       A       B       C       D       E       F       Overall       Face         Face       A       B       C       D       E       F       Overall       Face         Face       A       B       C       D       E       F       Overall       Face         Face       A       B       C       D       E       F       Overall       Face         Face       A       B       C       D       E       F       Overall       Face	
Bottom Height .000 .000 Top Height Left Width .000 .000 Right Width	

Notice how all the sections on the left side of the screen and face C on the right side have also disappeared. The idea of the Case Wizard is that, as you adjust the height and width sections of a particular face, you see both the twodimensional changes on the left side of the screen and the three-dimensional case being formed on the right.

To better demonstrate the changes, let's color the box.

Click on the button marked **Overall Color**.

Color		? 🛛
<u>B</u> asic colors:		
<u>C</u> ustom colors	:	
<u>D</u> efi	ne Custom Color:	\$ >>
ОК	Cancel	

Pick a brown shade and click on **OK**.

Make a new Case -	
File Option Help  Shape Name Make a new Case  Face A B C D E F Overall Face Color Face	
Bottom Height 000 000 Top Height Left Width 000 000 Right Width	

# Making the Opposite Face the Same

If you want the opposite face of the case to be the same, click on the **Match Face** button. This feature quickly duplicates your efforts to create two identical sides of the case.

# Partial Top Flaps Cases

The Case Wizard offers a simple way to do this. Let's make a case with partial flaps along the length of the top panel. We will start with the same case as the first example.

Make a new Case -	
File Option Help	- 1
Shape Name       Make a new Case         Face       B       C       D       E       F       Overall Color       Face Face       Match Face         Image: Shape Name       Make a new Case       Image: Shape Name       Match Face       Match Face         Image: Shape Name       Image: Shape Name       Image: Shape Name       Match Color       Face       Match Face         Image: Shape Name       Image: Shape Name       Image: Shape Name       Match Face       Match Face         Image: Shape Name       Image: Shape Name       Image: Shape Name       Match Face       Match Face         Image: Shape Name       Image: Shape Name       Image: Shape Name       Match Face       Match Face         Image: Shape Name       Image: Shape Name       Image: Shape Name       Match Face       Match Face         Image: Shape Name       Image: Shape Name       Image: Shape Name       Image: Shape Name       Match Face         Image: Shape Name         Image: Shape Name       Image: Shape Name       Image: Shape Name       Image: Shape Name       Image: Shape Name         Image: Shape Name       Image: Shape Name       Image: Shape Name <th></th>	

Let's start with the top panel of face A. Click on the **A** button to activate the face.

Make the *Top* and *Bottom Heights* **50**, and press the **Tab** key.

The three dimensional case has not changed. Now make the *Left Width* **0** and press the **Tab** key.

Notice how the left side of face  $\mathbf{A}$  has been removed and that we have a 50 unit partial top flap along the length of the panel.

Make a new Case -	
File Option Help	
Shape Name Make a new Case	
Face A B C D E F Overall Face Match Face	
Bottom Height 50.000 50.000 Top Height	
Left Width .000 .000 Right Width	

Now enter **0** for the *Right Width*.

Now we have face A with two 50 unit-wide top flaps, along the length of our case.

#### Number of Material Thicknesses

Use the **Options** menu and select **No. of Material Thicknesses**.

	ptions Help	
h	No. of Material Thicknesses	
Close Cut Away		
	A B C D E E Overall	

You will be presented with a screen like this.

No. of Material Thicknesses	
Length 1 Width 1	Height 1
	Cancel

Simply enter the number of material thicknesses for the *Length*, *Width* and *Height* and click on **OK**. These numbers will be saved with the case style and then be carried through to the Pallet, Arrange, Design and Casefill programs.

### Saving Your Case

Once you have finished the design of your case style you can save the design in the following way.

Select the **File** menu, then **Save As**. The Save As dialog box appears.



Enter the name you wish to use, and click on Save.

The Case shape files are saved with the .CSF extension (representing **Cape S**hape **F**ile) in their own folders and they will appear in the *Pack Type* list in the appropriate Pallet, Arrange, Design and Casefill programs.

To leave the Make a new Case screen, select Close from the File menu.

# **Designing Trays**

The **Make a new Tray** feature lets you create a variety of tray styles. You can represent many types of display packs, shipping trays and crates. Once you have created your tray style you can give it an overall color or you can select a color for each face within your design.

A tray, within Cape Pack is defined as being "a case without a top". If you need to create a tray or special case style that has any part of a top panel, you should use the **Make a new Case** feature.

Your program is provided with a variety of tray styles. These can be found under the *Pack Type* lists in the analysis groups. You can either modify these existing tray styles or develop your own new designs.

#### Click on the Make a new Shape menu, and then on Make a new Tray.



You will be presented with the following screen.

Сге	Create a new Shape File ( Make a new Tray )	
	Overall Initial Height:	200.0000
	Overall Initial Length:	200.0000
	Overall Initial Width:	200.0000
	ОК	Cancel

Enter the following numbers into the appropriate fields.

For the Overall Initial Height enter 600 to represent 6" and press the Tab key.

For the *Overall Initial Length* enter **1200** to represent 12" and press the **Tab** key.

For the *Overall Initial Width* enter **900** to represent 9" and press the **Tab** key.

Create a new Shape File ( Make a new Tray )	
Overall Initial Height:	600.0000
Overall Initial Length:	1200.0000
Overall Initial Width:	900.0000
ΟΚ	Cancel

Click on **OK** and you will see the following screen.

Make a new Tray -	
File Option Help Shape Name make a new Tray Face B C D E Overall Face Match Color Face	
Face Panel Height         600.000         600.000         600.000           Face Panel Width         240.000         240.000	00         600.000         600.000           240.000         240.000         240.000

You are presented with a tray (a case without a top) on the right side of the screen and one face (face B) on the left side of the screen. Face B is highlighted in the row of buttons marked B, C, D, and E.

The buttons marked B, C, D, and E represent the four side panels of the tray and are labeled in accordance with the face/panel naming conventions of the 3D Imaging Program. The other two faces, A and F, are normally used for the top and bottom panels of a case in the 3D Imaging Program. Thus, by maintaining this convention throughout Cape Pack, you can transfer images to the appropriate panels of the tray in exactly the same way as you would for other packaging components.

Notice how there are five sections marked on face B on the left side of the screen, and that there are two rows of fields across the bottom of the screen. One row of fields is for setting the *Face Panel Heights* and other row is for setting the *Face Panel Widths*.

The idea of the Tray Wizard is that, as you adjust the height and width sections of a particular face, you see both the two-dimensional changes on the left side of the screen and the three-dimensional tray being formed on the right side.

Start with the *Face Panel Height* fields to adjust the height along the panel. Leave the first two fields at **600**, using the **Tab** key to move between fields. In the third field, type **400** and press the **Tab** key. Your screen should now look like this.

Make a new Tray -	
File Option Help  Shape Name  Make a new Tray  Face BCDE Overall Face Match Face Face	
Face Panel Height 600.000 600.000 400.00	0 600.000 600.000 600.000
Face Panel Width 240.000 240.000	240.000 240.000 240.000

Type **400** in the next field and press the **Tab** key.

Make a new Tray -	
File Option Help	[
Shape Name make a new Tray	
Face B C D E Overall Face Match Color Face	90 180 270
Face Panel Height 600.000 600.000 400.00	00 400.000 600.000 600.000
Face Panel Width 240.000 240.000	240.000 240.000 240.000

See how face B has changed.

# Making the Opposite Face the Same

If you want the opposite face the same you can use the **Match Face** button. This feature duplicates your efforts to create two identical sides of the tray.

Click on the **Match Face** button and your screen should now look like this.

Make a new Tray -	
File Option Help	
Shape Name make a new Tray	
Face B C D E Overall Face Match Face	90 180 220
Face Panel Height 600.000 600.000 400.00	0 400.000 600.000 600.000
Face Panel Width 240.000 240.000	240.000 240.000 240.000

Now let's change face **C**. Click on the button for face **C**.

Leave the first two Face Panel Height fields at 600.

Enter **300** for the next field and press the **Tab** key.

Enter **300** for the next field and press the **Tab** key. Your screen should now look like this.



Now click on Match Face.

Make a new Tray -	
File Option Help	
Shape Name make a new Tray	
Face B C D E Overall Face Match Face	90 180 290
Face Panel Height 600.000 600.000 300.00	0 300.000 600.000 600.000
Face Panel Width 180.000 180.000	180.000 180.000 180.000

# Straightening the Sides of a "Cut-Out Panel"

Here is panel B with sloping sides.

Make a new Tray -	
File Option Help	
Shape Name make a new Tray	
Face         B         C         D         E         Overall         Face         Match           Face         Color         Color         Face         Face <td>90 180</td>	90 180
Face Panel Height 600.000 600.000 400.0	00 400.000 600.000 600.000
Face Panel Width 240.000 240.000	240.000 240.000 240.000

Changing the sloping sides to straight sides is achieved by changing the numbers in the five Face Panel Width fields.

In the second field type **0** and press the **Tab** key.

Make a new Tray -	
Shape Name       make a new Tray         Face       B       C       D       E       Overall Color       Face       Match Face         Image: Color       Image: Color	
Face Panel Height 600.000 600.000 400.00	0 400.000 600.000 600.000
Face Panel Width 360.000 .000	360.000 240.000 240.000

Notice how the left hand side of the "cut-out" has become upright. Also notice how, as you change the numbers in the fields, the figures in the remaining fields adjust themselves. This is because the total number (all the fields added together) cannot exceed the size of the original width dimension you specified.

Now enter **0** in the fourth field and press the **Tab** key. Your screen should look like this.



Click on the **Match Face** button and the opposite face becomes the same.

Make a new Tray -	
File Option Help	
Shape Name make a new Tray	
Face B C D E Overall Face Match Color Color Face	90 180 270
Face Panel Height 600.000 600.000 400.00	00 400.000 600.000 600.000
Face Panel Width 360.000 .000	480.000 .000 360.000

### Coloring the Tray

Click on the button marked **Overall Color**. The Windows color palette is now available, as you will see in the following picture.

Color		? ×		
<u>B</u> asic colors:				
<u>C</u> ustom colors				
Define Custom Colors >>				
OK	Cancel			

Choose a color and click on **OK**.

# **Coloring Tray Panels**

Select the button for the face you want to change (**B**, **C**, **D**, or **E**), and then click on the **Face Color** button.

Here is an example where each face of a tray has been given a different color.

Make a new Tray -	
File Option Help	
Shape Name make a new Tray	0
Face B C D E Overall Face Match Face	
Face Panel Height 500 000 400 00 400 00	
Face Panel Width 360.000 .000	480.000 .000 360.000

#### Number of Material Thicknesses

Click on the **Options** menu, and then **No. of Material Thicknesses**.

	,	
	Options Help	
-	No. of Material Thicknesses	Ē
1		

You will be presented with a screen like this.

No. of Material Thicknesses					
Length 1	1 Height 1				
OK )	Cancel				

Simply enter the number of Material Thicknesses for the Length, Width and Height and click on OK.

These numbers will be saved along with tray style. When you later select the style, in the Pallet, Arrange, Design and Casefill programs, the number of material thicknesses will appear automatically.

### Saving the Tray

Once you have finished the design of your tray style you can save the design in the following way.

Select the File menu.

Make a new Tray -	
File Option Help Save As me make a new Tray	
Close Face B C D E Overall Face Match Face	
Face Panel Height 600.000 600.000 400.00	
Pace Panel Width	480.000 .000 360.000

Select Save As. The Save As dialog box appears.

Enter the name you wish to use. For our example, we will use the name newtray. Click on Save.

To leave the Make a new Tray screen, select Close from the File menu.

## **Designing Cylinders and Round Bottles**

We are going to create a wine bottle.

Select Make a new Cylinder/Bottle from the Make a new Shape menu.

e /	Advanced) - [Front Menu]	
	Make a new Shape Databases Resolutions	Inte
4	Make a new Case	
J.	Make a new Tray	
	Make a new Cylinder/Bottle	
	Make a new Bag	
	Make a new Gable End Shape	
	Make a new Rectangle Square Bottle	
	Make a new Oval Shape	
	Make a new Pallet Base	

First, you need to enter the number of sections to be used. 12 is the maximum number of sections you can select. Enter **7.** 

Then you need to enter an overall diameter and height. For the *Overall Initial Height* enter **1400** to represent 14 inches.

For the *Overall Initial Diameter* enter **350** to represent 3.5 inches. You can work with a figure up to twice the initial overall diameter.

Create a new Shape File ( Make a new Cyli				
Number of Sections:	7			
Overall Initial Height:	1400.0000			
Overall Initial Diameter:	350.0000			
OK	Cancel			

Click on **OK** and you will see the following screen.

<b>Make a r</b> File Help	1ew Shape - [Mal	ke a new Cylinder	r/Bottle - ]		
Shape Nam	ne Bott	le			
Section	Height at Top of Section	Diameter at Top of Section	Color Overall	90 180 270 1 2 3 4	
7 6 5 4 3 2 1	1400.0000 1200.0000 800.0000 600.0000 400.0000 200.0000	350.0000 350.0000 350.0000 350.0000 350.0000 350.0000 350.0000		<u>401</u> 108	
Diameter of	Section 1 Bottom	n (350.000)			)

You are presented with a straight-sided cylinder. Now we have to create our bottle shape.

Notice how the *Height at Top of Section* is set in 200 unit increments. Thus, based on a height of 1400 units and 7 sections, the program has assumed 7 equal sections of 200 units. If you wish to change these settings you may. Just type in the appropriate number. Notice how the diameter is set to 350 for all sections, hence the straight-sided shape.

Change the very top of the cylinder to start creating the neck of our bottle. Click in the very top section diameter column, and type **100**. Use the arrow keys on your keyboard to move to the next lower section (6).

Make a n	ew Shape - [Mak	æ a new Cylinder/	/Bottle - ]		
Shape Nam	e Bott	e			
Section	Height at Top of Section	Diameter at Top of Section	Color Overall	90 180 270 1 2 3 4	
7 6 5 4 3 2 1	1400.0000 1200.0000 800.0000 600.0000 400.0000 200.0000	100.0000 <b>350.0000</b> <b>350.0000</b> <b>350.0000</b> <b>350.0000</b> <b>350.0000</b> <b>350.0000</b>		907 108	
Diameter of	Section 1 Bottom	350.0000			

See how the top has changed. Now enter **100** for the next section down and move to section 5 diameter.

File Help         Section       Orignmeter at Color Overall         9       9       9       9         10       9       9       9       9         11       20       10       00000       100       00000       100         5       1400 0000       100 0000       100 0000       100 0000       90       90       90         5       1000 0000       850 0000       350 0000       90       90       90       90         4       800 0000       350 0000       350 0000       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90       90 </th <th>Make a new Shape - [Make a new Cyli</th> <th>nder/Bottle - ]</th> <th></th>	Make a new Shape - [Make a new Cyli	nder/Bottle - ]	
Shape Name         Bottle           Section         Height at Top of Section         Overall           7         1400.000         100.0000           6         1200.0000         100.0000           5         1000.0000         350.0000           3         600.0000         350.0000           1         200.0000         350.0000           1         200.0000         350.0000	File Help		
Section         Height at Top of Section         Diameter at Top of Section         Color           0verall         100         0verall         100           1         100         100         100           6         1200         100         100           5         1000         350         100           4         800         350         350           2         400         350         350           1         200         350         350	Shape Name Bottle		
	Shape Name         Bottle           Section         Height at Top of Section         Diameter of Top of Section           7         1400.0000         100.000           6         1200.0000         100.000           5         1000.0000         350.000           3         600.0000         350.000           2         400.0000         350.000           1         200.0000         350.000		

Now the top of our wine bottle is beginning to take shape. Enter **140** in the section 5 diameter field and then move to section 4.

Continuing in this manner, enter **200** for section 4 and **300** for section 3. Your screen should now look like this.

Hake a r	new Shape - [Mal	ke a new Cylinder/	Bottle - ]		
Shape Nam	ne Bott	le			
Section	Height at Top of Section	Diameter at Top of Section	Color Overall	90 100 270 1 2 3 4	
7	1400.0000	100.0000		TOP	
5	1000.0000	140.0000		BOT	
4	800.0000	200.0000			
3 2 1	600.0000 400.0000 200.0000	300.0000 350.0000 350.0000			
Diameter of	Section 1 Botton	350.0000			

Now let's color the bottle.

Click on the **Overall** button. The Windows color palette is now available, as you will see in the following picture.

Color	? ×								
Basic colors:									
<u>C</u> ustom colors:									
Define Custom Colors >>									
OK Cancel									

Select a green shade and then **OK**.

Make a n	iew Shape - [Mal	æ a new Cylinder	/Bottle - ]		
Shape Nam	ie Bott	e			
Section	Height at Top of Section	Diameter at Top of Section	Color Overall	1 1 1 1 2 3 4	
7 6 5 4 3 2	1400.0000 1200.0000 1000.0000 800.0000 600.0000 400.0000 200.0000	100.0000 100.0000 200.0000 300.0000 350.0000 250.0000			
Diameter of	Section 1 Bottom	350.000			

Notice how the vertical bar in the *Color* column has changed to the green you selected. Click on this bar and your bottle will change to green.

Make a n	iew Shape - [Mak	æ a new Cylinder	/Bottle - ]		
File Help					
Shape Nam	ne Bott	e			
Section	Height at Top of Section	Diameter at Top of Section	Color Overall	90 180 270 1 2 3 4	
7	1400.0000	100.0000		TOP	
6	1200.0000	100.0000		BOT	
5	1000.0000	140.0000			
4	800.0000	200.0000			
3	600.0000	300.0000			
2	400.0000	350.0000			
1	200.0000	350.0000			
Diameter of	Section 1 Bottom	350.0000	]		

Now let's make the typical seal around the top of a wine bottle. We will color it yellow.

Click on the green button in the *Color* column for section 7. Select a yellow shade from the color palette and click on **OK**. You will see the green bottle with a yellow seal around the top section. Our bottle is nearly complete.

Make a r	new Shape - [Mal	ke a new Cylinder	/Bottle - ]		
Shape Nam	ne Bott	le			
Section	Height at Top of Section	Diameter at Top of Section	Color Overall	90 180 270 1 2 3 4	
7 6 5 4	1400.0000 1200.0000 1000.0000 800.0000	100.0000 100.0000 140.0000 200.0000			
3 2 1	600.0000 400.0000 200.0000	300.0000 350.0000 350.0000			
Diameter of	Section 1 Botton	350.000	]		

Let's simulate a bottle label. Click on the green button for Section 2. Choose white from the Palette and click on OK. Your screen should now look like this.

Make a n	ew Shape - [Mak	e a new Cylinder	/Bottle - ]		
File Help					
Shape Nam	e Bott	e			
7     6     5     4     3     2     1	Height at Top of Section	Diameter at Top of Section 100.0000 100.0000 200.0000 300.0000 350.0000 350.0000	Color Overall	U 90 180 270 1 2 3 4 4 TOP BUT	

The **0**, **90**, **180**, and **270** buttons allow you to rotate the object to these angles. The **1**, **2**, **3**, and **4** buttons allow you to see any of the four sides of the object. The **Top** and **Bot** buttons allow you to view the top and bottom of the object.

To save your bottle shape click on the File menu and select Save As.

Enter the file name you want to use and click on **OK**.

You can open existing files, make changes and then save the changes to another file name. The Cape shape files are saved with the .CSF extension in their own folders, and they will appear in the *Pack Type* list in the appropriate Pallet, Arrange, Design and Casefill programs.

To leave the Make a new Cylinder/Bottle screen, select Close from the File menu.

# **Designing Bags**

Next we will create a potato chip bag.

Select Make a new Bag from the Make a new Shape menu.

Adv	anced) - [Front Menu]							
Mak	Make a new Shape Databases Resolutions							
	Make a new Case							
	Make a new Tray							
	Make a new Cylinder/Bottle							
	Make a new Bag							
	Make a new Gable End Shape							
	Make a new Rectangle Square Bottle							
	Make a new Oval Shape							
	Make a new Pallet Base							

You will see the Initial Parameters screen.

Сге	Create a new Shape File (Make a new Bag )							
	Number of Sections:	7						
	Overall Initial Height:	200.0000						
	Overall Initial Length:	100.0000						
	Overall Initial Width:	50.0000						
	ОК	Cancel						

Enter 7 for the Number of sections. The maximum number is 12.

Enter 800 for the *Height*, 500 for the *Length*, 100 for the *Width* representing 8" x 5" x 1" respectively.

Click on **OK** and you will see the following screen.

<b>Make a i</b> File Help	new Shape - [Mak	ke a new Bag - ]				
Shape Nan	ne Bag					
7         6           5         4           3         2           1         1	800.0000 685.7143 571.4286 457.1429 342.8571 228.5714 114.2857	Length at Top of Section 400.0000 450.0000 500.0000 450.0000 450.0000 400.0000	Width at Top of Section 25.0000 50.0000 75.0000 100.0000 100.0000 50.0000	Color Overall	0 90 180 270 1 2 3 4 1 2 3 4 1 2 3 4	
Length of S	ection 1 Bottom	350.000				
Width of Se	ction 1 Bottom	25.000	9			

While the shape on the screen may look a little unusual, it will quickly become the bag shape we want.

Click on the Length at Section 1 Bottom and change it to **500.** Change the Width of Section 1 Bottom to **5**.

Clicking on the appropriate fields, change the top length to **500** and the top width to **5.** Your screen should now look like this.

Hake a r	new Shape - [Mak	te a new Bag - ]				
Shape Nam	ne Bag					
Section	Height at Top of Section	Length at Top of Section	Width at Top of Section	Color Overall	90 180 270 1 2 3 4	7
7	800.0000	500.0000	5.0000		TOP	
6	571 4286	400.0000	75.0000		BOT	
4	457.1429	500.0000	100.0000			
3	342.8571	500.0000	100.0000			
2	228.5714 114.2857	450.0000	75.0000			
Length of Se	ection 1 Bottom	500.0000	]			
Width of Se	ction 1 Bottom	5.0000	]			

Now make the same changes for sections 2 and 6.

Make a n File Help	iew Shape - [Mał	te a new Bag - ]				
Shape Nam	ne Bag					
Section	Height at Top of Section	Length at Top of Section	Width at Top of Section	Color Overall	90 1800 2700 1 2 3 4	
7 6 5 4 3 2 1 1 Length of Set	800.0000 685.7143 571.4286 457.1429 342.8571 228.5714 114.2857 ection 1 Bottom	500.0000 500.0000 450.0000 500.0000 450.0000 500.0000 500.0000	5.0000 5.0000 75.0000 100.0000 100.0000 75.0000 5.0000			

Next change all the lengths to 500.

Make a r	new Shape - [Mal	ke a new Bag - ]					
File Help							
Shape Nam	ne Bag						
Section	Height at Top	Length at Top	Width at Top of	Color	90	_	
	or section	or section	Section	Overall	180		
				1	270		
					1	ſ	
					2		
					3	$\wedge$	
					4		
7	800.0000	500.0000	5.0000		TOP		
6	685.7143	500.0000	5.0000		BOT		
5	571.4286	500.0000	75.0000				
4	457.1429	500.0000	100.0000				
2	228.5714	500.0000	75.0000				
1	114.2857	500.0000	5.0000		, 1		
						1	
Length of Se	ection 1 Bottom	500.0000	]				
wiath of Se	cuon i boπom	5.0000	J				

Now let's color the bag.

Click on the **Overall** button and select a color. Click on **OK**.

Click on the top button in the Color column and choose a color for the "seal".

Do the same for the bottom seal.

Make a n	new Shape - [Mak	te a new Bag - ]				
File Help						
Shape Nam	ne Bag					
Section	Height at Top of Section	Length at Top of Section	Width at Top of Section	Color	90 180 270 1 2 3 4	
7	800.0000	500.0000	5.0000		TOP	
6	685.7143	500.0000	5.0000		BOT	
5	571.4286	500.0000	75.0000			
4	457.1429	500.0000	100.0000			
3	342.8571	500.0000	100.0000			
2	228.5714	500.0000	75.0000			
1	114.2857	500.0000	5.0000			
Length of Se	ection 1 Bottom	500.000	0			
Width of Se	ction 1 Bottom	5.000	0			

Last, save your shape by clicking on **File** and **Save As**.

To leave the Make a new Bag screen, select Close from the File menu.

# **Designing Gable-End Shapes**

Select Make a new Gable End Shape from the Make a new Shape menu.

Mak	ke a new Shape <u>D</u> atabases R <u>e</u> solutions	Inte						
•	Make a new Case							
ļ –	Make a new Tray							
	Make a new Cylinder/Bottle							
	Make a new Bag							
	Make a new Gable End Shape							
	Make a new Rectangle Square Bottle							
	Make a new Oval Shape							
	Make a new Pallet Base							

Enter the following Initial Parameter data.

*Number of sections* **7** (the maximum number is 12)

Overall Height 700

Overall Length 350

Overall Width 350

Create a new Shape File ( Make a new Gab						
Number of Sections:	7					
Overall Initial Height:	700.0000					
Overall Initial Length:	350.0000					
Overall Initial Width:	350.0000					
ОК	Cancel					

Click on **OK and y**ou will see the following screen.

<b>Hake a r</b> File Help	new Shape - [Mak	e a new Gable E	nd Shape - ]			
Shape Nam	ne Gab	le End				
Section	Height at Top of Section	Length at Top of Section	Width at Top of Section	Color Overall	90 180 270 1 2 3 4	
7 6 5 4 3 2 1	700.0000 665.0000 554.1667 443.3333 332.5000 221.6667 110.8333	350.0000 350.0000 350.0000 350.0000 350.0000 350.0000 350.0000	8.7500 8.7500 175.0000 350.0000 350.0000 350.0000		<u>407</u> 108	
Length of Se Width of Se	ection 1 Bottom ction 1 Bottom	350.000				

Make Section 5 **350** in the width instead of 175. Your screen should look like this.

Make a n File Help	iew Shape - [Mak	e a new Gable E	nd Shape - ]			
Shape Nam	ne Gab	le End				
Section	Height at Top of Section	Length at Top of Section	Width at Top of Section	Color Overall	90 180 270 1 2 3 4	
7 6 5 4 3 2 1 Length of Se	700.0000 665.0000 554.1667 443.3333 332.5000 221.6667 110.8333 ection 1 Bottom	350.0000 350.0000 350.0000 350.0000 350.0000 350.0000 350.0000 350.0000	8.7500 8.7500 350.0000 350.0000 350.0000 350.0000		TOP	

Save your shape by selecting **Save As** from the **File** menu.

To leave the Make a new Gable End Shape screen, select Close from the File menu.

# **Designing Rectangular or Square Bottles**

There are essentially two styles of rectangular bottles.



When you are changing length and width of the "cap area", you should change the width dimension first, starting at the top section.

Let's create an offset bottle shape.

Select Make a new Rectangle Square Bottle from the Make a new Shape menu.


Change the default settings to the following:

Number of sections 7

Overall Height 800

Overall Length 400

Overall Width 200

Create a new Shape File ( Make a new Rec						
Number of Sections:	7					
Overall Initial Height:	800.0000					
Overall Initial Length:	400.0000					
Overall Initial Width:	200.0000					
ОК	Cancel					

Click on **OK**.

Make a new Shape - [N	ake a new Rectangle Square Bottle - ]	
Shape Name P Offset Information Alon Neck Offset 0 Section 6 Offset 0	ect. Bottle	
Zection         Height at Top of Section           7         800.0000           6         760.0000           5         633.333           4         506.666           3         380.0000           2         253.3333           1         126.6666           Length of Section 1 Bottom           Width of Section 1 Bottom	Length at Top of Section Over of Section 100.0000 200.0000 100.0000 400.0000 200.0000 400.0000 200.0000 400.0000 200.0000 400.0000 200.0000 200.0000	

To make this an offset bottle, we need to move either the neck or cap (or both). Towards the top of the screen you will see a block labeled *Offset Information*. Here you can move the neck or cap in either the length or width direction.

Let's make one side of the bottle into a straight side. Notice the number 1.0 in the *Increment* box. This indicates the amount the neck or cap will be offset each time you want to move it.

Click on the left arrow button marked **Along Length**, in the **Section 6 Offset** block. Each time you click the neck will move towards the left and it will eventually become a straight side. Here is the screen after 10 clicks, shown from the side.

Hake a ne	ew Shape - [Mal	æ a new Rectang	le Square Bottle	-]		
Shape Name Offset Informa Neck Offset Section 6 O	e Rec ation Along L -10 offset -10	t. Bottle	Vidth Increme 1.0	nt	0 90 180 270	
7       6       5       4       3       2       1	Height at Top of Section           800.0000           760.0000           633.3333           506.6667           380.0000           253.3333           126.6667           ction 1 Bottom           tion 1 Bottom	Length at Top of Section 400.0000 400.0000 400.0000 400.0000 400.0000 400.0000	Width at Top of Section 100.0000 200.0000 200.0000 200.0000 200.0000 200.0000 200.0000	Color Overall	1 2 3 4 100 801	

Here is the screen after 25 clicks have occurred.

Make a new Shape - [Mal	ke a new Rectangle Square Bottle	- ]	
File Help			
Shape Name Red	t. Bottle		
Offset Information Along L	ength Along Width Increm	ent	90
Neck Offset -25		1	180
Section 6 Offset -25			270
Section Height at Top	Length at Top Width at Top of	Color	
of Section	of Section Section	Overall	2
			3
			4
7 800.0000	100 0000		
<b>6</b> 760.0000	200.0000 100.0000		TOP
5 633.3333	400.0000 200.0000		BOI
4 506.6667	400.0000 200.0000		
3 380.0000	400.0000 200.0000		
<b>2</b> 253.3333	400.0000 200.0000		
1 126.6667	400.0000 200.0000		
Length of Section 1 Bottom	400.0000		
Width of Section 1 Bottom	200.0000		

Now let's move the cap to the left-hand side of the top section. This time click on the left arrow marked **Along Length**, in the **Neck Offset** block. Click on this arrow until the cap has reached the end of the top section.

Make a new Shape - [Make a new Rectangle Square File Help	ootle - ]
Shape Name     Rect. Bottle       Offset Information     Along Length     Along Width       Neck Offset     -150     0       Section 6 Offset     -100     0	crement 0 90 180 270
Section         Height at Top of Section         Length at Top of Section         Width at Top of Section           7         800.0000         100.           6         760.0000         200.0000           7         800.0000         100.           6         760.0000         200.0000           7         800.0000         200.0000           4         506.6667         400.0000         200.           2         253.3333         400.0000         200.           1         126.6667         400.0000         200.           Length of Section 1 Bottom         400.0000         200.	op of Color     1       Overall     2       3     4       0000     3       0000     9       0000     9

Save your bottle by clicking on the File menu and Save As.

To leave the Make a new Rectangle Square Bottle screen, select Close from the File menu.

### **Designing Oval Bottles**

Oval bottles require information similar to rectangular bottles except that you do not enter a length and width, you enter a long diameter and a short diameter.

#### Select Make a new Oval Shape from the Make a new Shape menu.



Leave the default settings as they appear.

Number of sections **7** 

Overall Height 200

Overall Length 100

#### Overall Width 50

#### Click on OK.

Make a n	ew Shape - [Mak	æ a new Oval Sha	.pe - ]			
File Help						
Shape Nam	e Mak	e a new Oval				
Offset Inform	nation Long D	ia. Short Di	a. Increme	nt	90	
Neck Offse	t O		1.0		180	
Section 6 (	Offset 0				270	
Section	Hoight at Top	Long Diamotor	Short Diamotor	Color		/
Section	of Section	at top of Sec.	at top of Sec.	Color	1	
				Overall	2	
				1	3	
					4	
7	200.0000	50.0000	25.0000		TOP	
6	190.0000	50.0000	25.0000		POT	
5	158.3333	100.0000	50.0000			
4	126.6667	100.0000	50.0000			
3	95.0000	100.0000	50.0000			
2	63.3333	100.0000	50.0000			
1	31.6667	100.0000	50.0000			
Long Diame	eter of Sec. 1 Bott	om 100.0000				
Short Diame	eter of Sec. 1 Bott	om 50.0000	]			

When you create a thin bottle, the outline of the edge facing you may appear to be faded. This is because the edge is slightly rounded. Use the **Overall** color feature to improve the appearance.

Also note that when you are changing long and short diameters for the cap, you should change the short diameter first starting at the top section.

Make a new Shape - [Ma File Help	ke a new Oval Shape - ]			
Shape Name Ma Offset Information Long D Neck Offset 0 Section 6 Offset 0	ke a new Oval Dia. Short Dia. Increme 0 0 0 1.0	ent	0 90 180 270	
7         200.0000           6         190.0000           5         158.3333           4         126.6667           3         95.0000           2         63.3333           1         31.6667           Long Diameter of Sec. 1 Bot           Short Diameter of Sec. 1 Bot	Long Diameter at top of Sec.         Short Diameter at top of Sec.           50.0000         25.0000           50.0000         25.0000           100.0000         50.0000           100.0000         50.0000           100.0000         50.0000           100.0000         50.0000           100.0000         50.0000           100.0000         50.0000           100.0000         50.0000           tom         100.0000	Color		

Let's make the cap taller. Go to section **6** of the *Height at Top of Section* column and change it to **160** move to the next field.

Make a n	iew Shape - [Mak	e a new Oval Sh	ape - ]			
File Help						
Shape Nam	ie Mak	e a new Oval				
Offset Inform	nation Long Di	a. Short D	ia. Increme	nt	90	
Neck Offse	et O		1.0		180	
Section 6 (	Offset 0				270	
Section	Height at Top	Long Diameter	Short Diameter	Color		
	of Section	at top of Sec.	at top of Sec.	Ouerell		
				Overdir	2	
					3	
					4	
7	200.0000	50.0000	25.0000		TOP	
6	160.0000	50.0000	25.0000		BOT	
5	158.3333	100.0000	50.0000			
4	126.6667	100.0000	50.0000			
3	95.0000	100.0000	50.0000			
2	63.3333	100.0000	50.0000			
1	31.6667	100.0000	50.0000			
				]		
Long Diame	eter of Sec. 1 Botto	om 100.000	0			
Oherst Dieme			1			
Short Diame	eter of Sec. 1 Both	om50.000	<u> </u>			
5 4 3 2 1 Long Diame	158.3333 126.6667 95.0000 63.3333 31.6667 eter of Sec. 1 Botto	100.0000 100.0000 100.0000 100.0000 100.0000 3m 100.0000	50.0000 50.0000 50.0000 50.0000 50.0000		BUT	

Change the *Short Diameter of Sec 1 Bottom* to **65** and press the **Tab** key.

Make a r	new Shape - [Mak	æ a new Oval Sha	ipe - ]			
File Help						
Shape Nam	ne Mak	e a new Oval				
Offset Inform	nation Long Di	ia. Short Di	a. Increme	ent	90	
Neck Offse	et O		1.0		180	
Section 6	Offset				270	
Section	Height at Top	Long Diameter	Short Diameter	Color		
	of Section	at top of Sec.	at top of Sec.	Overall	2	
					3	
					4	
7	200.0000	50.0000	25.0000			
6	160.0000	50.0000	25.0000		TOP	
5	158.3333	100.0000	50.0000		BOI	
4	126.6667	100.0000	50.0000			
3	95.0000	100.0000	50.0000			
2	63.3333	100.0000	50.0000			
1	31.6667	100.0000	50.0000			
				l		
Long Diame	eter of Sec. 1 Botti	om100.0000				
Short Diame	eter of Sec. 1 Bott	om 65.0000	]			 

Now click on the blue button for section 7 and change the color.

<b>Make a n</b> File Help	ew Shape - [Mal	ke a new Oval Sha	ape - ]			
Shape Nam Offset Inform Neck Offse Section 6 0	nation Long D Nation Long D Nt O Offset O	ia. Short Di	a. Increme	int	0 90 180 270	
Section 7 6 5 4 3 2 1	Height at Top of Section 160.0000 158.3333 126.6667 95.0000 63.3333 31.6667	Long Diameter at top of Sec. 50.0000 50.0000 100.0000 100.0000 100.0000 100.0000	Short Diameter at top of Sec. 25.0000 50.0000 50.0000 50.0000 50.0000	Color	1 2 3 4 100 801	
Short Diame	eter of Sec. 1 Bott eter of Sec. 1 Bott	om 100.0000	]			

You can also create offset oval bottles.

Make a new Sh File Help	iape - [Mak	e a new Oval Sha	ape - ]				
Shape Name Offset Information Neck Offset Section 6 Offset	Mak Long Di 25 25	e a new Oval ia. Short Di 0	a. Increme	int	0 90 180 270		
Section Heig of 3 6 5 4 3 2 1 Long Diameter of	ht at Top Section 160.0000 130.0000 126.6667 95.0000 63.3333 31.6667 Sec. 1 Botto	Long Diameter attop of Sec. 50.0000 50.0000 100.0000 100.0000 100.0000 100.0000 000	Short Diameter at top of Sec. 25.0000 50.0000 50.0000 50.0000 50.0000	Color	1 2 3 4 100 801		
Short Diameter of	Sec. 1 Botti	om 50.0000	<u>י</u>				

The technique for changing the neck and section 6 offset is the same as rectangular bottles.

To leave the Make a new Oval Bottle screen, select Close from the File menu.

# Designing Blister Pack Shapes

We have added a new **Make a New Shape** feature for Blister Packs as well. This shape can be used to simulate plastic blisters as well as card type packages with a hanging extension. You have to be in the Arrange or Design program for Blister Packs in order to access this feature.

From the Make a New Shape menu, select Make a New Blister Pack. Enter your starting dimensions.

^{re} Crea	Create a new Shape (Make a new Blister Pack)							
	Overall Initial Height:	250,0000						
	Overall Initial Length:	200.0000						
	Overall Initial Width: 40.0000							
	ОК	Cancel						

Click **OK** to see the default shape on the screen.



Then adjust the placement of the card back and also the blister (or bubble) part of the package. The Flatboard is the card that attaches to the back of the blister. The Bubble is the blister itself.

Blister Pack Shape			X
	Length	Width	Height
Blister Pack Dims	200.0000	43	350.0000
Flatboard Dims	200.0000	5.0000	350.0000
Bubble Dims	196	38	200
Bubble Vertical Offset 5.0000			
Flatboard Colour			3
Bubble Colour	<		
			J
	_		
Save	Open	Close	

If offset will not be possible, you will see the following prompt when you save.

Blister	Pack		
?	Bubble Height + Bubble Offset > half Flat board height. Therefore space savings will not be possible. do You still want to Save		
	<u>Yes</u> <u>N</u> o		

Save your shape and it will appear in your list of options in the Arrange and Design Groups.

# **Designing Pallet Blocks**

You cannot create a true pallet base style, but you can build three-dimensional **Pallet Blocks** to represent any pallet base size.

On the input screens choose the Make a new Shape menu, and Make a new Pallet Block.



The following screen will appear.

Pallet Block Input Data	
Description	Save
Length 0.0000 Width 0.0000 Height 0.0000 Weight 0.0000	Cancel

Enter a **Description**, the required **Length**, **Width**, **Height** and **Weight** of the pallet base you want to build:

Pallet Block Input Data	
Description documentation pallet	Save
Length 48 Width 40 Height 5.5 Weight 50	Cancel

Click on **Save** and a **Save As** dialog box appears:

Enter a name (maximum of 8 characters) for the "special" pallet base style and then click on OK.

Your new pallet block will now appear in the list of Pallet Base Styles.

# **Designing Trucks or Shipping Containers**

Making new truck or container sizes is very similar to making a Pallet Block.

Make sure you are on one of the input screens. Now choose the **Make a New Shape** menu and then select **Make a New Truck/Container**.

Mal	ke a new Shape	Input	Databases	Tools	Fill V
	Make a new Ca	ise			
1	Make a new Tr	ay			
	Make a new Cy	/linder/E	Bottle		- 15
	Make a new Ba	g			2
	Make a new Ga	able End	Shape		
	Make a new Re	ctangle	Square Bottl	e	- 11
	Make a new O	val Shap	e		- 11
	Make a new Pa	illet Blog	:k		- 11
	Make a new Pa	illet Base	2		- 83
	Make a new Tr	uck/Cor	ntainer		
	Make a new Pa	illet Bin			gth
	Make a new Pa	illet Crat	e		
	Make a new Pa	llet Disp	olay		- 83

The following screen appears:

Truck Size Input Data	
Description	ОК
Length 0.0000 Width 0.0000 Height 0.0000 Tare Weight 0.0000	Cancel Save

Enter a **Description**, the dimensions and weight.

Truck Size Input Data	
Description testtruck	Save
Length 7500 Width 2500 Height 2300 Tare Weight 500	Cancel

Click on **OK**. You will then be asked to enter a name (maximum of 8 characters) and save your **Truck/Container Style**:

Your newly created truck will automatically appear in the list of Truck Types:

# **Designing Pallet Bins**

Pallet bins are often used as a disposable pallet container. Corrugated and carton manufacturers use them to deliver folding cartons, corrugated flatblanks and bundles of flat-glued cases (KDF's). Here is an example.



To create a Pallet Bin:

Go to the Make a new Shape menu on the Pallet, Arrange, Design or KDF input screens and select Make a new Pallet Bin.



The following screen will appear:

Create Pallet Bin		
	Description	Save
		Cancel
Length		
Width		
0.0000		
Height		
0.0000		
Bin Weight 0.0000		
Leg Width		
0.0000		
Leg Height		

Enter the following information in the appropriate fields.

Description -- pallet bin

ID for the bin length -- 48

ID for the bin width -- 40

ID for the bin height -- 50

Bin Weight -- 35

Leg Width for the width of the wooden runners -- 6

Leg Height for the height of the wooden runners – 4.5

Leg Offset from edge for how far the runners are from the edge -- 6

Create Pallet Bin	
Description	Save
Length 48 Width 40 Height 50 Bin Weight 35 Leg Width 6 Leg Height 4.5 Leg Offset from edge 6	Cancel

Now click on the **Save** button.

Enter a filename for the bin. These file names cannot exceed 8 characters.

Your pallet bin has now been saved to the chosen file name. It is available to use from the Pallet Base Style list on the Pallet tab.

### **Designing Pallet Crates**

Pallet crates are best described as a box that sits on a regular pallet base style. They have a variety of uses including bulk items, fresh produce and flat cartons.

To create a Pallet Crate:

Go to the Make a new Shape menu on the Pallet, Arrange, Design or KDF input screens and select Make a new Pallet Crate.



The following screen will appear:

Create Pallet Crate	
Enter Description	Save
Select a Pallet base style for crate	Cancel
Crate Length 0.0000	
Crate Width	
Crate Height 0.0000	
Crate Weight 0.0000	

Enter **Pallet Crate** as the description.

Select **48x40.pa4** from the pallet base style drop down list.

For the Crate length, enter **48**.

For the Crate Width, enter 40.

For the Crate Height, enter **50**.

For the Crate weight, enter **53**.

Create Pallet Crate	X
Enter Description	
Pallet Crate	Save
Select a Pallet base style for crate 48x40.pa4 48x40 US GMA 4-Way Pallet	Cancel
Crate Length 48 Crate Width 40 Crate Height 53 Land Land Land Land Land Land Land Land	

Now click on the **Save** button.

Enter a file name for the crate. These file names cannot exceed 8 characters.

Your pallet crate has now been saved to the chosen file name. It is available to use from the Pallet Base Style list on the Pallet tab.

# **Designing Pallet Displays**

Pallet Displays are a regular pallet base style that has a display case or tray secured to the top. This allows stores and discount clubs to use their pallet loads for customer shopping convenience, without having to unload the product from the pallet or case.

To create a Pallet Display:

Go to the **Make a new Shape** menu on the Pallet, Arrange, Design or KDF input screens and select **Make a** new Pallet Display.



The following screen will appear:

Create a new Pallet Display	
Enter Description	Save
Select a Pallet base style for Pallet Display	Cancel
Display Case/Variable Tray	
Display Length 0.0000	
Display Width 0.0000	
Display Height 0.0000	
Display Weight 0.0000	

Enter **Pallet Display** as the description.

Select **48x40.pa4** from the pallet base style drop down list.

Select **TRAY2.CSF** as your Display Case.

For the Crate length, enter **48**.

For the Crate Width, enter 40.

For the Crate Height, enter 50.

For the Crate weight, enter 53.

Create a new Pallet Di	splay	
	Enter Description	Save
Pallet Display		
	Select a Pallet base style for Pallet Display	Cancel
48×40.PA4	48x40 US GMA 4-Way Pallet	▼
Display Ca TRAY2.CSF	ase/Variable Tray ▼	
Display Length	0	
Display Width 40.000		
Display Height 5		
Display Weight	3	

Now click on the **Save** button.

Enter a file name for the Display. These file names cannot exceed 8 characters.

Your pallet display has now been saved to the chosen file name. It is available to use from the Pallet Base Style list on the Pallet tab.

### Making New Pallet Base Styles

Cape Pack allows you to create your own realistic pallets rather than requesting pallets from Customer Service, or using Pallet Blocks. Because this is a design tool, it is essential that you have accurate measurements for the pallet, and all the boards or blocks that make up this pallet style.

Each pallet is created in layers by selecting boards from a list and then placing them on the pallet in the desired location. Once the bottom layer is completed, you add a new layer and continue on until all of the pieces are placed. There are 2 basic pallet styles that you will want to consider when using this feature:

• Two-way entry pallets that are usually created with 3 layers of boards.

• Four-way entry pallets that are usually created with 4 layers of boards. In the case of fourway pallets, the stringers are split vertically to create 2 separate layers. The easiest way to see this is to open a 4-way pallet and look at the different layers of the pallet. The 48x40.pa4 file is an excellent example of this type of pallet.

You have 2 options with the pallet design feature:

- Create a new pallet base style. Use this if you have a brand new style, or if you need to change the sizes of individual boards in an existing pallet style.
- Modifying an existing pallet base style. Use this option if you are change the number of boards on an existing pallet, but the size of the boards is remaining constant.

We will discuss both options.

# **Designing New Pallets**

You will need to have a fairly accurate picture, drawing or specification of the pallet that you want to build with dimensions of the boards and gaps.



Item	Description	Size	Quantity	
A	Deck Boards	40" x 5.5" x .75"	5: 3 on the bottom and 2 on top	
В	Deck Boards	40" x 3.5" x .75"	7: 2 on the bottom and 5 on top	
С	Runners	48" x 1.75" x 2"	3. This is the top half of the runner.	
D	Runners	6" x 1.75: x 1.5"	6. These will be place on either end to help frame the "notch."	
E	Runners	16" x 1.75" x 1.5"	3. These will be placed in the middle to complete the frame for the "notch."	

On the Front Menu or the input screens for any program that uses pallets, choose the **Make a new Shape** menu, and **Make a new Pallet Base**.

Make a new Shape       Databases       Resolutions       Interr         Make a new Case       Make a new Tray       Make a new Cylinder/Bottle       Make a new Cylinder/Bottle         Make a new Gable End Shape       Make a new Rectangle Square Bottle       Make a new Oval Shape         Make a new Pallet Base       Make a new Pallet Base       Make a new Pallet Base	Advanced) - [Front Menu]					
Make a new Case Make a new Tray Make a new Cylinder/Bottle Make a new Bag Make a new Gable End Shape Make a new Rectangle Square Bottle Make a new Oval Shape Make a new Pallet Base	Make a new Shape Databases Resolutions	Intern				
Make a new Tray Make a new Cylinder/Bottle Make a new Bag Make a new Gable End Shape Make a new Rectangle Square Bottle Make a new Oval Shape Make a new Pallet Base	Make a new Case	- 1				
Make a new Cylinder/Bottle Make a new Bag Make a new Gable End Shape Make a new Rectangle Square Bottle Make a new Oval Shape Make a new Pallet Base	Make a new Tray	- 1				
Make a new Bag Make a new Gable End Shape Make a new Rectangle Square Bottle Make a new Oval Shape Make a new Pallet Base	Make a new Cylinder/Bottle	- 1				
Make a new Gable End Shape Make a new Rectangle Square Bottle Make a new Oval Shape Make a new Pallet Base	Make a new Bag					
Make a new Rectangle Square Bottle Make a new Oval Shape Make a new Pallet Base	Make a new Gable End Shape					
Make a new Oval Shape Make a new Pallet Base	Make a new Rectangle Square Bottle					
Make a new Pallet Base	Make a new Oval Shape					
	Make a new Pallet Base					

The following screen will appear.

👂 Pallet Builder Dialog	×
Pallet Builder Options	
New Pallet	
O Open Pallet (Standard Dialog)	
O Open Pallet (Thumbnails)	
	1
OK Cancel	

Select New Pallet and click on OK. You will see the next screen.

Pallet Dimensions	🔾 Pallet Dimensions 🛛 💽					
Units of Measur mm/kg	e O in/lb					
Pallet Length	0.0000					
Pallet Width	0.0000					
Pallet Height	0.0000					
Pallet Weight	0.0000					
ОК	Cancel					

For this example we will be making a 48x40x5" pallet that weighs 50 pounds. So we need to select in/lb for our units of measure rather than metric and then enter our overall pallet size.

Pallet Dimensions	<b>—</b>
Units of Measure Omm/kg	● in/lb
Pallet Length	48
Pallet Width	40
Pallet Height	5
Pallet Weight	50
ОК	Cancel

Click **OK** and you will see the following screen.

📀 Board Dimensi	ions	×
Board Lengt	h 0.0000	
Board Width	0.0000	
Board Heigh	t 0.0000	
ОК	Cancel	Another
Browse Boa	rds	

You can now begin to enter your boards for the pallet. Start with the first board in the table above.

Board	Dimensions			<b>—</b>
Bo	ard Length	40		
Bo	ard Width	5.5		
Bo	ard Height	.75		
0	K	Cancel	Another	
Bro	owse Boards			

Click on the **Another** button to clear the screen and allow you to enter an additional board. Repeat this process until all boards are entered. Then click **OK** to open the Pallet Builder program. Your screen will look the following.

📀 Pall	🔎 Pallet Base Builder (.PA4 - 48in x 40in Height 5in) 🧮 🔤				
<u>F</u> ile	<u>V</u> iew For <u>m</u> at	<u>T</u> ools Color	<u>H</u> elp		
				Description	
ΟV	/iew Pallet	C View Current	Layer		
No.	Layer Height	# of Boards	Mousup		
			Move up		
		м	ove down		
Ne	w Layer De	elete Layer			
Board	s				
No.	Length	Width	Height		
2	40.00000	3.50000	0.750 🔺	Select Board Remove Board	
3	48.00000	1.75000	2.000	- Current Board Orientation	
4	6.00000	1.75000	1.500 =		
5	5 16.00000 1.75000 1.500 O Length C On				
	v Øwidth				
Ne	w Board E	Edit Board 🛛 🛛 🛛	elete Board)	Height	

The next step is to create a layer so that we can start placing our boards. Click on the **New Layer** button.

📀 Pall	et Base Builder (	.PA4 - 48in x 40ir	n Height 5in)	n) 🗾	
<u>F</u> ile <u>\</u>	<u>V</u> iew For <u>m</u> at	<u>T</u> ools Color	<u>H</u> elp		
				Description	
۰v	iew Pallet	O View Current	Layer		
No.	Layer Height	# of Boards	Move up	1	
1	0.00000	0	F		
		м	ove down		
	uul auer De	lata Lauar		1	
		siete Layer			
Board	S Lawath	N.C.M.	11-t-t-t-s		
2	Length 40.00000	3 50000	0.750L	Select Roard Remove Roard	
- 2	48.00000	1 75000	2 000		
4	6.00000	1.75000	1.500 =	Current Board Orientation Switch Direction	
5	16.00000	1.75000	1.500	C Length 💿 Ult	
	▼ © Width © On				
Ne	w Board B	Edit Board D	elete Board	<ul> <li>Height</li> </ul>	
_					

A line item for this layer will appear in the layers list, and you will see the outline of the pallet layer in red on the top view. Click on the first board that you want to place which will be number 1 in your board list. Then click on the **Select Board** button.

📀 Pall	💽 Pallet Base Builder (.PA4 - 48in x 40in Height 5in) 🥢 🕰				
<u>F</u> ile	<u>F</u> ile <u>V</u> iew For <u>m</u> at <u>T</u> ools Color <u>H</u> elp				
				Description	
			~		
	<				- 1
• v	ïew Pallet	O View Current	Layer		- 1
No.	Layer Height	# of Boards	Mauaun		- 1
1	1 0.75000 1 Move up				- 1
		м	ove down		
	1				- 1
Ne	w Layer De	elete Layer			
Board	s				- 1
No.	Length	Width	Height		_
1	40.00000	5.50000	0.750 🔺	Select Board Remove Bo	ard
2	40.00000	3.50000	0.750	- Current Board Orientation	
3	48.00000	1.75000	2.000		
4	6.00000	1.75000	1.500		
5	16.00000	l 1.75000	1.500		
Ne	New Board Edit Board Delete Board    Height				

The first board will appear on your layer. However, it is oriented in the wrong direction. Click on the board, which will mark it with a large X, then click on the **Switch Direction On** indicator.

📀 Pallet Base Builder	(.PA4 - 48in x 40i	n Height 5in)	×
<u>File View Format</u>	<u>T</u> ools Color	<u>H</u> elp	
			Description
	$\geqslant$		
View Pallet	🔿 View Current	t Layer	
No. Layer Height	No. Layer Height # of Board: Move up		
New Layer D	elete Layer	1ove down	
Boards			
No. Length	Width	Height	L Deserved
1 40.00000	5.50000	0.750 🔺	Select Board Remove Board
2 40.00000	3.50000	0.750	Current Board Orientation
3 48.00000	1.75000	2.000	C Length
4 6.00000	1.75000	1.500	C Width
5 1 16.00000	1 1.75000	1 1.500	
New Board	Edit Board	Delete Board	

The board turns to the correct orientation. Using this procedure, add boards in the following order:

- Board 2
- Board 1

- Board 2
- Board 1

Your screen will look like this.

🕒 Pall	et Base Builder (	.PA4 - 48in x 40ir	n Height 5in)		X )
<u>F</u> ile <u>\</u>	<u>/</u> iew For <u>m</u> at	<u>T</u> ools Color	<u>H</u> elp		
				Description	
	A CONTRACT				
		Social States and Stat			
• •	iew Pallet	View Current	Layer		
No.	Layer Height	# of Boards	Move up		
1	0.75000	5			
		м	ove down		
Ne	w Layer De	elete Layer			
Boards	3				
No.	Length	Width	Height		
1	40.00000	5.50000	0.750	Select Board Remove Board	ł
2	40.00000	3.50000	0.750	Current Board Orientation Switch Direction	
3	48.00000	1.75000	2.000	C Length Off	
4	16,00000	1.75000	1.500	⊙ Width ⊙ On	
N-	w Poord	Edit Boord	alata Raard	Height	
ive			velete Board		

Click and drag the last board added to the far right side of the pallet. Then we will move on to layer 2 and leave final editing of this layer until later.

📀 Pallet Base Builder (	.PA4 - 48in x 40ir	n Height 5in)	×
<u>File View Format</u>	<u>T</u> ools Color	<u>H</u> elp	
			Description
View Pallet     No. Layer Height     0.75000	© View Current # of Boards 5 M	Layer Move up love down	
Roards	lete Layer		
No. Length	Width	Height	
1 40.00000	5.50000	0.750	Select Board Remove Board
2 40.00000	3.50000	0.750	
3 48.00000	1.75000	2.0001 =	Current Board Urientation Switch Direction
4 6.00000	1.75000	1.500	
5 1 16.00000	l 1.75000	1.500	
New Board	Edit Board D	)elete Board	(• Height

Click on **New Layer** to add layer 2. This will be the layer where we create the notches for the four-way entry.

🜔 Pall	let Base Bui	lder (.	PA4 - 48	Bin x 40i	n Height 5in)						×
<u>F</u> ile	<u>V</u> iew For <u>r</u>	<u>m</u> at	<u>T</u> ools	Color	<u>H</u> elp						
							D	escriptio	on		
• V	'iew Pallet		🔿 Viev	w Current	Layer						
No. 2	Layer Heij 0.00000	ght (	# of Boa	ards	Move up						
1	0.75000	Ę	5								
				M	love down						
Ne	ew Layer	De	lete Laye	il I							
Board	s					,					
No.	Lengtł	1	Wi	idth	Height				1		
1	40.0000	)0 )0	5.50	0000	0.750			Sele	ect Board	Remove B	bard
2	40.0000	10	3.50	5000	2 000		- Current Board Orientation	1—	- Switch Dire	ection	
4	6.0000	0	1.75	5000	1.500		C Length		<ul> <li>Off</li> </ul>		
5	16.0000	)0	1.75	5000	1.500		◯ Width		🔿 On		
Ne	ew Board	E	dit Board	1	)elete Board		Height				

First add a board number 4.



Add two more of these boards. Then we will center them equally across the width of the pallet. Drag the top board to the top left corner of the pallet.

📀 Pall	et Base Builder	(.PA4 - 48in x 40ii	n Height 5in)	n) 📃	×
<u>F</u> ile	<u>/</u> iew For <u>m</u> at	<u>T</u> ools Color	<u>H</u> elp		
				Description	
		-		N	٦
۰v	iew Pallet	C View Current	Layer		
No.	Layer Height	# of Boards	Move up	1	
2	1.50000	3	· · ·		
1	0.75000	5			
		м	love down		
Ne	w Layer D	elete Layer			
Board	ll				
No.	Length	Width	Height		_
1	40.00000	5.50000	0.750 🔺	Select Board Remove Board	d 📗
2	40.00000	3.50000	0.750	E Current Board Orientation Switch Direction	
3	48.00000	1.75000	2.000	C Length	
4	6.00000	1.75000	1.500		
5	16.00000	1.75000	1.500		
Ne	w Board	Edit Board [	)elete Board	Height	

Now hold down the Shift key and click and drag from the top board to the bottom. A large X will be placed over the three boards.

📀 Pallet Base Builder	(.PA4 - 48in x 40i	n Height 5in)	×
<u>F</u> ile <u>V</u> iew For <u>m</u> at	<u>T</u> ools Color	<u>H</u> elp	
			Description
	-	<u> </u>	
		-	
View Pallet	C View Current	t Layer	
No. Layer Height	# of Boards	Move up	
2 1.50000	3		
1  0.75000	5		「「名」
	N	love down	
Now Lover D			
Boards	5.2° IO	11-2-14	
1 40.00000	5 50000	0.750L	Salast Pazzd Paraua Pazzd
2 40.00000	3.50000	0.750	Hellove Boald
3 48,00000	1.75000	2.000	Current Board Orientation Switch Direction
4 6.00000	1.75000	1,500	○ Length
5 16.00000	1.75000	1.500	🔿 Width 💿 On
New Board	Edit Board	Delete Board	Height
			· · · · · · · · · · · · · · · · · · ·

Click on the Format menu, Spacing Along Width, Make Equal.

📀 Palle	et Base Builder (	(.PA4 - 48in x 40ir	n Height 5in)	n)	x
<u>F</u> ile <u>\</u>	<u>/</u> iew For <u>m</u> at	<u>T</u> ools Color	<u>H</u> elp		
				Description	
			~		
					- 1
• Vi	iew Pallet	O View Current	Laver		
No	Louar Haight	thef Reards	1	1	- 1
2	1 50000	3	Move up		- 1
1	0.75000	5			- 1
			1	1	- 1
		M	ove down		- 1
Ne	w Layer De	elete Layer			
Boards		-			
No	) Length	Width	Height		- 1
1	40.00000	5.50000	0.750	Select Board Bemove Bo	ard
2	40.00000	3.50000	0.750		
3	48.00000	1.75000	2.000	E Current Board Orientation Switch Direction	
4	6.00000	1.75000	1.500		
5	16.00000	1.75000	1.500	Vidth Oun	
Ne	w Board	Edit Board D	elete Board)	<ul> <li>Height</li> </ul>	

Repeat this process spacing all the rest of the boards for this layer equally in both the length and width of the pallet. Your pallet should look like the following.

Pallet Base Builder (.PA4 - 48in x 40in Height 5in)	×
<u>File View Format Tools Color H</u> elp	
	Description
View Pallet     View Current Layer     No. Layer Height     # of Boards     Move up     1.50000     9	
New Layer Delete Layer	
Boards	
No.         Length         Width         Height           2         40.00000         3.50000         0.7500           3         48.00000         1.75000         2.0000           4         6.00000         1.75000         1.5000           5         16.00000         1.75000         1.5000           Very         New Board         Edit Board         Delete Board	Select Board     Remove Board       Current Board Orientation     Switch Direction       C Length     © Off       Width     © On       • Height     • On

Next we need to fix the spacing on the bottom layer. Click back on layer one, and make the spacing equal along the length of the pallet.

Then move the two smaller boards towards the center until all three center boards are equally spaced under the center runner piece.

📀 Pall	et Base Builder (	(.PA4 - 48in x 40ii	n Height 5in)								×
<u>F</u> ile	<u>F</u> ile <u>V</u> iew For <u>m</u> at <u>T</u> ools Color <u>H</u> elp										
		_				D	escriptio	n			
			_								
			<u>ا</u> ` (								
۰ ۷	iew Pallet	C View Current	Layer								
No.	Layer Height	# of Boards	Movelup								
2	1.50000	9									
1	0.75000	5									
		M	love down								
Ne	w Laver De	elete Laver									
Poard	·····										
No.	» Lenath	Width	Height								
2	40.00000	3.50000	0.750				Sele	ect Boar	d R	emove B	loard
3	48.00000	1.75000	2.000	- Curro	nt Poord Or	iontotion		- Curital	h Diroctio		
4	6.00000	1.75000	1.500 ≡		ni buaru ur anath	ieritatior	'		n Directio F	IT I	
5	16.00000	1.75000	1.500		idth			• Or			
Ne	w Board	Edit Board	)elete Board	<u></u> •н	eight						

Next we will add a new layer for the other half of the stringers. Click on New Layer.

Add 3 of board number 3 and space them equally along the width of the pallet.



And finally, we need to add the last layer, with the top boards. This layer has 1 board one on each end and then 5 board twos, all equally spaced along the length of the pallet. Your final pallet should look like this.



Finally, add a description in the area above the pallet top view.



Save your pallet by clicking on the **File** menu and **Save**. Pallet must have an 8-character name and must be saved into the **Tutor** folder. The program will add the PA4 extension to your file.

Save As		
COO V 🕌 « Local Disk (C:) 🕨 cape	216 🕨 Tutor 🕨 👻 🐓	Search Tutor
Organize 🔻 New folder		:= 🗸 🔞
Downloads	<ul> <li>Name</li> </ul>	Date modifie
🕍 Recent Places	SOLERO P.PA4	7/21/2016 3:1
a 🚍 Liburrian	KIM.PA4	6/13/2016 10
	GAC3232.PA4	2/3/2015 4:22
	■ GOA4840.PA4	2/3/2015 4:22
	GOC4032.PA4	2/3/2015 4:22
	GOC4848.PA4	2/3/2015 4:22
· · · · · · · · · · · · · · · · · · ·	GOC6136.PA4	2/3/2015 4:22
4 💶 Computer	GOM1X1.PA4	2/3/2015 4:22
≥ ↓ Local Disk (C:)	GOS4840.PA4	2/3/2015 4:22
KIKA (\egwusms003\users\$) (P:)	IPPLOG2P.PA4	8/15/2011 3:1 🗸
	<b>▼</b>	4
File name:		•
Save as type: Pallet files (*,PA4)		•
Hide Folders		Save Cancel

# Features of the Pallet Builder

There are several features that have been built into this new feature that make it more user friendly if you are going to be building a lot of your own pallet styles. All of the can be access from the menus.

### File Menu



#### New Pallet

Use this option to create a brand new pallet base style.

#### **Open Pallet**

Use this option to open and modify and existing pallet base style.

Or you can open with the new Thumbnail option.

### View Menu

This menu gives you the option to view the pallet from different angles. Here are your options.

(	View	Format	Tools	Color	Help	,,	
-	✓	3D			-		
		Top View					48x40 4
E		Side Views		×		Side 1	
•		Show Layer	Below			Side 2	
	-	~	and a			Side 3	
٥,	View I	Pallet		Side 4			

### Format Menu

This menu gives you the ability to equally space the boards of your layer either along the length or width of the pallet. The program will equally space the objects that are highlighted. You can also remove the spacing using this feature.

se Builder (.PA4 - 48in x 40in Height 5i	n)	
Format Tools Color Help		
Spacing along the length	•	Make Equal
Spacing along the width	•	Remove
E all an all all all	-	

### Tools Menu

The Tools menu contains two options.

a (	.F.M4 - 4	011 X 401	n neight oin)					
t	Tools	Color	Help					
٦	Board Table							
10 6	P	allet Stat	istics	41				
11 11 11	Т	humbna	ils					

#### **Board Table**

This option gives you the ability to create a listing of boards that are commonly used to create pallets.

C	Brows	e Boards	5					×
	No.	L	ength	Wi	dth		Height	
	Clos	e	Add	Delete		Add to	Board Lis	t

Click on add to **Add** a board to the table.

Board Dimensions	<b>x</b>
Board Length	40
Board Width	5.5
Board Height	.75
ОК	Cancel

Enter in your dimensions and click on **OK** to place the board in the table.

C	Brows	e Boards		×
	No.	Length	Width	Height
	1	40.0000	5.5000	0.7500
	Clos	e Add	Delete	Add to Board List

Click on Add to Board List to use a particular board to your current pallet configuration.

#### Thumbnails

This option on the **Tools** menu activates a thumbnail listing of all the pallets in your program.

Click on any pallet you wish and then the **Open** button.

### Colors Menu

This menu is used to change pallet color.

48in x 40in Height 5in)				
Color Help				
Change Pallet Color				
Change to Original Color				
I Kara	_			

# **Economic Analysis**

### Introduction

We feel that it is a very important part of the packaging evaluation process to be able to substantiate your arguments for potential change or new packaging ideas with hard economic facts. The Economic Analysis program was designed as a tool to assist you in this task. Economic Analysis is used to compare the financial consequences of one selected solution against a maximum of three others.

The **Economic Analysis** option is only available from the **Tools** menu in the Pallet, Arrange and Design Groups.



The example we are describing is based on the results of running the Widget data file in the Pallet Group Tutorial. Our example also assumes that the secondary packages are corrugated cases.

From our analysis, we have established that the maximum number of cases that can be loaded with one dimension vertical is 42(6 layers of 7cases per layer with the case height dimension vertical in solution 1).

We will assume that the 42 cases achieved 7 more cases per load than an original pattern we used.

File E	dit Thu	mbnails	Options	5 Help								
Sol. No.	Pat Type	# Per Load	# Per Layer	# of Layers	D V	Cube Eff.	Area Eff.	Length Under	Length Over	Width Under	Width Over	-
1	С	36	6	6	Н	69.2	79.2	0.85	0.00	3.57	0.00	
2	1	36	6	6	н	69.2	79.2	0.35	0.00	4.57	0.00	
3	Т	36	6	6	н	69.2	79.2	0.85	0.00	4.07	0.00	
4	S	36	6	6	н	69.2	79.2	8.57	0.00	4.07	0.00	
5	I	30	5	6	н	57.7	66.0	7.57	0.00	4.07	0.00	
6	Т	30	5	6	н	57.7	66.0	7.57	0.00	4.57	0.00	_
7	Т	30	5	6	н	57.7	66.0	8.07	0.00	4.07	0.00	
8	S	30	5	6	н	57.7	66.0	8.07	0.00	4.07	0.00	
9	С	24	4	6	н	46.1	52.8	7.57	0.00	4.57	0.00	
10	D	24	4	6	н	46.1	52.8	8.07	0.00	4.07	0.00	_
( · ·	-			-								

To check the economic feasibility of these alternatives, click on **Economic Analysis** on the **Tools** menu. The following screen will appear.

C Francomic Analysis				
File Ontions Help				
Input 1 Input 2				
				_
Annual volume (Cases/Year) 50000 Avg. inventory (Case	es)	100	D	
Alternatives 1 2				
Caca sizo				_
Length 16.43 16.43				
Width 15.43 15.43				
Height 6.48 6.48				
Loading information				
Cases /pallet 36 36				
Pallets /Load (Pallet) 20 20				
Salact a Manu Itam	(in/lb)	9-19 AM	CARS	NUM
Select a menu tem	(intro)	3.43 AM	UNFO	NOW /

You can evaluate up to four (4) alternatives during on analysis. We are going to enter 2.

To change the number of alternatives and enter solution information, click on the **Options** menu and **Input Settings**.

Economic Analysis				
e 🚺	ptions <u>H</u> elp			
pi	Input Settings			
٨r	Repeat	Ctrl+R		

The following screen will appear.

Input Settings		
	Use	Solution Number
Alternative#1	×	1 📩 of 17
Alternative#2	×	2 🔺 pf 17
Alternative#3		3pf 17
Alternative#4		4 <u>*</u> pf 17
ОК		Cancel

Click on the *Use* field to activate the Alternative number, then select the solution number you want to use. In this case we will activate the first 2 alternatives and select solutions **1** and **11** respectively.

Now click on **OK** and you will see the following screen.

Economic Analysis			
<u>File Options H</u> elp			
Input 1 Input 2			
Annual volume (Cases/Year)	50000.0	Avg. inventory (Cases)	1000.0
Alternatives	1	2	
		Case size	
Length	16.43	16.43	
Width	15.43	15.43	
Height	6.48	6.48	
	Load	ling information	
Cases /pallet	36	24	
Pallets /Load (Pallet)	20.00	20.00	
Cases/Load (Deadstack)	0.00	0.00	
Select a Menu Item		(	in/lb) 9:50 AM CAPS NUM

# Input Data

For our example, the basic information relating to case size and number of case per pallet is already filled in for the 3 alternatives. The remaining data must now be entered manually.

## Volume/Usage Data

Annual Volume (Cases/Year)	Enter the annual quantity of cases or whatever the secondary package was called. Type <b>50000.</b> Annual volume is a required data entry.
*Pallet Group	
Avg. Inventory (Cases/month)	Approximately how many cases do you hold in stock on a monthly basis? Let's assume we hold a minimum quantity of one month's supply in stock. Enter <b>4000</b> .
Cases/Pallet	The number of cases per pallet is entered automatically, taken from the Solution.
Pallets/Load (Pallet)	How many full pallets can we load onto our delivery truck? Let's say <b>24.</b> Click on the <b>Options</b> menu and <b>Repeat</b> (or control+R) to fill in this entry for all alternatives.
Cases/Load (Dead stack)	You have designated that full pallets are being loaded into the truck versus hand-loading or dead stacked (no pallets). You cannot enter both pallets/load and cases/load. Your screen should now look like this.
Primary Pack Annual Volume	Enter the annual quantity of primary packages used.
*Arrange/Design Group	

Economic Analysis Ele Options Help Input 1 Input 2				• 🔀
Annual volume (Cases/Year) 50000.0 Avg. inventory (Case	:5)	400	0	
Alternatives 1 2 Case size				
Length         16.43         16.43           Width         15.43         15.43           Height         6.48         6.48				
Loading information				
Cases /pallet3624Pallets /Load (Pallet)2424Cases/Load (Deadstack)0.000.00			_	
Select a Menu Item	(in/lb)	9:51 AM	CAPS	NUM

Click on the **Input 2** tab to continue your data entry.

### Logistics Costs

Costs can be depicted as any monetary unit. For this example, we are using US Dollars.

Handling (Cost/Pallet)	This cost should represent handling across the entire supply chain.
	Enter <b>18.00</b> for the alternatives based on the assumption that the case has the same handling costs.
Storage (Cost/Pallet/Month)	Enter <b>4.50</b> as the cost to store one pallet per month.
Transfer (Cost/Load)	If there are transfer costs incurred from factory to storage, enter the amount per truck as <b>60</b> for each.
Transport (Cost/Load)	Enter <b>250</b> for the average cost of delivering one truck to a given destination.

### **Material Costs**

Cases (Cost/000)	In our example the case is the same size for all alternatives. Therefore a materials cost comparison would be of no value. If the case material cost were different we would need to enter a cost per thousand cases here.
Pallets (Cost/Pallet)	Pallets cost money, so enter the cost of one pallet for each alternative as <b>8.00</b> .
Miscellaneous Costs	Three fields are provided to include any other costs that might apply from one alternative or another. The cost is expressed as a total annual cost (e.g., <b>2000</b> for new printing or machinery costs, etc.).

Input 2 of the Economic Analysis should now look like this.

Economic Analysis						• <b>×</b>
File Options Help						
Input 1 Input 2						
Alternatives	1	2				
	Logis	tics costs				
Handling (Cost /Pallet)	18.00	18.00				
Storage (Cost/Pallet/Month)	4.50	4.50				
Transfer (Cost/Load)	60.00	\$60.00				
Transport (Cost /Load)	\$250.00	\$250.00				
	Mate	rial Costs				
Cost/000 Cases	\$25.00	\$25.00				
Pallets (Cost/Pallet)	\$8.00	8.00				
	Miscella	neous costs				
	0.00	0.00				
	0.00	0.00				
1	0.00	0.00				
			_			
Select a Menu Item			(in/lb)	9:56 AM	CAPS	

# **Reviewing Results**

Click on the **File** menu and **Calculate** to get your results.

<b>V</b> C	conomic Ai	idiysis
File	Options	Help
	New	
	Calculate	
	Close	
_	COLUMN THE OWNER	

Page 1 of the output will appear, which serves to recap your volume information.

Economic Analysis						_		×
File Options Help								
Page 1	Page 2		Page 3		Page 4			
Annual volume (Cases/Y	ear)	50000.0	Avg. inventory (C	ases)	C		4000.0	]
Alternatives	1		2					
		Case	size					
Length	16	6.43	16.43					
Width	15	i.43	15.43					
Height	E	i.48	6.48					
		Loading in	formation					
Cases /pallet	3	6.00	24.00					
Pallets /Load (Pallet)	2	4.00	24.00					
Cases/Load (Deadstac	:k)	D.00	0.00					
Select a Menu Item				(in/lb)	9:57 AM	CAPS	NUM	//.

Here is Page 2 which is an analysis of the volume information.

Economic Analysis					
le <u>O</u> ptions <u>H</u> elp age 1	Page 2		Page 3	Page 4	
			]	l'age :	
Alternatives		1	2		
Total and the set		50000			
Cacac (pallet		20000	50000		
% Change Cases/Pa	dlet	0.00	-33.33		
Cases /Load		864	576		
% Change Cost/Load	1 E	0.00	-33.33		
Total Pallets /year		1389	2084		
% Change Pallets /y	ear	0.00	50.04		
Total Loads /year		58	87		
% Change Loads/ye	ar	0.00	50.00		

Here is Page 3 which recaps the handling costs.

C Economic Analysis				- • •
Page 1 Page	e 2	Page 3	Page 4	
			i	
Alternatives	1	2		
	Mater	rial cost per year		
CASE	\$1,250.00	\$1,250.00		_
Pallets	\$11,112.00	\$16,672.00		_
	Tota	l material costs		
Total Material costs	\$12,362.00	\$17,922.00		_
Material Cost change	\$0.00	\$5,560.00		_
% Change material Cost	0.00	44.98		
	Misc	ellaneous Costs		
	\$0.00	\$0.00		_
	\$0.00	\$0.00		_
	\$0.00	\$0.00		
Total Misc. Costs	\$0.00	\$0.00		
Select a Menu Item			(in/lb) 9:57 AM	CAPS NUM

And finally, Page 4 which compares the two options.

Economic Analysis						ارتقار
lle Options Help		) Dama 2				
age i Page 2		Page 3		Page 4		
Alternatives	1	0				
Allematives		2				
Handling + Transfer cost	\$28,482.00	\$42,732.00				
H + T cost change	\$0.00	\$14,250.00				
% Change H + T cost	0.0	50.0				
Total storage cost	\$6.048.00	\$9,018,00				
Storage Cost Change	\$0.00	\$2,970.00				
% Change Storage Cost	0.0	49.1				
Total Transportation Costs	\$14,500,00	\$21,750.00				
Transportation costs change	\$0.00	\$7,250.00				
% Change Transportation Cost	0.0	50.0				
	Total	Output Costs				
Total Cost	\$61,392.00	\$91,422.00				
Total Cost Change	\$0.00	\$30,030.00				
% Change cost	0.0	48.9				
elect a Menu Item			(in/lb)	9:57 AM	CAPS	NUM

Our report shows that by using Alternative 1 we could save nearly 20% of our costs over Alternative 2.

Economic Analysis is a very simple, yet powerful way of comparing the financial implications of packaging changes.
# **Printing Results**

Simply click on File menu and then Print to obtain a formatted report.

## Tips and Background Information

The following formulas are used to calculate the Economic Analysis.

Handing & Transfer Cost = (Handling Cost * Total Pallets/Year) + (Transfer Cost * Total Loads/Year)

#### **Pallet Program**

Total Storage Cost = [Avg. Inventory/(# of Cases/Pallet)] * Storage Cost * 12

OR

#### **Arrange/Design Programs**

Total Storage Cost = [Avg. Inventory/(# of Cartons/Pallet)] * Storage Cost * 12 Total Transportation Costs = Transportation Cost * (Total Loads/Year)

Total Costs per Year = Total Materials Cost + Total Miscellaneous Costs + H & T Costs + Total Storage Costs + Total Transportation Costs

If you select **Close** from the **File** menu, exiting the Economic Analysis completely, the information regarding the chosen alternatives and the annual volumes, etc., on the first input screen must be re-entered. It is assumed that these will change for each Economic Analysis you execute. The cost information, however, will be saved from the last analysis run during the current work session.

Select **Print** to produce a two page printed copy of the full analysis.

Select **Close** from the **File** menu to exit Economic Analysis and return to the graphics section of the program (Pallet, Arrange or Design).

# Cape's Web Page Publisher

## Introduction

Cape users typically create "packaging/palletizing specs" which contain the primary and secondary pack information, the pallet load statistics and Cape's realistic diagrams of the loaded pallet and/or truck. These reports have either been printed or exported to other program applications. Yet the information contained in these reports is needed by co-workers, customers and suppliers who might be located anywhere in the world.

Now, Internet technology offers a new way to share the packaging or palletizing specs you generate in the Cape Pack programs. Instead of creating printed reports, you create web pages that can be viewed and printed from the Internet, at any time, anywhere in the world using a browser on a PC. You accomplish this through the Web Page Publisher.

A Cape web page is an HTML report. It is just like a printed report, but it is in a format that allows graphical reports to be viewed in a browser environment the same as when you visit a web site. Web pages offer an ideal way to share the visual part of the "packaging/palletizing specs" (graphical reports) you create in the Cape Pack. And, because they can viewed in a browser it means the web pages can be deployed to a web site and viewed by anyone who has access to your web site address.

## Web Page Structure

Think of a web page as a single report. So, one web page equals one report. To collate and manage a number of web pages in a meaningful way, the Internet industry has come up with the name "catalog" as the vehicle for storing web pages together. So a catalog is like a file within a filing system. You give the catalog a name, and then store the individual web pages and any associated numerical information belonging to the individual web page reports and numerical information for the product group can be given a catalog name and then all the associated web page reports and numerical information for the products in that group, can be stored together for easy access and viewing.

Here is an example of a Cape catalog (shown in a browser) with 2 web pages.

😻 Cape Pack Pack	🥘 Cape Pack Packaging Solutions Catalog - Mozilla Firefox 📃 💷 💌					
Cape Pack Pack	aging Solutions × +					
( i   file:///	C:/cape216/webPages/cap/MyCatal	C Q Search	☆ 自 ♥ 4	} ⋒ ∢ ⊜ ≡		
😌 EskoPlanet 🦹	Cape - JIRA F Facebook 💁 Google Tr	anslate G Google 🔀 Maps	😯 Hotfixes 👩 Pintere	st 🔜 SC WX 🥥 Webex 🛛 »		
0						
NER PAAR PORT SHE						
- 19						
WEB PA	GE PUBLISHER					
		MyCatalog				
		viyCatalog				
	Click on any I	ink below to open a	web page			
	There are	6 web pages in this	Catalog			
<u>No.</u>	Description(s)		Date Created			
1.	NEWCAT		9/7/2016			
2.	Sample 1		9/7/2016			
3.	Sample 2		9/7/2016			
4.	A Generic Product Code(1)		9/7/2016			
5.	Sample 3		9/7/2016			
6.	Sample file 1		9/7/2016			

You then deploy/upload the catalog(s) to a web site or web space. Give the address of that site to anyone who is authorized to view your information, and they can access the catalog to view the individual web pages or access the numerical information at anytime, from anywhere in the world.

## Numerical Information (XML)

The numerical information describing the primary and secondary pack sizes, numbers per case, weights, type of pallet, number of cases per layer, layers per pallet, pallet weights, dimensions and cube information, etc., are generated and stored in a web-enabled file structure called XML.

Rather than have individual XML files for each web page, Cape's Web Page Publisher creates a single XML file containing all of the information for every web page within a single catalog. Therefore, all of the numerical information for each web page is stored in the same place. This approach means that it is far easier to manage and maintain a large amount of detailed information than to have numerous single solution files. It also means that another XML program can access that single solution file for the information associated with any or all of the web pages in one catalog.

Here is an example of a Cape XML Solution file.

🔄 🔄 🖻 C:\cape216\webPages\: 🔎 - C 🦉 C:\cape216\webPages\cap ×	🟠 🛣 🔅
👌 🔻 🖸 👻 🚍 🗣 Page 🕶 Safety 🕶 Tools 🕶 🕢 🦃 🔊	
	^
xml version="1.0" encoding="ISO-8859-1"?	
- <webpages></webpages>	
cape pack solutions as xml document	
- <webpage id="1"></webpage>	
<pre><pre>cproduct_name&gt;WPP Tutorial</pre></pre>	
<pre><pre>code</pre>NEWCAT</pre>	
<solution_ref>1 I</solution_ref>	
<load_file_name><b>wpp1cap</b></load_file_name>	
<filedate>9/7/2016</filedate>	
<ul><li><unit_of_measure>1</unit_of_measure></li></ul>	
- <module></module>	
<no>1</no>	
<name>Pallet - Cases/Trays/Ovals</name>	
- <secondary_pack_1></secondary_pack_1>	
<name>Case</name>	
<type>i</type>	
<pre>clengu1_uvi6.uvi6th_ids</pre>	
<pre></pre>	
<pre>cleght_od&gt;10.0</pre> /leght_od>	
<pre>cheight od &gt;10 of /height od &gt;</pre>	
additional weight 20(additional weights	
<pre><net weight="">10.000</net></pre>	
<pre><gross weight="">10.000</gross></pre>	
<material_thickness>0.0</material_thickness>	
<material_weight>0.000</material_weight>	
<sp_per_load>40</sp_per_load>	
<sp_per_layer>10</sp_per_layer>	
<sp_per_truck>0</sp_per_truck>	
- <pallet_base_1></pallet_base_1>	•

Note: The XML information contained in the solution file is in a special format and is not intended to be viewed in the normal way. Your Web Master, MIS or IT people will understand how to use the file. Presenting the information in this way ensures that the Cape numerical information can be accessed by other XML files, e-commerce programs and web-enabled collaboration tools.

## **Catalog Site Map**

In Internet terms you have a "site map" for each catalog. This is an XML file that contains a description of:

- The name of the catalog.
- The number of web pages in that catalog.

- The name of the XML Solution data file.
- The filename of each web page and the associated JPEG file.
- The description used in each web page.
- The date each web page was created.

Note: The XML information contained in the site map file is in a special format and is not intended to be viewed in the normal way. Your Web Master, MIS or IT people will understand how to use the file. Presenting the information in this way ensures that other XML files, e-commerce programs and web-enabled collaboration tools can understand the location and style of the Cape information within a catalog.

The **Document Type Definition** (DTD), which is provided in the standardized format, explains the tags and elements to locate each individual piece of numerical information within a web page.

The **XML Solution Data** is the detailed numerical information for each web page.

This XML style of information is not normally viewed and should only be used by your Web Master or IT colleagues to display or share the numerical information for individual Cape web page.

## Document Type Description for the Site Map

Here is an example.

There are examples of XML data for each of the program groups given at the end of this chapter.

## Web Page Publisher Paths

Your program has been designed to allow you a great deal of flexibility and control for your catalogs. You have three choices of paths for creating and maintaining your catalogs.

- A Private path on your local PC where you are the only person that can access that particular catalog, or
- A Shared path specifically for a network installation of the Cape Pack where you and your coworkers can access any catalogs in that shared path and each individual user can make any changes needed, or

• A Global path which means you can locate your catalogs anywhere you want to. This can be either on a local PC or a network that you have access to anywhere in the world.

This flexible approach means you can store your catalogs with their associated web pages on the hard disk of your PC (Private path for "private" work), or you can locate them in a more open network environment (a Shared path). Plus you can use the Global path to put your catalogs onto a designated server or hard disk that can be located anywhere you choose allowing you to share common work with your coworkers.

Note: A file locking mechanism is operated for the catalogs located in both the Shared and Global path. This "locking" mechanism is necessary to avoid another person making changes to a "shared catalog" at the same time that you are working on it. If someone else in your Cape network installation is working in that catalog and you attempt to open it and make any changes you will see a "warning" message. Essentially, only one person at a time can open and modify a catalog.

## Location

Your Shared path for Web Page Publisher catalogs will be located in the main directory where your Cape Pack programs were originally installed.

## Changing the Shared Path

This is a simple task and is executed in the Open Network Administrator area under the File menu on the Front Menu screen. See the *Network Administration* chapter for more information on the Network Administrator feature.

Cape Pack Administrator - [Front Menu]     File Tools Help	
The Toon Teb	
Create/Edit List of Valid Users	
Maintain System Parameters	
Edit List of Active Connections	
Edit list of Active Web Page Publisher Connections	
Unlock Catalog	Esko ID Product Name: Cape Advanced
Print Cape Pack Administrator Report	Release: C5
Exit Exit from Cape Pack Administrator	
Create/Edit List of Valid Users	(in/lb) 11:24 AM CAPS NUM

Click on the Maintain Systems Parameters button and you will see the following screen.

Cape Pack Administrator - [Sys	tem Parameters]	
No. of Users	A	ок
Pallet Group	Licensed	
Arrange Group	Licensed	Cancel
Design Group	Licensed	
Cape Folder	c:\cape216\	
WPP Shared Folde	r A	
C. (Caper 10 (mpp3)1a 1	1	
Tutor Folder		
c:\cape216\tutor\		
Image Folder		
c:\cape216\images\		
Display Pallet Data	hase Shared Directory	
c\cana216\databa~1\	displa~1\shared\	1
ι ισαρεετοιασιαρά τι		
Master Database D	irectory:	-1

In the field named *WPP Shared Folder* enter the path of the location you have selected. For example, your chosen location might be on the network F: drive, in a directory called CapeWEB, and you have a "Catalogs" subdirectory. Thus your Shared Folder location would be:

#### F:\CapeWEB\Catalogs

The Shared path for storing your Web Page Publisher catalogs is specifically design for use by people working on the same network installation of the Cape Pack. If you are not on the same network installation but wish to have common catalogs with others, use the Global path option.

### Unlocking Catalogs in Shared Paths

Click on the **Unlock Catalog** button.

Cape Pack Administrato	pr - [Front Menu]	
File Tools Help		
<b>F</b>	Create/Edit List of Valid Users	
	Maintain System Parameters	
	Edit List of Active Connections	
фф	Edit list of Active Web Page Publisher Connections	
à	Unlock Catalog	Esko ID Product Name: Cape Advanced
<b>\$</b>	Print Cape Pack Administrator Report	Release: C5
Exit	Exit from Cape Pack Administrator	
Create/Edit List of Valid I	Users	(in/lb) 11:25 AM CAPS NUM

You will see the following screen.

Select Catalog to Disconnect	×
<ul> <li>Unlock Shared Catalog</li> <li>Unlock Global Catalog</li> </ul>	
Cancel	

Select the **Unlock Shared Catalog** option and you will be presented with the following screen.



Simply highlight any catalog in the list and click on **OK**.

## Unlocking Catalogs in a Global Path

If you choose the Unlock Global Catalog option, you will see the following screen.



Locate the catalog you want to unlock and click on **OK**.

# The Web Page Publisher Options

There are two parts to Cape's Web Page Publisher, both found on the File menu in Multi-Viewer Graphics.

- Create a Web Page
- Web Page Publisher program

## Create a Web Page

The idea is that you create a number of catalogs, run the Cape programs in the normal way, get to Multi-Viewer Graphics and then use this feature to create or select a catalog. Next you convert the on-screen graphics into a web page and then allocate it to a catalog of your choice.

### Web Page Publisher Program

This program is located in Multi-Viewer Graphics on the **File** menu and also on the Publisher menu at the Front Menu screen. Use the Web Page Publisher program to store, manage, maintain and deploy your catalogs. You can keep your catalogs current by deleting old or unnecessary web pages, moving them up/down in the list, sorting them by date or description, changing the description or converting previously saved solutions into web pages.

You can also view the individual pages in a catalog or view the entire contents of a catalog in a browser. This will let you see how individual items will appear in each catalog and how each individual web page looks.

Once you are satisfied with a catalog and its contents you can deploy it to an Intranet, Extranet, web site -- to any environment where you can use a browser. It is a very simple concept.

# **Creating Web Pages**

Create a Web Page is conveniently accessed from the Publisher menu in Multi-Viewer Graphics.



This feature allows you to create a single web page from the current on-screen solution, and then allocate it to a new or existing catalog. You can save your web page to a catalog located in:

- A Private path
- A Shared path
- A Global path

# Using the Web Page Publisher Program

Cape's Web Page Publisher program is designed to help you store, manage and maintain the web pages and catalogs you create within the Cape Pack prior to deploying them to a web space or a web site address.

Cape's Web Page Publisher File Options Sort FTP	Help			
□ ☞ + □	·			
Catalog Name/Pages	Name/Number of Pages			Add/Create web page
Catalog Path	c:\cape216\webpages\cap\(Catalog	Name)		Delete web page
No. Description		Date Created	Cape Load Fil	Edit Description
				View web page
				Move up
				Move down
				Refresh Catalog
٠			Þ	View Catalog
Close				View CLF
Convert Cape Solution into	a web page		11	

There are buttons on the right hand side of the screen that provide the following options.

Add/Create Web Page – create web pages from previously saved Cape solutions.

**Delete Web Page** – remove a selected web page from a catalog.

**Edit Description** – change the description that is displayed for individual web pages.

**View Web Page** – display a selected web page in a browser.

**Move Up** – move an individual web page up in the listing within a selected catalog.

**Move Down** - move an individual web page down in the listing within a selected catalog.

**Refresh Catalog** – a mechanism to make sure all the changes you make when *moving web pages up/down* within a catalog are correctly updated.

View Catalog – display a selected catalog in a browser environment.

**View CLF** – a mechanism to regenerate the actual Cape, on screen graphics.

There are further options available under the File, Options, Sort, FTP and Help menus.



Here you can create a **New Catalog**, **Open an Existing Catalog** in either your Private, Shared or Global locations, or you can use the **Close** option to return to Multi-Viewer Graphics screen or the Front Menu depending on where you launched the Web Page Publisher program.

### **Options menu**



The **Options** menu gives you the following choices.

- Add/Create Web Page create a web page from a previously saved Cape solution.
- **Refresh List Numbering** refreshes the numbering sequence of individual web pages within a catalog after deleting any individual web pages.
- Select/Unselect all allows you to select or deselect all web pages in a single catalog.
- Set Description Column to lets you choose either the Product Name or Product Code as a setting to create the name that will appear in the description column when you display the web pages in a catalog. Thus you can have all of your web pages with either the Product Name or Product Code, or you can mix and match.
- Web Page Settings this is like a Page Setup feature but, in this instance, it can only be used when you convert previously saved Cape solutions to web pages. And, the only thing you can changes is the language used for displaying the Cape names and headings for the numerical information.
- View Current Catalog's XML allows you to view the XML data for the catalog currently open.
- View Current Catalog's Site Map -- allows you to view the Site Map for the catalog currently open.



Allows you to sort the web pages within a catalog, in ascending or descending order by either **Description** or **Date**.

### FTP menu

Publis	her	
t (FTP	) Help	
	Deploy Current Catalog	
	View Current Web Address	
anes	Name/Number of Pages	_

Launches Cape's own FTP (File Transfer Protocol) program to deploy your current catalog to a web space address. You can also use this menu to check the address of your current web page. This feature is explained in more detail later in this chapter.

### Help menu



- **Contents** this chapter as an on-line Help file.
- Search on Help search by subject.
- How to Publish on the web a description of how to use a File Transfer Protocol (an FTP) to deploy your catalog(s) to a web space/address.
- Help on XML Solution Data a Help file especially provided for your Web Master or IT people to extract numerical information.
- Help on a Catalog Site Map a Help file especially provided for your Web Master or IT people to understand the entire contents of a Cape catalog.

## **Deleting Catalogs**

Once you have selected the path and opened the list of catalogs in that path, there is a button for deleting a catalog from the overall list.

🕰 Select a Private Catalog	(Number of Catalogs=2)		
Private Path c:\pro	gra~1\cape202\webpages\cap\		
No. Private Catalog Name 1 kim	No. 3	o, of web pages	Open
2 catalog kmk	5		Close
			Delete

Simply highlight the catalog you want to remove and click on the **Delete** button.

## Web Page Publisher Tutorial

Run the Cape Pack in the normal way and you will get to the Multi-Viewer Graphics screen.

Make the changes you need to the screen layout or individual panels and make sure you have set the **Export Settings** (under the **Export** menu) to suit the style of report you require.

Once you have set these options, they will remain as a "default" for future web pages you want to create. We are now ready to create a web page and add it to a new catalog.

From the **Publisher** menu, select **Add to Private Catalog** (or whichever catalog you want to use).



We want our web pages to be shown in a catalog using the Product Code as our description.

Pu <u>b</u> lisher <u>H</u> elp			
Create a New Catalog	•		
Add to Private Catalog		ħ	
Add to Shared Catalog			
Add to Global Catalog			
Set Description Column to	•		Product Name
Cape's Web Page Publisher		<ul> <li>Image: A state</li> </ul>	Product Code
4		1	

Click on the Set Description Column to option and then Product Code.

Now select **Create a New Catalog** and you will be asked to select the location of the new catalog as a **Private** path (your local PC), a **Shared** path (network drive) or a Global path. Select **Private**. You will now be prompted by an on-screen message.



#### Click on **OK**.

O New Private Catalog		×
Computer → Local Disk (C:) → cape216 → webPages	► cap 👻 🍫 Search cap	م
Organize 🔻 New folder		:= • 🔞
★ Favorites ► Name ► Name ■ Desktop ► Downloads ■ Recent Places	Date modified No items match your search.	Туре
E Libraries Documents J Documents Music Fictures Videos		
I™ Computer ≝ Local Disk (C:)		
KIKA (\\egwusms003\users\$) (P:)	III	Þ
File name: MyCatalog.txt		-
Save as type: Catalog		•
Hide Folders	Save	Cancel

Cape provides a special **Private** path called **CAP**, which is located within the Cape Pack folder under the webpages directory.

Enter a name (ours is called Widgets) for the catalog and click on Save.

We have created a catalog called **MyCatalog** which contains our single web page. That web page name, or Description, is the Product Code of the file.

Now go to the Publisher menu and click on Cape's Web Page Publisher.



The following Web Page Publisher screen will appear.

Cape's Web Page Publishe	r Hele			
	Пер			
Catalog Name/Pages	(Catalog Name)/Number of Pages			Add/Create web page
Catalog Path	c:\cape216\webpages\cap\			Delete web page
No. Description		Date Created	Cape Load Fi	Edit Description
				View web page
				Move up
				Move down
				Refresh Catalog
•	III		4	View Catalog
Close				View CLF
Convert Cape Solution into	a web page		11	

Now go to the File menu and select Open Existing Catalogs and Private.

🜔 Cape's Web Page Publishe	er	
<u>File</u> Options Sort FTP	<u>H</u> elp	
New Catalog	• I	
Open Existing Catalog	Private	
Close Catalog	Shared	
Close	Global	J

The following screen appears to display a list of the existing catalog names.

📀 Sele	ct a Private Catalog (Number of Catalogs=	1)	×
Private	Path c:\cape216\webpages\cap	N.	
No.	Private Catalog Name	No. of web pages	Open
1	MyCatalog	1	
			Close
			Delete

Highlight **Widgets** and click on **Open**.

The Web Page Publisher screen will appear displaying our **MyCatalog** catalog with a **single web page** listed. The name of that single web page is **Arrange Group**. That is the Product Name for this file, which was the Product Code of the file.

O Cape's Web Page Publisher				- • •
<u>File Options</u> Sort FTP	<u>d</u> elp			
□ 🗳 🕇 🗅				
Catalog Name/Pages	MyCatalog/1			Add/Create web page
Catalog Path	c:\cape216\webpages\cap\MyCatalog	i		Delete web page
No. Description		Date Created	Cape Load Fi	Edit Description
1 NEWCAT		9/7/2016	wpp1cap.c	View web page
				Move up
				Move down
				Refresh Catalog
•	III		Þ	View Catalog
Close				View CLF
Convert Cape Solution into a	a web page		11:	

Now we can use some of the features of the **Web Page Publisher** to understand the value of the various functions that are available to you, on this screen.

### Viewing Your Catalog in a Browser

To see how our catalog with its web page(s) will appear on a web site, click on the **View Catalog** button.



### Viewing individual web pages in browser

Highlight the web page in the listing section, and click on the View Web Page button.

You will then see the web page displayed in a browser.



## **Printing Web Pages**

To print web pages from your browser, click on the small Print button in the top left corner of the web page and the standard Windows Print Dialog screen will appear.

Click on OK to print the page.

## **Reviewing the Cape Graphics**

To review the Cape Graphics for the web page click on the **View CLF** button.



### Moving web pages up/down within a catalog

Let's assume that we want to move the Sample 1 web pages to the bottom of the list.

To move the web page we simply highlight it and then click on the **Move down** button until it is at the bottom of the list.

After moving web pages up or down, you will need to click on the **Refresh Catalog** button. This will update the catalog, the XML solution data and the XML site map.

## Creating Web Pages from Cape Saved Solution files

Open an existing catalog or start new one.

Click on the Add/Create web Page button and a dialog box appears to display all your Cape load files (CLF).

The Web Page Publisher program can only use Cape load files that contain saved graphics to create new web pages. Therefore, if you select a number of Cape files, the Web Page Publisher will look at each file, determine if it has Saved Highlight the file(s) you want to use to create web pages.

O Add Cape Pack Solution to Catalog					
Computer >	Local Disk (C:) → cape216 →	private 👻 🗲 Search p	rivate 🔎		
Organize ▼ New folder 🔋 🗉 🔹 🚺 🔞					
☆ Favorites	Name	Date modified	Type S 🔺		
Nesktop	Vcitoria 3.clf	5/20/2016 8:49 AM	CLF File		
〕 Downloads	sample 1.clf	3/4/2016 9:00 AM	CLF File		
📃 Recent Places	sampel 2.clf	3/4/2016 9:02 AM	CLF File		
	🔲 rudy design.clf	3/17/2016 3:33 AM	CLF File		
🥃 Libraries 🛛 🗉	cpccap92.clf	4/28/2016 3:39 PM	CLF File		
Documents	📮 cpccap90.clf	4/28/2016 3:27 PM	CLF File		
👌 Music	rudhy arrange.clf	3/17/2016 3:34 AM	CLF File		
Pictures	🚨 cpccap95.clf	4/28/2016 3:54 PM	CLF File		
😸 Videos	of2 0720.clf	7/20/2016 10:33 AM	CLF File		
	🚨 water bottle sample.clf	3/17/2016 8:07 AM	CLF File		
🖳 Computer	🚨 oscar.clf	8/26/2016 10:08 AM	CLF File		
🚢 Local Disk (C:)	🚨 tissue.clf	3/1/2016 11:54 AM	CLF File		
🙀 KIKA (\\egwusms00.	energy drink.clf	3/17/2016 8:28 AM	CLF File		
🙀 GlobalStorage (\\esl	kc tissue.clf	3/1/2016 11:43 AM	CLF File		
Shared Folders (\\vr	•	III	· · ·		
File <u>n</u> ame	e: "cpccap90.clf" "sample 1.clf"	"sampel 2.clf" "rudy desi 🔻 🛛 Cape Loa	d file (*.clf)    ▼		
		Oper	Cancel		

Click on **Open** and the file(s) will be used to create a web page and added to the bottom of the list in your catalog.

0	Cape's Web Page Publisher					
<u>F</u> ile	<u>O</u> pt	ions <u>S</u> ort F <u>T</u> P	<u>H</u> elp			
Ľ	🖻 🕇	+ 🗅				
Са	italog	Name/Pages	MyCatalog/6			Add/Create web page
Са	Catalog Path c:\cape216\webpages\cap\MyCatalog\				Delete web page	
	No.	Description		Date Created	Cape Load Fi	Edit Description
	1	NEWCAT		9/7/2016	wpp1cap.c	
	3	Sample 1		9/7/2016	sample 1.c	View web page
	4	Sample 2		9/7/2016	sampel 2.c	
	5	A Generic Produ	ict Code(1)	9/7/2016	rudy desig	Move up
_	6	Sample 3		9/7/2016	cpccap92.	· · · · · · · · · · · · · · · · · · ·
-						Move down
						Refresh Catalog
•			III		•	View Catalog
Ľ	Cla	ose				View CLF
Cap	oe's W	/eb Page Publish	er		11	

You can see that creating web pages in the Multi-Viewer Graphics and then allocating them to a individual catalog are relatively easy tasks. As is using the Web Page Publisher to store, modify or maintain a particular catalog.

Now you want to deploy your catalog(s) to the Internet.

## Deploying Catalogs to a Web Site Address

Deploy means to transfer the catalog, with its individual web pages, the catalog XML site map, XML solution data file and a special "catalog file" to a specific web site address.

You need a **File Transfer Protocol** program (referred to as an FTP). This allows you to identify the "source" location of the catalog on your PC and the "target area" on your web space, and then transfer the catalog from your PC to the web site address.

You need to know the location of the catalog on your local PC or network drive, and you will need to know or create the name and exact address of the web space that you want to use to store your catalog.

With these two pieces of information you can go "on-line", then launch your FTP program and transfer the catalog and all its associated files to your selected web space. If you do not have a specific address for your catalog you can create a new directory for it on the web space using the FTP program.

Each time you deploy a Cape catalog you must copy the ENTIRE CONTENTS of the "catalogue" directory within the named Catalog you have chosen.

Note: If you fail to copy the entire contents of this "catalogue" file, the information on your web space will not coincide with information in the catalog on your local computer.

In our example, we already have a web space, but we need to create a new directory for the catalog that we want to deploy.

## Cape's FTP Program

We provide a simple FTP program to deploy any current catalog you have open. Cape's FTP program only deals with the transfer of a current catalog (the one you have open in Web Page Publisher) and is designed to make that transfer process as simple as possible and keeping your work to an absolute minimum. However, if you want to deploy/upload a catalog at another time, or when the Web Page Publisher program has been closed, you should use an alternate FTP program.

To use this feature, simply open a catalog and click on the FTP menu. Then select Deploy Current Catalog to launch Cape's FTP program. You will see the following screen.

🛃 FTP Logon Dialog	X
Remote target site folder	ОК
Host Name/Address	Cancel
User Name	
Password	

There are only four fields you need to complete.

• Remote Target Site Folder: the folder on your web space where you want to locate your catalog. if the folder does not already exist, Cape's FTP program will create it for you.

- Host Name/Address: the server address (i.e. the web site address) where you want to locate the folder with the catalog inside it.
- User Name: the name you normally use for going on-line.
- Password: your normal password for getting on-line.

Here is an example.

🛃 FTP Logon Dialog	X
Remote target site folder mycatalog	ОК
Host Name/Address www.anywhere.com	Cancel
User Name anybody	
Password	

Once you have entered the correct details, click on OK and the transfer process will begin. A dialog box will open to map the progress of the transfer.

Once the transfer has finished, you can go tot your web address and view the catalog on line.

## Examples of XML Data

### XML Solution Data for the Pallet Group - Rectangle/Oval/Bag

File Type: XML

```
[Webpage id=] Web Page Number<sup>1</sup>
product_name=Product Name
product_code=Product Code
solution_ref=Solution Reference
load file name=Cape Load File Name
filedate=Web Page Creation date.
unit_of_measure=Unit of measure (0=mm/kg, 1=in/lb)
 [module]
 no=Module Type (1 Pallet-Rectangle/Oval)
 name=Program Module name
 [module]
 [secondary_pack_1]
 name=Pack Name
 type=Pack Type
 length id=Inside Dimension Length
 width_id=Inside Dimension Width
 height_id=Inside Dimension Height
 length_od=Outside Dimension Length
 width_od=Outside Dimesion Width
 height_od=Outside Dimension Height
 net weight=Nett Weight
 gross weight=Gross Weight
 material_thickness=Material Thickness
 material_weight=Material Weight
 sp_per_load=Number of Secondary Pack's per Load
```

sp_per_layer=Number of Secondary Pack's per Layer sp_per_truck= Number of Secondary Pack's per Truck [secondary_pack_1] [pallet base 1]² name=Pallet Base Name length=Pallet Base Length width=Pallet Base Width height=Pallet Base Height weight=Pallet Base Weight [pallet_base_1] [pallet_Load_1] load length=Load Length load_width=Load Width load_height=Load Height product_length=Product Length product_width=Product Width product_height=Product Height net_weight=Nett Weight gross_weight=Gross Weight layers_per_load= Number of Layers per Load layerpads_per_load= Number of LayerPads per Load area eff=Area Effiency cube_eff=Cube Effiency loads_per_truck= Number of Loads per Truck [pallet_Load_1] [usertext] ut=User Text Line 1 ut=User Text Line 2 ut=User Text Line 3 ut=User Text Line 4 ut=User Text Line 5 ut=User Text Line 6 [usertext] [userfield] uf=USER FIELD 1 uf=USER FIELD 2 uf=USER FIELD 3 uf=USER FIELD 4 [userfield] [Webpage] 1 All Other tags are nested within the WebPage Tag.

2 Pallet Base tags contains the dimensions and weight of the pallet as well as the name.Up to 3 of these may be present and listed as pallet_base_1, pallet_base_2 and pallet_base_3.

### XML Solution Data for the Pallet Group – Cylinder/Bottle

File Type: XML

```
[Webpage id]=Web Page Number<sup>1</sup>
product_name=Product Name
product_code=Product Code
solution_ref=Solution Reference
```

load_file_name=Cape Load File Name filedate=Web Page Creation date. unit_of_measure=Unit of measure (0=mm/kg, 1=in/lb) [module] no=Module Type (14 Pallet - Cylinder/Bottle) name= Program Module name [module] [secondary_pack_1] name=Pack Name type=Pack Type top_length=Outside Dimensions Top Length top_width=Outside Dimensions Top Width bottom_length=Outside Dimensions Bottom Length bottom_width=Outside Dimensions Bottom Width height_od=Outside Dimensions Height net_weight=Net Weight gross_weight=Gross Weight material_thickness=Material Thickness material_weight=Material Weight sp_per_load=Number of Secondary Pack's per Load sp_per_layer=Number of Secondary Pack's per Layer sp_per_truck=Number of Secondary Pack's per Truck [secondary_pack_1] [pallet_base_1]² name=Pallet Base Name length=Pallet Base Length width=Pallet Base Width height=Pallet Base Height weight=Pallet Base Weight [pallet_base_1] [Pallet_Load_1] load length=Load Length load_width=Load Width load height=Load Weight product_length=Product Length product_width=Product Width product_height=Product Height net_weight=Net Weight gross_weight=Gross Weight layers_per_load=Number of Layers per Load layerpads_per_load=Number of Layer Pads per Load area_eff=Area effiency cube_eff=Cube effiency loads_per_truck= Number of Loads per Truck [Pallet_Load_1] [usertext] ut=User Text Line 1 ut=User Text Line 2 ut=User Text Line 3 ut=User Text Line 4

ut=User Text Line 5
ut=User Text Line 6
[usertext]

```
[userfield]

uf=USER FIELD 1

uf=USER FIELD 2

uf=USER FIELD 3

uf=USER FIELD 4

[userfield]
[Webpage]
```

- 1 All Other tags are nested within the WebPage Tag.
- 2 Pallet Base tags contains the dimensions and weight of the pallet as well as the name.Up to 3 of these may be present and listed as pallet_base_1, pallet_base_2 and pallet_base_3.

#### XML Solution Data for the Pallet Group - Trapezoid

```
File Type: XML
[Webpage id]=Web Page Number<sup>1</sup>
product_name=Product Name
product code=Product Code
 solution_ref=Solution Reference
 load_file_name=Cape Load File Name
 filedate=Web Page Creation date.
 unit_of_measure=Unit of measure (0=mm/kg, 1=in/lb)
 [module]
 no=Module Type (15 Pallet-Trapezoid)
 name=Program Module name
 [module]
 [secondary_pack_1]
 name=Pack Name
  type=Pack Type
  top_length=Top Dimensions Length
  top_width=Top Dimensions Width
  bottom_length=Bottom Dimensions Length
  bottom width=Bottom Dimensions width
  height_od=Height Dimensions
  net weight=nett weight
  gross weight=Gross Weight
  material_thickness=Material Thickness
  material_weight=Material Weight
  sp_per_load= Number of Secondary Pack's per Load
  sp_per_layer= Number of Secondary Pack's per Layer
  sp_per_truck= Number of Secondaty Pack's per Truck
 [secondary_pack_1]
 [pallet base 1]<sup>2</sup>
   name=Pallet Base Name
   length=Pallet Base Length
   width=Pallet Base Width
   height=Pallet Base Height
   weight=Pallet Base Weight
  [pallet_base_1]
 [pallet_Load_1]
  load_length=Load Length
  load_width=Load Width
```

```
load_height=Load Height
 product_length=Product Length
 product width=Product Width
 product_height=Product Height
 net_weight=Nett Weight
 gross_weight=Gross Weight
 layers per load=Number of Layers per Load
 layerpads_per_load=Number of Layer Pads per Load
 area_eff=Area Efficiency
 cube_eff=Cube Efficiency
 loads_per_truck=Number of Loads per Truck
 [pallet_Load_1]
 [usertext]
 ut=User Text Line 1
 ut=User Text Line 2
 ut=User Text Line 3
 ut=User Text Line 4
 ut=User Text Line 5
 ut=User Text Line 6
 [usertext]
 [userfield]
 uf=USER FIELD 1
 uf=USER FIELD 2
 uf=USER FIELD 3
 uf=USER FIELD 4
 [userfield]
[Webpage]
  1 All Other tags are nested within the WebPage Tag.
```

2 Pallet Base tags contains the dimensions and weight of the pallet as well as the name.Up to 3 of these may be present and listed as pallet_base_1, pallet_base_2 and pallet_base_3.

#### XML Solution Data for the Arrange/Design Group - Box/ Bag/Bottle

```
[Webpage id]=Web Page Number<sup>1</sup>
product_name=Product Name
product_code=Product Code
solution_ref=Solution Reference
load_file_name=Load File Name
filedate=Web Page Creation date.
unit_of_measure=Unit of measure (0=mm/kg, 1=in/lb)
 [module]
 no=Module Type (2 Arrange-BBB,3 Design-BBB)
 name=Program Module name
 [module]
 [primary_pack_1]<sup>2</sup>
 name=Primary Pack name
 type=Primary Pack type
 length_id=Inside Dimesions Length
 width_id=Inside Dimesions Width
 height_id=Inside Dimensions Height
```

File Type: XML

```
length_od=Outside Dimension Length
width_od=Outside Dimension Width
height od=Ouside Dimension Height
nett weight=Nett Weight
gross_weight=Gross Weight
arrangement_x=Number of Primary Packs in the x Plane of the Secondary Pack.
arrangement y=Number of Primary Packs in the y Plane of the Secondary Pack.
arrangement_z=Number of Primary Packs in the z Plane of the Secondary Pack.
direction_x=Primary Pack Dimension in the x Plane of the Secondary Pack
direction_y=Primary Pack Dimension in the y Plane of the Secondary Pack
direction_z=Primary Pack Dimension in the z Plane of the Secondary Pack
pp_per_sp=Number of Primary Pack's per Secondary Pack
pp_per_load=Number of Primary Pack's per Load
material thickness=Material Thickness
material_weight=Material Weight
[primary_pack_1]
[bundle 1]<sup>3</sup>
name=Bundle Name
length=Bundle Length
 width=Bundle Width
height=Bundle Height
net weight=net weight of Bundle
 bundle per sp=Number of Bundles per Secondary Pack
 bundle per load=Number of Bundles per Load
[bundle_1]
[secondary pack 1]<sup>4</sup>
name=Secondary Pack Name
 type=Secondary Pack Type
 length_id=Inside Dimensions Length
 width_id=Inside Dimensions Width
 height_id=Inside Dimensions Height
 length_od=Outside Dimensions Length
 width od=Outside Dimensions Width
 height od=Outside Dimensions Height
 net_weight=Nett Weight
 gross weight=Gross Weight
 material_thickness=Material Thickness
 material_weight=Material Weight
 blank_area=Blank Area
 div blank area=Divider Blank Area
 divider_type=Divider Type
 arrange_div_x=Number of dividers in the x plane
 arrange_div_y=Number of dividers in the y plane
 arrange_div_z=Number of dividers in the z plane
 sp_per_load=Number of Secondary Pack's per Load
 sp_per_layer=Number of Secondary Pack's per Layer
 sp_per_truck=Number of Secondary Pack's per Truck
[secondary_pack_1]
[pallet_base_1]<sup>5</sup>
name=Pallet Base Name
 length=Pallet Base Length
 width=Pallet Base Width
height=Pallet Base Height
 weight=Pallet Base Weight
[pallet_base_1]
```

```
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```

```
[pallet Load 1]<sup>6</sup>
  load_length=Load Length
  load width=Load Width
  load height=Load Height
  product length=Product Length
  product width=Product Width
  product height=Product Height
  net_weight=Nett Weight
  gross_weight=Gross Weight
  layers_per_load=Number of Layers per Load
  layerpads_per_load=Number of Layer Pads per Load
  area_eff=Area Efficiency
  cube_eff=Cube Efficiency
  loads per truck=Number of Loads per Truck
  [pallet_Load_1]
  [usertext]
  ut=User Text Line 1
  ut=User Text Line 2
  ut=User Text Line 3
  ut=User Text Line 4
  ut=User Text Line 5
  ut=User Text Line 6
  [usertext]
 [userfield]
  uf=USER FIELD 1
  uf=USER FIELD 2
  uf=USER FIELD 3
  uf=USER FIELD 4
  [userfield]
[Webpage]
  1 All Other tags are nested within the WebPage Tag.
```

- 2 There may be up to three Primary Packs Tags labeled primary_pack_1, primary_pack_2 and primary_pack_3.
- 3 Bundle tags represent each Secondary Pack Calculated. So bundle_1 is secondary_pack_1, bundle_2 is secondary_pack_2, and bundle_3 is secondary_pack_3.
- 4 There may be up to three Secondary Pack Tags, depending on how many pallet bases are defined. These will be named secondary_pack_1, secondary_pack_2 and secondary_pack_3.
- 5 Pallet Base tags contains the dimensions and weight of the pallet as well as the name.Up to 3 of these may be present and listed as pallet_base_1, pallet_base_2 and pallet_base_3.
- 6 Pallet Load tags contain information about the pallet load. There may be up to 3 Pallet Load tags labeled Pallet_Load_1, Pallet_Load_2, and Pallet_Load_3.

### XML Solution Data for the Arrange/Design Group - Cylinder/Bottle

File Type: XML

[Webpage id]=Web Page Number¹ product_nameh=Product Name product_code=Product code solution_ref=Solution Reference load_file_name=Cape Load File Name filedate=Web Page Creation date. unit_of_measure=Unit of measure (0=mm/kg, 1=in/lb) [Module] no=Module Type (21 Arrange-Cylinder, 31 Design-Cylinder) name=Program Module Name [Module] [primary pack 1]² name=Primary Pack Name type=Primary Pack Type top_diameter=Outside Top Diameter bottom_diameter=Outside Bottom Diameter height_od=Outside Height nett weight=Nett Weight gross_weight=Gross Weight arrangement_x=Number of Primary Packs in the x Plane of the Secondary Pack arrangement_y=Number of Primary Packs in the y Plane of the Secondary Pack arrangement_z=Number of Primary Packs in the z Plane of the Secondary Pack direction_x=Primary Pack Dimension in the x Plane of the Secondary Pack direction_y=Primary Pack Dimension in the y Plane of the Secondary Pack direction **z**=Primary Pack Dimension in the z Plane of the Secondary Pack pp_per_sp=Number of Primary Pack's per Secondary Pack. pp per Load=Number of Primary Pack's per Load material thickness=Material Thickness material weight=Material Weight [primary_pack_1] [bundle 1]³ name=Bundle Name length=Bundle Length width=Bundle Width height=Bundle Height net_weight=net weight of Bundle bundle_per_sp=Number of Bundles per Secondary Pack bundle per load=Number of Bundles per Load [bundle_1] [secondary pack 1]⁴ name=Secondary Pack Name type=Secondary Pack Type length_id=Inside Dimension Length width id=Inaide Dimension Width height_id=Inside Dimension height length od=Outside Dimension Length width od=Outside Dimension Width height_od=Outside Dimension Height net_weight=Net Weight gross_weight=Gross Weight material_thickness=Material Thickness material_weight=Material weight blank_area=blank_area div blank area=divider blank area divider type=divider type arrange div x=arrangement divider x arrange div y=arrangement divider y arrange div z=arrangement divider z sp_per_load=Number of Secondary Pack per Load sp_per_layer=Number of Secondary Pack per Layer sp_per_truck=Number of Secondary Pack per Truck

```
[secondary_pack_1]
 [pallet base 1]<sup>5</sup>
 name=Pallet Base Name
 length=Pallet Base Length
 width=Pallet Base Width
 height=Pallet Base Height
 weight=Pallet Base Weight
 [pallet_base_1]
 [pallet Load 1]<sup>6</sup>
 load_length=Load length
 load_width=Load_width
 load height=Load Height
 product_length=Product Length
 product_width=Product Width
 product_height=Product Height
 net_weight=Net Weight
 gross_weight=Gross Weight
 layers_per_load=Number of Layers per Load
 layerpads_per_load=Number of Layer Pads per Load
 area eff=Area efficiency
 cube_eff=Cube efficiency
 loads per truck=Number of Loads per Truck
 [pallet_Load_1]
[usertext]
 ut=User Text Line 1
 ut=User Text Line 2
 ut=User Text Line 3
 ut=User Text Line 4
 ut=User Text Line 5
 ut=User Text Line 6
 [usertext]
 [userfield]
 uf=USER FIELD 1
 uf=USER FIELD 2
 uf=USER FIELD 3
 uf=USER FIELD 4
 [userfield]
[Webpage]
  1 All Other tags are nested within the WebPage Tag.
  2 There may be up to three Primary Packs Tags labeled primary_pack_1,
     primary_pack_2 and primary_pack_3.
  3 Bundle tags represent each Secondary Pack Calculated. So bundle_1 is
     secondary_pack_1, bundle_2 is secondary_pack_2, and bundle_3 is
     secondary_pack_3.
  4 There may be up to three Secondary Pack Tags, depending on how many pallet bases
     are defined. These will be named secondary_pack_1, secondary_pack_2 and
     secondary pack 3.
  5 Pallet Base tags contains the dimensions and weight of the pallet as well as the
     name.Up to 3 of these may be present and listed as pallet_base_1, pallet_base_2
```

- and pallet base 3.
- 6 Pallet Load tags contain information about the pallet load. There may be up to 3 Pallet Load tags labeled Pallet_Load_1, Pallet_Load_2, and Pallet_Load_3.

#### XML Solution Data for the Arrange/Design Group - Trapezoid

File Type: XML [Webpage id]=Web Page number¹ product name=Product Name product_code=Product Code solution ref=Solution Reference load_file_name=CLF name filedate=Web Page Creation date. unit of measure=Unit of measure (0=mm/kg, 1=in/lb) [module] no=Module Type (22 Arrange-Trapezoid, 32 Design-Trapezoid) name=Program Module Name [module] [primary_pack_1]² name=Primary Pack name type=Primary Pack Type bottom length=Outside Dimensions Bottom Length top width=Outside Dimensions Top Width bottom_width=Outside Dimensions Bottom Width top length=Outside Dimensions Top Length height_od=Outside Dimensions Height nett_weight=Nett Weight gross_weight=Gross Weight arrangement_x=Number of Primary Packs in the x Plane of the Secondary Pack arrangement_y=Number of Primary Packs in the y Plane of the Secondary Pack arrangement_z=Number of Primary Packs in the z Plane of the Secondary Pack direction_x=Primary Pack Dimension in the x Plane of the Secondary Pack direction_y=Primary Pack Dimension in the y Plane of the Secondary Pack direction_z=Primary Pack Dimension in the z Plane of the Secondary Pack pp_per_sp=Number of Primary Pack's per Secondary Pack. pp_per_load=Number of Primary Pack's per Load material_thickness=Material Thickness material_weight=Material Weight [primary_pack_1] [bundle 1]³ name=Bundle Name length=Bundle Length width=Bundle Width height=Bundle Height net_weight=net weight of Bundle bundle_per_sp=Number of Bundles per Secondary Pack bundle_per_load=Number of Bundles per Load [bundle_1] [secondary_pack_1]⁴ name=Secondary Pack Name type=Secondary Pack Type length_id=Inside Length width_id=Inside Width height_id=Inside Height length od=Outside Length width_od=Outside Width height_od=Ouside Height net weight=Nett Weight

gross_weight=Gross Weight material thickness=Material Thickness material weight=material weight blank_area=blank area div_blank_area=divider blank area divider_type=Divider Type arrange div x=arrangement of dividers x arrange_div_y=arrangement of dividers y arrange_div_z=arrangement of dividers z sp_per_load=Number of Secondary Pack's per Load sp_per_layer=Number of Secondary Pack's per Layer sp_per_truck=Number of Secondary Pack's per Truck [secondary_pack_1] [pallet_base_1]⁵ name=Pallet Base Name length=Pallet Base Length width=Pallet Base Width height=Pallet Base Height weight=Pallet Base Weight [pallet_base_1] [pallet_Load_1]⁶ load length=Load length load_width=Load_width load_height=Load_height product_length=product length product_width=product width product_height=Product height net_weight=net weight gross_weight=gross weight layers_per_load=Number of Layers per Load layerpads_per_load=Number of Layer Pads per Load area_eff=Area efficiency cube eff=Cube efficiency loads_per_truck=Number of Pallet Loads per Truck [pallet_Load_1] [usertext] ut=User Text Line 1 ut=User Text Line 2 ut=User Text Line 3 ut=User Text Line 4 ut=User Text Line 5 ut=User Text Line 6 [usertext] [userfield] uf=USER FIELD 1 uf=USER FIELD 2 uf=USER FIELD 3 uf=USER FIELD 4 [userfield] [Webpage] 1 All Other tags are nested within the WebPage Tag. 2 There may be up to three Primary Packs Tags labeled primary_pack_1, primary_pack_2 and primary_pack_3.

- 3 Bundle tags represent each Secondary Pack Calculated. So bundle_1 is secondary_pack_1, bundle_2 is secondary_pack_2, and bundle_3 is secondary_pack_3.
- 4 There may be up to three Secondary Pack Tags, depending on how many pallet bases are defined. These will be named secondary_pack_1, secondary_pack_2 and secondary_pack_3.
- 5 Pallet Base tags contains the dimensions and weight of the pallet as well as the name.Up to 3 of these may be present and listed as pallet_base_1, pallet_base_2 and pallet_base_3.
- 6 Pallet Load tags contain information about the pallet load. There may be up to 3 Pallet Load tags labeled Pallet_Load_1, Pallet_Load_2, and Pallet_Load_3.

#### XML Solution Data for the Casefill Group – Box/Bag/Bottle

```
File Type: XML
```

[Webpage id]=Web Page Number¹ product_name=Product Name (Max. 50 Characters) product_code=Product Code (Max. 25 Characters) load file name=Cape Load File Name filedate=Web Page Creation date. unit_of_measure=Units Of Measure (0=mm/kg, 1=in/lb) [module] no=Module Type (8 Casefill-BBB(Fixed),10 Casefill-BBB(Varible) name=Program Module name [module] [primary_pack_1] name=Pack Name type=Pack Type length_od=Outside Dimensions Length width_od=Outside Dimensions Width height od=Outside Dimensions Height nett_weight=Nett Weight gross_weight=Gross Weight items_per_pp=Number of items per Primary Pack material_thickness=Material Thickness material weight=Material Weight [primary_pack_1] [casefill_object] name=Pack Name length_od=Outside Dimensions Length width_od=Outside Dimensions Width height_od=Outside Dimensions Height length_id=Inside Dimensions Length width_id=Inside Dimensions Width height_id=Inside Dimensions Height net weight=Nett Weight gross_weight=Gross Weight layers_per_load=Number of Layers per Load layerpads_per_load=Number of Layer Pads per Load pp_per_case=Number of Primary Pack's per case pp_per_load=Number of Primary Pack's per load units_per_load=Number of Units per Load area_eff=Area Efficiency cube_eff=Cube Efficiency

```
[casefill_object]
[usertext]
ut=User Text Line 1
ut=User Text Line 2
ut=User Text Line 3
ut=User Text Line 4
ut=User Text Line 5
ut=User Text Line 6
[userfield]
uf=USER FIELD 1
uf=USER FIELD 2
uf=USER FIELD 3
uf=USER FIELD 4
[userfield]
```

#### [Webpage]

1 All Other tags are nested within the WebPage Tag.

### XML Solution Data for the Casefill Group – Cylinder/Bottle

File Type: XML

```
[Webpage id]=Web Page Number<sup>1</sup>
product_name=Product Name (Max. 50 Characters)
product_code=Product code (Max. 25 Characters)
load_file_name=Cape Load file name
filedate=Web Page Creation date.
unit_of_measure=Unit of measure (0=mm/kg, 1=in/lb)
 [module]
 no=Module Type (Casefill-Cylinder/Bottle(Fixed))
 name=Program Module name
 [module]
 [primary_pack_1]
 name=Pack Name
 type=Pack Type
 top_diameter=Outside Top Diameter
 bottom_diameter=Outside Bottom Diameter
 height_od=Outside Dimensions Height
 nett_weight=Nett Weight
 gross_weight=Gross Weight
 items_per_pp=i Number of tems per Primary Pack
 material_thickness=Material Thickness
 material_weight=Material Weight
 [primary_pack_1]
 [casefill_object]
 name=Case name.
 length od=Outside Dimensions Length
 width_od=Outside Dimensions Width
 height_od=Outside Dimensions Height
```

length_id=Inside Dimensions Length
width_id=Inside Dimensions Width

```
height_id=Inside Dimensions Height
 net_weight=Nett Weight
 gross weight=Gross Weight
 layers_per_load= Number of Layers per Load
 layerpads_per_load= Number of LayerPads per Load
 pp_per_case=Number of Primary Pack's per case
 pp_per_load=Number of Primary Pack's per load
 units_per_load=Number of Units per Load
 area_eff=Area Efficiency
 cube_eff=Cube Efficiency
 [casefill_object]
[usertext]
 ut=User Text Line 1
 ut=User Text Line 2
 ut=User Text Line 3
 ut=User Text Line 4
 ut=User Text Line 5
 ut=User Text Line 6
[usertext]
[userfield]
 uf=USER FIELD 1
 uf=USER FIELD 2
 uf=USER FIELD 3
 uf=USER FIELD 4
 [userfield]
[Webpage]
  1 All Other tags are nested within the WebPage Tag.
```

```
680
```