

Esko Share & Approve Using 3D

Author: Hans Dewitte

Documentation Version : June 2020

Contents

| | |
|----------------------------------------------------------------|----|
| Contents | 1 |
| 1. Introduction..... | 2 |
| 2. Test files..... | 2 |
| 3. More information..... | 2 |
| 4. Concepts..... | 3 |
| 4.1 Shape and graphics | 3 |
| 4.2 Prepared Shape and fully prepared shape..... | 3 |
| 5. Working with fully prepared shapes | 4 |
| 5.1 Upload and view .ZAE files..... | 4 |
| 5.2 Approval cycles on .ZAE files..... | 4 |
| 5.3 Use a .ZAE for PDF approval..... | 4 |
| 5.4 Upload and view .ARD files | 5 |
| 6. Working with simple 3D shapes | 6 |
| 6.1 Apply a simple 3D shape to a 2D graphic..... | 7 |
| 6.2 Die cut control..... | 7 |
| 6.3 Remarks and limitations | 7 |
| 7. Working with graphics replacement on a prepared shape | 8 |
| 7.1 Create and upload a prepared shape..... | 8 |
| 7.2 Assign the shape to your graphics | 8 |
| 7.3 Auto : use embedded visualizer metadata | 9 |
| 8. Working with multiple graphic designs | 9 |
| 8.1 Recto Verso display from 2 pages in a graphic file | 9 |
| 8.2 Recto Verso display from 2 graphic files..... | 10 |
| 8.3 Display Collada with multiple printable areas | 10 |

1. Introduction

Share & Approve excels over other packaging proofing/approval tools through its extensive toolset for 3D. We believe 3D to be an important contributor to advanced approval use cases, specifically where geometry is more complex or where special printing and post-processing effects should be visualized.

Share & Approve can show 3D in 2 different ways:

- Show a prepared 3D Collada file having all information embedded in the file.
- Create a 3D visualization on-the-fly from a 2D graphic file (PDF, AI) by applying a shape and print profiling to the graphics.

2. Test files

You can download test files from following link:

<https://www.esko.com/en/HelpDocuments?language=en-us&productname=studioessentials&versionname=16&docname=otherdocs&filename=StudioTutorials.zip>

These are the same test files as used for the Studio Advanced tutorial, which you find on <https://www.esko.com/en/support/product?id=Studio%20Advanced>

3. More information

For more information, you can check the knowledge base.

Following is an overview article

<https://wiki.esko.com/pages/viewpage.action?pageId=265753723>

You can also search from:

<https://www.esko.com/en/support/searchresult?Keyword=share%20%20approve&product=All%20products&productkey=allproducts&source=KBArticles&Page=1>

4. Concepts

4.1 Shape and graphics

The 3D **shape** or geometry of your packaging, without the graphics applied.

Geometry can be very simple (e.g. a flat sheet or a part of a cylinder) or much more complex (e.g. a folded box or a rigid container).

Shape can already have some color including substrate color or previously applied graphics.

Simple shapes can be defined with just some numbers (e.g. a cylindrical shape only needs a radius or the combination of a size and an angle).

Complex shapes must be loaded from a file (a Collada or ArtiosCAD file).

Graphics is what is applied to the shape via a printing process. You can print directly on the shape (e.g. on a folding carton or via dry offset) or you can print on a label or plastic foil and wrap that around the shape.

Share & Approve supports both cases intuitively without much distinction between the two.

4.2 Prepared Shape and fully prepared shape

A prepared shape is a shape with pre-defined zones where the graphics will be applied, but which doesn't have the graphics yet.

The shape can have one or multiple printable parts, e.g. it can be a bottle with a zone for a front label, a back label and a neck label.

In a fully prepared shape, the graphics are already applied to the 3D shape.

You can make fully prepared shapes with the Esko Studio applications and with Esko ArtiosCAD. From these applications, you export a Collada file and you upload this to Share & Approve. The recent versions of Studio Designer have a connector to Share & Approve for your convenience



A prepared shape.
Background and rigid container are determined by the Collada file. A blank area determines where the graphics will come



A fully prepared shape.
Graphics are already applied.

5. Working with fully prepared shapes

The simplest 3D use case (from the point of view of Share & Approve) is using fully prepared shapes. Full prepared .ZAE files are created in Esko Studio or ArtiosCAD. Please check the respective manuals for how to create them. In case you don't have access to these applications, you can still continue the current getting started with the sample data (see the beginning of this document).

5.1 Upload and view .ZAE files

The best flow is to upload a ZAE file (Collada archive) as created by Esko Studio or ArtiosCAD. DAE files can also be uploaded and will visualize but it's hard to construct a self-contained DAE file which has all the needed elements for the expected visualization. The first issue is usually the inability to embed textures.

After uploading a ZAE file, you will see (a few seconds later) its thumbnail. If thumbnails (after longer time) don't appear, check whether the ZAE file has a thumbnail. You can do this by renaming the file to a .zip and then unzip it. You should find a file called preview.png or preview.jpg. In ArtiosCAD, the addition of a thumbnail is optional. Older .ZAE files and .ZAE files created in other systems often don't have a thumbnail.

Below procedures also work without thumbnails.

Clicking on the thumbnail or on the ZAE icon will open the web viewer showing the fully prepared shape.

5.2 Approval cycles on .ZAE files

ZAE files can be the objects of approval cycles just like any other file. You can annotate them directly in the 3D viewer. The annotations remember the area and the camera position. When selecting an annotation, the camera will turn to show the same view as seen by the creator of the annotation.

5.3 Use a .ZAE for PDF approval

More typically, you would do the approval cycle on a 2D graphic and use the 3D graphics as a helper for checking the 2D graphics. The simplest way is to upload both files to the same folder and teach people to check both the 2D and 3D files.

You can however create a better experience for the approvers in following way:

- Open the PDF file (or other 2D graphic) in the viewer
- Switch on 3D viewing if you are in 2D only viewing mode
- Open the 3D Setup
- In Shape, select your ZAE file
- Un-check 'Apply Graphics to Model'.
- Preview
- Save Settings

This results in the following:

- The PDF and the ZAE file are now linked to each other
- Each time the PDF is viewed by yourself or any other user, the 3D view will start up showing this 3D view.

- The 3D view serves purely as a helper for the PDF file. When the user clicks the Approve button (it doesn't matter whether she is in 2D or 3D view), it's the 2D PDF file which gets approved.



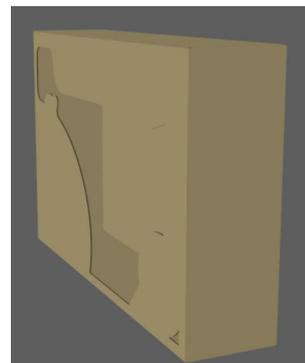
Remarks:

- The system does not check whether the PDF and the ZAE represent the same graphics. The ZAE can contain more graphics (e.g. other labels on the bottle) and you have to make sure yourself that the graphics on the ZAE and on the PDF are from the same source.
- Only users with Editor rights can save the 3D setup. Approvers and Reviewers can only change their own view.
- By unchecking the 3D Setup right for Approvers and Reviewers (Setup/Viewer Preferences), you can avoid that Approvers and Reviewers can even change their own view. You can fully lock them in the setup you saved. (they can still spin around the object and zoom in/zoom out).

5.4 Upload and view .ARD files

After uploading an ARD file, you can view it both in 2D and 3D. The 3D view is started with the 3D button (top left).

The box will be shown folded as designed in ArtiosCAD. You can spin it around. You can't unfold it (folding sequence is not supported yet). It is shown without graphics



6. Working with simple 3D shapes

For files with a simple shape, we can skip the step to create a Collada file. This is the case for:

- Flat shapes: anything that can be cut out from a flat sheet without folding it. This includes rectangular shapes, cards with rounded corners or special cut shapes. As long as they don't fold or stretch, it fits the use case of flat shape.
- Cylindrical shapes: anything that can be cut from a flat sheet and then bend around a cylindrical shape (like a bottle or can).

Following are examples of what is possible:



Flat Sheet
Cut to the cut lines
Matt coated paper



Flat Sheet
cut to the cut lines
metallized film



Curved Sheet, angle 60 degrees
Cut to cut lines
Gloss Coated Paper



Curved sheet, angle 360 degrees
Clear Film Label

6.1 Apply a simple 3D shape to a 2D graphic

Steps:

- Open the 2D graphics
- If 3D viewing is not yet started, start 3D viewing by clicking on the 3D button top left
- If no previous 3D setting was saved for this document, a default 3D setup is applied. This will be a flat sheet with 'default' assumptions for the materials. This view is optimized for fast rendering but is normally not a good representation of the actual packaging.
- Choose between Flat Sheet and Curved Sheet
- For curved sheet, enter an angle
 - o 360 degrees is a full circle
 - o You can enter numbers higher than 360 degrees. This will make the label bend over itself. Right always goes over left.
- Keep die cut control 'on'
- Choose a finishing profile
- Click Preview
- Save Settings

Next time you or somebody else looks at this file, the 3D setup will start from where you have saved it.

6.2 Die cut control

The checkbox 'die cut control' determines whether the 3D shape is cut to a recognized die line in the PDF file or to one of the PDF page boxes.

When die cut control is checked, the system will look for a separation name recognized as typical for a die line. It will then apply an algorithm to determine which parts will be left as the packaging object after cutting. This works well for all simple shapes and for many complex shapes (e.g. it can perfectly recognize a hole).

Only these remaining parts will be shown, leading to a 3D render of a cut-out card with any fancy shape (see above the green tag example).

By default, the separations recognized as die cuts are any separation having the occurrence of 'die', 'cut', 'stanze' and 'coupe'. You can change this by creating a custom separation mapping as is explained in <https://wiki.esko.com/pages/viewpage.action?pageId=263172118>

When die cut control is unchecked, an additional dropdown allows selecting one of the PDF page boxes as a cutting shape.

6.3 Remarks and limitations

- For cylindrical shapes: whereas you see the bending, the background cylinder is not shown. This allows looking at the back of the label.
- For multi-page documents, page 1 is used automatically. See however below for recto-verso display.

7. Working with graphics replacement on a prepared shape

7.1 Create and upload a prepared shape

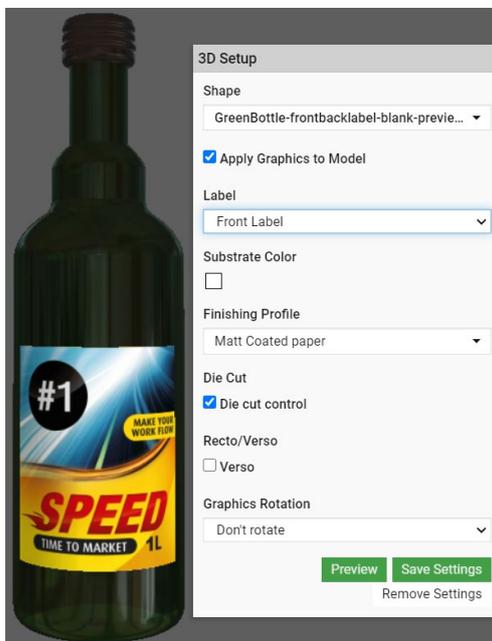
The way to create a prepared shape is well explained in the Studio Advanced User Manual. For example, the tutorial 'revolve a path and add labels' gives you at the end of step 9 a Collada file with 2 blank printable areas. This can be uploaded to Share & Approve.

It is however good practice to create a ZAE with a thumbnail. This is not directly generated by Studio Toolkit. Execute following steps on a ZAE with no thumbnail: (this is similar to the subsequent steps in the Studio tutorial, however we leave the graphics blank).

- Create a new document in Adobe Illustrator
- Open Studio Designer and Place a structural design file
- Select the ZAE with blank labels
- This will show the structure with the blank label(s) in the Studio window.
- Click Export (still in the Studio window), Export Type Collada File
- Destination: envision directly uploading to Share & Approve from here. Alternatively save a file on your local system and upload.

Once all of this is done, upload the .ZAE to Share & Approve. You can put it either in the folder where you will put the graphics or in a separate folder e.g. called 'Shapes'. Make sure however that this folder can be read by the uploaders and approvers.

7.2 Assign the shape to your graphics



Steps:

1. Open the graphics file in the viewer. Optionally you can also take the shape in the viewer.
2. Click on 3D. The viewer will render the graphic on a flat sheet. It will also enable the 3D Setup panel.
3. In the Shape dropdown, select the shape. When you opened the viewer with the shape file selected, this file will appear automatically. Otherwise you will need to 'search' for the file. If there are many files, you can start typing its name and the dialog will filter.
4. Select an appropriate print profile, then click the Preview button. You will see the graphics applied to the shape.
5. Click Save to remember the settings. Next time the same graphic will be opened (by any user), the 3D display will open automatically with the applied settings.

You can only save settings if you have at least the Editor role.

7.3 Auto : use embedded visualizer metadata

When a PDF was made via Esko Studio, it will contain information about how to show the PDF on a 3D object. This information is known as "Visualizer Metadata" or "Visualizer XMP".

Share & Approve knows about that metadata, so for these files, there is no need to fill in all the 3D parameters yourself.

The shape selector will default to 'Auto' which indicates that the information in the file is followed. If the viewer finds the referenced file already loaded in the viewer, it will load it and change the shape to the name of the shape.

If you open the graphics and structural files in the same session, and then open the 3D view, everything will happen automatically : the correct label will be selected, and the embedded print-profile will be applied.

8. Working with multiple graphic designs

8.1 Recto Verso display from 2 pages in a graphic file

When you upload a graphic file with the front of a label/tag on page 1 and the back on page 2 (or any other page), you can put the different pages on different sides of a simple geometry.

Flat shapes, and ARD files have a front and a back side.

Using the new toggle in the Finishing widget, you can assign the current graphic to either the front (recto) or back side (verso). The session remembers that assignment, so that if you add a second graphic to the other side, you will end up with a label/tag with different graphics on the two sides.



Steps:

1. Load the graphic multi-page file in the viewer
2. Go to the page with the recto graphics (usually page 1, which is what opens by default)
3. Click on the 3D button
4. Choose your geometry (flat or curved)
5. Do not check the 'verso' checkbox
6. Preview and **Save**
7. Without leaving the viewer: Move the page selector to the page with the verso (usually page 2)
8. Click again the 3D button (if not already in 3D mode)
9. Choose the same geometry, but this time check the 'verso' checkbox
10. Preview → first page will still be on recto side and second page will be on verso side. Turn around to verify it's all ok.
11. **Save**

Next time the graphic is loaded, the 3D display will load automatically and show the recto-verso experience.

Remark that you need to save on both sides.

The same can be done with folded ARD boxes.

We are not yet able to show different graphics on the front and back of labels on Collada models (ZAE).

8.2 Recto Verso display from 2 graphic files

When recto and verso are in 2 different graphic files, the flow is similar, however you need to load both graphic files together in the viewer.

Steps:

- Load both graphic files in the viewer
- Using the document selector, select the recto graphics
- Click on the 3D button
- Choose your geometry (flat or curved)
- Do not check the 'verso' checkbox
- Preview and Save
- Without leaving the viewer: select from the document selector the document with the verso
- Click again the 3D button (if not already in 3D mode)
- Choose the same geometry, but this time check the 'verso' checkbox

8.3 Display Collada with multiple printable areas

A Collada file can have multiple printable areas. Naturally, you will have multiple graphics for each of these printable areas. These graphics can sit in different graphic files or as different pages of 1 graphic file.



Steps: (assuming 2 graphic files)

1. Select all artwork files in the documents view in Share & Approve and click on View and Annotate
2. One of the documents will be shown. Select the one you want to start with via the document selector (e.g. front label)
3. Click on the 3D button (top left) in case 3D view is not yet open. A flat 3D display will be shown and the '3D Setup' widget will become visible (typically in the right-side widget bar).
4. In the Shape Dropdown, select the Collada file (ZAE). Possibly you first have to click 'Find more documents' to see a list of all shapes files you have access to.
5. Select a finishing profile (e.g. Matt Coated Paper)
6. Do not check Verso
7. Click Preview
8. **Save Settings**
9. A 3D display will be shown with the first graphic applied.
10. Next select from the document selector (top left) the other graphic document.
11. Repeat steps 3-9. You should now see both graphics
12. **Click Save Settings**