



Imaging Engine - FlexRip 14

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Table of Contents

Table of Contents	4
1 Preface	9
1.1 Who is this guide aimed at?	9
1.2 What does this Manual contain?	9
1.3 Conventions	9
1.3.1 Layout	9
2 General introduction	11
3 Introduction to a FlexRip workflow	12
3.1 What is a FlexRip?	12
3.2 What kind of FlexRip flavors exist?	12
3.3 What is a FlexRip/C?	13
3.4 FlexRip basics	13
3.4.1 General PS and Esko native workflow	13
3.4.1.1 PostScript workflow	14
3.4.1.2 Native workflow	14
3.4.2 Which file formats can be sent?	15
3.4.3 Workflow description	16
3.5 Output file type.....	18
3.6 What is a FlexRip Queue?	19
3.7 What is Grapholas?.....	19
4 Startup and shutdown of FlexRip	21
4.1 Why and when?	21
4.2 How to start up a FlexRip?	21
4.2.1 Start up the computer	21
4.2.2 Starting up the Rip	22
4.3 How to shut down a FlexRip?	22
4.3.1 Stopping the Rip	22
4.3.2 Shutting down the computer	23
4.4 How to reboot the FlexRip computer?	23
5 An overview of programs on the FlexRip	24
5.1 General	24
5.2 Which logon to use?	25
6 Dispatcher	26
6.1 General	26
6.2 Rip menu	27
6.2.1 Clear History	27
6.2.2 Send Jobs	27
6.2.3 Abort Job	28
6.2.4 Restart PS RIP.....	28
6.2.5 Exit	29
6.3 Options menu	29
6.3.1 Program options	29

6.3.1.1 FlexRip Log Files	30
6.3.1.2 Automation Engine Server Disk Mounting	30
6.3.1.3 Trace messages and History	30
6.3.1.4 Input Queue Settings	31
6.3.1.5 Advanced	31
6.3.2 Queue defaults	31
6.3.3 Performance	32
6.3.4 Rip priority	32
6.4 Tools menu.....	33
6.4.1 History View	33
6.4.2 Status Monitor	33
6.5 Info menu	34
6.5.1 Ports	34
6.5.2 About Dispatcher	34
6.6 Connected monitors	34
6.7 Input queues	34
6.7.1 Possible queue types	35
6.7.2 New - Queue Info - Delete	35
6.7.2.1 General	39
6.7.2.2 File handling	40
7 Queue Settings	44
7.1 Priority of settings	44
7.2 Basic	45
7.2.1 Output module.....	46
7.2.2 Resolution.....	46
7.2.3 Approximative PPI.....	47
7.2.4 Perimeter.....	47
7.2.5 Effective PPI.....	48
7.2.6 Rotation.....	48
7.2.7 Scale.....	48
7.2.8 Page size.....	49
7.2.9 Imaging options.....	49
7.2.9.1 Image.....	49
7.2.9.2 Emulsion.....	49
7.2.9.3 Dot Shape.....	51
7.3 Output	51
7.3.1 Location & Name	51
7.3.1.1 Output location	51
7.3.1.2 Output file name	52
7.3.1.3 Restricted file names	54
7.3.2 Configuration set.....	55
7.3.2.1 Name.....	55
7.3.3 Properties.....	55
7.3.3.1 Compression Algorithm.....	55
7.4 PS/PDF Input	55

7.4.1 PostScript	56
7.4.1.1 Screen type	56
7.4.1.2 Screen Swap Table	58
7.4.1.3 Pure black overprint	58
7.4.1.4 Enable optimization	58
7.4.1.5 Preserve Quark trapping	58
7.4.1.6 Ignore PS color management	59
7.4.2 PDF	59
7.4.2.1 PDF password	59
7.4.2.2 Ignore calibrated color spaces	59
7.4.3 Images	59
7.4.3.1 Abort for images with scaled resolution below ... dpi	59
7.5 Native Input	60
7.5.1 Screening	61
7.5.2 Abort for images with scaled resolution below... dpi	61
7.6 InkPlanner.....	61
7.7 Curve Pilot	62
7.7.1 Press dot gain compensation	63
7.7.2 Calibration	64
7.8 PS/PDF marks	64
7.8.1 Layout mode	65
7.8.2 Include	65
7.8.2.1 Color strip	65
7.8.2.2 Customer logo	66
7.8.2.3 Data legend	66
7.9 Screening	67
7.10 Debugging	68
7.11 Copydot Tuning	70
7.11.1 Background	70
7.11.1.1 Performance & Memory Management	70
7.11.1.2 Copydot workflow	70
7.11.1.3 Copydot and paint modes	70
7.11.2 Queue Settings	71
7.11.2.1 Resample	73
7.11.2.2 Abort	73
8 Status Monitor	74
8.1 General overview	74
8.2 Server menu	75
8.2.1 Connect to	75
8.2.2 Trace messages	76
9 History View	77
9.1 Log files: guidelines	80
10 Workflow: flavors and hints	82
10.1 Who decides: the FlexRip or the operator?	82
10.2 What is best: AppleTalk or Hot Folders?	82
10.3 Emulsion: up or down, positive or negative?.....	82

10.3.1 Print from DTP: Application print versus PPD settings.....	83
10.3.2 On FlexRip: PostScript file versus Dispatcher — Queue Settings.....	84
10.4 What if you rip for more than one output device?	85
11 Screening on FlexRip	87
12 Esko Curve Pilot: Esko's Dot Gain Compensation tool	88
12.1 Terminology	88
12.2 Basic explanation and general workflow	88
12.3 Where are my SCR(DGC) and ICPRO files?	89
12.4 Using old DGC files	90
13 Data backup and customization	91
14 Classic errors and their explanation	92
14.1 Classic PostScript errors	93
14.1.1 Examples	93
14.1.2 Problem solving: 'capture' the PS file	94
14.2 Classic internal errors	95
15 General troubleshooting	98
15.1 Queue settings 'disappear'	98
15.2 My input queue shows a 'fail' status	98
15.3 The system disk is filling up	99
15.4 FlexRip rips my file over and over again	99
16 Frequently Asked Questions.....	101
16.1 FlexRip software version	101
16.2 Extra software on the FlexRip	101
16.3 FlexRip and Grapholas on the same computer.....	101
16.4 Screensaver	102
16.5 Windows version	102
16.6 Rebooting the FlexRip	103
16.7 FlexRip's computer name	103
16.8 Info on the network address	103
17 Appendix	104
17.1 Connection to DTP stations	104
17.1.1 How to share FlexRip volumes for a Macintosh (Microsoft Windows 2000 or 2003 Server)	104
17.1.2 How to share FlexRip volumes for a PC (Microsoft Windows 2000 Server)	111
17.1.3 How to share FlexRip volumes for a Macintosh or a PC (Microsoft Windows 2000)	111
17.1.4 How to mount FlexRip volumes on a PC (Microsoft Windows 2000) .	112
17.1.5 How to mount FlexRip volumes on a Macintosh OS9 or older.....	113
17.1.6 How to mount FlexRip volumes on a Macintosh OSX or later	113
17.2 Connection to the Grapholas station.....	113
17.2.1 Connection to the Grapholas (or Grapholas PlatePrep).....	114
17.2.2 Connection to the Grapholas SUN.....	115
17.3 Merging	116
17.4 What about OPI?	116
17.5 Details on Perimeter and Effective PPI.....	116

18 Glossary	118
INDEX	122

1 Preface

1.1 Who is this guide aimed at?

This manual introduces you to the FlexRip application. You will find all the necessary information you need to make you feel at ease working with FlexRip. It is meant to be equally helpful to first time users and skilled operators who might need a little extra assistance from time to time.

1.2 What does this Manual contain?

This FlexRip manual basically consists of the following parts:

- Introduction to a FlexRip/C workflow
- Startup and shutdown of a FlexRip
- General overview of programs on the FlexRip
- Dispatcher
- Queue Settings
- Status Monitor
- History View
- Workflow: flavors and hints
- Screening on FlexRip
- Esko Curve Pilot: Esko's Dot Gain Compensation tool
- Data backup and customization
- Classic errors and their explanation
- General troubleshooting
- Frequently Asked Questions
- Appendix

1.3 Conventions

1.3.1 Layout

For easy reference, we use the following conventions:

Each topic of a list will be preceded by a bullet.

Instructions of only one step, or instructions independent of the order of the steps, are also preceded by a bullet.

1. For instructions that consist of several steps to be performed in a strict order, we use numbered steps.

Preface

Note

A note gives you important information.

Tip

A tip gives you useful information.

Warning

A warning gives you information on how to avoid problems.

Task

Indicates a reference to a task.

If a task is referred to in the See also-sections it is preceded by the words “How to...”

2 General introduction

This document is the user and training manual of a FlexRip/C and is intended for all operators. It explains a FlexRip workflow, the setup of possible configurations, describes its daily use and contains some basic troubleshooting. This document is currently available as PDF file or on-line help. A FlexRip comes with the Suite 12 DVD that contains the following:

1. Software
2. User documentation on:
 - FlexRip/C (this document) (PDF file: Acrobat)
 - Esko Curve Pilot
 - Esko Screening
 - SambaFlex Screens

Warning

This document (and a FlexRip training in general) assumes that the operators of a FlexRip are at least comfortable with the basics of the Windows operating system. A daily user of FlexRip does not need detailed knowledge, but the system manager who controls the in-house networking, installation and configuration of Windows does. This implies that he should have no problems reading our installation and update documentation, written in English. If this is not the case, Esko strongly advises the customer to have his system manager follow a Windows training program.

3 Introduction to a FlexRip workflow

3.1 What is a FlexRip?

1. A FlexRip is designed as a file RIP. There is no direct interfacing with non-Esko machines to ensure maximum connectivity, flexibility and performance.
2. FlexRip is a true Dual Channel RIP. It is equipped with an Esko native channel and an Adobe Certified PS/PDF channel to guarantee a fully open platform.
3. The FlexRip engine is Esko technology and a continuation of the FastRip technology. FlexRip has the same engine for all flavors.
4. FlexRip contains various output modules for different output device types (proofers, ImageSetters, PlateSetters), but only 1 kernel to guarantee a 100% consistency.
5. FlexRip comes standard with Esko Curve Pilot, the advanced calibration tool for film output, plate calibration and press compensation.
6. FlexRip is based on a very modular design, so different output flavors can be added at any time.

3.2 What kind of FlexRip flavors exist?

FlexRip is a modular product with different input channels and a variety of output flavors.

Input	RIP	Output 'flavors'	
PostScript PDF Interpreter Esko Native file Interpreter	FLEXRIP engine INTELLICURVE	Screened Output	Bitmap LEN
			DCS Screened
			Bitmap Tiff
			LP
			PS & PDF
		Unscreened Separated Output	8-bit Tiff
			DCS Unscreened
		Composite Output	PS & PDF
			CMYK Tiff
			Composite PS
			RTL
			Windows printer
			PS & PDF

1. Input channels:

- PostScript 3 / PDF 1.4 / PDF 1.5 / PDF 1.6
- Normalized PDF (Esko's native file format)

Note

FlexRip 12.0 is compatible with Automation Engine 12.0 and higher, Esko PackEdge 12.0 and Esko Plato 12.0 for PS/PDF interpretation.

2. Output flavors:

- FlexRip/Approval provides an interface with Kodak's Approval proofer machines.
- FlexRip/B either rips on the fly (Esko native only) or rips to (screened bitmap) files before sending the information to the Barco ImageSetter (PS and Esko native).
- FlexRip/C outputs screened LEN files for CDI's.
- FlexRip/DCS screened output is a generic module to generate DCS 2.0 files.
- FlexRip/DCS unscreened output provides generic unscreened DCS 2.0 files.
- FlexRip/P outputs (un)screened PDF or PostScript files.
- FlexRip/Proof outputs to proofing devices. Various output formats are available: TIFF, PS, RTL, PDF, Windows Printer, and E Printer.
- FlexRip/TG (TIFF/Gray) outputs grayscale (8-bit) TIFFs (unscreened).
- FlexRip/T4 outputs screened bitmap TIFF files (1-bit).

3.3 What is a FlexRip/C?

The FlexRip/C provides an interface for all workflows to the Esko CDI. The FlexRip/C is built specifically for the flexo printing process and offers many facilities to improve the workflow and the quality of the flexo prepress operation. The FlexRip/C is based upon Esko's FastRip technology, which has market leadership in digital flexo prepress. As it uses the FastRip Rasterizer, it fully uses Esko screening technology.

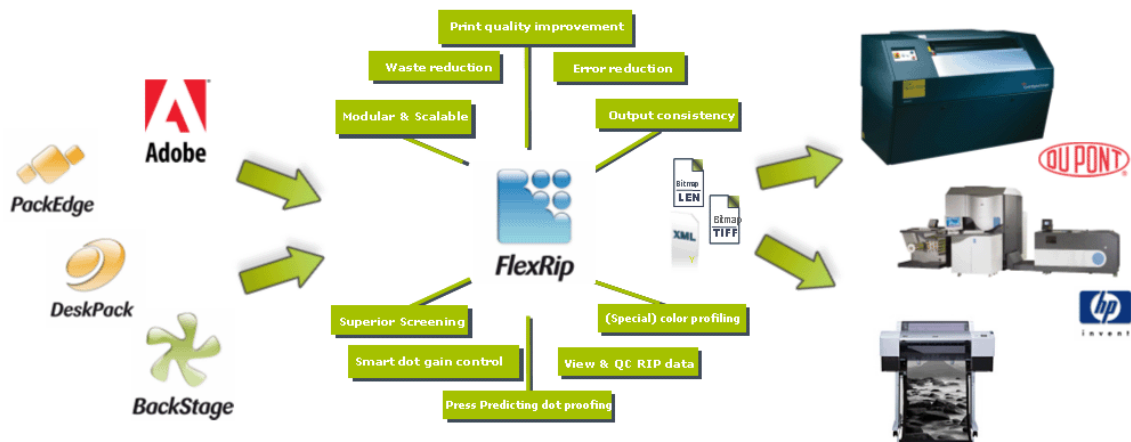
Advantages over PostScript RIPs:

- The overall speed, accuracy and repeatability.
- The complete range of Esko screens is available.
- Esko Curve Pilot: Dot Gain Compensation tools.
- Esko's flexo distortion.
- Esko's optimized imaging quality.

3.4 FlexRip basics

3.4.1 General PS and Esko native workflow

This is a general presentation of a FlexRip workflow:



3.4.1.1 PostScript workflow

In a PostScript workflow, the DTP operator (Macintosh or PC) will print an output-ready job via the Print menu in the application. Using the printer driver of Adobe PS and Esko's dedicated output device PPDs, the operator sets following job parameters in the (separated) PostScript file:

- the selection of separations to be printed
- screening parameters: dot, screen ruling (lines per inch or lpi), angle
- job size
- DGC, Strategy (*.icpro) or CurveSet (*.prsync) Esko's compensation curves. See the Esko Curve Pilot chapter (page 88) for a short introduction and the dedicated Esko Curve Pilot documentation on the Suite 12 DVD for an in-depth explanation.)
- positive or negative; right or wrong reading
- distortion (flexo-printing issue)

Some settings may be left out as they can be set default in a specific RIP queue (e.g. expose resolution, output folder,...). The PostScript file ends up (via AppleTalk print queue, Hot Folder,...) on the FlexRip and is ripped automatically, using default or job-specific RIP options.

The output files will be written in a folder on the FlexRip PC.

See the flavor-specific workflows for more in-depth information.

3.4.1.2 Native workflow

As well as being an Adobe Certified PS3 and PDF RIP, FlexRip can also rip data

from all Esko PrePress applications without any additional calculation or processing time, since the format used in the Esko PrePress applications is exactly the same format used in the FlexRip. This enables an unrivalled level of throughput and consistency.

You can choose to print to the FlexRip directly from Esko PrePress applications like Esko PackEdge and Esko Plato and all output options can be set interactively. To maximize throughput, operators can rip files via a ticket-driven workflow (Automation Engine Server or FlexRip Pilot), offline from the graphical editors. Jobs can be selected, assigned a ticket and then launched in the background, reducing workstation time. Users can see the ripping progress of any job on either the Mac or Windows PC. Logging information can be obtained.

See the flavor-specific workflows for more in depth information.

3.4.2 Which file formats can be sent?

As the FlexRip is a certified PS level 3 RIP, following file formats can be sent:

- Separated PostScript: Level 1, 2 or 3.
- PDF 1.3 – PDF 1.4 – PDF 1.5 – PDF 1.6
- Esko's native file formats.

A normal PostScript workflow will only be based on **separated** PostScript, although FlexRip can handle composite PS files as well. The PostScript interpreter of the FlexRip will read composite PostScript, analyze it into separations and hand over the data of each separation to the RIP, which will make 1 output file per separation. However, customers that receive composite PDF files have to realize that errors may occur when handling the files.

Separated PostScript files for a FlexRip were made with a specific FlexRip PPD. Composite data may not be made via a FlexRip PPD and will probably miss some RIP settings, like the correct screen ruling (angle, LPI, dot type), output name, etc... Most of these then have to be set in the Dispatcher's queue settings. In the Screening tab, you can define the missing screen ruling parameters or overwrite the ones that are incorrect.

Note

In a PostScript workflow, Esko strongly recommends using separated PostScript as standard and preferred input channel.

Difference between composite and separate PostScript

In general, DTP applications output their data in the description language "PostScript" (PS). When the output has to be a color version (e.g. a proof), one will write "composite PostScript". This 1 file generally includes all the data, their color attributes and their relation to each other. Output for a specific proofer will be done using a PPD file (printer description) of that proofer, meaning that the PS file will be

adapted for that specific output device.

When outputting to a film- or platesetter (e.g. CDI), the job has to be delivered to the RIP as a "separated PostScript" file. This means that all the data are already split up per separation (ink). This is also 1 file, but now written in chapters ('pages'). Each Chapter describes 1 ink. The RIP of the film- or platesetter will recognize these "chapters" and handles each ink separately. The color information in this file is in fact redundant info (the laser in the machine does not care about color); so each 'chapter' describes the separation in black.

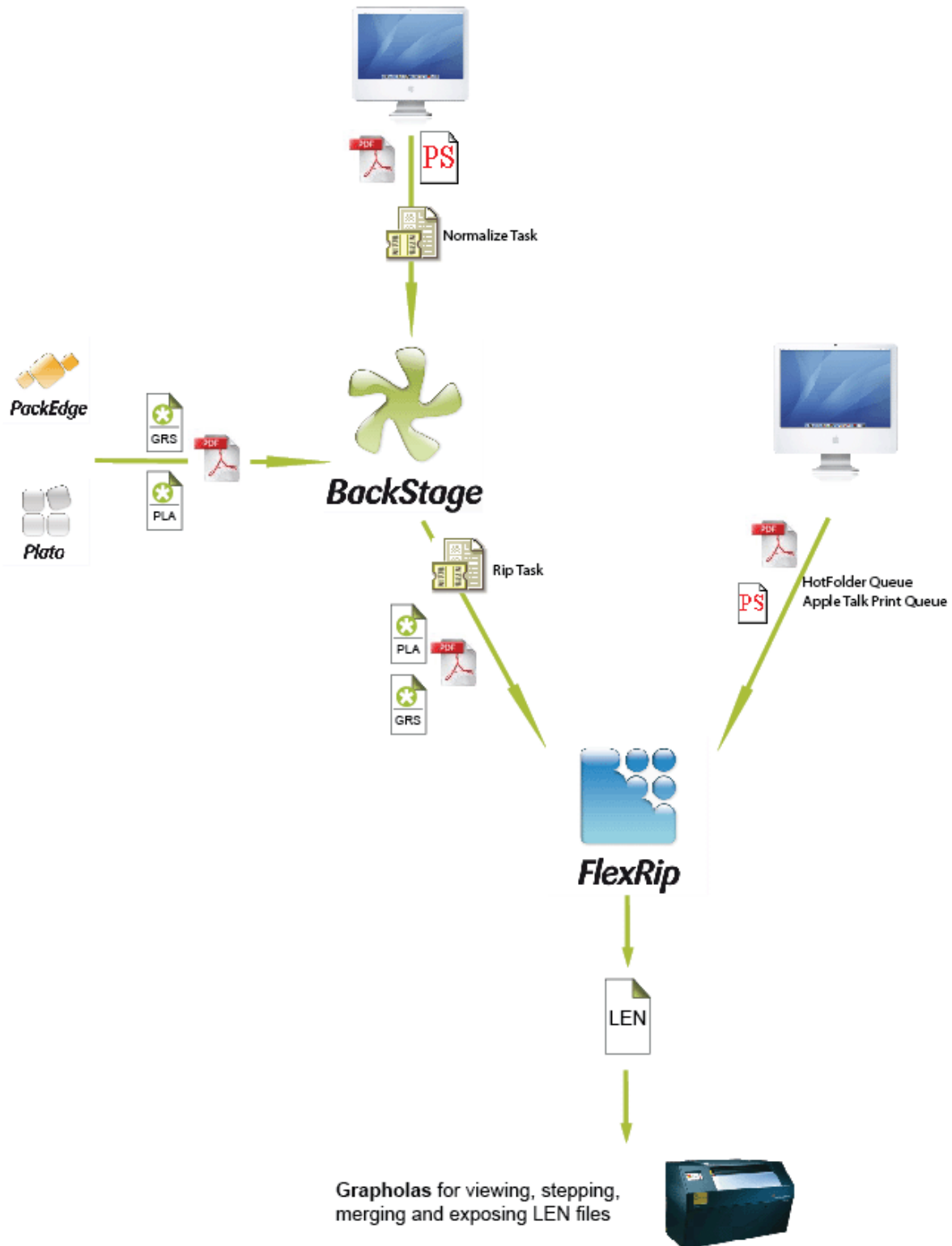
Also **PDF** files may not contain the correct info. The correctness of the PDF files will heavily depend on the applications that write the PDF files. Very common mistakes, such as missing special colors or missing separation info (LPI/angle) are not limitations of the PDF format itself but of the applications that produce these PDF files. PDF files written from Esko applications such as Esko PackEdge, Esko Plato and Automation Engine will contain the correct info.

3.4.3 Workflow description

In a FlexRip/C workflow, Esko-native data or separated PS or PDF files are sent to a specific FlexRip queue. The FlexRip/C will rip the file into LEN file(s). The CDI Grapholas station will then get/copy them, prepare a plate layout and expose this on the CDI.

Note

In the following graphic we portray a CDI Compact, which by default has its Grapholas software on a PC running Windows NT. Some CDI types have the Grapholas software on a SUN-Solaris platform. In that case, there is no PC inside the CDI, but a separate SUN computer next to the CDI, serving the same purpose.



Note

A workflow improvement is to step&repeat the job(s) on the Grapholas, both to avoid a transfer of stepped PostScript data over the network and to have the FlexRip only rip the one-up job. Choosing this workflow will depend on your stepping requirements (and if the Grapholas Merge software can fulfill those).

3.5 Output file type

A LEN file is the file format that the Grapholas software exposes on a CDI. A LEN file is a bitmap file, and therefore it only contains black or white pixels (described in 1 'bit') and no grey values! It has the same internal resolution as the one it will be exposed with, e.g. 2104 ppi.

The size of the LEN file is of course determined by the size of the job and the detail it should describe the job separation with (ppi).

Example

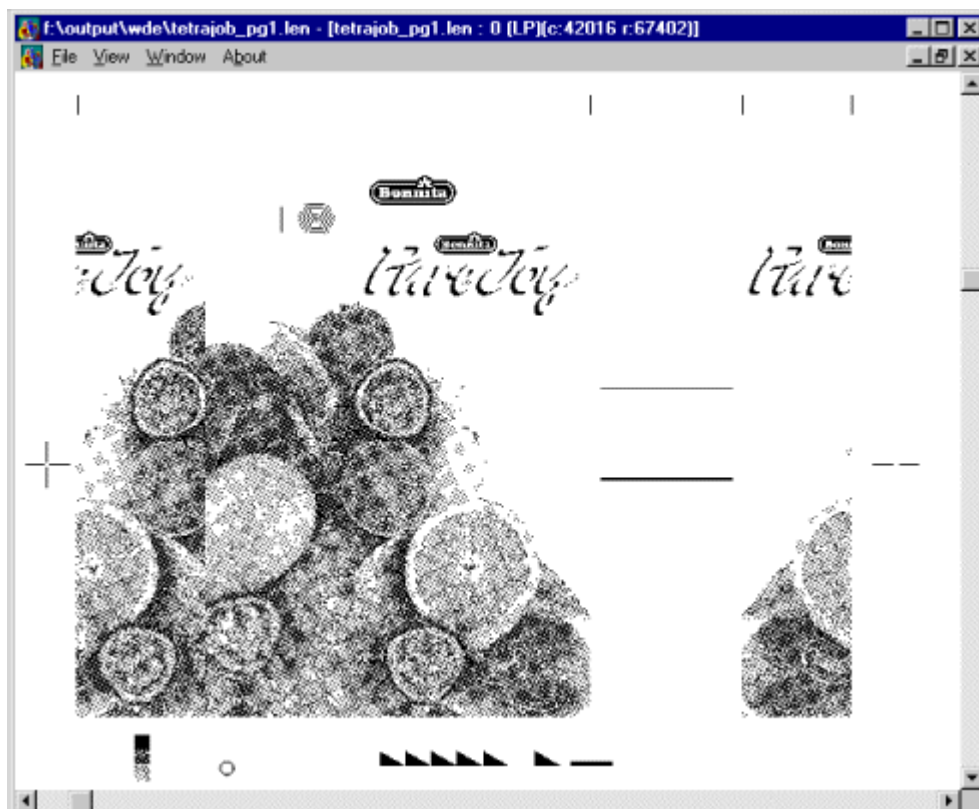
1 separation of an A4 size job at 2104 ppi will result in a LEN file of about 20MB.

A LEN file is compressed and will be decompressed when opened in Esko Bitmap Viewer. The more completely white or black zones there are, the better the compression will be. View programs only show you all the pixels when you zoom in enough. A full view will not show all the pixels (it would make the viewer too slow), but will sub-sample and give you a good general view.

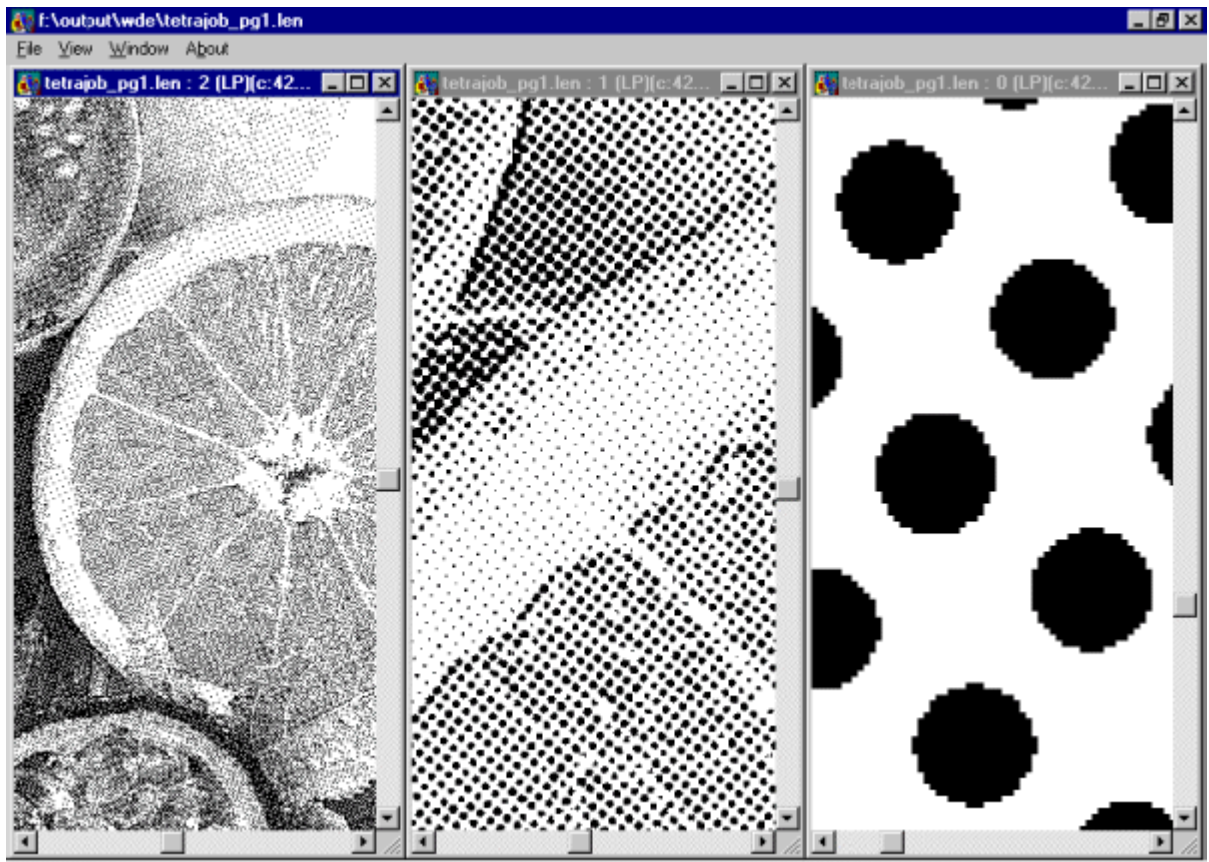
Note

LEN actually stands for 'run Length ENcoding', which is a standard way of encoding files.

This is what a LEN file looks like (a full view of a magenta separation):



These are 3 different zoom-ins, gradually showing the actual print dots:



3.6 What is a FlexRip Queue?

The heart of the FlexRip is a program called the **Dispatcher**. A Dispatcher controls the RIP and manages input queues for one specific device. Queues receive the PS data that were printed from the DTP station. The behavior of the queue ('how will it rip') is determined by its 'settings'. Each queue can have different settings.

There are several queue types. The most common are:

- An AppleTalk print queue (Macintosh)
- A Hot Folder
- A 'Named Pipe' queue ("PC-talk").
- An EskoLink queue

The FlexRip queue receives the data and rips it to a LEN file according to its specific settings.

3.7 What is Grapholas?

Grapholas software is a set of programs that are used to prepare and expose LEN

files on a CDI. The Grapholas software generally includes the following:

- A LEN viewer for detailed viewing and checking of LEN files. Basic measure tools are also present.
- A LEN merger. It is a program that manages what you will put exactly where on the CDI plate. This is where separations are merged and simple step and repeat functionality is available.
- A LEN exposer, which is an interface to expose on the CDI. For more information we refer to the Grapholas documentation.

4 Startup and shutdown of FlexRip

4.1 Why and when?

In any normal FlexRip workflow, the FlexRip computer should never be shut down. Even reconfiguring RIP queues does not require shutting down or rebooting the computer.

So why shut down the FlexRip?

- You expect a power failure.
- You physically want to move the computer.
- You have to open the computer (hardware service reasons).

Or why reboot the FlexRip?

- The Windows software asks you to. This will often be the case when re-installing Windows software or peripherals on the computer.
- Some (Esko) service intervention requires to do so (changes to configuration of the network, modem or display might require a reboot afterwards).

A Windows shutdown will automatically stop all running processes. This means that also all running Esko programs will be stopped automatically. We do advise you to separately stop all programs before rebooting or shutting down the FlexRip computer.

As the FlexRip is made to rip, and the RIP itself is a client process of the Dispatcher program, the most important program running on your FlexRip is the Dispatcher! This will also be further explained in detail.

4.2 How to start up a FlexRip?

4.2.1 Start up the computer

The FlexRip computer is switched off.

- Check the network cable.
- Switch the monitor on.
- Remove all floppy disks or CDs from their drives.
- Press the power button (top-left on front panel).

Windows will make your computer boot automatically. If you are not familiar with PC operating systems, never intervene during the boot process. The boot sequence should end with a screen that has the window:

"Begin logon"

'Press Ctrl + Alt + Delete to log on'

If you wish to use the normal FlexRip software, log on as user 'FlexRip' with password 'FlexRip'.

Only log on as user 'Administrator' for Windows system-management reasons or to install software.

4.2.2 Starting up the Rip

Starting the Dispatcher program starts the RIP.



- Start up the "Dispatcher" by double-clicking its desktop icon or by choosing the right Dispatcher via Start ⇒ All Programs ⇒ Esko ⇒ FlexRipC 12.0
- Start up the 'Status Monitor' in the Tools menu in (each) Dispatcher.
- Start up the 'History View' in the Tools menu in (each) Dispatcher.

More detailed info on these programs can be found further in their separate sections: Status Monitor (page 74) and History View (page 77).

Note

Renaming the desktop icon should only be done via the FlexRip Configurator. See the FlexRip Configurator manual for more information.

4.3 How to shut down a FlexRip?

4.3.1 Stopping the Rip

Closing the Dispatcher program stops the RIP.

Note

When stopping the Dispatcher program, it is always advisable to close its client programs Status Monitor and History View first.

How to stop the Dispatcher:

- Choose Exit from the Server menu and confirm by clicking Yes on 'Are you sure? Or simply click the close button (top-right in the Dispatcher window)

and confirm with Yes on 'Are you sure? '.

4.3.2 Shutting down the computer

To shutdown the FlexRip computer:

1. Close all programs.

Other programs that could still be open:

- Esko Curve Pilot editors
- Text editors Notepad or WordPad

2. Start ⇒ Shut Down. Choose 'Shut down the computer' and click YES.

4.4 How to reboot the FlexRip computer?

- Close all programs.
- Go to Start ⇒ Shut Down ⇒ Restart the computer and click YES. The computer will automatically shut down and restart again.

5 An overview of programs on the FlexRip

5.1 General

Logged on as user 'FlexRip' (see next section for details on logon users (page 25)), you will probably find at least 3 icons on your desktop that start up following programs: the Dispatcher, Esko Curve Pilot (Esko's Dot Gain Compensation editor) and FlexRip Configurator 12.0. If you do not find any desktop icons go via Start ⇒ Programs ⇒ Esko...

1. The **Dispatcher** is the 'heart' of the FlexRip. It is both the 'daemon' (continuous automatic process) that makes the RIP run and the place where all queues and RIP options are set up.
Each output device requires a new Dispatcher. This means that if you make files for 3 different output devices, you will have 3 Dispatchers.

Note

Note that each Dispatcher needs a separate licence.

2. The **Status Monitor** is a dedicated monitor of the Dispatcher processes. This Monitor is opened from within the Dispatcher Tools menu.
It is recommended to activate the Status Monitor immediately after starting up the Dispatcher. Starting up the Status Monitor after having launched a job will not immediately show the actions of the job that is being ripped.
3. **History View** lists the finished processes and their log files. History View is opened from within the Dispatcher Tools menu.
4. **Esko Curve Pilot**: this DGC (Dot Gain Compensation) editor offers you the possibility to make the compensation curves that are necessary for specific printing processes (e.g. flexo). The strategies (the curves, *.icpro files) will reside on the FlexRip or the Automation Engine server.



Note

Esko Curve Pilot is further explained in a dedicated Esko Curve Pilot document that can be found on your Esko Suite12 DVD.

Note

Curves for the CDI or Automatic PlateMaking curves can be created in the FlexRip Configurator.

5. The **FlexRipConfigurator** allows you to add, modify or delete configurations.



Note

You should be logged on as 'Administrator' to be able to use the FlexRip Configurator.

5.2 Which logon to use?

- When do you log on as user **Administrator**?

When you are installing or removing software or configuring your FlexRip computer on Windows level (networking, connectivity etc).

- When do you log on as user **FlexRip**?

In all other cases. All daily use of your FlexRip: the Dispatcher or its queue management, Esko Curve Pilot, Esko Bitmap Viewer.

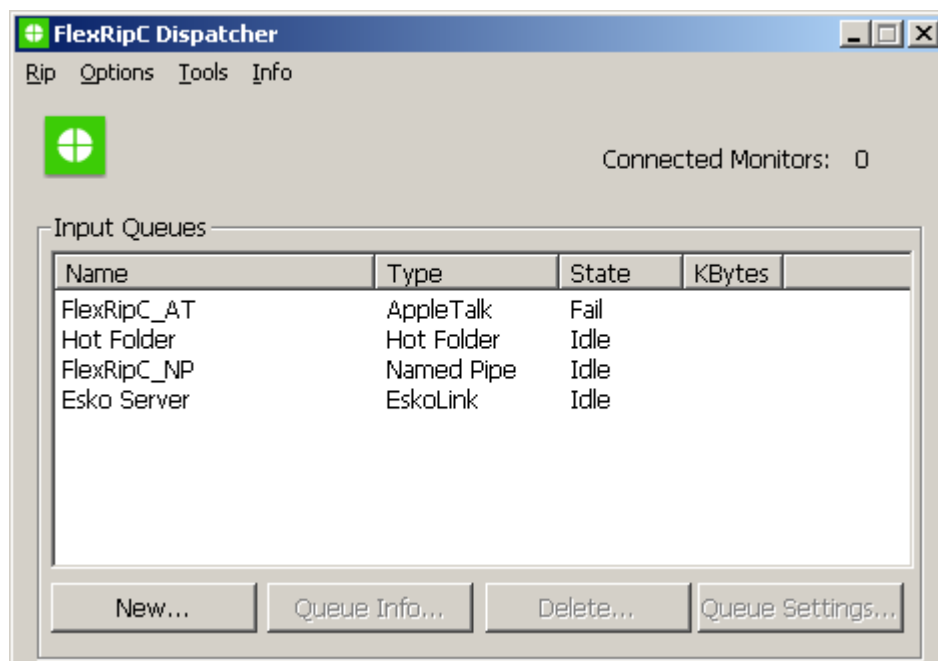
The following sections cover the Dispatcher (page 26), Status Monitor (page 74) and History View (page 77) in detail.

6 Dispatcher

6.1 General

The Dispatcher program is used for:

- Starting and stopping the Rip
- Setting up input queues and their Rip options



The Dispatcher is started by:

- Double clicking the icon on the desktop.
- Clicking Start ⇒ Programs ⇒ Esko ⇒ FlexRipC 12.0 ⇒ FlexRipC Dispatcher.

This starts up the Dispatcher program itself, but also puts the actual RIP in an 'idle' status, which means stand-by for action.

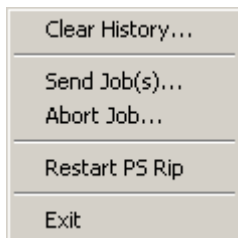
Warning

When the Dispatcher program is stopped, all ripping processes stop executing and the RIP itself is stopped.

When an ongoing RIP process has to be stopped for some reason, then choose 'Abort job' from the Server menu. This stops all ongoing RIP processes, but leaves the Dispatcher program alive. As soon as you send a new job to the RIP, the RIP will start up automatically. When the Dispatcher is started for the first time, there will be at least 4 queues visible, one of each standard type. FlexRip/B will start up with only

one queue, the EskoLink queue.

6.2 Rip menu



The Server menu contains the following items:

1. Clear History (page 27)
2. Send Job(s) (page 27)
3. Abort Job (page 28)
4. Restart PS Rip (page 28)
5. Exit (page 28)

6.2.1 Clear History

Choosing *Clear history* will delete all messages in the History View selection. You will be asked to confirm first. As this deletes all entries in the history database, they cannot be retrieved. This 'cleaning' will also delete the corresponding RIP log files.

Note

It is normally not necessary to clear this history database manually. In the Options menu

⇒ Program Options, you will be able to set a limit for the amount of history entries that have to be remembered. If this number is exceeded, the oldest entries are removed automatically.

Tip

It is advised not to enter a high number for the amount of history entries. The higher the amount of entries allowed, the slower the History View and RIP logging will function.

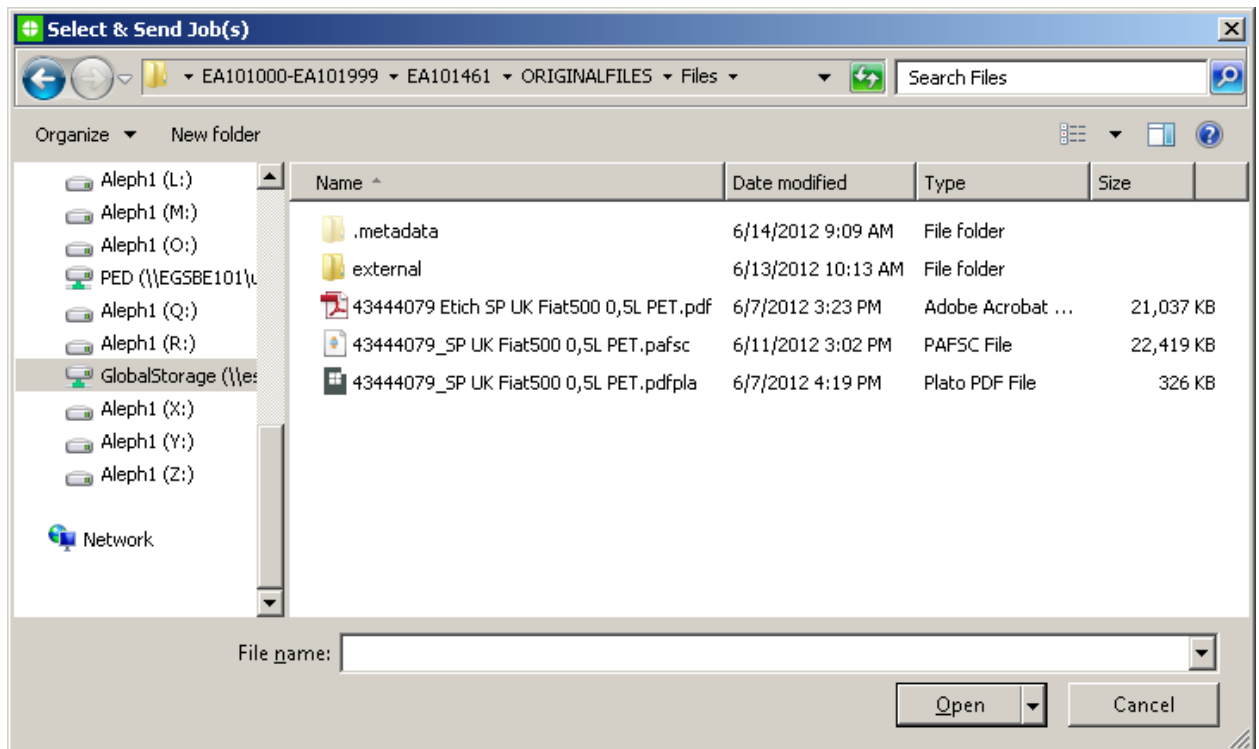
6.2.2 Send Jobs

Click *Send Jobs* to open the 'Select and Send Jobs' dialog. Here you can browse to the job you want to send.

Note

This will only work if a Hot Folder is selected in the Dispatcher.

You can also right click the selected Hot Folder queue to make the Select & Send Job(s) dialog pop up.



6.2.3 Abort Job

As explained above, *Abort Job* stops the RIP (and as a consequence any current ripping process). Remember that the RIP is automatically started again as soon as another job comes in. You could choose to abort a job when you are sure you do not need the output (e.g. you know the input file was wrong or a mistake was made in the queue options).

Output files that were already generated by the RIP are not automatically removed.

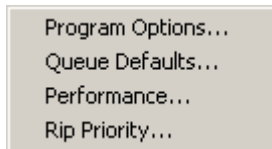
6.2.4 Restart PS RIP

When Japanese fonts are downloaded, *Restart PS RIP* allows restarting the PS engine of the RIP to activate the fonts in the RIP.

6.2.5 Exit

This will stop the Dispatcher program (and the RIP). Clicking the close button of the Dispatcher dialog will have the same effect. You will be asked to confirm first.

6.3 Options menu

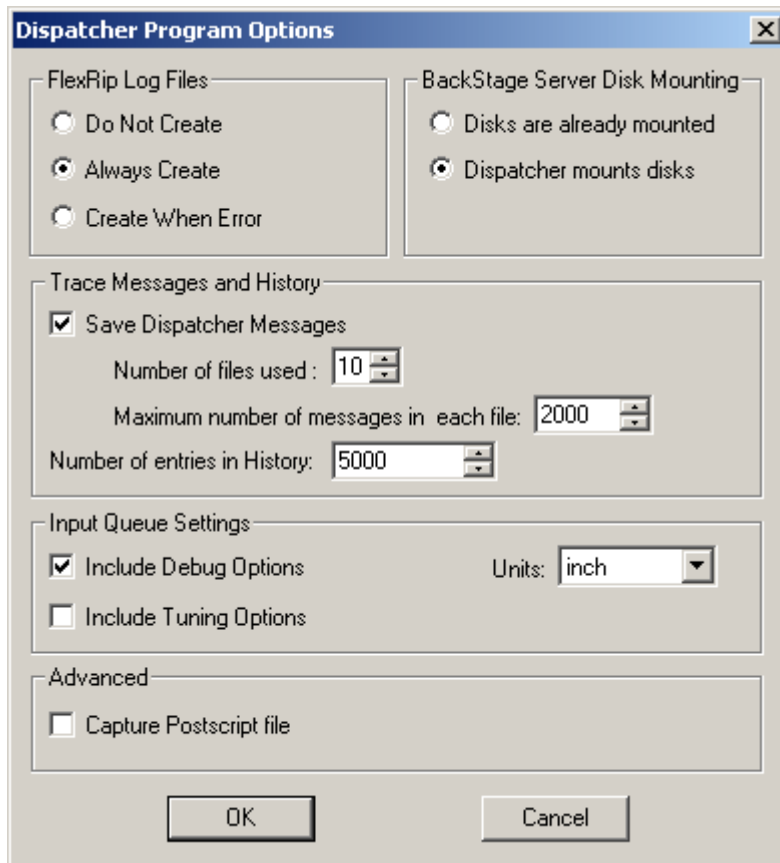


The Options menu contains the following items:

1. Program Options (page 29)
2. Queue Defaults (page 31)
3. Performance (page 32)
4. Rip Priority (page 32)

6.3.1 Program options

The program options are general Dispatcher settings. They can be set per Dispatcher.



6.3.1.1 FlexRip Log Files

You can decide here whether or not you want the RIP to create log files. They can be interesting to find out what happened if something went wrong. It is advised to always create log files. Log files can be viewed in *History View* and are physically located in the *Logging* folder.

C:\Esko\bg_data_FlexRipc_v120\cdi\Logging.

6.3.1.2 Automation Engine Server Disk Mounting

Enable *Dispatcher mounts disks* unless specifically mentioned otherwise.

6.3.1.3 Trace messages and History

- *Save Dispatcher Messages*. It is advised to activate this toggle. 'Trace messages' keep track of the general status of the Dispatcher. Esko will only consult these in case of problems.
- *Number of files used* indicates the maximum number of trace files that will be stored.
- *Maximum number of messages in each file* indicates the number of entries that will be stored in one and the same trace file.

- *Number of entries in History* indicates the number of log files History View will show you. The number of entries in the History can be set as wished. 500 will probably be enough. This means that when entry number 501 appears, entry number 1 will be deleted.

6.3.1.4 Input Queue Settings

- *Include Debug Options*: When checked, an extra tab sheet in the default queue settings will appear: 'Debugging'. Please activate this Debugging (page 68) tab, because it enables you to control the contents of the log files. This is especially interesting for fast troubleshooting by customer services. They will advise you which settings to change in order to speed up problem solving.
- *Include Tuning Options*: Should not be active (again unless Esko Customer Service asks you to activate it).

Enabling the Tuning options makes a number of extra tabs appear in the Queue Settings:

- CopyDot Tuning (page 70), which is explained further on.
- LineWork Tuning
- Contone Tuning
- Memory Tuning

Note

Linework, Contone and Memory Tuning are specific tabs for our Customer Service department and may only be used to solve or find a workaround for a specific customer workflow or FlexRip problem.

- *Units*: Can be set to INCH, CM, MM or MIL (1000 MIL = 1 Inch).

6.3.1.5 Advanced

Capture PostScript file: This should not be activated unless Esko Customer Service asks you to. When activated, then after ripping every PostScript file together with a lot of extra information will be stored in a special folder as an extra text file. This is not the same as keeping the PostScript file in a Hot Folder after ripping! See further in the appendix: Some classic errors and their explanation (page 95).

6.3.2 Queue defaults

A FlexRip can have several queues of:

- different types

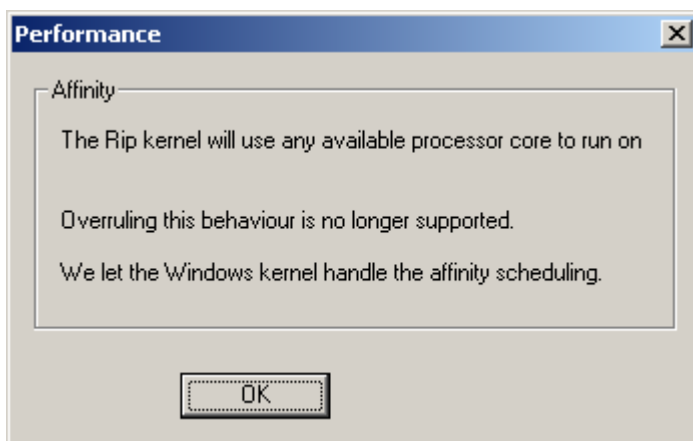
- the same type

Each queue will have its own settings (how to rip, where to write the output file...). The settings in *Queue Defaults* however are valid for all queues. We refer to the Queue Settings (page 44) chapter for more details on queue settings. (The different tabs look exactly the same).

The priority of the settings (page 44) is described further on.

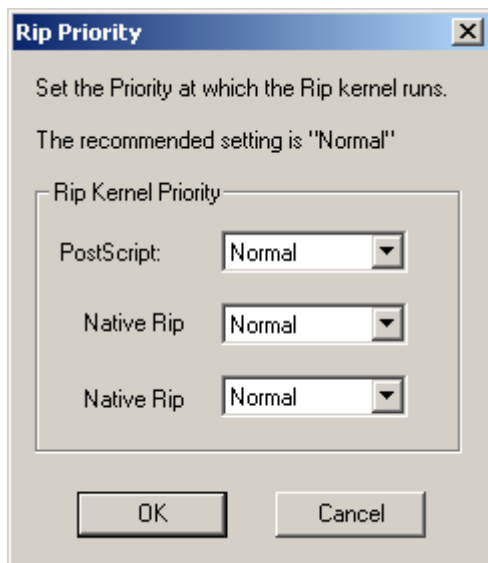
6.3.3 Performance

This panel was used to overrule the default scheduling behavior of the Windows operating system. Recent Windows versions do this very good by default, so we no longer allow to overrule this.

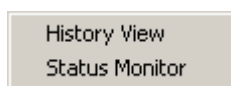


6.3.4 Rip priority

This field allows you to set the priority of the ripping process over other processes. You might for instance have noticed that changing queue settings (working with the interface of the Dispatcher) is very slow when the FlexRip is ripping at that same moment. That is because the RIP process (the kernel) had all the priority. Now, some customers will want to use applications on the FlexRip a lot (working with Dispatcher, Esko Curve Pilot, and Esko Bitmap Viewer) and some almost never. The recommended setting is Normal.



6.4 Tools menu



The Tools menu contains the following items:

1. History View (page 33)
2. Status Monitor (page 33)

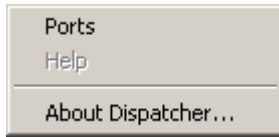
6.4.1 History View

The Dispatcher program itself will not show you the list of actions that are finished. *History View* will. All further info on the History View (page 77) program can be found in a separate section.

6.4.2 Status Monitor

The Dispatcher program itself does not show any detailed information on the ripping action. The *Status Monitor* program of that Dispatcher will show you more. All further info on the Status Monitor (page 74) can be found in a separate section.

6.5 Info menu



The Info menu contains the following items:

1. Ports (page 34)
2. About Dispatcher (page 34)

6.5.1 Ports

The Dispatcher is the server program of the Status Monitor and History View programs. The Dispatcher ports are used by its client applications to be able to communicate with the Dispatcher. Technically they are TCP/IP socket port numbers.

6.5.2 About Dispatcher

Shows the date and version number of the Dispatcher program. This is useful information when reporting some problem with Dispatcher. It is NOT the version of your FlexRip software (see FAQs).

6.6 Connected monitors

The Tools menu allows you to start up a History View or Status Monitor of that (specific) Dispatcher. Both are actually client processes of that Dispatcher and count for a 'connected monitor'.

As there is no need to start up a History View or Status Monitor a second time, you will mostly see that the number of connected monitors is 2. If you see a number over 2 then you probably already started up these client programs and 'minimized' them. This indicates that this number is only there for your information.

6.7 Input queues

First we have a short look at the possible queue types and then a closer look at their settings.

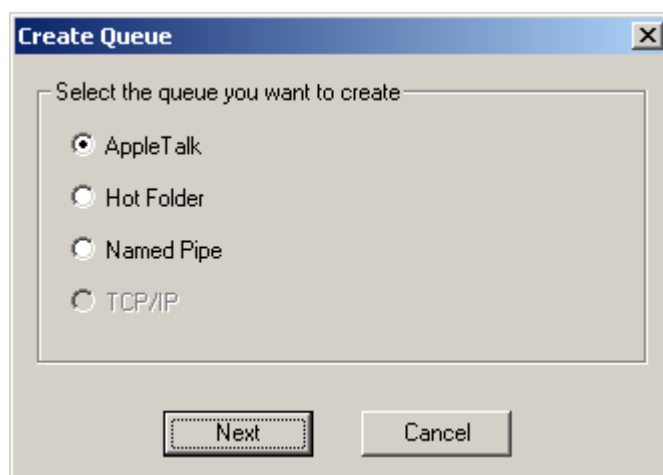
6.7.1 Possible queue types

- **AppleTalk:** From Snow Leopard onwards (Mac OS X 10.6), AppleTalk is no longer supported on Mac. The preferred solution now is to use Esko Shuttle functionality to directly send files to the EskoLink channel of the Dispatcher.
- **Hot Folder:** A FlexRip Hot Folder is a folder on the FlexRip station that is mounted/shared (made visible) to other computers on the network. The DTP operator will print 'to file' and save the file directly in this Hot Folder. See also the section in the appendix 'How to mount FlexRip volumes on a Macintosh? (page 113)'.
- **Named Pipe:** From Windows Vista / Windows Server 2008 onwards, our Named Pipe workflow no longer works (as it relies on an Adobe kernel printer driver, and kernel printer drivers are no longer supported). The preferred solution now is to use Esko Shuttle functionality to directly send files to the EskoLink channel of the Dispatcher.
- **EskoLink:** 'EskoLink (or previously 'BarcoLink' or 'DigiLink') is a queue that represents a link with an Esko Server (Automation Engine or FlexRip Pilot). This kind of queue will 'receive' RIP requests for Esko native files.

6.7.2 New - Queue Info - Delete

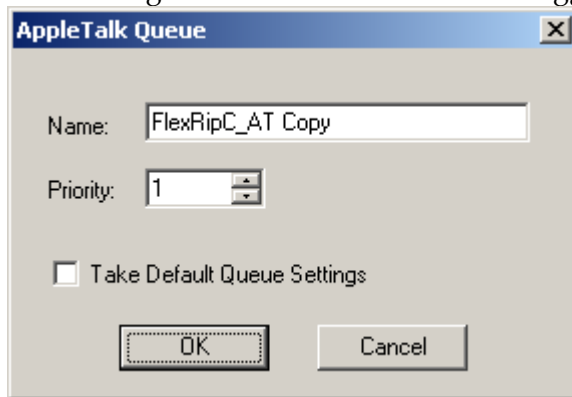
Should you have deleted the only queue of a specific type, (e.g. you deleted the only AppleTalk queue present) then click the line below the other still existing queues (so no specific type is selected), and then click 'New'. The Create Queue window will pop up, allowing you to select a particular type of queue.

These three types of queues are PostScript channels. They cannot be used for Esko-native files.

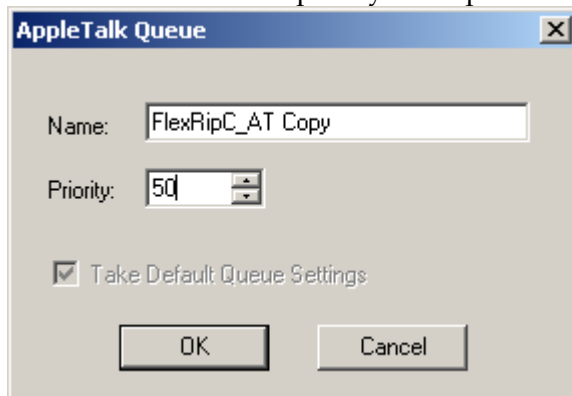


For an AppleTalk queue you can only set the name and priority. Two situations are possible:

1. You create a new queue that is a **copy** of an existing queue. Here you can either use the queue settings of the queue copied, or you can take the default queue settings. Activate or deactivate the toggle to specify your choice.

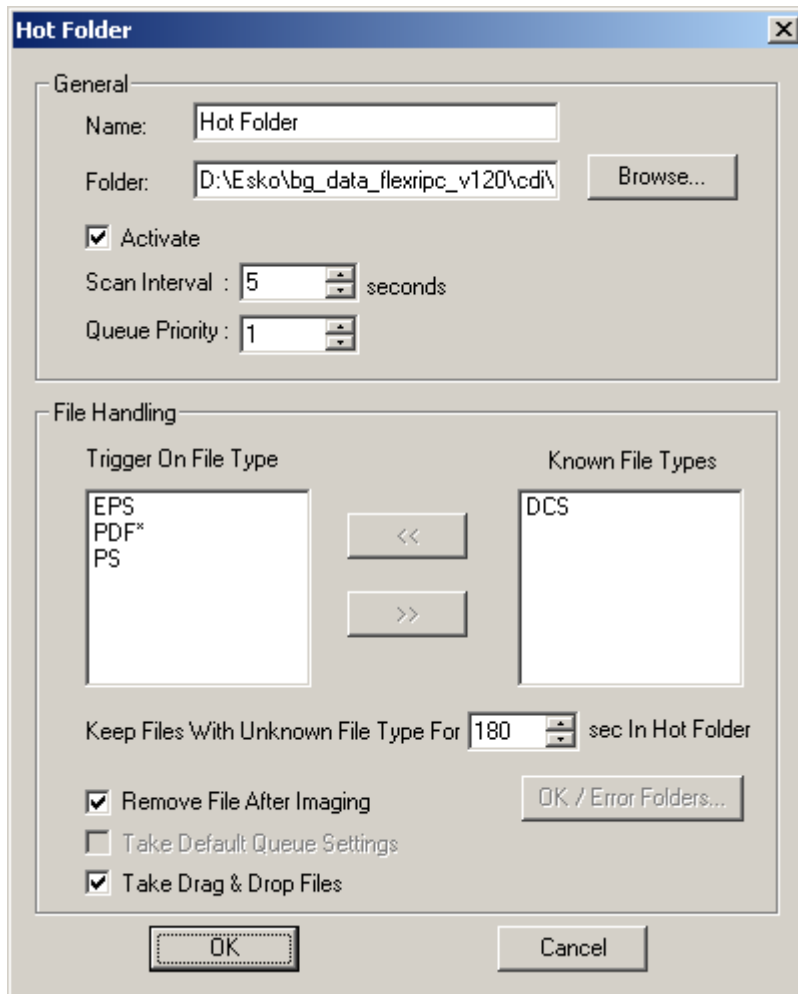


2. You create a completely **new** queue.



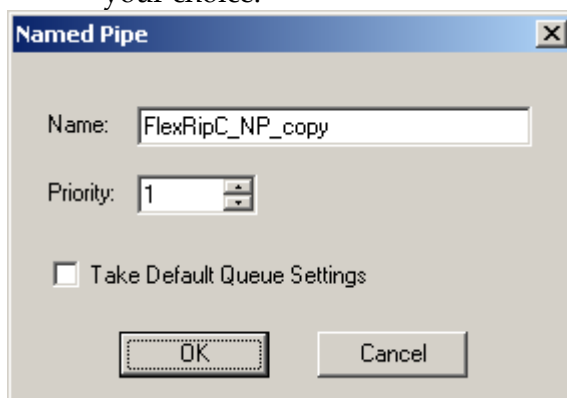
The default queue settings option is greyed out, since these settings will automatically be taken. As this queue is no copy of an existing one, no settings can be copied.

For Hot Folder queues, apart from the name of the queue, the folder also has to be set up. For more information, see the next chapter: General (page 39).



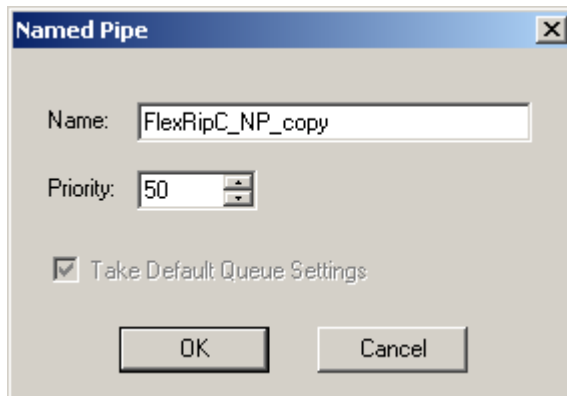
For Named Pipe queues, two situations are possible:

1. You create a new queue that is a **copy** of an existing queue.
Here you can either use the queue settings of the queue copied, or you can take the default queue settings. Activate or deactivate the toggle to specify your choice.

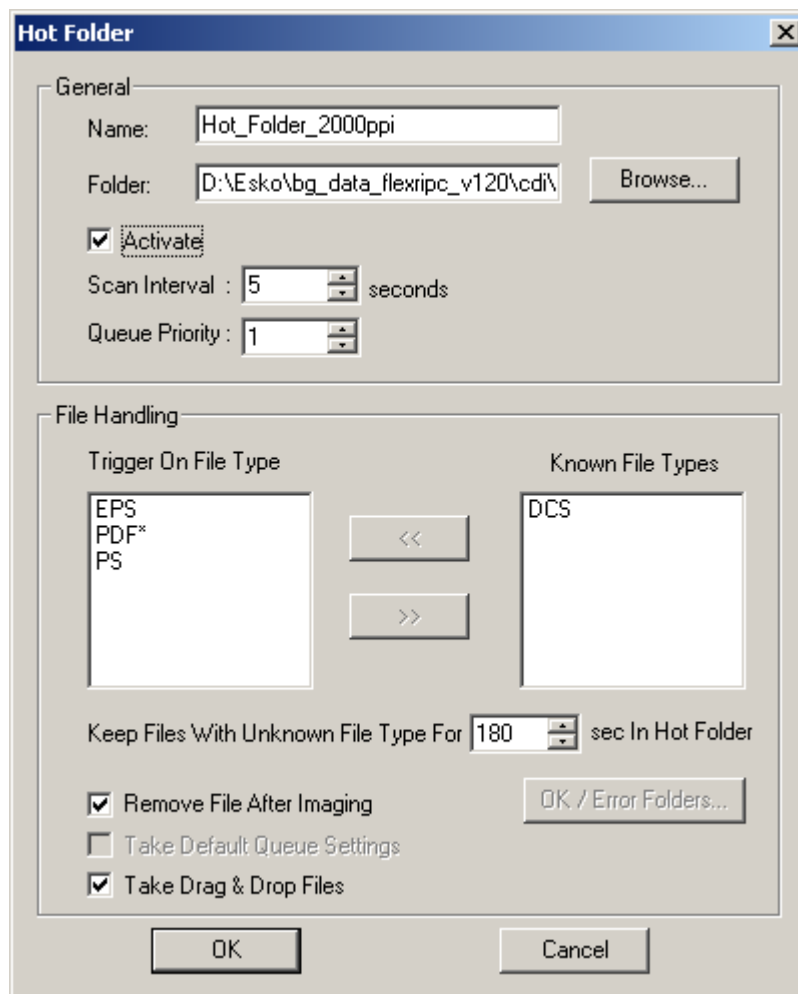


2. You create a completely **new** queue.
Please give it a short name, preferably in one word: e.g.: Flexpipe. The default queue settings option is greyed out, since these settings will automatically be taken. As this queue is no copy of an existing one, no settings can

be copied.



6.7.2.1 General



1. **Name:**
Give your Hot Folder queue a logical name. The operators will then have a clear idea what the nature of the output will be. As seen in the above graphic: the name of the Hot Folder already shows that the file is ripped at 2000 ppi. So it is advisable to 'summarize' in the name of the queue the 'hard' queue settings that influence the output (as these queue settings will overwrite the settings in the PostScript file).

2. **Folder:**
Type in the correct path of the folder on the FlexRip that will serve as Hot Folder.

Note

Create the actual Hot Folder (using Windows Explorer) before you start creating the Hot Folder queue.

Note

On Windows level, you could delete a folder that is used by a Dispatcher queue as the actual Hot Folder. When this happens, the Dispatcher will detect that the construction of this Hot Folder is no longer valid. When you

*consult its 'queue info' and click 'OK' following warning will appear:
"New Folder"
The Folder 'name' does not exist.*

3. **Activate:**

Checking the box activates the folder as Hot Folder. A de-activated Hot Folder will not rip incoming files automatically.

4. **Scan Interval:**

This indicates the period after which the Dispatcher checks the Hot Folder for incoming files.

Note

If you are scanning Hot Folders over the network, you should decrease the frequency of which the Hot Folder is scanned, otherwise you might create unnecessary network activity. In other words, if your Hot Folder does not reside on the FlexRip, increase the number of seconds.

5. **Queue Priority:**

The RIP will (only) consult the priority settings when several jobs are waiting to be ripped. While the first job is being executed the RIP will consult the queue priority setting to decide which one to rip next.

Example:

When the RIP is processing a job in queue A, and both queue B and C have a job waiting to be ripped, then the queue with the highest priority settings will have its

PostScript file ripped next (e.g. B has priority 3, queue C has priority 2.

When queue A has finished, the job in queue C will be next).

6.7.2.2 File handling

1. **Trigger on file type:**

Select the file types you want the Hot Folder to trigger on and put them in the 'Trigger on File Type' column. Move the extensions from the right to the left column by clicking the << button. If you do not specify file types in the 'trigger' column, the RIP will start up for any incoming file, regardless if this file can be processed or not.

PDF* stands for all types of Esko PDF Native files (PDF, PDFPLA, PDFSTA,...)

2. **Keep files with unknown file type for x seconds in Hot Folder:**

File types you told the Hot Folder not to rip are best not kept in that Hot Folder. These unknown file types will be moved automatically to the subfolder named 'error'. Determine after how many seconds you want them to be removed. The

maximum value here is 1800 seconds (30 minutes).

3. **Remove file after imaging:**

When the option is not activated, the PostScript file will stay in the Hot Folder after it has been imaged (in an appropriate subfolder named 'OK'). If you want to use the same PostScript file for imaging on other devices via other FlexRip flavors you should not activate this box. If it is active the PostScript file will be deleted and you will need to make a second PostScript file for the other devices.

Note

This is only about known files that have actually been ripped. Not having these removed (deleted) after ripping means they will be automatically moved to the subfolder OK or Error.

4. **Take Drag & Drop Files:**

Makes it possible to drag and drop files onto a Hot Folder that is defined in the FlexRip Dispatcher. It is also possible to select and send an (E)PS/PDF file to a Hot Folder from the FlexRip itself. Checking the 'Take Drag & Drop Files' box prevents you from actually having to drop the files into the defined Hot Folder before the file would be ripped. Files can be selected from any folder visible from Windows Explorer. To activate this mechanism:

1. Click the Hot Folder to highlight it.
2. Click Queue Info.
3. Activate Take Drag and Drop files.
4. Click OK.

Note

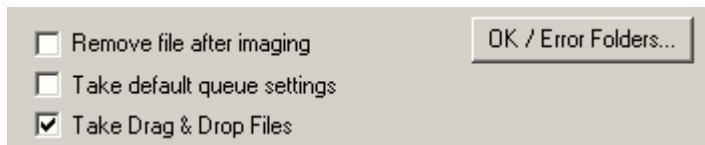
It is only possible to activate this 'Take Drag & Drop files' feature for 1 Hot Folder at a time.

To select (E)PS/PDF files to be ripped on this Hot Folder using the Windows Browser:

1. Click the Hot Folder to highlight it.
2. In the Dispatcher, select Send Job(s) from the Server menu or click right and select Send Job(s) from the pop-up menu.
3. Browse to the job(s) and click Open.

The selected files will be copied automatically to the Hot Folder and will be ripped normally.

5. OK/Error Folders:

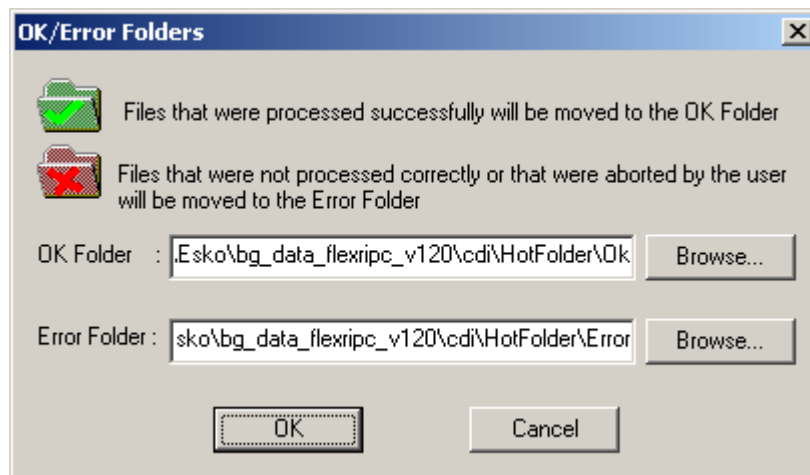


The settings above allow you to either keep the incoming files after ripping or to remove them. If you decide that files should be kept after ripping it is advised to define exactly to which folder you want them to be moved. Per Hot Folder, 1 folder can be specified for all files that went through the FlexRip successfully and another folder, for those files that errored out or were aborted by the user. To define these folders:

1. Click the Hot Folder and click the Queue Info button.
2. Now click the OK/Error Folders... button

Note

This button will be greyed out when the Remove file after imaging option is activated.



3. Select 1 folder for the files that went through the FlexRip successfully (OK folder) and 1 folder for the files that errored out or that were aborted by the user (Error folder). Note that before you specify the folder of your choice, the default folder is defined.

Note

It is advised not to put the processed files in the Hot Folder.

4. When specifying the folder name you can browse to it or you can type in the name of your folder. If the folder you specify does not yet exist the system will ask if it needs to be created.

Note

These fields cannot be left blank.



7 Queue Settings

Many of the settings that are explained hereafter can also be set as print options can be set in the Automation Engine or FlexRip Pilot for Esko-native workflows and in DTP applications for PS/PDF workflows. But then, which settings will the RIP take into account? What if opposite settings occur? And what if options are not set? The next section explains how different settings interact.

7.1 Priority of settings

When an operator has set specific options, the file ends up in a Dispatcher queue that also has its specific queue settings, and possibly also extra settings in the 'default settings' window. Which RIP settings will then be taken?

This is the order of how the RIP consults the settings:

1. **FIRST: Dispatcher: specific Queue Settings.** Queue settings will overrule all others. Settings you always want to apply should be set here. See the section 'Workflow: flavors and hints' for an important remark on the settings 'image' and 'emulsion'!

Note

Options that are set in the Dispatcher Queue Settings will be greyed out in the server tickets.

2. **SECOND: settings in the ticket or PostScript file.** On this level you can set the options that are job-related. In an Esko native workflow, the settings in the ticket will be taken. In a PostScript workflow, settings in the Print menu, using the correct PPD, will be used.
3. **THIRD: Dispatcher: (menu 'options') Queue Defaults.** Queue Defaults are settings that apply to all queues. The RIP will only consult them if options are not set in the Dispatcher or the ticket/PostScript file. This means that they are only executed in case there is still a "none" setting to be answered! If a "none" setting is still not answered by the Queue Defaults, the default setting inside the FlexRip software will be taken.

Tip

To set up a logical workflow, it is advised to set the options that are always applicable as high in the order as possible as these will overwrite occasional mistakes in ticket or print settings.

Example: You always want to expose on a device at 2000 DPI. Then enter the resolution setting in the Queue Settings. As soon as a setting is required only from time to time, you might consider:

- to put it in the name of the (newly made) specific queue.
- to leave the (default) queue settings on 'none' and specify it (each time when wanted) in the ticket or PostScript file.

Note

A number of options, like output path and (scr)dgc can also be set in the **FlexRip Configurator**. These settings will overrule all settings mentioned above! To make you aware of Configurator settings, options that are set in the Configurator are greyed out in the Dispatcher, ticket and Queue Defaults.

7.2 Basic

The Basic options allow you to decide on how the output should look.

Depending on the device type a modified Basic tab can appear.

The screenshot shows the 'Queue Settings: Hot Folder' dialog box with the 'Basic' tab selected. The dialog has a title bar with a question mark and close button. Below the title bar are four tabs: 'InkPlanner', 'Curve Pilot', 'PS | PDF Marks', and 'Debugging'. The 'Basic' tab is active, showing a sub-tabbed interface with 'Basic', 'Output', 'Screening', and 'PS | PDF Input'. The 'Basic' sub-tab is selected, displaying the following settings:

- FlexRipC -> CDI PlatePatcher
- Resolution: (none) ppi
- Transformations: Rotation (none), HScale, VScale
- Page Size: (none), Width, Height (all in mm)
- Imaging Options: Image (none), Emulsion (none), Dotshape (none)

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Apply'.

Queue Settings: Hot Folder

InkPlanner | Curve Pilot | PS | PDF Marks | Debugging

Basic | Output | Screening | PS | PDF Input

FlexRipC -> CDI Compact 4835 S

Approximative **(none)** ppi Perimeter mm

Effective (none) ppi Pixels 360000

Transformations

Rotation **(none)**

HScale VScale

Page Size

(none) Width mm

Height mm

Imaging Options

Image **(none)** Emulsion **(none)**

Dotshape **(none)**

OK Cancel Apply

Warning

Do not enter 0 (zero) in a value field. It will be considered as a 'hard' value and possibly overwrite others! Leave the value field 'empty' before clicking OK.

7.2.1 Output module

This shows the type of Output module this specific Dispatcher was made for. Each Dispatcher is based on a specific FID file (FlexRip Information Database). A FID file describes a machine type (device, printer description), which is why specific resolutions and size options will appear in the dropdown lists.

7.2.2 Resolution

Here you can specify the expose resolution of the job. The values in the dropdown list are specified in PPI (Pixels Per Inch). The resolution chosen here will be identical to the resolution the file will be exposed with. This field should be set to (none) if the decision is left to the operator.

7.2.3 Approximative PPI

In all cases, PPI is only an indication of the resolution to be used. That is why it is called 'approximate' here. The final resolution for the LEN file depends on the chosen PPI and the perimeter of the drum of that specific CDI.

Here you can specify the expose resolution of the job. The values in the dropdown list are specified in PPI (Pixels Per Inch). The resolution chosen here will be identical to the resolution the file will be exposed with. This field can be set to (none) if the decision is left to the operator.

7.2.4 Perimeter

This option is important to guarantee the quality of the screens on the final flexo plate. As the CDI engine cannot line up with each RIP resolution the Grapholas software will take out or add pixels to guarantee the correct job size on the plate. Adding or deleting pixels in a screened image produces moiré effects, which are mostly unacceptable.

To guarantee that Grapholas does not have to add or leave out pixels, the FlexRip must produce the correct number of pixels. This is only possible when the FlexRip knows the exact circumference (perimeter) of the CDI drum. Therefore, you have to add this information to the queue settings (or queue defaults or specify at print time). This is possible with the Perimeter option. In this field, you enter the exact perimeter in mm or in inches (see Program options: Unit settings). The Esko Field Engineer, who installs your CDI, will determine the perimeter value.

When the perimeter option is not used, the FlexRip will rip exactly to the resolution asked with the PPI switch. However, when imaging this bitmap on the Cyrel Digital Imager, it will be resampled, which can result in important quality loss.

Note

*You have to specify either **both** the PPI and perimeter or **neither** of the two. You cannot have 'none' for PPI and still specify a fixed perimeter.*

Note

Not all CDIs have a perimeter option. Only CDI Classics built before 1999 with SUN control computer have fixed imaging resolutions, requiring perimeter usage. All other CDIs have variable resolutions available (2000–4000 ppi).

This means that in a default FlexRip/C workflow the standard resolution settings are used (i.e. without perimeter) and that in some cases customers may need to use the perimeter option for compatibility reasons.

7.2.5 Effective PPI

The effective PPI is the PPI that will really be used by the RIP (to make the LEN file). This number is the result of the influence of the perimeter on the asked PPI. How this is calculated is described in the appendix: Details on Perimeter and effective PPI (page 116).

Note

Screening works in integer numbers for searching the screen, but the real resolution is used for the LEN file. This can be seen in every log file.

Note

If the perimeter cannot be specified, the effective ppi equals the approximate ppi.

Example

If the user asks a PPI of 2100 and the perimeter is 1086.4, then the effective PPI will be 2104.1973.

7.2.6 Rotation

For PS/PDF or native input (Hot Folder, AppleTalk or Named Pipe) it is possible to preset a rotation.

7.2.7 Scale

Scale options can be used for real job scaling (whole job at 50 %) or for the flexo distortion factors (e.g. Horizontal: 0.982 - Vertical: 1). It is advised not to set the distortion factor here (leave the fields blank!) as it is rather job-related and it is easily set in the PostScript file settings when printing from the application or in the setting options in the ticket.

Warning

If no scaling is required, then do not enter '1' as any value here will be seen as an actual queue setting that overrules all others. It is advised to leave this field blank.

What if I printed Transverse?

Or in other words, what if the job is rotated in the RIP? The H and V seen here are still the H and V as you 'see' in the job when viewed in the application. Scaling factors have to be a value ranging between 0.000 and 2.000 (between 0 and 200 %). It is not possible to set a value for one direction and leave the other value field blank. This means that if you want a vertical scaling of 96,7 % you have to enter 0.96700 for Vscale and 1.00000 for Hscale.

7.2.8 Page size

Page size options allow you to overrule the size of the input file. It is also advised to leave this on 'none' as the output file is best the size that was determined in the application. Overruling the size of the input file might influence the positioning of the output on film or plate.

Warning

Never leave it on Custom page size, which takes the maximum size for that device. This means that it will always create output files as big as the drum surface.

7.2.9 Imaging options

7.2.9.1 Image

Here you decide on either a positive image or a negative one. Outputting to the CDI requires a positive image. When set to 'none', this setting will be read from the PostScript file or server ticket. Also see the Priority of Settings (page 44) chapter.

Warning

When defining 'positive' in both PostScript file/ticket and in the Queue Settings the result will be 'negative'! As you cannot select 'none' in the PPD, we advise you to leave this setting in the Dispatcher queue to 'none' and let the operator decide this in the PostScript file or server ticket! Please also see the scheme in the section Workflow: flavors and hints (page 82).

7.2.9.2 Emulsion

Emulsion UP means: readable when the emulsion side of the film is held up.

This is an example of a positive emulsion up len file:



Emulsion DOWN means: readable when the emulsion side of the film is held down.

This is an example of a positive emulsion down len file:



When set to 'none', this setting will be read from the PostScript file or server ticket.

Warning

The same problem as described for image can occur here. The decisions of the queue and the PostScript/native file might conflict and then reverse what you expect! As you cannot select 'none' in the PPD, we advise you to leave this setting in the Dispatcher queue to 'none' and let the operator decide this in the PostScript file/ticket! Please also see the scheme in the section Workflow: flavors and hints (page 82).

Note

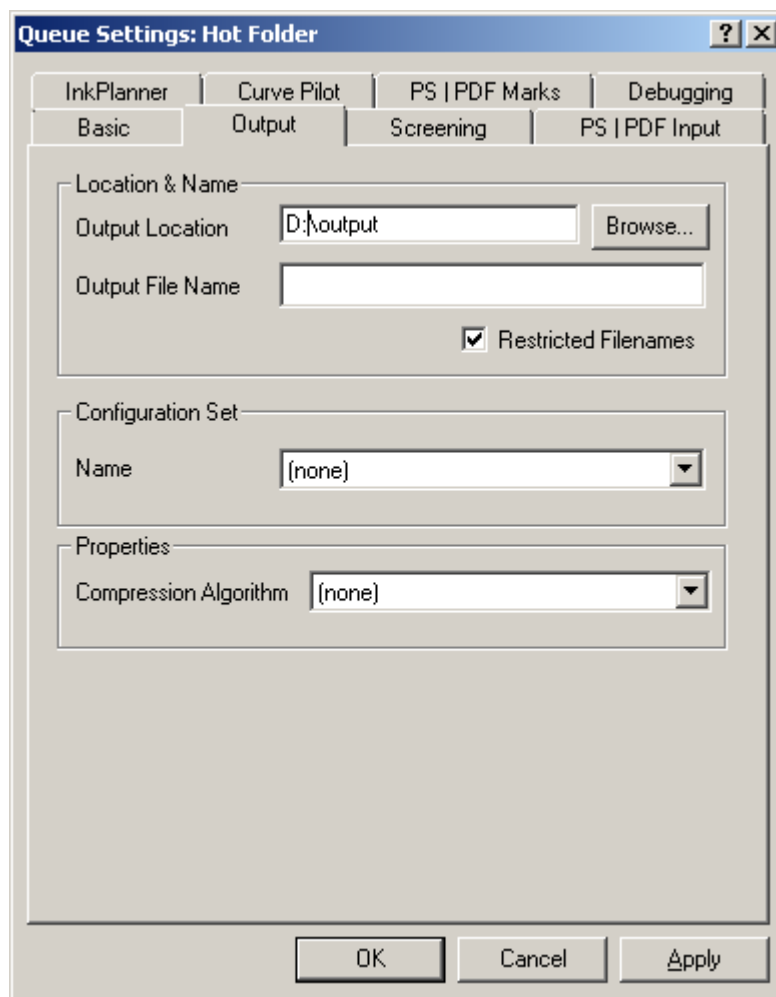
In the PPD file, 'right reading' refers to 'emulsion up' (when reading it right) and 'wrong reading' refers to 'emulsion down' (when reading it right).

7.2.9.3 Dot Shape

Choose your dot here. When set to 'none', the dot shape in the ticket or PostScript file will be used.

For more information on Esko screening technology, we refer to the Screening documentation on the Suite 12 DVD.

7.3 Output



7.3.1 Location & Name

7.3.1.1 Output location

The location of the output folder(s) for the temporary output files is free to choose. It is logical to define the output folder(s) on a hard disk with enough space available (often drive D:\ on a FlexRip).

Tip

If you want several output folders, then it is a good idea to create them under one general output folder. So, after making the top folder visible to other computers, any new folder under that top folder will automatically become visible as well.

Note

There are different places where you can specify the required output location. If the output path is specified in the FlexRip Configurator (which has the highest priority), the output path will be greyed out in the Dispatcher, ticket and Queue Defaults.

Example

D:\output

Is the 'top' folder

This folder is not used as a real output folder.

D:\output\komori_urgent

D:\output\komori_normal

are actual output folders that contain the output files. The operator will already see which output files are urgent and on which plate type they should be imaged.

Note

Select the actual folder by using the Browse button, before filling in its path here.

7.3.1.2 Output file name

Note

This option is not applicable to FlexRip/Approval and FlexRip/B.

Here you can specify the name of the output file.

It is possible to use template variables, as explained below.

Template variables

All variables listed below must be specified between left and right angle brackets (<>). The variables currently supported are:

- **<file>** (name of the file that is sent to the FlexRip)
For the Esko native input this equals the job name of the PDF native (PDF, PDFPLA, PDFSTA, etc.) file name.
For PS input this equals the name found for %%Title in the PS file.

Note

If no name is found in the PS file, 'Unknown' will be taken.

- **<ink>**

This indicates the color group + underscore + full ink name
e.g. pms1000c_warmred

- **<sink>**
The short ink name will be used. For process colors this means e.g. C instead of cyan. For Pantone colors this means the PMS number or a shortened name like WAR for Warm Red.

Warning

Designer colors will still be shown with their full name preceded by the letter 'D'.

- **<nink>**
The number of the ink will be used, based on the ink table in the original job.
- **<page>**
For Esko-native input, this variable will add the page number to the output name in case of a multipage document. In separated PS files every separation is a page. This means that for a job with 6 inks the separated PS file will contain 6 pages. For a multipage document you will get 6 pages for every page in the document. For PS input this variable will add the correct page number to the output file name when using FlexRip/Proof (composite) output. For all monochrome flavors (B, C, Tg and T4) the page number of the PS file will be used. This explains why e.g. the output file name for the 4th separation of the first page of the document will get page number four.
- **<date>**
This variable will add the date of ripping in numbers to the output file name. The format is 'yearmonthday' (yyyymmdd). E.g. September 25 2003 will be 20030925'.
- **<time>**
This variable adds the time of ripping in numbers to the output file name.

It is also possible to give a hard name in the 'Output file name' input field or combine variables with fixed elements.

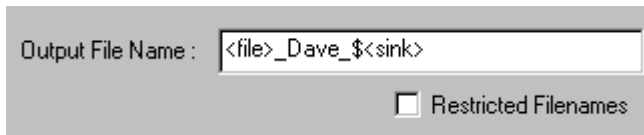
Some characters are not allowed in the 'Output file name' input field. The following characters will automatically be replaced by an underscore (_):

\ , / , : , * , ? , " , < , > , |

Examples of templates

Without merging

A Normalized PDF file called 'sunshine' has 7 separations (CMYK, 2 Pantone inks and one designer ink) and is sent to the FlexRip EskoLink queue which has the following template:



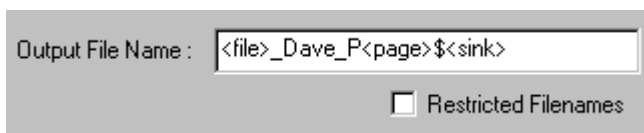
The name of the output files will be as follows:

sunshine_Dave_\$123.tif
 sunshine_Dave_\$C.tif
 sunshine_Dave_\$Dbblue sky.tif
 sunshine_Dave_\$K.tif
 sunshine_Dave_\$M.tif
 sunshine_Dave_\$WaR.tif
 sunshine_Dave_\$Y.tif

The fixed element could be used e.g. to specify the name of the operator (in this case Dave).

With merging

Let's assume we have two files. One called 'sunshine' which contains one page and a second file called 'moonlight', containing two pages. The template has been changed to include the page number in the output file names and the file is sent via the merge queue to optimize the film:



Cyan and Warm red from 'sunshine' will be merged with Magenta and Pantone 123 from 'moonlight'. The name of the output file will be as follows:

sunshinemoonlight_Dave_P12\$CWARm123.tif.

The names of the jobs are merged while inks and/or pages are concatenated.

7.3.1.3 Restricted file names

Note

This option is not applicable to FlexRip/Approval and FlexRip/B.

When activated, the names of your output files will be restricted to names that will not give any problems in the VMS operating system. This basically means that all characters that are not letters (abc) or numbers (123) or underscores (_) will be replaced by underscores. So if you are not writing these output files on a VMS computer, you do not have to activate this option.

Example

\$#@^%&-will all be replaced by _ (the underscore)

7.3.2 Configuration set

7.3.2.1 Name

Specify the configuration you want to use.

Configurations are created in the FlexRip Configurator. For more information, please refer to the Configurator documentation on the Suite 12 DVD.

7.3.3 Properties

7.3.3.1 Compression Algorithm

None: set the compression algorithm elsewhere.

Sun Fronted: for old devices (with SUN controller)

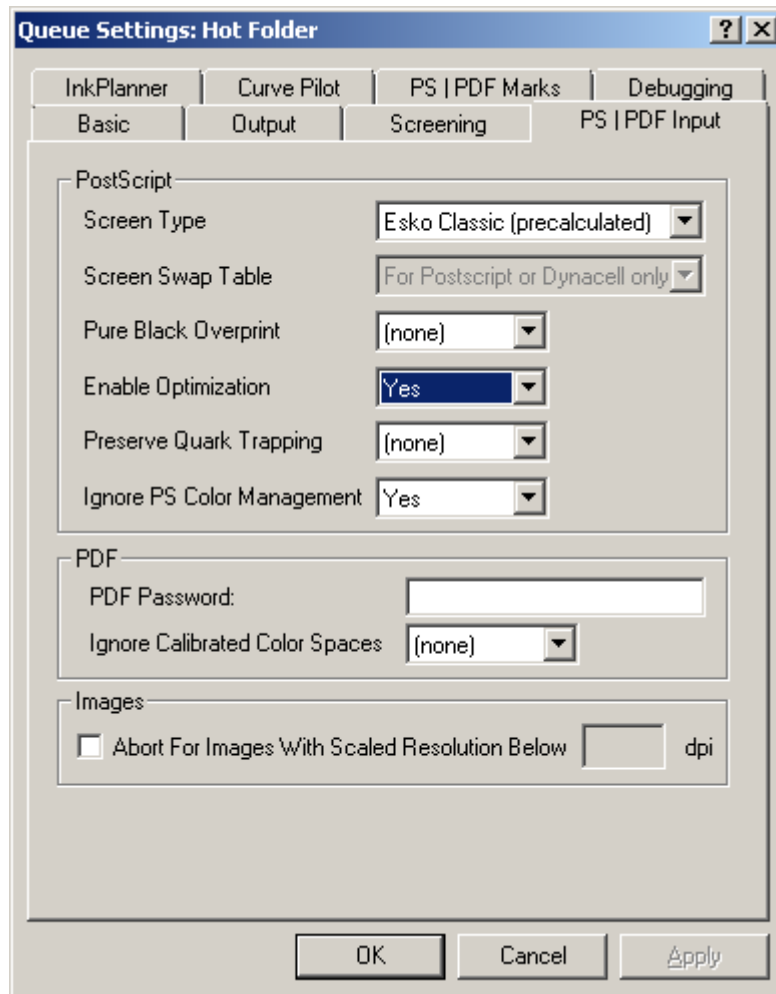
Default compression: (old) default for PC-based CDIs

Flate compression: newest and best compression. This is the FlexRip default if it is not overruled elsewhere.

Configurations are created in the FlexRip Configurator. For more information, please refer to the Configurator documentation on the Suite 12 DVD.

7.4 PS/PDF Input

*Please note that the PPDs that were used in FlexRip 5.2 will **not work** in FlexRip 12.0!*



7.4.1 PostScript

7.4.1.1 Screen type

Enable the appropriate screen type. You can choose between: Esko Classic, DynaCell, PostScript or none.

- Esko Classic (Precalculated)* means that the aspect, the form, the rulings and the angles of the screen are pre-defined in the Esko screening labs. These screens are the result of advanced engineering work. The screens are optimized for a smooth aspect, good behavior on the different printing processes, lack of artifacts etc. Furthermore, the screens are designed following a system of screen angles that avoids moiré between the main colors (cyan, magenta and black). The use of precalculated screens allows supporting advanced screening features like stochastic screening (Monet Screens) and transitional screening (SambaFlex Screens). Precalculated screens have only one disadvantage: since they have been designed and tested one by one, there is only a limited number of them available. Although the total number exceeds 2000 different screen ruling/angle/dot shape combinations, it is very well possible that no precalculated screen is

close enough to a customer's wish. This happens specifically when other angles than flexo or offset angles are demanded. A typical example is silk screen printing where unusual angles and screen rulings are used to avoid clashes with the silk screen mesh. Esko DynaCell technology was developed particularly for this purpose (see below). The pre-calculated sets are also made to provide maximum protection against moiré. For more information, please check the Screening manual.

- Using *PostScript* screening implies that all the information needed to build up the dots has to be in the PostScript file. Combining PostScript screening and Esko screening in the same file and/or separation is only possible using the optional ScreenFilter application. Please see the documentation on the ScreenFilter for more details.

In every DTP application, you can choose the LPI from the Esko PPD or you can overrule it. Also the print angle will be offered by the PPD but the DTP applications permit you to enter other angles. If you send these data to the RIP, the 'Esko screening' setting will again change these values via its own 'jump-to' mechanism. This means that the RIP will automatically jump to the nearest LPI or angle that is supported. If you do not use 'Esko screening' but 'PostScript screening', these 'special requests' will indeed be realized by the FlexRip.

If you activate PostScript screening, the dot shape should also be described in the PostScript file. If you cannot select dot shapes in your DTP application, then it will probably describe the standard Fogra Round dot shape (see also Esko's Fogra Round).

Why ever use this?

You could for instance use this if you insist on some 'exotic' angle. With exotic we mean an angle which is not standard in flexo/offset. If you need an angle of 3 degrees, then this is the only way to get it in the output file. Then of course you will be limited to the dot types that your DTP application offers you (to write in its PostScript output).

- If the *DynaCell* license is available, this FlexRip option allows the operator to specify any angle or ruling combined with Esko screening. It is particularly useful for screen printing. DynaCell differs from Esko Classic in that it doesn't use sets of precalculated screens. Because of this, DynaCell offers no protection against moiré. Esko Classic screening does, as this screening only allows moiré free combinations of resolutions with LPI and angles. For more information on DynaCell, please consult the Screening manual.

Note



Because of the nature of Monet screening and SambaFlex screening it will not be possible to use DynaCell technology with these two screens. If DynaCell is selected together with one of these screens an error will be generated at rip time.

7.4.1.2 Screen Swap Table

Note

The Screen Swap Table option will only be activated if screened data is output.

ScreenFilter allows you to define screen swap tables so that when files, containing e.g. PS dot shapes, come into the Esko system the information of the screening is not lost.

1. In the Screens part  , all detected, but unregistered screens appear. You can register them and use them to define screen swap tables.
2. In the Screen Swap Table part  , you define screen swap tables, these can be used in other applications, such as Esko PackEdge, Esko Plato, FlexRip, Automation Engine, ...

For more information on how to create ScreenFilter rules, please refer to the ScreenFilter documentation.

7.4.1.3 Pure black overprint

Set the overprint mode for objects containing 100% black only. Possible Pure Black overprint modes are:

- No: no overprint is forced on an object containing 100% black, which means that the situation is as is defined in the job.
- Yes: forces PostScript overprint for objects in 100% black.
- None: the default Queue settings will be consulted.

7.4.1.4 Enable optimization

Should be set to 'Yes'.

Example

Esko's RIP kernel will see to it that the vignette quality is enhanced.

Note

This optimization is not relevant when the vignettes are described as CTs in the PostScript file (as is mostly the case with ArtPro jobs).

7.4.1.5 Preserve Quark trapping

If set to 'Yes', the Preserve Quark trapping option forces the system to keep the trap strokes made by QuarkXpress.

7.4.1.6 Ignore PS color management

Images can be saved in PhotoShop in EPS format using an option 'Use PostScript Color Management'. The result of this operation is that the resulting EPS file contains information that the pixel values are not simply RGB or CMYK but are to be interpreted by the receiver as a CIE-ABC or CIE-DEFG image and that the receiver should reconvert that image to it's own color space using a PostScript CRD.

In most cases this 'Use PostScript color management' option was set by accident and the image retoucher did not intend that his carefully retouched image would be reconverted from 1 color space to another changing all the separations. When this option is off, PostScript color management is applied and the image is run through a CRD, if this option is off the original data is interpreted as deviceRGB or deviceCMYK even if the EPS file specifies that PS color management should be used. Remark that PS color management is always used for Lab images even if this option is switched on.

This means that if this toggle is checked, the color management that would be applied to included PhotoShop EPS images will be ignored.

7.4.2 PDF

7.4.2.1 PDF password

In case you send PDF files that include a password, unlock them by entering the password here.

7.4.2.2 Ignore calibrated color spaces

When this toggle is checked, FlexRip will ignore [CIE based] calibrated color spaces and will replace them by their regular device-independent counterparts.

The color of objects like line art and images can be defined using a calibrated color space. This can happen because the objects already have a color in a calibrated color space before distilling or they can acquire a color in a calibrated color space during distilling process. This is not always intended behavior and the 'Ignore Calibrated Color space' option will ignore the calibrated color space of such objects when converting the file to GRS. A typical example is that when you have black objects in a calibrated color space, you risk ending up with CMY color components if you do not ignore the calibrated color space.

7.4.3 Images

7.4.3.1 Abort for images with scaled resolution below ... dpi

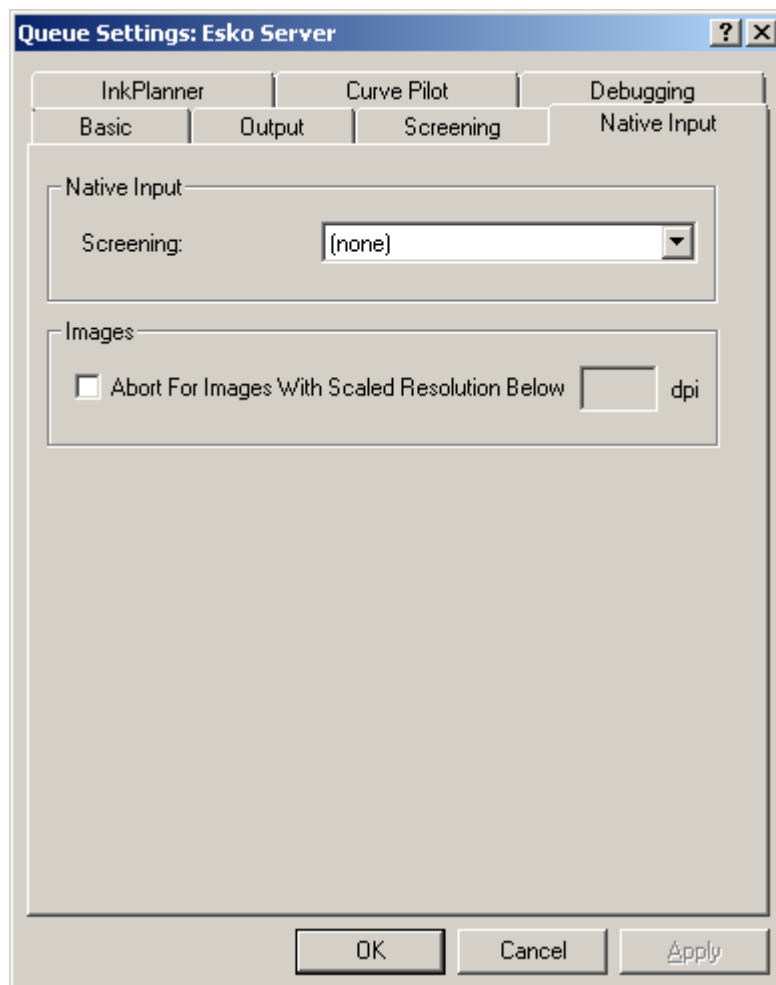
Checking this toggle makes sure a resolution check on incoming images is performed. This option offers you the possibility to get the RIP abort the job if images below a certain minimum resolution are found. The resolution is calculated after scaling (effective when placing the image, including a possible global RIP scaling) and is a very solid quality check before a bad plate or film is made.

7.5 Native Input

When bitmap images are present in the job, they will only be contourized if the output resolution is not equal (or is not a multiple of) the resolution of the bitmap image or if the bitmap image is rotated over an angle that is not a multiple of 90 degrees. In case of correct expose resolution and no rotation the bitmap image will be treated in an optimized way (direct access to the image for direct exposure).

Note

This is only for an EskoLink workflow, using Esko native file formats (PDF, PDFPLA, PDFSTA,...).



7.5.1 Screening

Possible settings:

1. (none)
2. DynaCell
3. Esko Classic (precalculated)

DynaCell allows you to use any angle and any LPI at any resolution. See the Screen type (page 56) section in the PS/PDF Input chapter for more information about the different options.

Typically, this option is set to **(none)**.

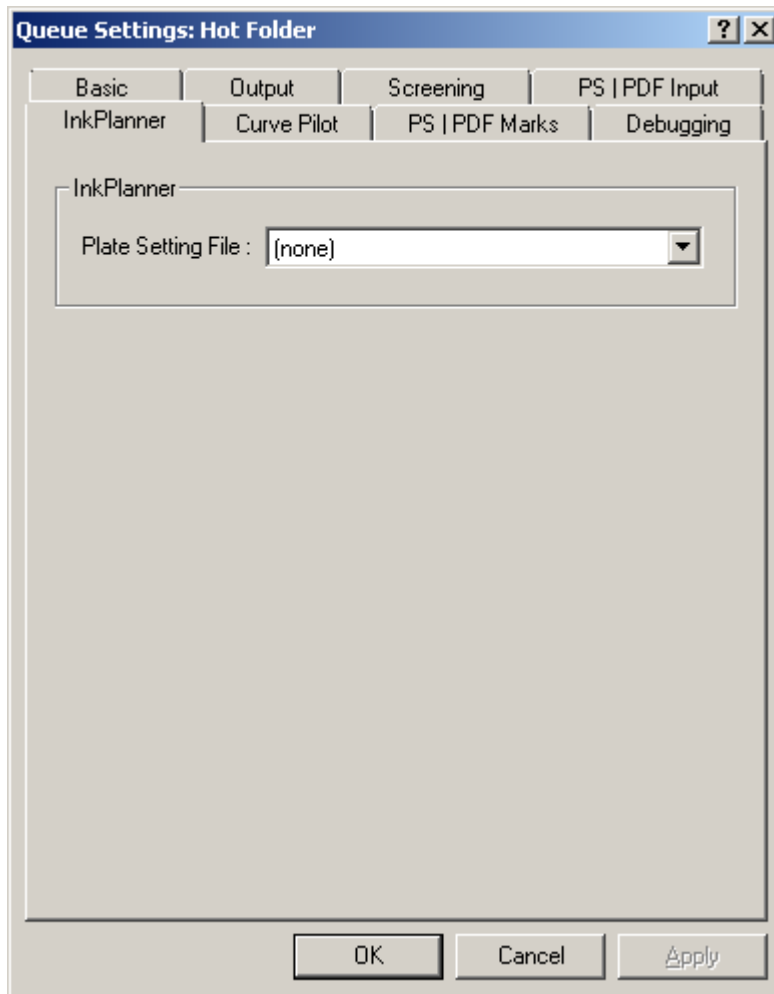
7.5.2 Abort for images with scaled resolution below... dpi

Checking this toggle makes sure a resolution check on incoming images is performed. This option offers you the possibility to get the RIP abort the job if images below a certain minimum resolution are found. The resolution is calculated after scaling (effective when placing the image, including a possible global RIP scaling) and is a very solid quality check before a bad output plate or film is made.

7.6 InkPlanner

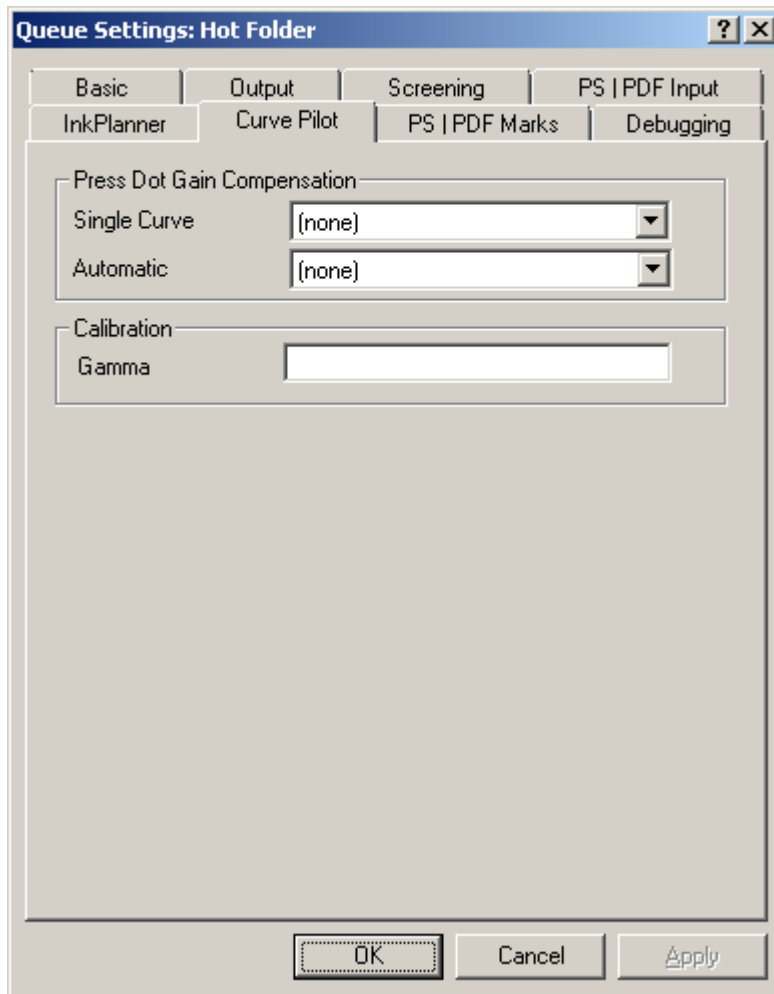
Select the Plate Settings (.ini) file from the dropdown list.

For more information on InkPlanner consult the InkPlanner User Manual.



7.7 Curve Pilot

The Curve Pilot tab allows you to specify press dot gain compensation, assuming that the plate dot gain compensation will be specified in the FlexRip Configurator, attached to the media selected in the configuration used.



7.7.1 Press dot gain compensation

The Press Dot Gain Compensation group allows you to specify a 'single curve' DGC and/or an 'automatic' compensation strategy from the SCRDC's, ICPRO's or .PRSYNC's available in the list.

For more information on how to create dot gain compensation files, please see the dedicated Esko Curve Pilot documentation on the Suite 12 DVD.

What if you specify both a dgc (single curve) and a scrdgc or a Strategy/Curve Set (automatic compensation)?

Then the curves are executed in a specific order: first the scrdgc or Strategy/Curve Set, then the dgc. This also happens when e.g. a dgc curve was specified in the Macintosh print menu and a scrdgc curve or a StrategyCurve Set was set in the Dispatcher's Queue settings. The first one is not executed in the PostScript file but written as a reference in that PostScript file, the same way as a scrdgc or a Strategy/Curve Set selection in these queue settings is also a reference to the rip. Why you have to specify a separate scrdgc/dgc curve or a Strategy/Curve Set is explained by the FlexRip instructor. To a large extent, this depends on your previous and current workflow. The Esko Curve Pilot documentation is a good

guideline to help you answer these questions. To get a good idea of what exactly happens when you use both tools, just make a drawing of the 2 curves: put the scrdgc first, the dgc curve next to it and follow what happens to a specific percentage.

7.7.2 Calibration

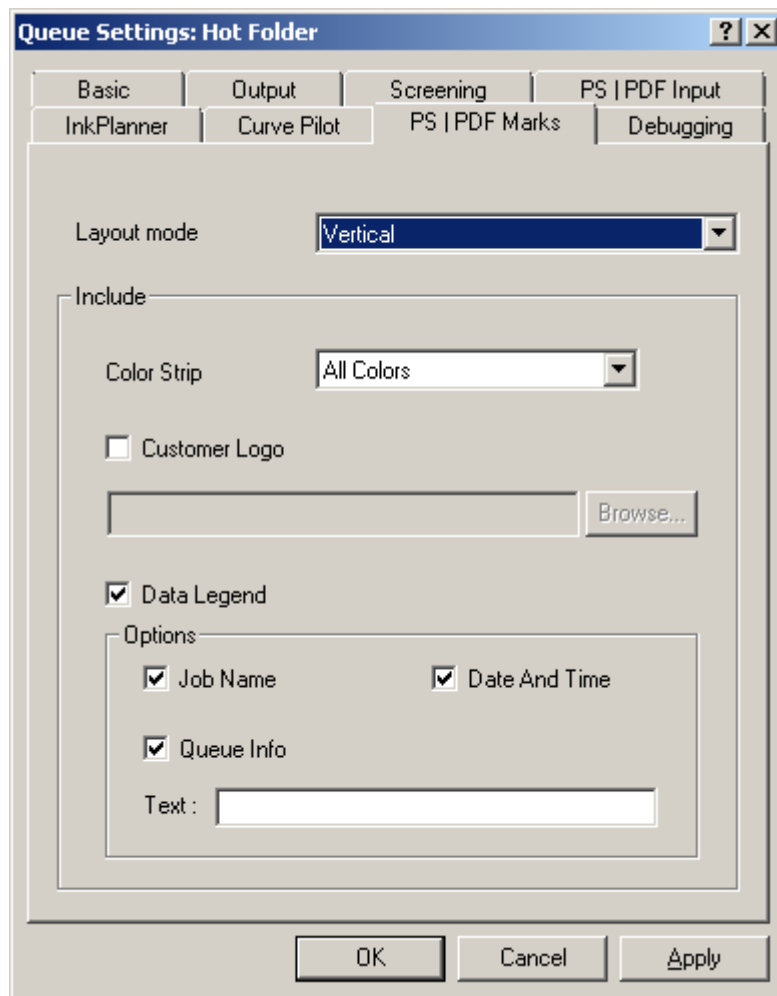
When the output device is not linear (i.e. 50% does not come out on film/plate as 50%) gamma compensation allows you to correct this.

Please see the specific documentation on how to calibrate your device. This documentation can be found on the Suite 12 DVD:
"determine_gamma_english.htm"

7.8 PS/PDF marks

This tab offers you the possibility to have register marks added to the FlexRip output, when using the PostScript channel (AppleTalk, Hot Folder or Named Pipe). It includes a layout mode option for color strips and data legend, options for what should be shown and what shouldn't and an input field where you can enter your own text.

All this can be very important for quality control. E.g. the queue info can be added to the RIP output which will allow you to quickly check if the correct queue was used.



7.8.1 Layout mode

Select how you want your mark to appear: Horizontal, Thin Horizontal, Vertical, Thin Vertical and None. Starting point is the top left corner. The default setting is *Horizontal*.

The height of the standard mark is 13 mm, a thin mark is 6 mm.

7.8.2 Include

7.8.2.1 Color strip

If you want to add a *color strip* to a film, plate or proof, specify what colors you want to include. Select: All colors or Only CMYK.

If you do not want to add a color strip, select (none).

7.8.2.2 Customer logo

Check the box if you want to add a *customer logo* to the proof.

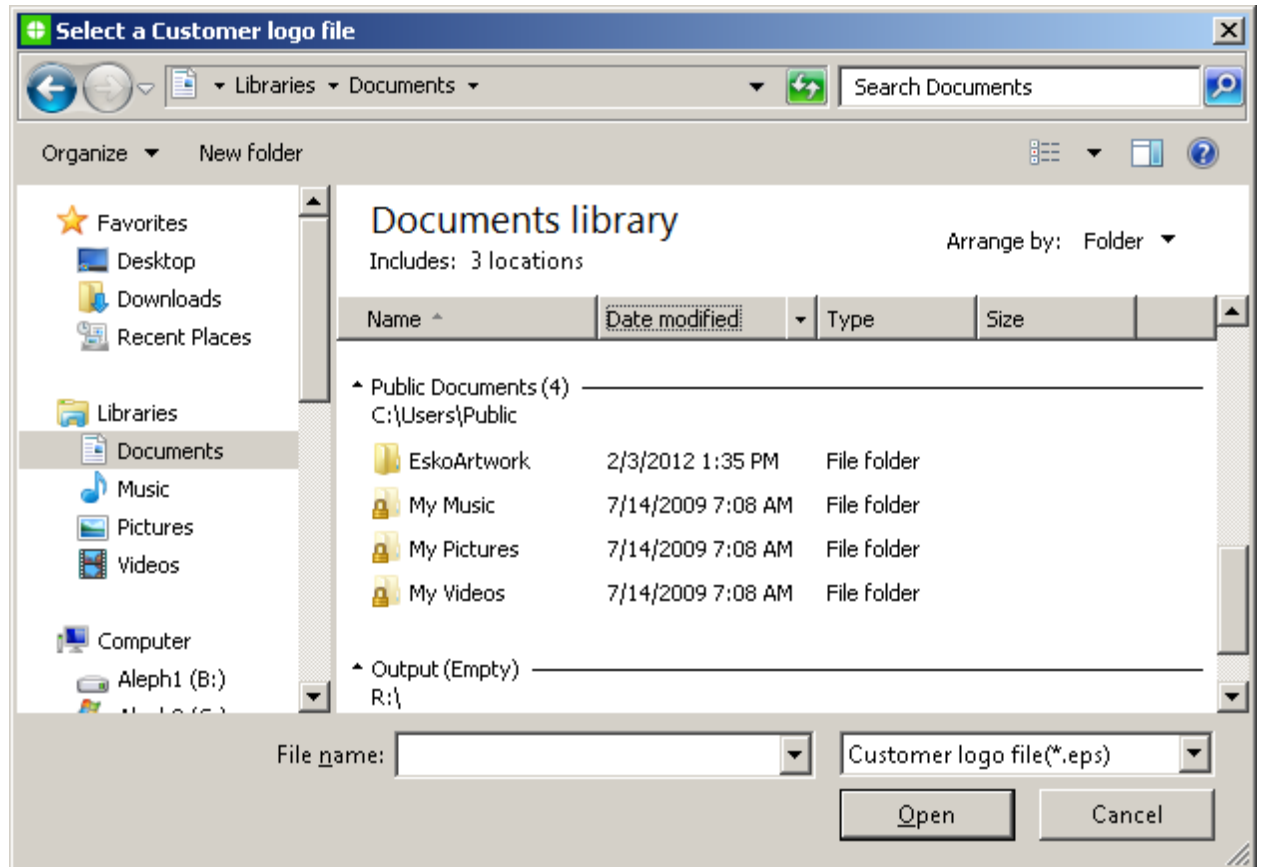
Click the Browse button to open the 'Select a Customer logo file' dialog. Only .eps files can be used as a logo.

Note

Logo marks should be eps files in CMYK or 1 color. An RGB logo will have disappeared after ripping.

Warning

Take your logo mark into consideration when making plates for a one-color job. If your logo contains 4 colors, 4 plates will be created instead of the expected one.



7.8.2.3 Data legend

Check the boxes to indicate which items you want to include in the data legend. Use the text field to enter user-defined text.

Note

There are no requirements concerning the text layout. Be aware that template variables do not work for the data legend field.

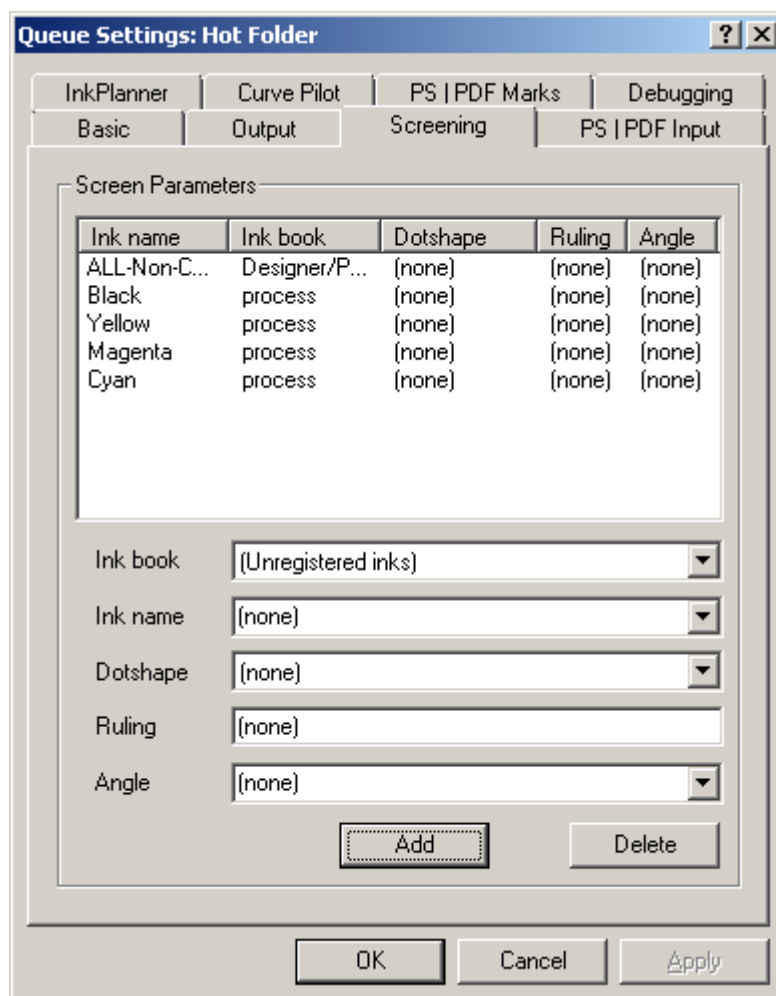
7.9 Screening

This tab allows you to overrule screen parameters for each separation. The default option is (none). This means that the RIP will use the screen parameters specified in the job. Change these values only if you want to override the screen parameters specified in the job.

FlexRip offers an elaborate screening overrule mechanism to add more flexibility. It is possible to define spot colors and designer colors with LPI/angle/dot shape information. Moreover, the screening routines have been optimized to give more consistent output. E.g. dots with the same number of pixels will now have an identical shape (within the same dot shape).

Note

In case of PostScript input it serves both composite and separate PostScript. This screening menu should be seen as a filter after reading the input data and before the start of the actual ripping.



Select the color of which you want to change the settings in the list and apply the changes by selecting the correct Dot Shape, LPI or angle from the dropdown lists.

To define/add individual spot colors:

1. In the *Ink book*, select the book you want, or '(Unregistered inks)' if the spot color is not registered in your color database.
2. Enter the name of the spot color in the *Ink name* field.

What happens if you do not use these settings?

Then all rules previously mentioned are valid. The angle and ruling settings will be taken from the incoming PS/PDF file. In case of EskoLink input, the settings of the ticket will be taken.

What happens if you do use these settings?

If you select a Dot Shape and/or enter an angle and/or ruling value, the RIP will take these into account and will overrule all other incoming or requested values (overwriting the settings in the PostScript file or server ticket). This means that whatever you enter here will get the highest (overruling) priority!

Warning

Any Dot Shape entered in the Screening tab will overrule the Dot Shape selected in the Basic tab.

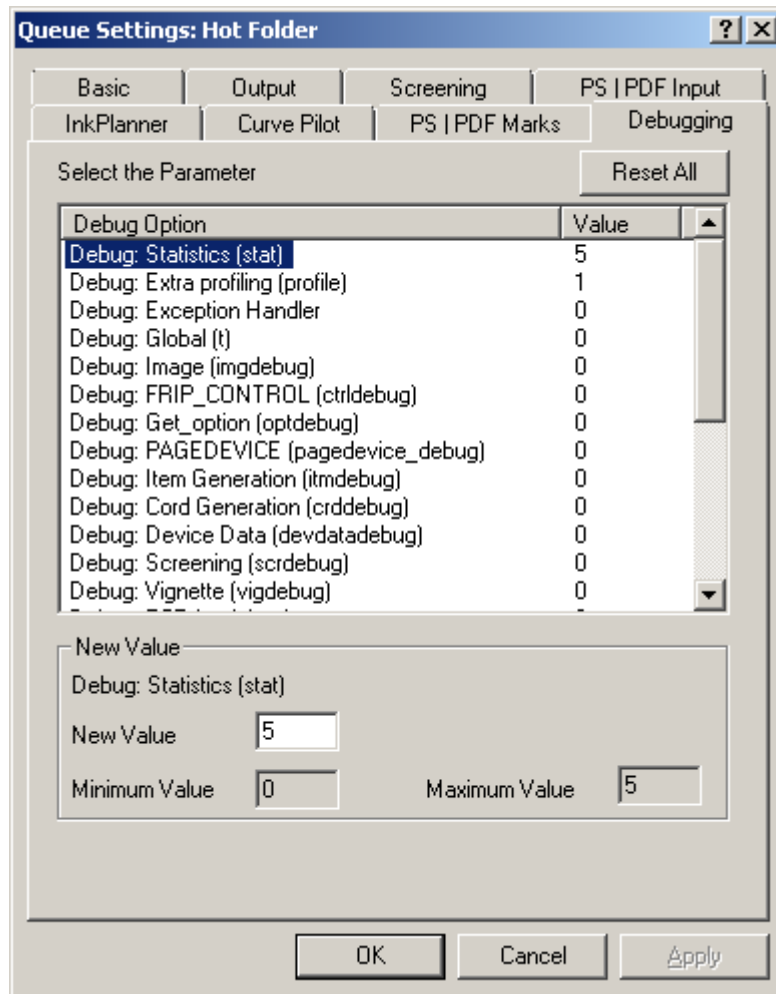
When should I use this menu?

When you do not control the incoming options:

- When you did not create the PS/PDF yourself and noticed that it contains ruling settings that are not supported by Esko screening rules.
- When you have a special workflow in which you want a special Dispatcher queue executing a fixed set of screening rules (contrary to a queue that listens to job-related settings).

7.10 Debugging

This tool enables you to control the content of the log files. You can make your log files report basic info or you could have them report all kinds of details on the complete RIP action.



Why is this so interesting?

Extensive log files are very helpful when a problem occurs and you or our Customer Service is looking for an explanation and solution to the problem. Our advice is to always have extensive log files made. The actual log file can be consulted by double-clicking the process number in History View (first column 'job') or can be opened in WordPad or Notepad (standard text editors from Windows).

The log files (per Dispatcher) always reside in the Logging folder. Note that it is possible that the output folder has another name that you specified while configuring the FlexRip. The path listed below is the default path:

C:\Esko\bg_data_FlexRipc_v120\cdi\Logging.

To change a debug setting, select the debug option and enter the new value in the input field. The minimum and maximum values are indicated.

Some advised settings:

- *Statistics*: advised setting: 5
- *Extra profiling*: advised setting: 1
- *Expose Ticket* (exptdebug): advised setting: 0
- *Statistics on error*: advised setting: 3. This will provide more info when errors

occur.

- *Screening*: advised setting: 0

Warning

The higher the value, the more chance the system generates huge log files.

In the History View (page 77) chapter, you will find some guidelines on how to read log files and in the appendix there is a section that explains some classic errors (page 92).

Reset All: Will reset the debugging parameters to their default settings.

7.11 Copydot Tuning

7.11.1 Background

7.11.1.1 Performance & Memory Management

Lineart Pixel images are contourized in the FlexRip. This is the best solution for simple images (logos etc.) because, by contourizing, the images are handled as other linework. Transforming, clipping, trapping or screening of those images is done the same way linework is processed. This method however, gives problems for huge images containing extremely fine detail like screens. In such cases contourizing needs a lot of memory, which slows down the FlexRip. To overcome this problem, the FlexRip uses a copydot optimization.

7.11.1.2 Copydot workflow

Copydot images are bitmap images, representing pre-ripped or scanned pages. These images are stored in a bitmap file format (TIFF, DCS, EPS, ..). Most of the time we cannot see the difference with bitmap images representing logos or simple drawings. This makes it rather difficult for the RIP to decide if the bitmap should be contourized or not. In some cases, we can extract that information out of the job. Copydots included in a DCS file are recognized as copydot. Copydots that are manually placed in the job by means of an editor are not recognized as copydot and by consequence, will be contourized.

7.11.1.3 Copydot and paint modes

A bitmap image can be set in 3 different modes:

1. ImageMask

Paint is only applied to black areas. White points are not part of the image. They always leave the background unaltered.

2. Image

Paint is applied to both black and white pixels.

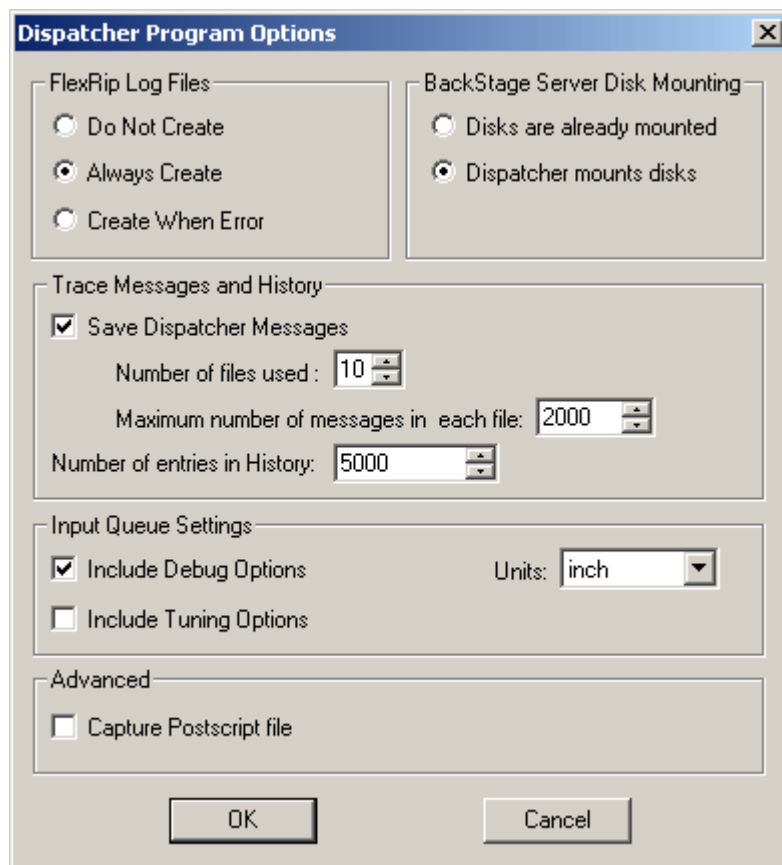
3. Copydot

In paint mode masking, it behaves always as Image. For all other paint modes, the copydot image is bitwise stored into the background.

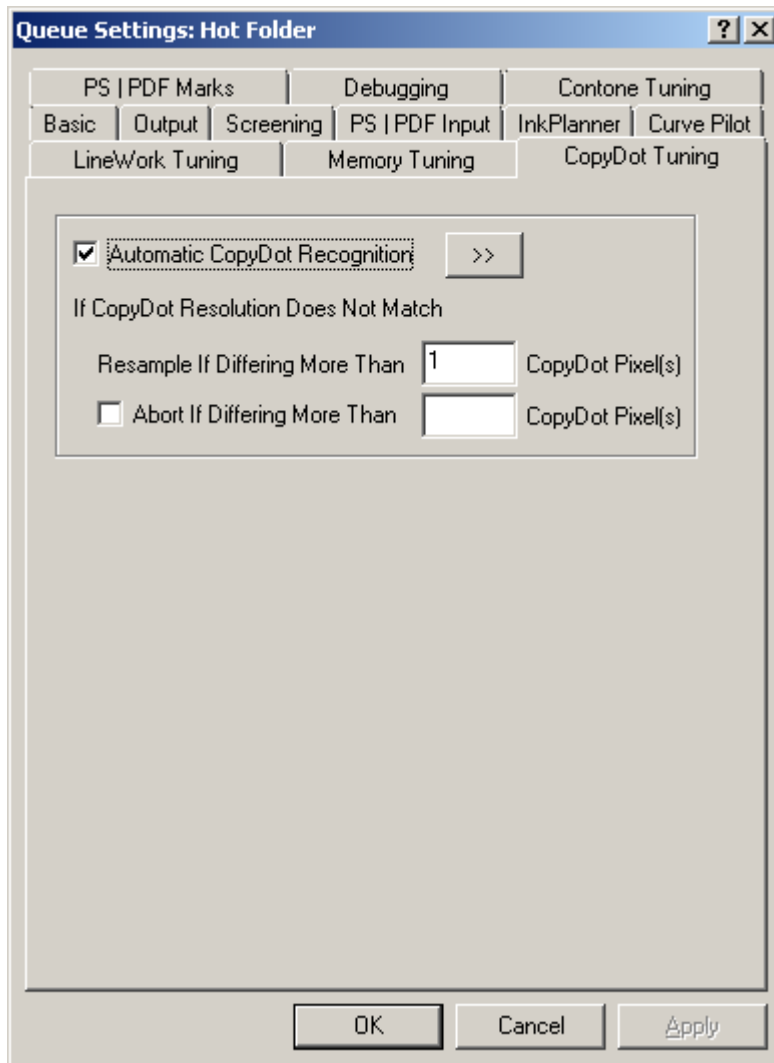
By default a bitmap image is set to 'ImageMask'. This means that when the paint mode is masking (e.g. opaque ink mode in Esko PackEdge), the bitmap image will always be contourized!

7.11.2 Queue Settings

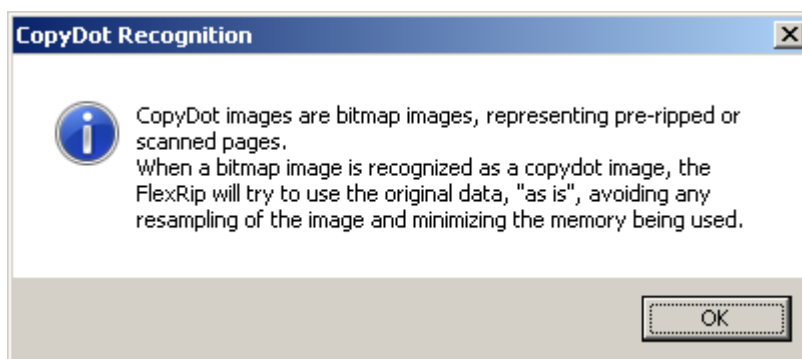
To define or change the RIP copydot recognition, you must check the 'Include Tuning Options' box in the 'Input Queue Settings' of the Dispatcher → Options → Program Options → Input Queue Settings → Copydot Tuning Options.



This will give you four extra tabs in the Dispatcher, one of which is the 'Copydot Tuning' tab.



By default the 'Automatic Copydot recognition' is active.



The following 'rules' are used to treat an image as a copydot image:

- A copydot image must be a solid object. A screened bitmap image is never handled as copydot.
- A copydot image has a rather 'high resolution' and is not 'small'. A copydot image must have at least 1000 rows or columns.

7.11.2.1 Resample

When the RIP treats an image as a copydot image, the following happens:

1. With the size of the copydot image (inches, mm, ..) and the requested output resolution the number of resulting output pixels is calculated = X pixels.
2. The FlexRip checks the actual number of pixels that are in the copydot image itself = Y pixels.

If the difference between X and Y is higher than the value defined (default 1), then the copydot image will be re-sampled.

In case different copydot images in a job have slight differences in resolution, and you want to keep that resolution, you should set the resample value a bit higher (ex. 10).

Note

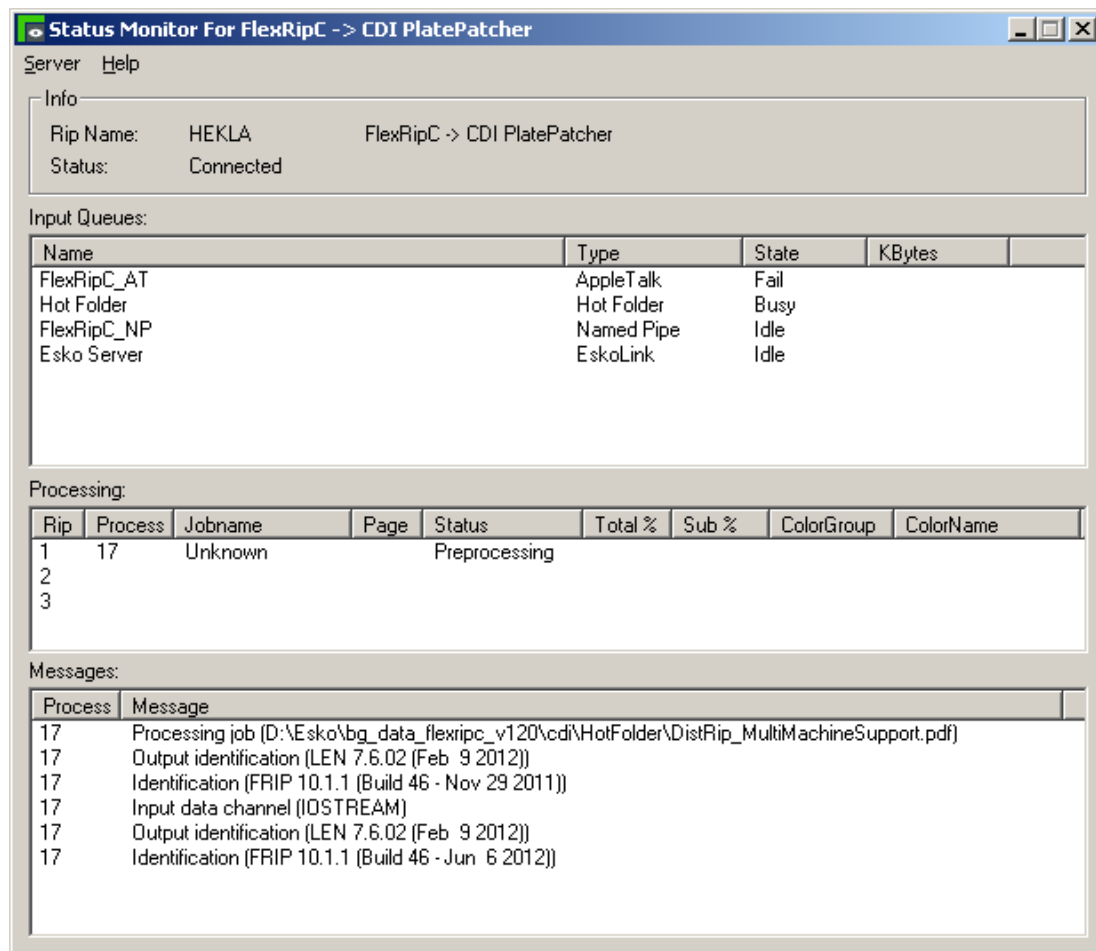
However, if the copydot image is set in a masking mode, then the image will again be contourized.

7.11.2.2 Abort

If the difference between X and Y is higher than the value defined, the RIP will be aborted. When set blank (also the default), the FlexRip will never be aborted.

8 Status Monitor

Start up the Status Monitor by selecting 'Status Monitor' from the Tools menu in the Dispatcher that you want to monitor. The Status Monitor gives information on the status of the current and past ripping processes.



8.1 General overview

In the Status Monitor three panes can be distinguished:

1. The *upper* pane presents all queues with their type and current status.
2. The *middle* pane displays **info** about the 3 RIP channels (2 Esko-native channels and one PostScript channel).
3. **Messages** are shown in the *lower* pane of the monitor.

The Rip kernel sends two types of information: messages and info.

Info data supersedes the previous data, such as the actual page number the RIP is processing. When ripping, the information "page number" starts with 1, becomes 2, etc. When the RIP sends this kind of information, the Dispatcher knows that it can replace the previous value of "page number" with a new value.

Messages, however, are stored in a list by the Dispatcher. New messages are constantly added to the list. That is why you will see entries like 'processing job' when the job has long been processed already.

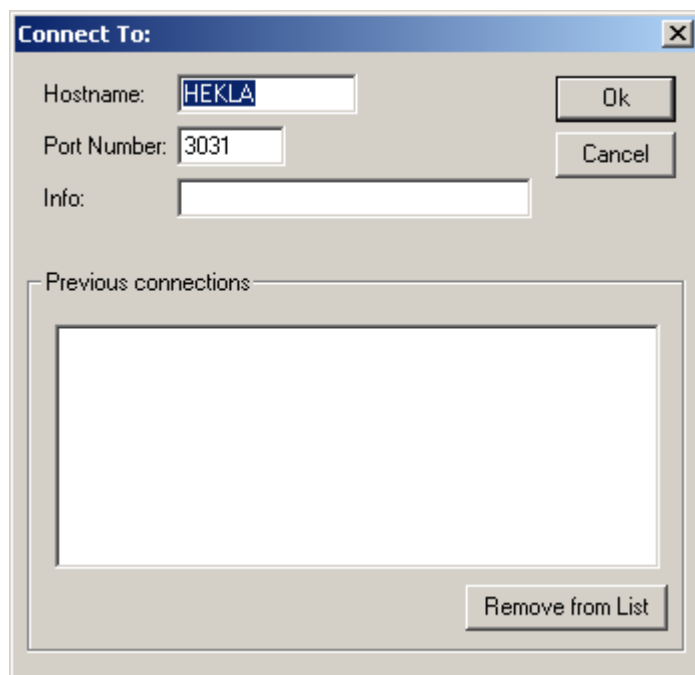
For each standard RIP process (or every time the RIP 'wakes up' after an internal error), you will see these 4 different messages (as seen also in above graphic of the Status Monitor window):

1. Identification (FRIP 10.1.1 + version date). The software version number and date of the Rip kernel. Remark: the PS channel software has been frozen on Suite 10 Assembly 6
2. Output identification (output module version number + version date). Shows the type of output module.
3. Input data channel (IOSTREAM): Reading the input (PS).
4. Processing job (path): Actually ripping, exposing, making output. All following jobs will only show the 'processing job' message.

8.2 Server menu

8.2.1 Connect to

This function allows the monitor to connect to a specific port number on a particular computer running a Dispatcher application. By default the Status Monitor connects to the Dispatcher that started up the application. If connection is to be established with another Dispatcher, possibly on another system, enter the host name and port number and click OK.



8.2.2 Trace messages

Trace information is info created by the Dispatcher each time an important event occurs (a job that is started...). It is used primarily for troubleshooting. Trace files are created by the Dispatcher and viewed in the Status Monitor. They are stored in the Logging folder.

Active: In the Dispatcher user interface it is possible to deactivate tracing. If tracing is not active then the option "Not Active" will be shown. Always leave tracing active. You will only need these trace files when Esko Customer Service asks you to consult or send one.

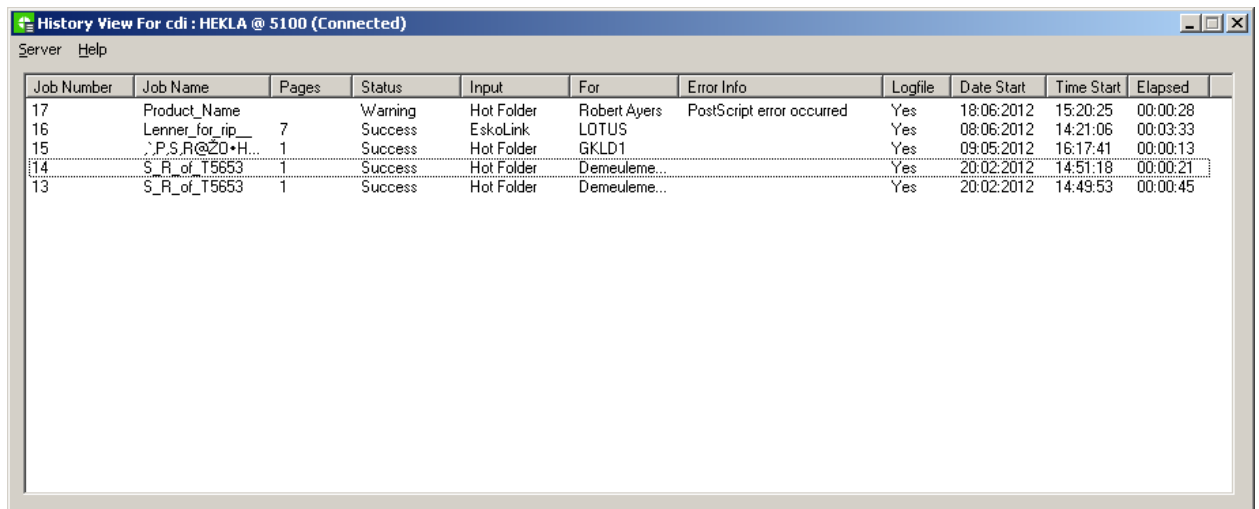
Note

Trace files can be viewed in text editors. The files contain hexadecimal characters, but WordPad has no problem showing them. You may, however, experience problems when opening trace files in other editors.

Note

If it is not possible to open a trace file, take a copy of the file and open this copy in a text editor.

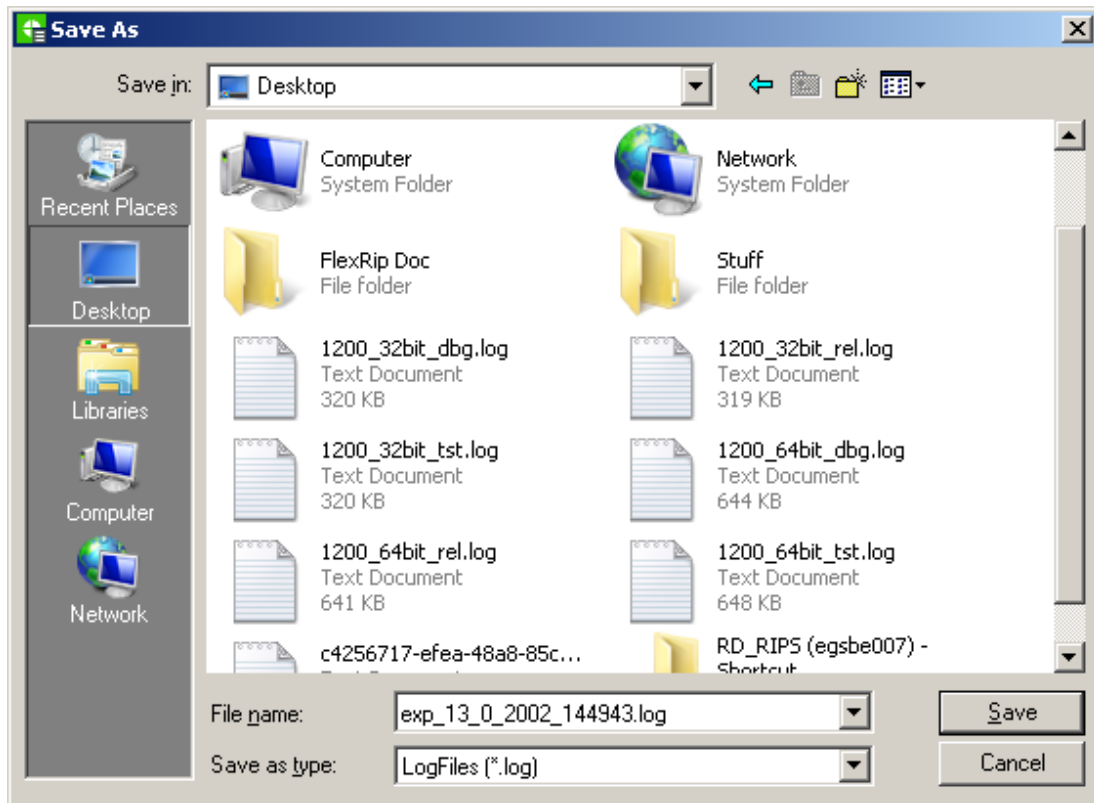
9 History View



Job Number	Job Name	Pages	Status	Input	For	Error Info	Logfile	Date Start	Time Start	Elapsed
17	Product_Name		Warning	Hot Folder	Robert Ayers	PostScript error occurred	Yes	18:06:2012	15:20:25	00:00:28
16	Lenner_for_rip__	7	Success	EskoLink	LOTUS		Yes	08:06:2012	14:21:06	00:03:33
15	.P.S.R.@20+H...	1	Success	Hot Folder	GKLD1		Yes	09:05:2012	16:17:41	00:00:13
14	S_R_of_T5653	1	Success	Hot Folder	Demeuleme...		Yes	20:02:2012	14:51:18	00:00:21
13	S_R_of_T5653	1	Success	Hot Folder	Demeuleme...		Yes	20:02:2012	14:49:53	00:00:45

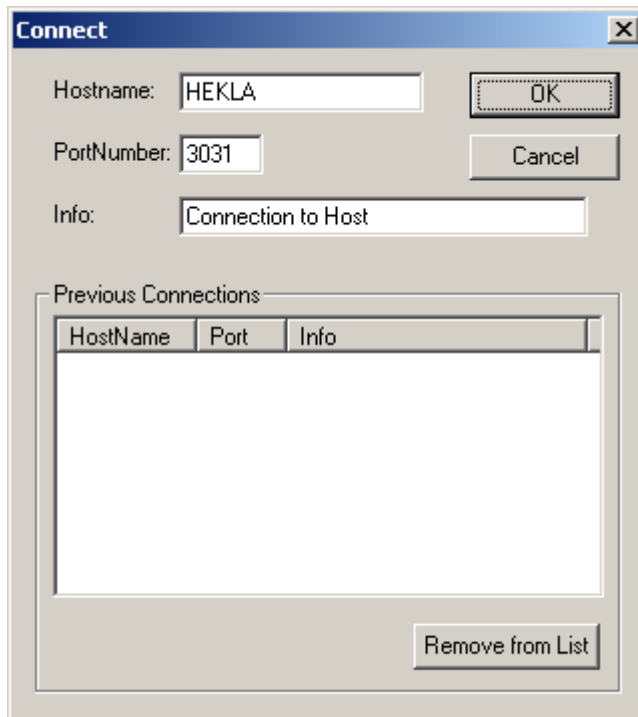
The History View program keeps track of processed jobs and enables you to consult their log files. The amount of messages in the History View is determined in the Program Options (Dispatcher = Options menu). The list can be emptied by choosing 'Clear History' from the Dispatcher Rip menu, which also deletes the actual log files. History View is a 'client' program of a Dispatcher. It will only show the history list when it is connected to a Dispatcher. When you start up History View, it will connect to the default port number of that Dispatcher. In case you have multiple Dispatchers in your FlexRip configuration, History View will want to know to which Dispatcher it has to connect. Right-click the top window bar of the History View and choose Connect.

'Save As...' in the Server menu will save the currently selected log file.



History View For cdi : HEKLA @ 5100 (Connected)										
Server Help										
Job Number	Job Name	Pages	Status	Input	For	Error Info	Logfile	Date Start	Time Start	Elapsed
17	Product_Name		Warning	Hot Folder	Robert Ayers	PostScript error occurred	Yes	18.06.2012	15:20:25	00:00:28
16	Lenner_for_rip_	7	Success	EskoLink	LOTUS		Yes	08.06.2012	14:21:06	00:03:33
15	.P.S.R.@20+H...	1	Success	Hot Folder	GKLD1		Yes	09.05.2012	16:17:41	00:00:13
14	S_R_of_T5653	1	Success	Hot Folder	Demeuleme...		Yes	20.02.2012	14:51:18	00:00:21
13	S_R_of_T5653	1	Success	Hot Folder	Demeuleme...		Yes	20.02.2012	14:49:53	00:00:45

Enter the correct Dispatcher port. The History View is now connected to that specific Dispatcher and will only show its specific history. You can now start up another History View and connect it to the other Dispatcher, etc...



Double-clicking the processed Job Number (left column) opens a view window of the log file that the RIP made of the entire processing of the PostScript file. The log files (per Dispatcher) always reside in the Logging folder. Note that it is possible that the output folder has another name that you specified while configuring the FlexRip. The path listed below is the default path.
E.g.: C:\Esko\bg_data_FlexRipc_v120\cdi\Logging.

Note

Log files are text files so they can be viewed with standard Windows text editors like NotePad and WordPad. These offer search functionality, which is convenient when looking for specific info in these (possibly huge) log files.

```

JobNumber: 13  JobName: "S_R_of_T5653"

Total number of lines in file: 1022  Logfile shown from line: 1

*** Localini file: D:\Esko\bg_data_flexripc_vl20\cdi\tmp\localini_0.ini ***
*****
[setup]
fripout=          fripoutlen
outdir= "\\hekla\output"
bps= 1
VMSFileNames= 1
alloc= syncswap
rd_vmlimit= 128
rd_substitutefont= "FontNotFound"
fripext1= inkplanner
fripext2= fripoutlen
fripodlpipe= "odlfrippipe.dll,ODL_TFripPsmarkPipe"
LAYOUTMODE= 0
COLORSTRIP= 1
DATALEGEND= 1
D_DATETIME= 1
D_JOBNAME= 1
D_QUEUEINFO= 1
CUSTOMERLOGO= 0

```

The appendix of this document contains a more detailed explanation of possible errors that can be described in log files. The contents of the log file can be managed with the debug options in the Queue settings (see the Debugging (page 68) chapter). The next section will help you to read log files.

9.1 Log files: guidelines

When opening a log file, the *local INI* file is the first thing you see. But except for that, the log file is also extended with the *set of environment variables* that were used when ripping (those set up by the server, if any, and the ones specified in the FlexRip Configurator), and an indication of the *dispatcher queue* that was used to process the job. All this should make it easier for our Customer Service to determine the problem and for you to supply the required info to our Customer Service.

- **What dot / LPI / angle did the RIP really take?**

You will find this screening information by searching for these words:

'BG screen'

'Sampled Screen'

'lin'

In a PostScript workflow, the log file might first show some incorrect LPI and angle information, depending on the application and your debug settings (Typical are the offset settings of LPI 120 and angle 45). What you see here is the search order that the RIP is following. It starts with the default offset settings and then looks in the PostScript file to see what the correct values are.

The RIP will take the requested PostScript file screening settings and the log

file will show them. Use the following rule to check the correct dot, LPI and angle settings: the last time the screen info is mentioned just before the actual ripping starts ('start expose'). The screening settings shown there will be used to create the output file.

- When printing from **Freehand**, you can also search for 'Application' (and the next line will contain the really used screen settings).
'Sample Screen'
The first appearance is e.g. the fake default LPI of 120, but just continue to search. Usually, the third one already shows a change and you will see the actual 'lin' (lineature/ruling) taken by the RIP.
- **Output folder**: search for the word outdir'
- **Output name** (name of the output file): search for the word 'output' (at least in one of the expose ticket tables.)
- **Rip version**: search for following words:
I_CTRL_FI Identification (e.g. FRIP 12.0.0)
I_CTRL_OI Output Identification (e.g. TIFF MONO 12.0 02 (month day year))
The FRIP version is the version of the 'FlexRip kernel' (the base).
- **Font replacement**: search for the words:
'Not found', using (then you will find):
I_OSTREAM_BB Byte Buffer Dump
'fontname' not found, using Courier...
- **How many colors, separations, files were made?**
'start expose': Shows the time indication of each new file that is written.
'Progressline': Shows the actual ripping moment + progress info per inch.
'I_CTRL_PN' and 'page number': Shows the number of PostScript pages that the RIP is looking for.
Every log file will show this error at the end:
W_CTRL Warning: 'No data in output'
W_CTRL Warning: endpage (FALSE), page discarded
This simply means that there are no more separations described in that job, so immediately after this warning the RIP will end processing that file.

10 Workflow: flavors and hints

10.1 Who decides: the FlexRip or the operator?

You will have noticed that there are several ways to work with the FlexRip (See the Priority of Settings (page 44) chapter).

- Some people want the FlexRip to decide settings and even overrule the ones that the operator chose. This is often referred to as the 'fail-safe' method to avoid mistakes from operators.
- Some, however, do not want the FlexRip to take any decisions, but want it to keep all the settings the operator set in the PostScript file, or in the ticket in case of an Esko native workflow. This could be referred to as "All Power to the Operator" method.
- Settings that are not answered by the Dispatcher or ticket/PostScript file are taken from the Queue Defaults.

The decision is completely up to the customer. The difference between these choices is visualized by the use of the priority of RIP settings and the amount of Dispatcher queues. If queues take hard decisions, then their names better reflect what they do.

10.2 What is best: AppleTalk or Hot Folders?

As AppleTalk is no longer supported from Mac OS X 10.6 (Snow Leopard) onwards, Hot Folders is the remaining choice.

10.3 Emulsion: up or down, positive or negative?

An advantage of the FlexRip mechanism is that it can be tuned to everyone's desires. You can make it listen to settings or you can make it 'correct' possible errors in incoming settings. Just because this is possible, we have some extra advice on what happens when multiple settings seem to conflict (= 'where they do not follow the described priority').

We explained that the FlexRip Dispatcher settings have the highest priority. They will overrule all others coming in. Unfortunately, there are some exceptions as mentioned before in the section Queue Settings Basic (page 45). These remarks are only about the basic settings 'Image' and 'Emulsion'. All other settings have the

general behavior as described in the section Priority of settings (page 44).

The initial problem here is that the FlexRip Dispatcher has to live with the rules of the 'PostScript' language and that this general language is being written from several sources/DTP applications. This means that we have 3 parties involved: The DTP application, the PostScript file and the FlexRip.

In the following schemes, we will explain what happens if you tried out all the interactions of the possible settings. Each scheme ends with a general rule: use those rules to set up your fixed workflow. Do not trouble all DTP operators with the jungle of possibilities in the settings.

The following situation can cause confusion. When choosing Print in Freehand (or any DTP application), you can always set the emulsion up or down in the Freehand print settings. Further down in the print options (you selected an Esko device PPD), there are the 'Printer Specific' settings of the output device where you can also select an emulsion setting (and there is no 'none' to choose). The result of these two settings will eventually end up in the written PostScript file. It is this setting that is then taken into account or overruled by the Dispatcher Queue settings.

A first scheme now describes what happens between application and PPD choice. A second scheme describes the interaction between the PostScript file and the Dispatcher Queue settings.

10.3.1 Print from DTP: Application print versus PPD settings

What end up in the PostScript file

	Application Print setting	Printer Specific Setting from ppd	Dispatcher Queue Setting on <none>	Result: bitmap file in Esko Bitmap Viewer
Image	Pos	Pos	→	Pos
	Pos	Neg	→	Neg
	Neg	Pos	→	NEG!
	Neg	Neg	→	POS!
Emulsion	Up	Up/right	→	Up
	Up	Down/wrong	→	Down
	Down	Up/right	→	DOWN!
	Down	Down/wrong	→	UP!

Conclusion: to avoid any confusion, always leave the application settings to Pos and Up, then set what you really want in the PPD.

10.3.2 On FlexRip: PostScript file versus Dispatcher —

Queue Settings

How do the Dispatcher Queue settings affect the settings in the PostScript file

	Settings in the PostScript file	Dispatcher Queue Settings		Result: bitmap file in Esko Bitmap Viewer
Image	Pos	None	→	Pos
		Pos	→	Pos
		Neg	→	Neg
	Neg	None	→	Neg
		Pos	→	Pos
		Neg	→	Neg
Emulsion	Up	None	→	Up
		Up	→	Up
		Down	→	Down
	Down	None	→	Down
		Up	→	Up
		Down	→	Down

Conclusion: Dispatcher Queue Settings overrule the settings in the PostScript file

10.4 What if you rip for more than one output device?

If you have more than one output device that you want to send FlexRip output files to, you need more than one Dispatcher. Each Dispatcher is configured to serve one specific machine.

What with sleeves?

Customers who expose directly onto flexo sleeves may have one Dispatcher for exposing on the normal drum and another Dispatcher for their sleeve workflow (in which they take the normal drum of the machine).

Basically, you will need another Dispatcher for every exposure that is based on another PPD file.

Setting up multiple Dispatchers and their queues will be explained and guided by

Workflow: flavors and hints

the Esko staff.

11 Screening on FlexRip

For complete and detailed info on Esko Screening, we refer to the screening documentation on the Suite 12 DVD.

In case of 'Precalculated' screening (native as well as PostScript input), the following should be considered:

The 'jump to' mechanism

The range of possible LPIs that the PPDs offer is a selection. The FlexRip will jump to the nearest LPI value that it has available. So if you ask 100 LPI and the RIP offers 94 and 104, you will get 104 LPI. Do remember that you cannot combine precalculated screening with DynaCell or PostScript screening. If you want another print angle or LPI than Esko offers, you can no longer combine it with an Esko dot shape.

Please refer to the Screening tab for more information on overruling.
See the ScreenFilter documentation on the Suite 12 DVD for information on how to swap PostScript screens with Esko screens.

12 Esko Curve Pilot: Esko's Dot Gain Compensation tool

This section merely serves as an introduction. For more detailed information we refer to the Esko Curve Pilot documentation on your Suite 12 DVD.

12.1 Terminology

- A DGC file stands for Dot Gain Compensation file. It is a curve.
- A DGC Strategy (*.icpro) is a set of curves. One of the included curves will be chosen depending on specific a screen ruling, dot, angle or ink (separation).
- A SCRDC (Screen Based DGC) is a former set of curves. They can still be used; however, Esko Curve Pilot 12.0 will not create SCRDC's anymore.

12.2 Basic explanation and general workflow

The high dot gain of e.g. the flexo printing process results in the need for compensation curves. With these curves, the imaged data are lighter, so the printed result is closer to the intended densities.

Esko prefers compensation curves to be executed in the RIP, since a fully digital workflow has many advantages:

- All data are print-process independent (same image for offset and flexo output).
- Digital tools can be trusted and are 100 % repeatable.
- Time gain.

A CtP (Computer to Plate) workflow will use different compensation curves than a CtF (Computer to Film). All the physical 'problems' with films and the 'film to plate' copy do no longer exist.

Example

The dot gain of digital flexo (CDI) approaches or even matches the Offset dot gain.

The main effect of the CtP workflow is the quality of the plate: dots are sharper (and stronger). This also results in very specific compensation curves.

Another reason for using curves is because of the nature of the printing process , but depends on your workflow.

If you work with '**independent**' data (i.e. your data are not, or only slightly, retouched for specific printing process reasons), then you will have to specify a flexo/offset compensation curve that will take care of the dot gain of the flexo/offset process. Again, this one may be general (DGC: one curve for all separations) or a specific one (Strategy: set of DGC's per dot/lpi/angle). These press curves will not be similar to curves that are used for conventional plates that were made through film contact! (Difference is less apparent for offset processes).

You also have a tool called '**target**'. In general, all curves can again be compensated with a 'target'. Adding these curves to (inside) an existing curve means: "Let's not forget that at image scanning time and while looking at monitors, we were already in an offset-Cromalin/WaterProof environment that was precompensated for offset". You might have the approval this flexo job based on an analogue Cromalin/WaterProof that shows offset dot-gain. If then you want the flexo print result to look like that Cromalin/WaterProof, you should deduct that offset gain from the one happening on the flexo press! That deduction is done by using that target (or reference) curve inside your flexo press dgc. What is then left over is the difference between flexo and offset dot gain.

Depending on the entire printing, the press compensation curves that are used to adapt the output files for a device will vary.

Advanced DGC requirements such as color based DGC strategies, are best handled in Esko Curve Pilot (optional).

How do you make your DGC or ICPRO files?

Here's a short overview:

1. Output test jobs (strips) without any compensation curves.
2. Print on press in typical conditions.
3. Measure results (percentages / densities).
4. Fill in data in Esko Curve Pilot.
5. Output test jobs again now with the compensation curves you made.
6. Print on press in typical conditions. The result should reflect the digital construction of the job.

12.3 Where are my SCR(DGC) and ICPRO files?

Esko Curve Pilot can be installed on the FlexRip or Automation Engine, but it is also possible to install it on other PCs.

If you have a server, all (scr)dgc files and Strategies will be located on the server. If you do not, they are stored locally on the FlexRip.

Make sure that:

1. the editors know where to find and write the curves.
2. the RIP (=Dispatchers) know where to find them.

On a new, non-customized FlexRip, the dgc files and Strategies are standard on

C:\Esko\bg_data_dgc_v010

The target curve(s) are in a subfolder 'refdgc':

C:\Esko\bg_data_dgc_v010\refdgc

More information on how to install the Esko Curve Pilot, please refer to the Esko Curve Pilot documentation on the Suite 12 DVD.

Tip

Always keep a backup copy of your curves, you do not want to lose all the work you put in there. Even a floppy disk could contain all your curves.

12.4 Using old DGC files

If you have DGC files from a FastLane v9.4 system or even older, you can continue using these DGC files on the FlexRip.

Best results are obtained after having loaded and saved the DGC files into Esko Curve Pilot. This will improve the quality and smoothness of the curve. We refer to the appendices in the Esko Curve Pilot manual on the Suite 12 DVD for more elaborate information.

13 Data backup and customization

A working FlexRip contains the standard FlexRip software that was configured to the customer's specific devices and workflow (Dispatcher Queues: their type, amount, names and their settings). This configuration results in small files that are very typical per customer. Configuration files are backed up by the FlexRip Configurator. Please refer to the Configurator documentation for more information on backing up configuration files.

The FlexRip contains output files. We see that some customers back up their output files and some do not. This depends very much on other archiving methods in the workflow. How you back up all these data is your decision. Your system manager should advise the workflow responsible what devices and procedures are available with this Windows2003 computer. You could copy data to another disk to avoid loss in case of hard disk problems. You could share a part of the FlexRip hard disks and copy the data to another computer that has a CD writer (or optical disks or...). Some more advice though:

Back up your DGC data

Copy your DGC files to the backup folder you made on your data disk or copy them all to an external disk. Do this regularly.

Warning

Never put a (any kind of) file that was on a CD or a DVD on a FlexRip Hot Folder. A file that comes from a CD or DVD-ROM is R.O.: Read Only! This means that after ripping the file, the RIP will not be able to delete the file and will rip it over and over again until the hard disk where your output folder is situated, is completely filled up.

14 Classic errors and their explanation

The History View program will show if a RIP action was completed successfully or if it encountered an error. Error Info usually concerns 'Internal Errors' or 'PostScript Errors'. As said before, a warning in a FlexRip log file is not always an error, but still it will appear in the log file.

For instance, in some log files, you will see the following warning a number of times:

W_DATA Warning: Output resolution not integer...

This is completely normal. Since the effective PPI has to be an 'integer' number, the RIP will change your resolution in background just a little bit, e.g. from 2104.9 to 2105 ppi.

Another warning that appears in every log file (at the end) is

W_CTRL Warning: No data in output!

W_CTRL Warning: endpage(FALSE), page discarded

I_TCTGEN_INFO no Contone data Processed.

This all means that the PostScript Interpreter is looking for the next color ('page') but does not find any. It indicates that there are no more separations described in the PostScript file and that all pages (=inks =separations) have been ripped.

You should in fact only be alarmed if you do not see the word 'Success' in the Status column of the History View.

- **PostScript errors** are encountered by the FlexRip's PostScript Interpreter. This could be e.g. because the PostScript file is not complete, because it contains inappropriate PostScript commands for the FlexRip ("dirty PostScript"), or because the FlexRip does not understand the commands.
- **Internal errors** have to do with the general working of the FlexRip or with the status of the RIP itself. If someone, during a RIP action, closes the Dispatcher or chooses the 'Abort job' function, you are bound to get this kind of error. You will also get an internal error if the RIP is asked to do things it cannot do. An example: the PostScript file might be read without problems, but it asks the RIP to execute a DGC curve that does not exist or to output the e.g. LEN or TIFF file to a folder that was deleted. Both of these operator mistakes will cause internal errors.

Warning

Double-clicking the job number in the History View will show you the log file in an internal window. You may find it much more practical to read large log files when

you open them in a simple standard text editor (with a search function!) that Windows offers like 'NotePad' or 'WordPad'.

What follows is a list of some typical errors and the way they are described in the log file. An error is always first described with a code, followed by some more or less 'readable' explanation.

Example

Example of such a code: 'E_DGCNAM_IE':

E = Error (I = Info; W = Warning)

DGCNAM = something wrong with the name of the dgc file

IE = It is an Internal Error

These codes are very valuable for our Customer Service, so do mention them too when reporting problems.

14.1 Classic PostScript errors

14.1.1 Examples

- **General warning**

E_CONTROL_PE PostScript error occurred (parser warning: PS error happened)

This is a standard line for most PostScript errors, and will be preceded or followed by a more specific message.

- **Rip was stopped during reading of the PostScript file**

W_CTRL Warning: FastRip cancelled

This indicates that something interrupted the RIP. It was suddenly stopped and the PostScript file could not be read anymore.

To check: Did someone choose 'Abort Job' from the Dispatcher's Server menu? Did someone close the Dispatcher program or even shut down the FlexRip?

See to it that the RIP is started and just try to send the job again. It is possible that you do not have to restart the Dispatcher, because the RIP normally re-starts automatically when any Queue or Hot Folder receives a new PostScript file.

- **'Illegal' dot types in PostScript**

If you input from ArtPro, you might find following error in the log file and similar 'Error Info' in the History View:

I_OSTREAM_PEMSG %[%[Error: rangecheck: Offending Command: set halftone;ErrorInfo: Halftonetype 95]%%

In ArtPro it is possible to select a non-standard dot (in the 'Separations' menu). These dot types for a Nexus RIP should not be allowed in PostScript code that is not made for such a RIP. Please see the Printing documentation (chapter 'Remark on printing from ArtPro').

Solution: Overruling the dot in the Dispatcher's Queue settings does not help. As said before, the job has to be printed again from ArtPro and a standard PostScript dot (top part of list) or no dot has to be selected in the menu 'separations'. Then the PostScript file will be fully readable and the RIP will continue to see what Esko dot has to be used in the end.

Using ScreenFilter is another option. If multiple dots are defined in ArtPro you will need the ScreenFilter to handle these jobs. ScreenFilter will capture the screening info and will allow you to define swap tables for incoming screens.

For more information, please refer to the ScreenFilter documentation on the Suite 12 DVD. There's even a third solution to overcome this problem. You can rewrite the PostScript file in ArtPro using PS screening instead of Nexus screening. The PS screening of ArtPro will work if you switch to "PostScript screening" in the FlexRip Dispatcher. All dots as described in the PS file will then be correctly output.

- **Ink name descriptions**

`W_CLASS` *Warning: Multiple invocations of PLATECOLOR on this*

Page

Meaning: Output file names always get a suffix based on the ink name description in the PostScript file. This official description of the separation name is the command 'PlateColor'. If the RIP finds (in 1 page, so within the same separation) multiple descriptions of this ink, it will give this warning. The warning indicates that this behavior is not standard, but does not have to be a problem.

- **Font not available**

When a font is not included in the PostScript file, and not available in the RIP itself, the following error messages will be displayed:

`I_OSTREAM_BB` *Byte Buffer Dump (length: 46 bytes)*

TextileRegular not found, using FontNotFound..

`I_OSTREAM_BB` *Byte Buffer Dump (length: 55 bytes)*

%%[Error: invalidfont; OffendingCommand: findfont]%%.

`I_CONTROL_INFO` *Parser info: %%[Error: invalidfont; OffendingCommand: findfont]%%*

`I_OSTREAM_BB` *Byte Buffer Dump (length: 63 bytes)*

%%[Flushing: rest of job (to end-of-file) will be ignored]%%.

`I_CONTROL_INFO` *Parser info: %%[Flushing: rest of job (to end-of-file) will be ignored]%%*

`E_CONTROL_PE` *PostScript error occurred (Parser warning: PS error happened)*

14.1.2 Problem solving: 'capture' the PS file

If there is some mysterious problem with reading a PostScript file, and all other obvious rules have been checked, then our Customer Service may ask you to provide us the 'Captured PostScript file'. This is a text file that includes the

PostScript file itself plus a lot of other relevant data. So a 'captured PostScript file' is not just the PostScript file that was intercepted, it is more than that.

How to 'capture' a problem file?

1. Try to reproduce the problem with a small PS file (less data? only one separation?)
2. Wait until all Dispatcher queues are in idle status.
3. Enable the 'Capture PostScript file' in the Program Options of the Options menu in the Dispatcher and confirm with OK.
4. Have the problematic Postscript file ripped again and wait until the error shows up again. This time the PostScript file was also 'captured' in a temp folder.
5. The captured Postscript file will be called ps_trace_1.txt and can be found in the Tmp folder. Note that it is possible that the output folder has another name that you specified while configuring the FlexRip. The path listed below is the default path.
C:\Esko\bg_data_FlexRipc_v120\cdi\Tmp
Now deliver this .txt file to our Customer Service.
6. Do not forget to switch off the 'capturing' afterwards! So disable the 'Capture PostScript file' in the Program Options of the Options menu in the Dispatcher and confirm with OK.

14.2 Classic internal errors

- **Screen not found**

E_SCRSEL_IE Internal error (Screen file xxx not found...)

Meaning: The screen file (.isb or .csb file) you requested was not found. A screen file is an area of dots of 1 type, 1 angle, 1 size (lpi) and 1 resolution (ppi).

Example

the screen file f8205c.isb represents:

*f: flexo angles
82: angle 82
05: number of resolution set of that type
c: circular dot*

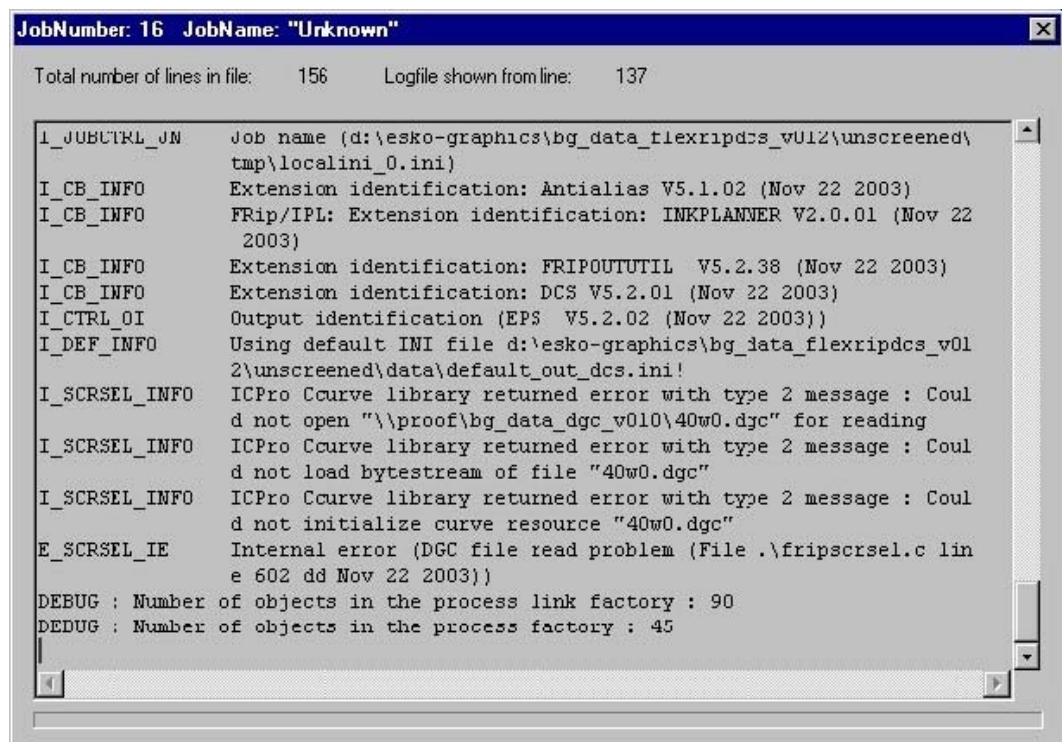
Check if that dot is available on your FlexRip. If it is not purchased, it will not be in the central folder for the 'screen files':

C:\Esko\bg_data_screens_v010

Is the angle you requested a flexo angle? If not, the RIP will look for an Offset screen file and those have a name starting with an 'o'.

- **(Scr)dgc files not found**

E_SCRSEL_IE indicates that the RIP has trouble reading the DGC file.



```

JobNumber: 16  JobName: "Unknown"
Total number of lines in file: 156  Logfile shown from line: 137

I_JOBCTRL_JN  Job name (d:\esko-graphics\bg_data_flexripdcs_v012\unscreened\
tmp\localini_0.ini)
I_CB_INFO     Extension identification: Antialias V5.1.02 (Nov 22 2003)
I_CB_INFO     FRip/IPL: Extension identification: INKPLANNER V2.0.01 (Nov 22
2003)
I_CB_INFO     Extension identification: FRIP/OUTUTIL V5.2.38 (Nov 22 2003)
I_CB_INFO     Extension identification: DCS V5.2.01 (Nov 22 2003)
I_CTRL_OI     Output identification (EPS V5.2.02 (Nov 22 2003))
I_DEF_INFO     Using default INI file d:\esko-graphics\bg_data_flexripdcs_v01
2\unscreened\data\default_out_dcs.ini!
I_SCRSEL_INFO  ICPro Ccurve library returned error with type 2 message : Could
d not open "\\proof\bg_data_dgc_v010\40w0.dgc" for reading
I_SCRSEL_INFO  ICPro Ccurve library returned error with type 2 message : Could
d not load bytestream of file "40w0.dgc"
I_SCRSEL_INFO  ICPro Ccurve library returned error with type 2 message : Could
d not initialize curve resource "40w0.dgc"
E_SCRSEL_IE     Internal error (DGC file read problem (File .\fripscrssel.c lin
e 602 dd Nov 22 2003))
DEBUG : Number of objects in the process link factory : 90
DEDUG : Number of objects in the process factory : 45

```

This means that the FlexRip is not able to read the (scr)dgc file specified, because:

- the share could not be reached.
- the file is not present.
- the file is corrupt.

Perform the necessary checks to verify if the DGC file is present and opens correctly.

- **Problems with writing the actual output file**

E_CB_IE Cannot create output file(s) ...

E_CTRL_CCF Cannot create file (fripout(5): *E_openfile*)

Meaning: The RIP would like to, but just cannot create a plate file or the original output file. The output directory will be created when necessary. Check the Queue settings to see where the RIP wants to write that output file.

Or in case of:

E_DEVCOM Output Device communication Error

Check if the hard disk (the one where the output folder is) still has space left to write the output file? The hard disk may be filling up. If so, clean up and delete some files or re-direct the output to a folder on another disk.

15 General troubleshooting

15.1 Queue settings 'disappear'

My Dispatcher Queue Settings seem to disappear...

Although this is not known as a bug in the FlexRip software, we would like to comment on that. If you notice that queue settings get 'lost', then this is not a problem in the FlexRip software itself, but in what surrounds this software. So please look for the problem in the 'environment'.

When you click OK after checking or changing Dispatcher Queue Settings, a small .usr file is adapted. This .usr file (as all your specific settings of your Dispatcher) is in: C:\Esko\bg_data_FlexRipc_v120\cdi\Data

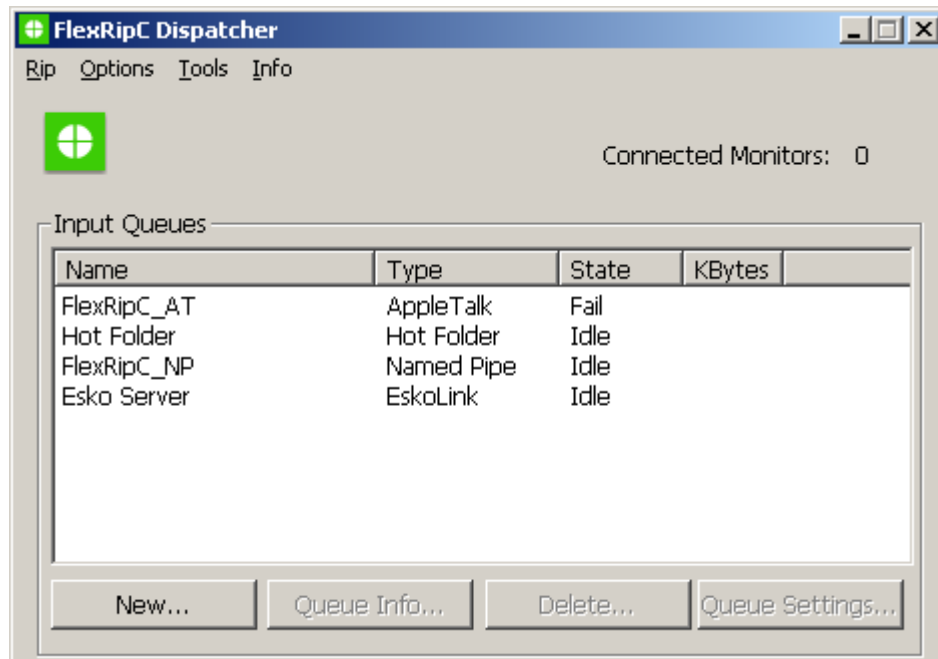
The date and time of these files indicate when the Queue settings have been changed. When that C drive is full, the RIP will have problems accessing and writing those .usr files. So do check if your system drive is full and certainly why it was full. Make sure that all your Hot Folders (large incoming PostScript files) or output folders (where the CT files are written) are on your Data drive. Also check whether or not your Hot Folders (Queue Info) delete the PostScript data after ripping. Make sure that they do.

15.2 My input queue shows a 'fail' status

The AppleTalk queue is not automatically put in the 'idle' status.

If an item is not working because certain elements are not installed, the Dispatcher will go into a "fail" status.

In this case the AppleTalk services are not running. Activate the AppleTalk services and open the Dispatcher again.



15.3 The system disk is filling up

Why is my C drive so full?

If your C drive is filling up and you have no idea why, then check the contents of the Tmp subdirectory of the data tree of the FlexRip flavor. If you see files with strange names like 'stream_cdlclass57628_6234' (always begins with stream_cdlclass, then one or two numbers and no extension), then these may be remains of a PDF file that has not been ripped successfully. Before ripping a PDF file, it is first converted to PostScript. The temporary PostScript files that are generated are stored in the bg_tmp directory and will be deleted after ripping. However, if the RIP ends with an internal error during ripping (crash, read only PDF file from a CD...), it will stop but it will NOT delete these temporary files. In this case, you'd better delete them yourself. Keep at least one to show at Esko Customer Service.

15.4 FlexRip rips my file over and over again

I can't stop the RIP from ripping a certain job over and over again.

This is what happens when you have put a read-only file on a Hot Folder. The RIP will try to delete it after the ripping but it can't, since this requires writing permission. Solve this by stopping the Dispatcher (so 'abort job' is not enough!), deleting the read-only file, and deleting all the unnecessary output files it created. Restart the Dispatcher.

16 Frequently Asked Questions

16.1 FlexRip software version

What version of FlexRip software do I have?

The software version can be found in every log file. You'll first see the ini file, then the environment variables and below that, the software version will be mentioned.

16.2 Extra software on the FlexRip

Can I install some extra software on my FlexRip?

No, unless approved by Esko. Whenever you add, remove or reconfigure of software on your FlexRip should be requested and reported to Esko Customer Service. In general, upgrading any of the software that is already installed (Windows, modem software, DiskShare) has to be reported and requested. Installing additional new software will probably be forbidden. Any request will be considered though. Send this request to the Customer Service department.

16.3 FlexRip and Grapholas on the same computer

Can I put FlexRip software on the Plate Prep or vice versa?

In theory you could, but it is strongly recommended NOT to do so as this could seriously trouble your workflow. A multiple CPU pc might permit the setup of a working workflow. Please consult your Customer Service department to investigate this for you.

Can I put FlexRip software on the Grapholas controller or vice versa?

No, never.

A Grapholas exposing computer that exposes to a CDI should never have any other function than preparing and exposing LEN files. While doing that, no other action should distract the Grapholas.

On a Grapholas PlatePrep (which does not expose), the user will mainly use the software interface of the Merging program. The FlexRip software is so CPU intensive, that it will cause other (secondary) applications to slow down.

If you have a SparkRip installed on the engine control PC of a CDI Spark or

SparkXT, the RIP and the Grapholas can be on the same computer.

Two remarks, however:

- The SparkRip cannot be used when the CDI is exposing.
- The RIP and Grapholas software cannot be used at the same time.

16.4 Screensaver

Can I use a screensaver on my FlexRip?

No. Even screensavers use CPU activity and all CPU on a FlexRip should be dedicated the RIP itself. When a FlexRip is well configured, it should be quietly doing its RIP work all day. Nobody should change any Queue settings or monitor or read log files. This means it would even be logical to switch the monitor off.

16.5 Windows version

What version of Windows do I have?

In Explorer, choose 'About Windows' from the 'Help' menu and you will get an exact description of your version of Windows on the second line.



16.6 Rebooting the FlexRip

Should I reboot the FlexRip occasionally?

Yes. We have experienced that this WindowsNT-driven computer likes a 'shower' every week. It will free up some hanging memory and therefore be a little faster afterwards. Please do this occasionally, even when you would not even notice any loss of speed.

16.7 FlexRip's computer name

What is the name of my FlexRip?

If in doubt: open a command prompt window (Start ⇒ Programs ⇒ Command Prompt) and type: `set computername`. This will show the actual computer name and more network information. This name is set by Esko. Do not change it. When still desired, contact Esko first.

16.8 Info on the network address

TCP/IP info:

If in doubt: open a command prompt window (Start ⇒ Programs ⇒ Command Prompt) and type `ipconfig/all`. This will list all necessary info on the TCP/IP configuration of this machine.

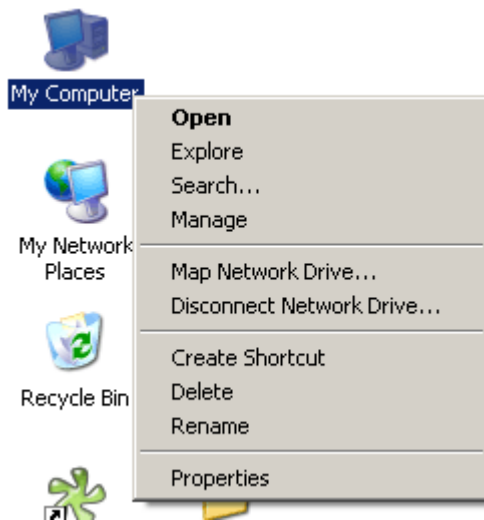
17 Appendix

17.1 Connection to DTP stations

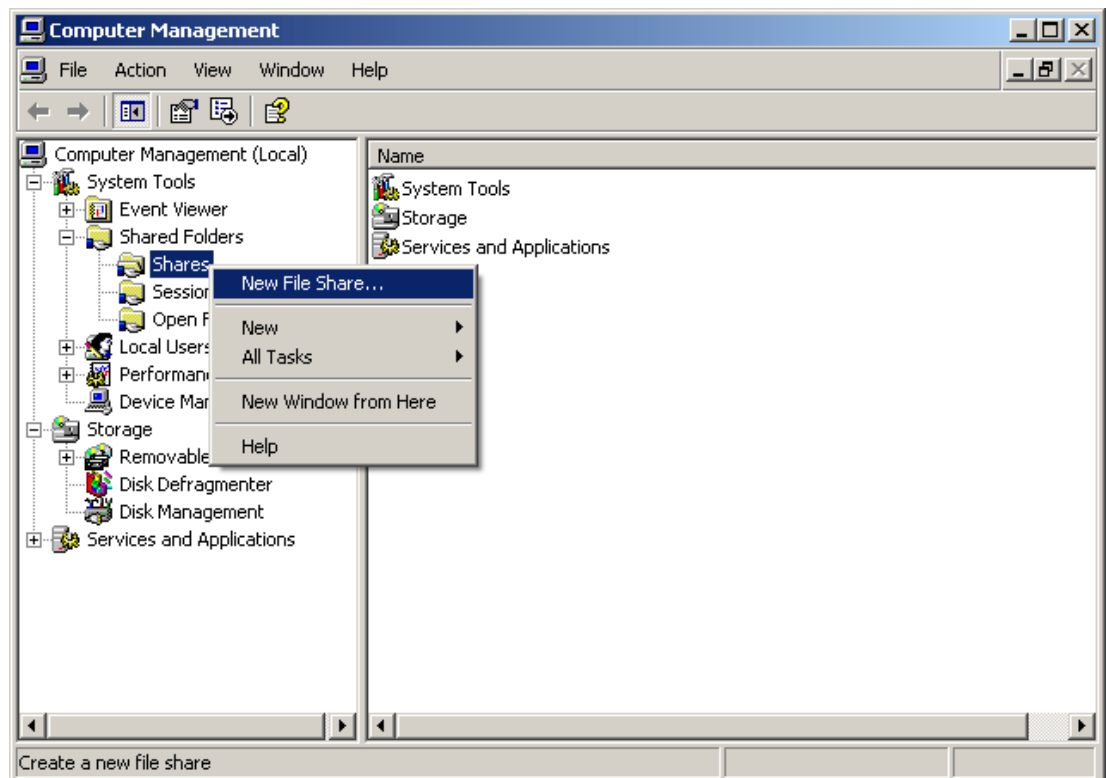
17.1.1 How to share FlexRip volumes for a Macintosh (Microsoft Windows 2000 or 2003 Server)

Windows 2000 Server

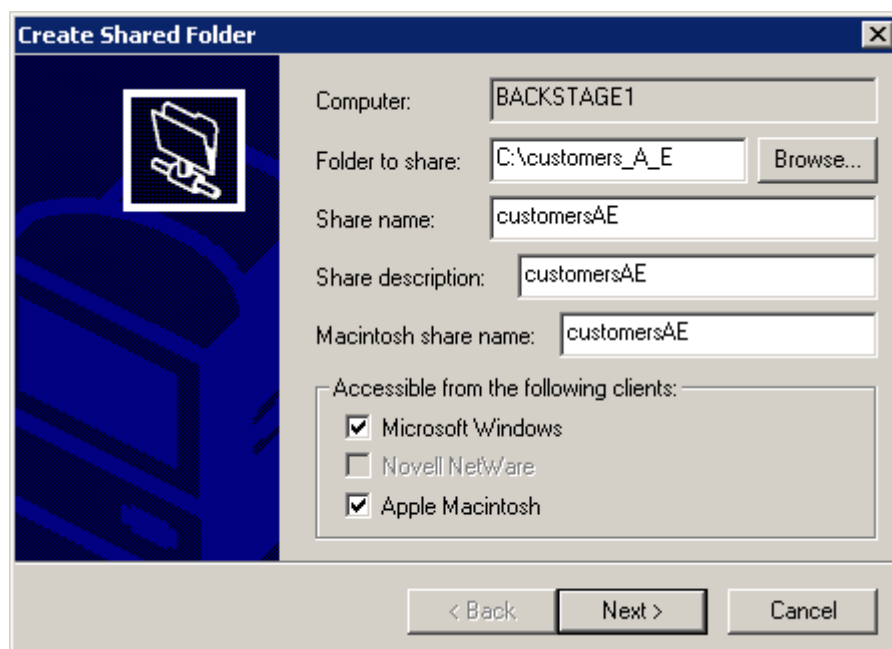
1. Right click "My Computer" and select "Manage".



2. Go to “Shared Folders” =Shares and select “New File Share...”



3. Select the folder or drive and fill in the share name. Do not forget to take the naming policy into account.



4. The next dialog allows you to set the permissions. Keep the default selection (All users have full control).

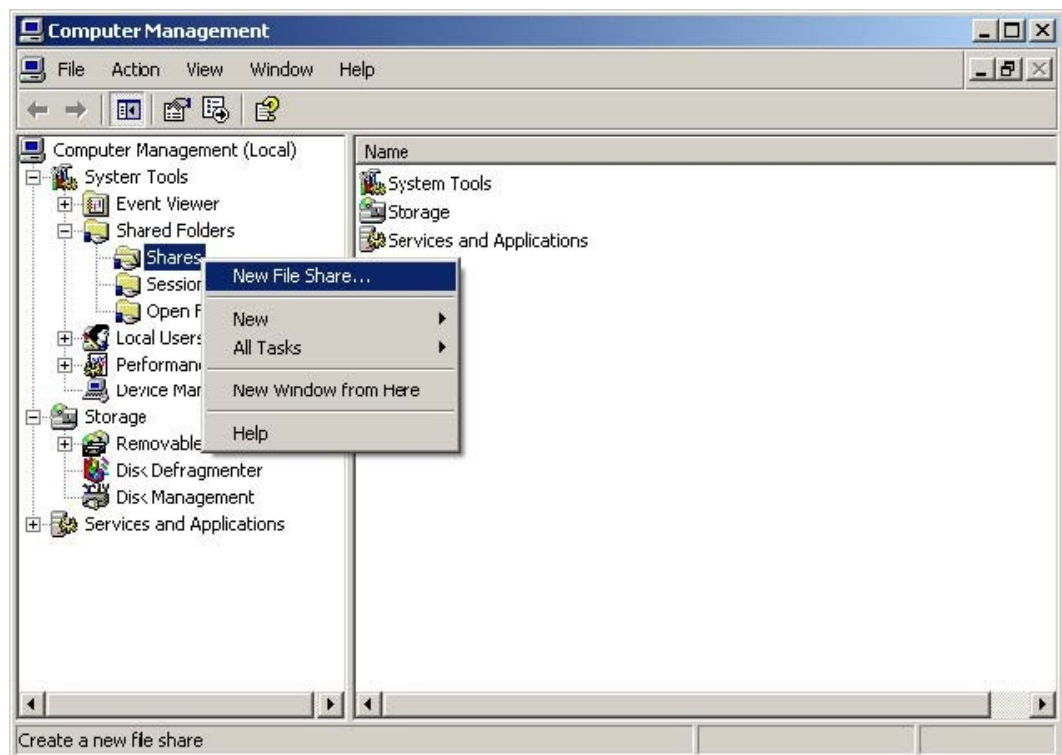


Windows 2003 Server

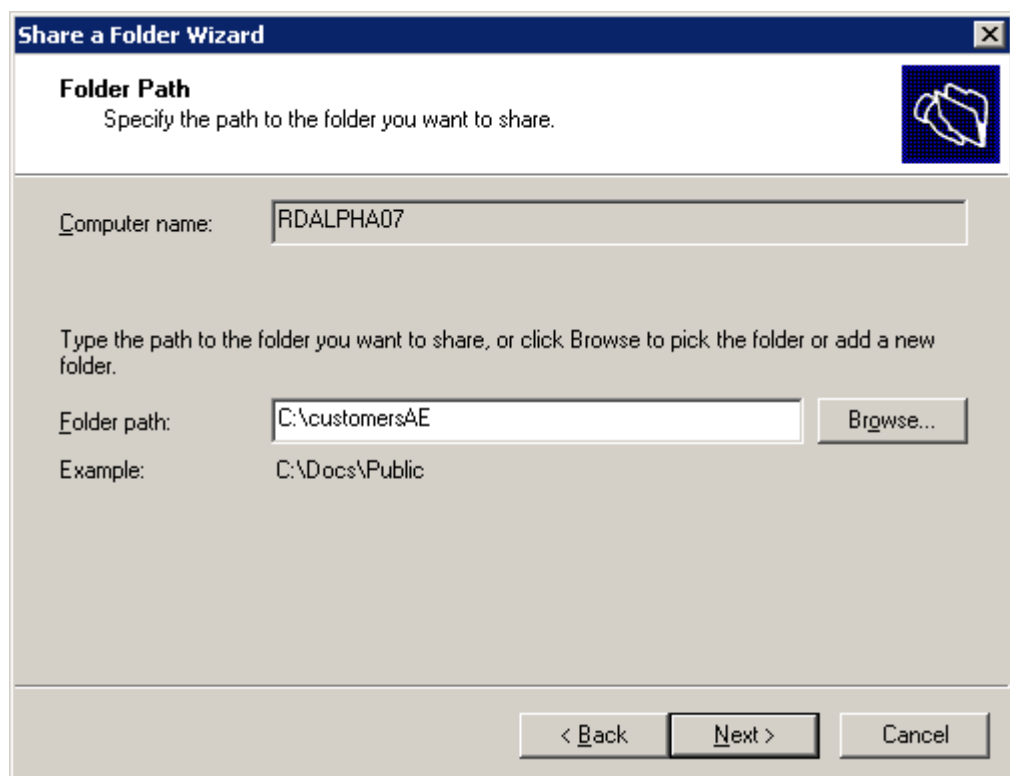
1. Right click "My Computer" and select "Manage".



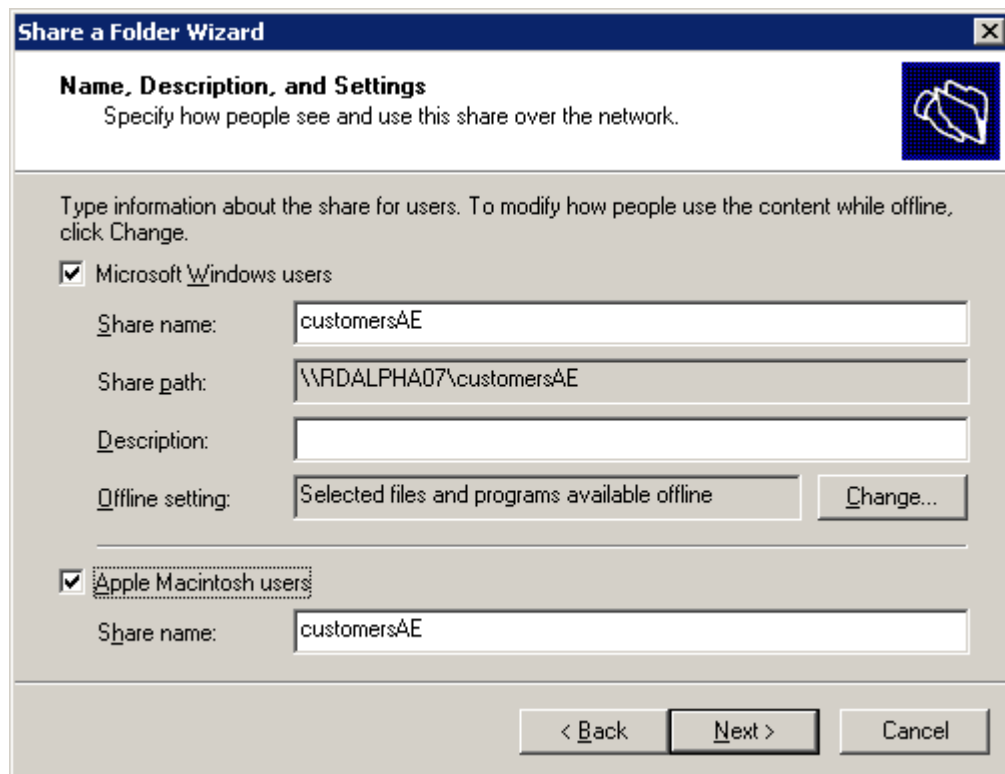
2. Go to “Shared Folders” =Shares and select “New File Share...”



3. Browse to the folder you want to use as a share.



4. Define the share settings.



Share a Folder Wizard

Name, Description, and Settings
Specify how people see and use this share over the network.

Type information about the share for users. To modify how people use the content while offline, click **Change**.

☒ Microsoft Windows users

Share name: customersAE

Share path: \\RDALPHA07\customersAE

Description:

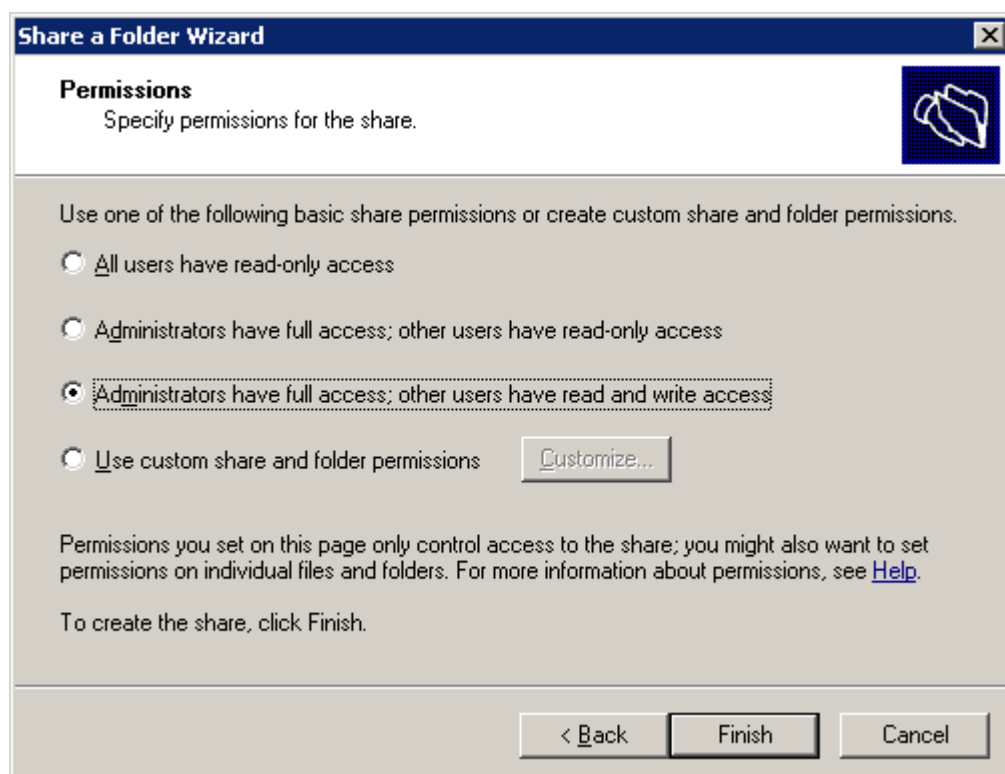
Offline setting: Selected files and programs available offline **Change...**

☒ Apple Macintosh users

Share name: customersAE

< **Back** **Next** > **Cancel**

5. Set the permissions and click Finish.



Share a Folder Wizard

Permissions
Specify permissions for the share.

Use one of the following basic share permissions or create custom share and folder permissions.

☐ All users have read-only access

☐ Administrators have full access; other users have read-only access

☒ Administrators have full access; other users have read and write access

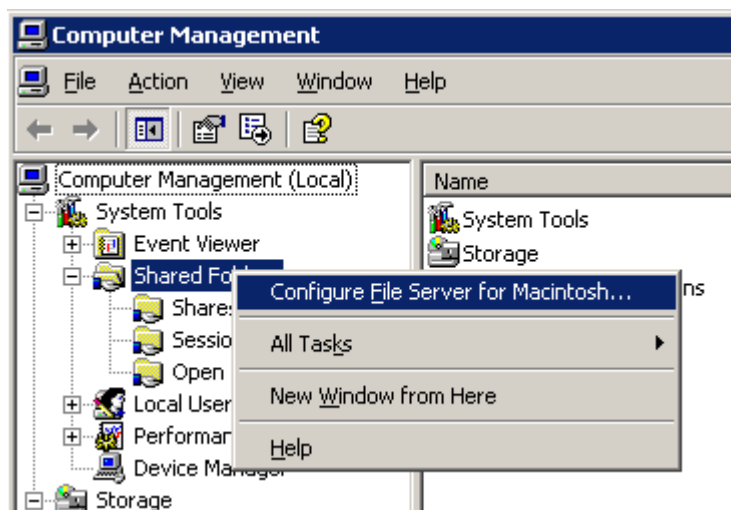
☐ Use custom share and folder permissions **Customize...**

Permissions you set on this page only control access to the share; you might also want to set permissions on individual files and folders. For more information about permissions, see [Help](#).

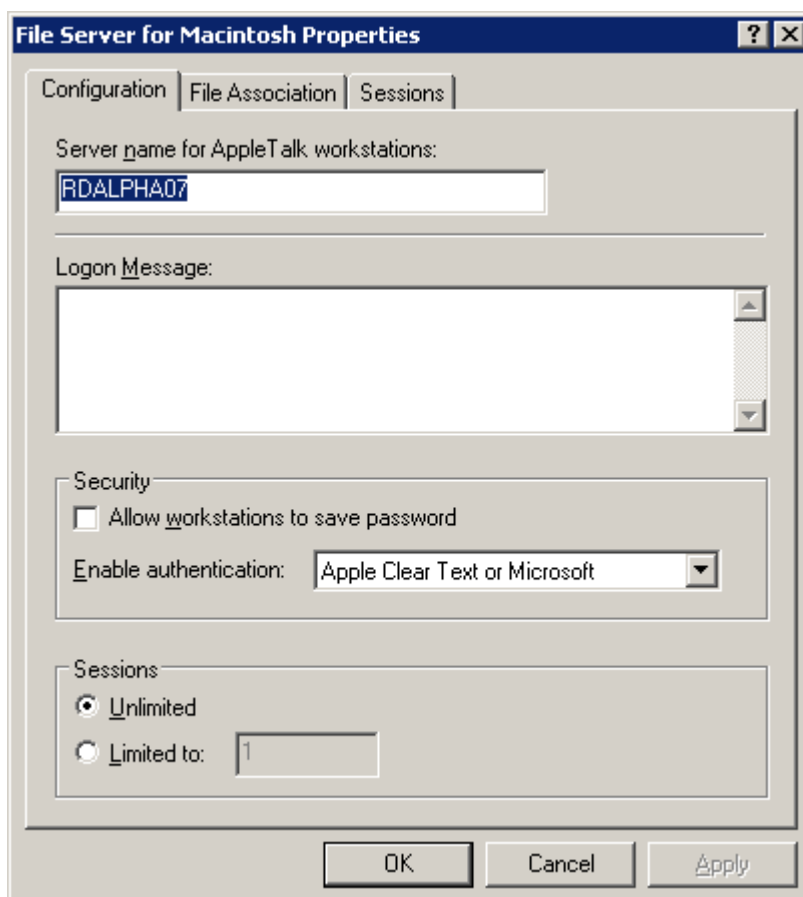
To create the share, click **Finish**.

< **Back** **Finish** **Cancel**

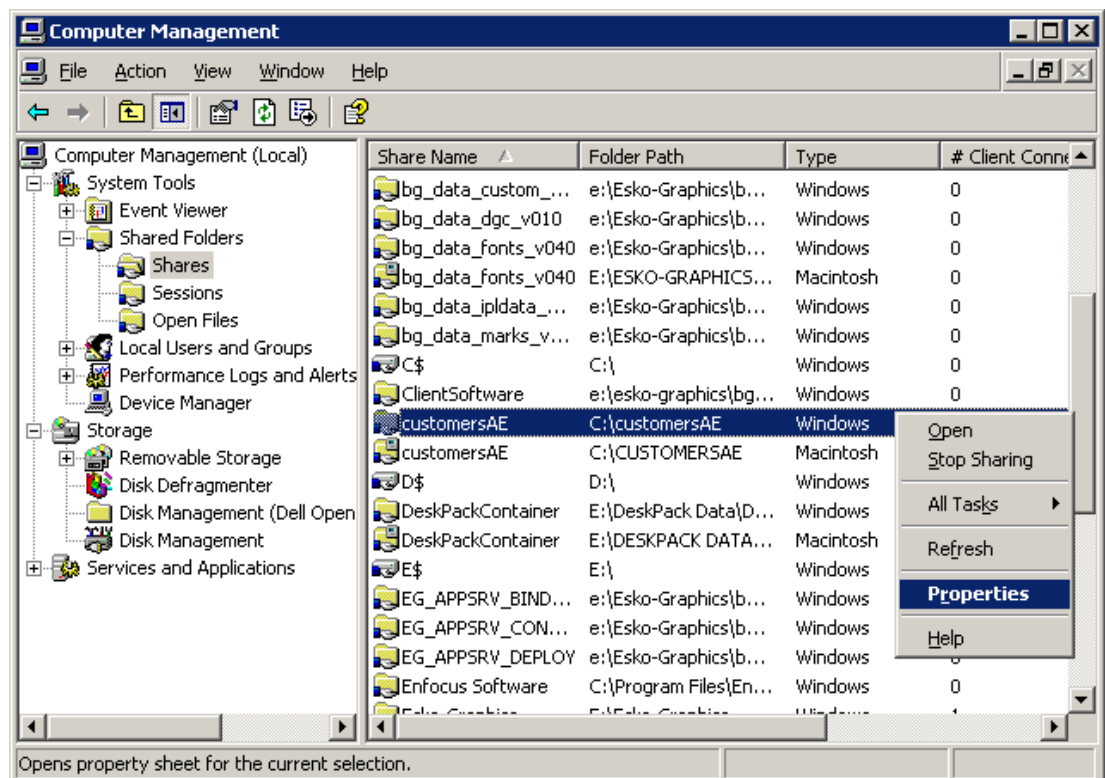
6. In the Computer Management dialog, right click "Shared Folder" and select "Configure File Server for Macintosh..."



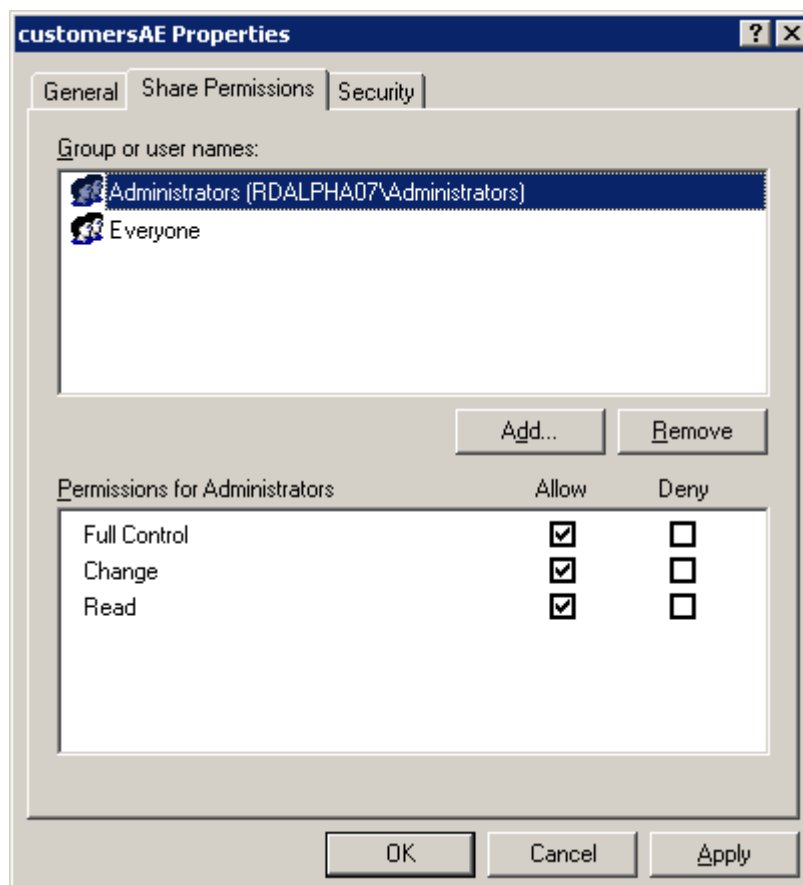
7. Choose "Apple Clear Text or Microsoft".



8. In the Computer Management dialog, go to “Shares” and select the correct share.



9. Change the properties for that share. By default “Read only” is activated.



17.1.2 How to share FlexRip volumes for a PC (Microsoft Windows 2000 Server)

Before being able to share, two conditions have to be met:

1. The FlexRip folder has to be 'shared' open enough for the user who wants to access it (so there are no problems with file permissions).
2. The user on the DTP PC has to be known on the FlexRip or has to be able to log in as user 'Guest'.

Therefore:

- On the FlexRip: share the volume and open its permissions:
 1. Right click the folder that you want to be visible for other PC's.
 2. Choose 'Share this folder...'. - 3. Activate 'Shared as:' and keep the proposed name (e.g. 'Hot Folders').
 - 4. Keep the user limit to 'Maximum Allowed'.
 - 5. Click 'Permissions': Set 'Full Control' for 'Everyone'.
 - 6. Click OK and click OK again in the 'Folder properties' window.
- On the FlexRip: enable the account of user 'Guest':
 1. Start ⇒ Programs ⇒ Administrative tools - Computer Management.
 2. You will see 3 users: Administrator / Guest / Iusr_nameofrip
 3. Double click the user 'Guest' to open its window 'Guest properties'.
 4. De-activate 'account is disabled' (= so do enable this account).
 5. Click OK.
 6. Close the Computer Management dialog (top-right X). No restart is needed.

17.1.3 How to share FlexRip volumes for a Macintosh or a PC (Microsoft Windows 2000)

Note

Following will not be possible when your FlexRip does not have the required version of Windows: Microsoft Windows2000 Server.

Note

Folders can be shared for Microsoft Windows AND Apple Macintosh at the same time. Therefore, the procedure for both will be explained together.

The FlexRip folder has to be 'shared' open enough for the user who wants to access it (so there are no problems with file permissions). The user on the DTP PC or Mac has to be known on the FlexRip or has to be able to log in as user 'Guest'.

Therefore:

1. Log on a user 'Administrator'.
2. Start ⇒Programs ⇒Administrative Tools (Common) ⇒Computer Management.
3. Have the right computer selected ("local" or name of your FlexRip). If not visible, try to select the exact domain or ask your network manager for more information.
4. System Tools ⇒Shared Folders ⇒Shares. You will see that a default volume is already mounted (C:\Microsoft UAM volume).
5. Select "Shares".
6. Choose Action ⇒New File Share. Enable "Microsoft Windows" if you want a Windows share, enable "Apple Macintosh" if you want a Macintosh share. Enable both if you want a Windows AND Macintosh share.
Set the following options:
Computer: name of the FlexRip
Folder to Share: enter the correct Hot Folder path
Share Name: Windows Share Name
Share description: brief description of the share (optional)
Macintosh share name: The volume name is what will pop up in the Macintosh Chooser application and will then be set visible on the Macintosh Desktop.
7. Click "Next".
8. Enable "All users have full control".
9. Click "Finish".

Note

Above procedures use the standard 'Services for Macintosh' that Windows2000 offers. Customers who would like to improve the file transfer speed between Macintoshes and the FlexRip (Windows2000), could consider having this connection via a software product of CYAN Software GmbH called 'MacServerIP'. We successfully tested this in a FlexRip workflow and have noticed file-transfer speeds of average 3 times faster (compared to the standard Windows services). As this is only advice, we refer for all further info (and responsibility) to this company's web site: www.cyansoftware.com.

17.1.4 How to mount FlexRip volumes on a PC (Microsoft Windows 2000)

Mounting FlexRip Volumes on a PC will be done by simple 'mapping of network drives'. We will explain this with an example.

The DTP PC will map a drive 'X' to represent the folder 'Hot Folders' on the FlexRip. This way, the PC operator can easily print-save the PostScript files directly on the Hot Folders.

On the DTP PC: map a network drive to the shared FlexRip folder.


1. Start ⇒Programs ⇒Accessories ⇒Windows Explorer.

2. In Explorer: Tools ⇒Map network drive.
3. Choose a free drive and type the correct path to the FlexRip folder:
E.g. X:\ \fripnt01\hotfolders
Activate 'reconnect at logon'.
4. Click OK.
5. The mapped drive should now appear in the Windows Explorer. Should you experience problems, ask your (Windows) system manager to do this for you.

Note

Mapping a network drive will not ask you for a password because you enabled the guest account on the FlexRip. If you write a PostScript file on a FlexRip's Hot Folder, the PostScript file will initially have owner 'Guest', but after being ripped the resulting output file will have owner 'Administrator' (like it should be).

17.1.5 How to mount FlexRip volumes on a Macintosh OS9 or older

1. Click  ⇐Chooser.
2. In the Chooser dialog, select the AppleShare icon and choose the appropriate share from the list.
3. Enter the correct password if asked for.
4. Click Connect.
The selected share will appear on the desktop.

17.1.6 How to mount FlexRip volumes on a Macintosh OSX or later

1. In Finder, select Go ⇐Connect to Server.
2. Select the server and the correct share from the list.
3. Enter the correct password if asked for.
4. Click Connect.
The selected share will appear on the desktop.

17.2 Connection to the Grapholas station

To expose LEN files on the CDI, the LEN file should be on the hard disk of the Grapholas station. The only thing the Grapholas needs to access on the FlexRip is the folder where the LEN files reside.

Warning

When a CDI is imaging a plate, it is the CPU of the Grapholas computer that is working 'on line' with the CDI Laser head. This is why the Grapholas station has 'to

be left alone' during exposure. Any major disk or network access will disturb the exposure and might result in a visible mark on the plate. What should absolutely be avoided is copying LEN files to the Grapholas during exposure.

What if there is a Grapholas PlatePrep station?

A Grapholas PlatePrep is an 'extra' Grapholas station that is not directly linked to the CDI. It is used to prepare the plate layout while the CDI is exposing. LEN files are first transferred to the PlatePrep, the plate layout is made and finally the LEN file, together with its job-exposing parameters is ready to be copied to the Grapholas station next to or on the CDI. On that second Grapholas, the operator then only has to select the Layout LEN and click 'Start' to expose the plate that has already been prepared.

As the Grapholas PlatePrep software also runs on Windows2000 (Intel PCs), the connection between a FlexRip and PlatePrep is identical to a connection between FlexRip and any Grapholas.

For more information on Grapholas PlatePrep, we refer to you PlatePrep User manual, or your Esko sales contact (or visit www.esko.com).

17.2.1 Connection to the Grapholas (or Grapholas PlatePrep)

Warning

Contrary to previous statements, it is forbidden to ('hard') mount network drives between FlexRip and Grapholas. In some cases, this may result in workflow problems and even expose problems on the CDI. The following FTP procedure is the only one allowed:

Two things are needed for this connection:

1. The FlexRip should publish the output folder via FTP service.
2. The Grapholas should pick up this folder by editing the gui.net file.

For more information on the Grapholas, we refer to your Grapholas (PlatePrep) documentation in the sections "Network configuration" and "Installation guide". This is what has to be done on the FlexRip:

1. Click Start Programs Microsoft Internet Server (Common) and start up the Internet Service Manager. A window will pop up and you will see two services running: the www and the ftp service. Both services should be in a 'running' state.
2. In the FTP service line, double click the icon of your FlexRip. The window "FTP Service Properties for Name_of _your_FlexRip" will open.
3. Go to the Service tab and activate "Allow Anonymous Connections" and if you wish, activate the "Allow *only* anonymous connections" option.

4. Go to the Directories tab and add the disk or folder you want to access from the Grapholas applications. You could choose your complete data drive (where the LEN files are kept) or browse to a specific folder in which the FlexRip will output all its LEN files. Keep the settings for "Directory Listing Style" to UNIX.
5. Leave all other settings as default. Confirm by clicking OK. Close the Microsoft Internet Service Manager window and set up the Grapholas station.

17.2.2 Connection to the Grapholas SUN

The solution here is to use NFS. NFS or Network File System is a network protocol that enables SUN computers to mount folders of a Windows2000 computer.

Again, we advise against a 'hard mount' (permanent network connection). We will explain the setup of a 'soft mount' (occasional use of network).

Warning

To be able to connect via NFS, the FlexRip needs to have 'DiskShare' installed, which will enable NFS sharing. Esko sees to it that all FlexRips have this software installed.

How to make the connection?

- On the FlexRip: NFS share the output folder:
 1. In NT Explorer, right click the output folder and select 'Properties'.
 2. Go to the NFS sharing tab.
 3. Activate "shared as". Have a good look at the share name here and write it down (case-sensitive!). You will need the correct spelling further on.
 4. Click 'Permissions'. Make sure to have 'Global Permission - read-write' for NFS sharing (and 'Everyone: full control' for standard Windows sharing) and click OK.
 5. Click OK in the Output properties window.
- On the Grapholas SUN:
 1. Log on as user root and enter your password.
 2. Make a soft link to the FlexRip output folder that you NFS shared.The following command is case sensitive!

The command syntax is:

`ln -s /net/FlexRip_ip_address/drive/folder/name_of_link`

E.g. `ln -s /net/120.121.217.89/D/Output /FlexRipfiles`

Note that the name of the disk drive on the FlexRip is written in capitals and that the name of the folder is case sensitive.

Note

In the above procedure we used the address number in the soft link command. You can also use the name of the computer, but in that case the name should be explained

in the 'hosts' file (see folder 'etc')! To edit that file you will have to know the 'vi' text editor! We used the number here to avoid that. A short guide to the 'vi' editor is present in the documentation folder of the Suite 12 DVD.

17.3 Merging

It is not possible to merge files on the FlexRip. Merging can be done via the ticket in Automation Engine or the FlexRip Pilot.

For more information on merging, we refer to the Automation Engine documentation.

17.4 What about OPI?

A FlexRip is by no means an OPI server itself (so not a 'provider'): a FlexRip should therefore always receive 'fat' PostScript data. These data may have passed an OPI server (where the missing or low-resolution images were replaced with high-resolution images). In that case, the DTP operator prints to the OPI server, which (after doing its OPI replacements) transfers (spools) the now 'fat' PostScript further on to a specific, print queue on to the FlexRip.

Note

Automatic replacement of low-resolution images by high-resolution images of course enhances the workflow. If you like OPI to be done before the PostScript data go to the FlexRip, you may do this. But as OPI links are not mentioned in the product specification of a FlexRip, Esko is not the responsible for its connectivity. All info on how to connect the OPI server's output channel to the FlexRip's input channels should be available to Esko via the FlexRip pre-installation question list. The setup of this OPI workflow can then be established during the initial installation training by the Esko instructor, this only by joining forces between the 2 parties: the FlexRip instructor and the customer's in-house specialist in that OPI software.

17.5 Details on Perimeter and Effective PPI

The physical PPI is calculated from PPI and Perimeter values as follows:

The supported resolutions can be calculated with following formula:

$$\text{resolution(PPI)} = (25.4 * \text{NPIX}) / (\text{PERIMETER} * N)$$

Where (NPIX is shown as info value 'Pixels' in the 'Basic' window and is also referred to a pixel clock of the CDI)

- NPIX = 180000 for Cyrel Digital Imager without PC electronics (so CDI's

- who have a Grapholas SUN controller)
- $NPIX = 360000$ for Cyrel Digital Imager with PC electronics. This includes the Cyrel Digital Imager Compact and the Cyrel Digital Imager Twinbeam.
- PERIMETER is the number given for the perimeter option in mm.
- N is any integer number.

As a result of the above formula, a set of resolutions is found. The physical resolution will be the one nearest to the PPI asked with the PPI option.

Example

PPI=2000 Peri=1089 mm NPIX=180000

The set of possible resolutions above 1000 ppi is now:

- *N=1: ppi=4198.3471*
- *N=2: ppi=2099.1736*
- *N=3: ppi=1399.449*
- *N=4: ppi=1049.5868*

Since PPI=2000 was asked, the FlexRip will select the nearest possible ppi from the list, which is in this case 2099.1736.

Most of the installed Cyrel Digital Imagers have drum perimeters between 1080 mm and 1095 mm. As a result, the resolutions will typically be in the neighborhood of 4200, 2100, 1400 and 1050 for $NPIX=180000$ (classic Cyrel Digital Imager) or around 4200, 2800, 2100, 1680, 1400, 1200 and 1050 ppi for $NPIX = 360000$ (Cyrel Digital Imager with PC electronics).

Note

Please note that only CDI Classics built before 1999 with SUN control computer have

fixed imaging resolutions, requiring perimeter usage. All other CDIs have variable resolution available (2000–4000 ppi).

18 Glossary

C

CCITT Compresses data using algorithm (the CCITT encoding is specialized to 1 bit per pixel. a bit-oriented encoding facsimile standard). This monochrome image data at 1 bit per pixel

D

DynaCell screens Esko DynaCell screens don't have the limitation of a limited set of available rulings and angles. This is reached through on-the-fly calculation of the screening pattern. The screens are calculated during the RIP process based on the precise ruling, angle and dot shape definition. Since this process happens in the RIP black box just before exposure, the result of this calculation has never been watched or optimized by an Esko engineer. As a result, these screens have a lower quality than the pre-calculated screens.

E

Esko Classic (precalculated) screens Pre-calculated means that the aspect, the form, the rulings and the angles of the screen are pre-defined in the Esko screening labs. These screens are the result of advanced engineering work. The screens are optimized for a smooth aspect, good behavior on the different printing processes, lack of artifacts etc. Furthermore, the screens are designed following a system of screen angles that avoids moiré between the main colors (cyan, magenta and black). The use of pre-calculated screens allows to support advanced screening features like stochastic screening (Monet Screens) and transitional screening (SambaFlex Screens). Pre-calculated screens have only one disadvantage: since these screens have been designed and tested one by one, there is only a limited number of precalculated screens. Although the total number exceeds 2000 different screen ruling/angle/dot shape combinations, it is very well possible that no precalculated screen is close enough to a customer's

wish. This happens specifically when other angles than flexo or offset angles are demanded. Esko pre-calculated screens with conventional screen patterns are called Esko Classic screens.

F

Flate The lossless deflate compression algorithm is based on two other compression algorithms: Huffman encoding and LZ77 compression. Deflate is a smart algorithm that adapts the way it compresses data to the actual data themselves.

J

JPEG This file format for color-rich images was developed by the Joint Photographic Experts Group committee. JPEG compresses graphics of photographic color depth better than competing file formats like GIF, and it retains a high degree of color fidelity. This makes JPEG files smaller. You can choose how much to compress a JPEG file, but since it is a lossy format, the smaller you compress the file, the more color information will be lost.

- JPEG limited compression: very acceptable data loss
- JPEG low compression: very acceptable loss of data
- JPEG standard low compression:
- JPEG standard compression
- JPEG standard high compression
- JPEG high compression
- JPEG extreme compression: heavy compression, lots of data is lost.

L

LEN A LEN file is a bitmap file that is made by a FlexRip/C. 'LEN' stands for 'run Length ENcoding', which is a way of encoding bitmap files. The only information in this kind of file is where to put dots and where not. The Grapholas software will then expose these dots on the printing plate on the CDI drum.
The LEN file itself can not "remember" any ink

information of the separation. That's why the user will have to specify which ink the LEN file is representing (unless he wants a Black & White proof of course). LEN files have high resolutions as 2100 ppi and more. Proofing on an HP proofer is typically done at a lower resolution like 600ppi.

LZW Compresses data using the LZW (Lempel-Ziv-Welch) adaptive compression method, optionally after pretransformation by a predictor function. This is a good general-purpose encoding that is especially well suited for natural-language and PostScript-language text, but it is also useful for image data.

P

PostScript screening Using PostScript screening implies that all the information needed to build up the dots has to be in the PostScript file. There is no such thing as a combination of PostScript and Esko screening! In every DTP application, you can choose the LPI from the Esko PPD or you can overrule it. Also the print angle will be offered by the PPD but the DTP applications permit you to enter other angles. If you send these data to the RIP, the 'Esko screening' setting will again change these values via its own 'jump-to' mechanism. This means that the RIP will automatically jump to the nearest LPI or angle that is supported. If you do not use 'Esko screening' but 'PostScript screening', these 'special requests' will indeed be realized by the FlexRip. If you activate PostScript screening, the dot shape should also be described in the PostScript file. If you cannot select dot shapes in your DTP application, then it will probably describe the standard Fogra Round dot shape (see also Esko's Fogra Round).

Precalculated screens (Esko Classic) See Esko Classic (precalculated) screens.

R

RLE RLE stands for Run Length Encoding. It is a lossless algorithm that only offers decent compression ratios in specific types of data.

RLE is one of the easiest compression algorithms there is. It replaces sequences of the same data values within a file by a

count number and a single value.

RLE compression can be used in the following file formats: * TIFF files and * PDF files.

INDEX

A

- Abort (copydot), 73
- Abort Job, 28
- About Dispatcher, 34
- AppleTalk or Hot Folders, 82
- Approximate PPI, 47

B

- Backup, 91
- Basic tab (Queue settings), 45
- Basics, 13

C

- Calibrated color spaces, 59
- Calibration, 64
- Capture PS file, 31
- Clear History, 27
- Color strip, 65
- Configuration set, 55
- Connect to, 75
- Connected monitors, 34
- Connection to DTP stations, 104
- Connection to the Grapholas, 113
- Copydot Tuning (Queue Settings), 70
- Customer logo, 66
- Customization, 91

D

- Data backup, 91
- Data legend, 66
- Debugging (Queue settings), 68
- Dispatcher, 26
- Dot Shape, 51

E

- Effective PPI, 48, 116
- Emulsion up/down, 82
- Emulsion, 49
- FlexRip queue, 18
- Esko Curve Pilot, 88
- Exit Dispatcher, 29

F

Fail status, 98
FAQs, 101
File format, 15

H

Hints, 82
History, 30
History View, 33, 77

I

Image, 49
Images with scaled resolution, 59
Imaging options, 49
Info menu, 34
InkPlanner (Queue settings), 62
Input queue settings, 31
Input queues, 34
Curve Pilot (Queue settings), 62
Internal errors, 95

L

Layout mode, 65
Log files, 80
LZW, 120

M

Merging, 116
More than one output device, 85
Mount FlexRip volumes on PC, 112

N

Native input (Queue settings), 60
Native workflow, 14

O

OPI, 116
Optimization, 58
Options menu, 29
Output file name, 52
Output file type, 18

Output module, 46
Output tab (Queue settings), 51

P

Page size, 49
PDF password , 59
Performance (Queue settings), 32
Perimeter, 47, 116
Ports, 34
PostScript errors, 93
PostScript options, 56
PostScript workflow, 13
Press dot gain compensation, 63
Priority of settings, 44
Program options, 29
PS color management, 59
PS/PDF Input (Queue settings), 55
PS/PDF Marks (Queue settings), 64
Pure black overprint, 58

Q

Quark trapping, 58
Queue defaults, 31
Queue settings, 44
Queue types, 35

R

Reboot the FlexRip, 23
Resample, 73
Resolution, 45
Restart PS rip, 28
Restricted file names, 54
Rip menu, 27
RIP priority, 32
Rotation, 47

S

Scale, 48
Screen swap table, 58
Screen type, 56
Screening, 87
Send jobs, 27
Server menu (Status Monitor), 75
Share FlexRip volumes for Macintosh, 104
Share FlexRip volumes for PC, 111

Shutting down the computer, 23
Shutting down the Rip, 22
Software version, 101
Starting up the computer, 21
Starting up the Rip, 22
Status Monitor, 33, 74

T

Template examples, 53
Template variables, 52
Tools menu, 33
Trace messages, 30, 76
Troubleshooting, 98

W

Workflow, 12
Workflow description, 16