

ONYX[®] White Paper

Contour Cutting Workflow for XI0

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Preface

This document describes the contour cutting workflow for the ONYX® X10 software. It will guide you through the process of contour cutting images using ONYX.

What is Contour Cutting?

Contour cutting is the process of printing an image, or set of images, and then using a specialized device to cut portions of that image, for example, printing and cutting cartoon character stickers on a self-adhesive media. To do this, you prepare a file with a specialized spot color which acts as a cut path. You then print your image or images using the ONYX® RIP-Queue software. Once RIP-Queue completes the print, a cut file is produced and sent to the ONYX® CUT-Server application. From there, the cut file is sent to the cutting device which uses the cut path to determine where the image needs to be cut.

Creating Spot Data - Overview

The first step in the contour cutting workflow is preparing your file. To prepare your file, you must define the cut path in a vector-based drawing program such as Adobe Illustrator or CorelDRAW. The cut path may be as simple or complex as needed. It can range from a circle around a bitmap image to an outline of script text.

Once you have created the cut path, you must assign a spot color to it. This spot color (specifically the name, not the color) is the most important part of preparing the file as it allows the cutter software to determine where the cutter should cut.

The name you assign to this spot color must have a unique prefix which matches the prefix assigned in RIP-Queue. In RIP-Queue, the default prefix for the cut path spot color is 'CutContour'.

When RIP-Queue processes and prints the file, the path, with this specially named spot color, will not be printed with the rest of the image. RIP-Queue processes the spot color as a cut path and creates a separate cut script file for your cutting device. This file is sent to CUT-Server from which you can send it to the cutting device.

Defining the Cut Path in Illustrator

The following steps are specific to Adobe Illustrator, however, most drawing programs use similar steps to achieve the same result. The most important part of creating a cut path is creating a 'Spot Color' named 'CutContour' and applying the color to the cut path element.

To define a cut path in Adobe Illustrator:

1. Open the desired file within Adobe Illustrator.
2. Create a new layer (*Window > Layer > New Layer*) and select that layer.
3. Draw your cut path using the box/ellipse, pen, or pencil tool. Make sure that you close all paths because you will assign the spot color either as a fill or as an outline (Figure 1).

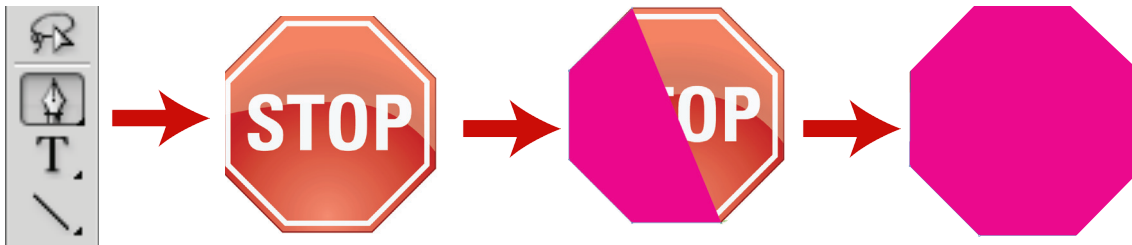


Figure 1

Assigning a Spot Color

To assign a spot color to the cut path in Adobe Illustrator:

1. Within Illustrator, open the Swatches palette. If the Swatches palette is not visible, select *Swatches* from the *Window* menu.
2. Click the arrow in the upper right-hand corner of the Swatches palette to display a secondary menu and select *New Swatch* to display the New Swatch dialog, or click the New Swatch icon on the Swatches toolbar (Figure 2).

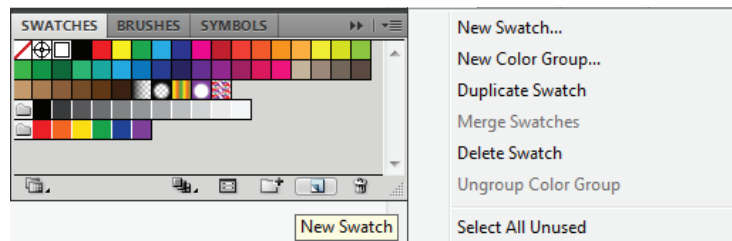


Figure 2

3. Within the New Swatch Dialog, enter a name for the swatch color using 'CutContour'. Whatever you select here must match what is entered into RIP-Queue, 'CutContour' being the default name. This setting will be covered in the RIP-Queue Settings section.
4. Select *Spot Color* from the Color Type drop-down menu.
5. Use the slider bars to create a CMYK color (Figure 3). Because the color will not be printed, we recommend you make the color easily identifiable in your image to ensure it is recognized in the RIP-Queue (Figure 4).

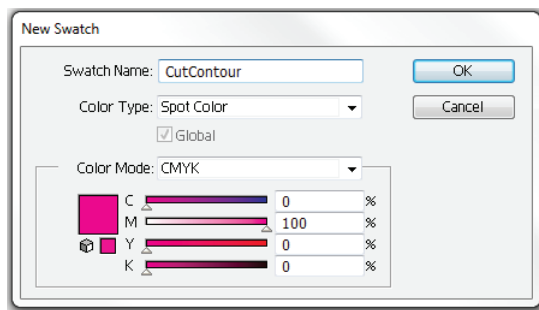


Figure 3

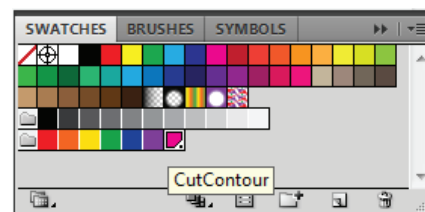


Figure 4

6. Click *OK* to close the New Swatch dialog.
7. Select your cut paths and assign the new swatch color. Save the file as an EPS or a PDF.

RIP-Queue Settings

In order to cut, there are two settings that must be enabled before opening your cut job in the RIP-Queue. They are the Cutter Path Prefix setting and the Contour Cutter Selection setting in the Quick Set.

Before you can print a contour cut file, you must either modify an existing Quick Set or create a new one for your contour cut files. Using a specialized Quick Set for contour cutting allows you to include additional options.

To create a new Quick Set for contour cutting:

1. Within RIP-Queue, highlight the desired printer and click *Configure Printer*.
2. Within the Configure Printer dialog, click *New* on the Quick Set tab.
3. Check the box next to *Use Cutter Path Prefix*. The text box displays the name of the spot color assigned to your cut data in your design application. Also, select the correct marks for your cutter under the *Cutter Selection* drop-down (Figure 5).
4. Select your cut paths and assign the new swatch color. Save the file as an EPS or a PDF.

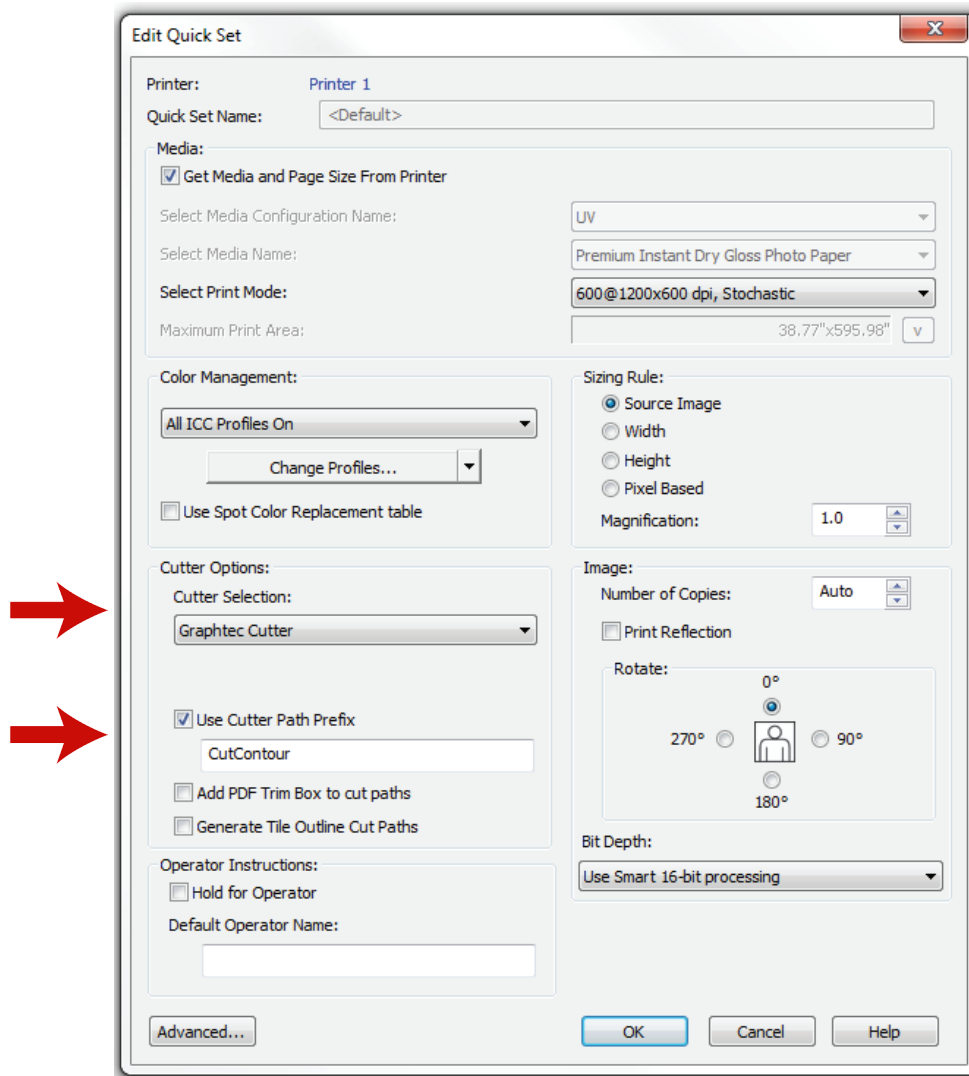


Figure 5

CUT-Server

CUT-Server is the application used to send the produced cut file to the cutting device (Figure 6). The cutter must be added in CUT-Server and configured with the correct connectivity settings.



Figure 6

To add and configure a cutter in CUT-Server:

1. Open CUT-Server and you will be prompted to select your cutting device from a drop-down menu (Figure 7).

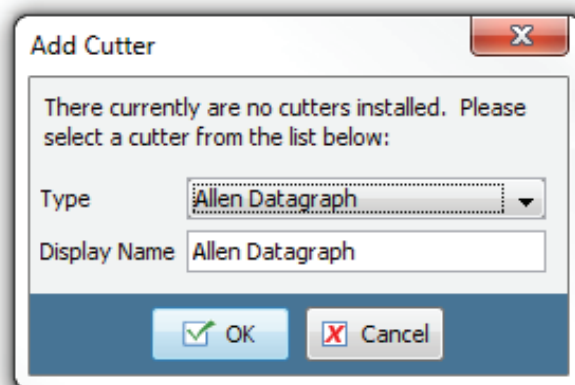


Figure 7

2. After selecting your cutter, click *Configure* and under *Port Settings*, select the correct connectivity (Figure 8). If you click *Setup* (Figure 9), you will be able to set specific connectivity settings, for example:

- Set the correct COM port for Serial
- Set the IP Address for TCP/IP
- Confirm the cutter is recognized for USB

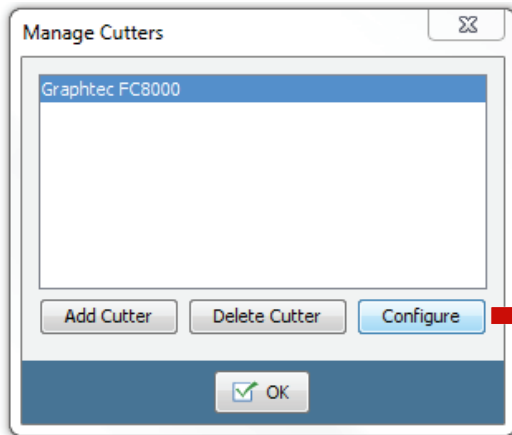


Figure 8

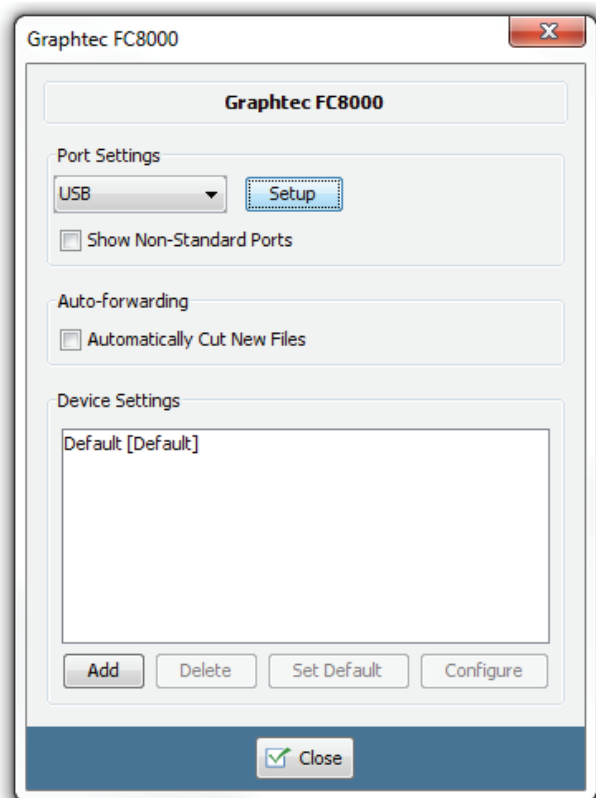


Figure 9

3. Click Close, Close, and OK. Then your cutter will be displayed in the left pane of the window (Figure 10).

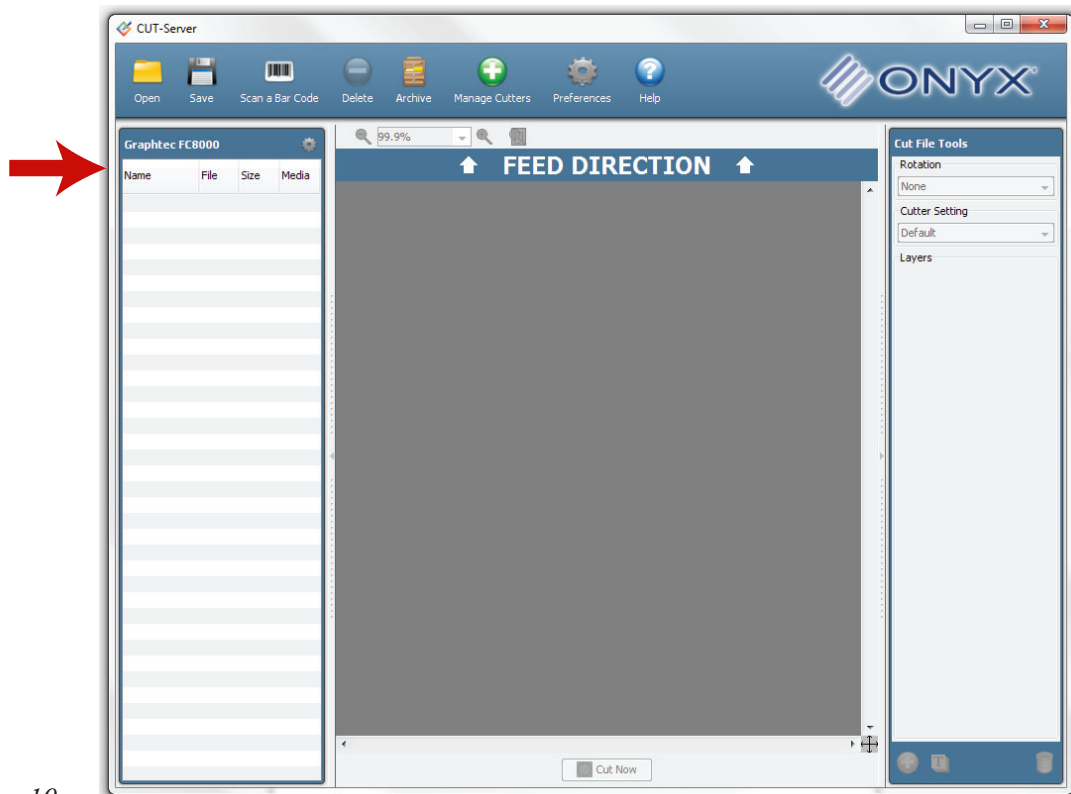


Figure 10

Once your image is processed and printed from RIP-Queue, the cut file will automatically appear in CUT-Server in the left pane under the cutter name. Select the cut file and click *Cut Now* to send the cut file to your cutter (Figure 11).

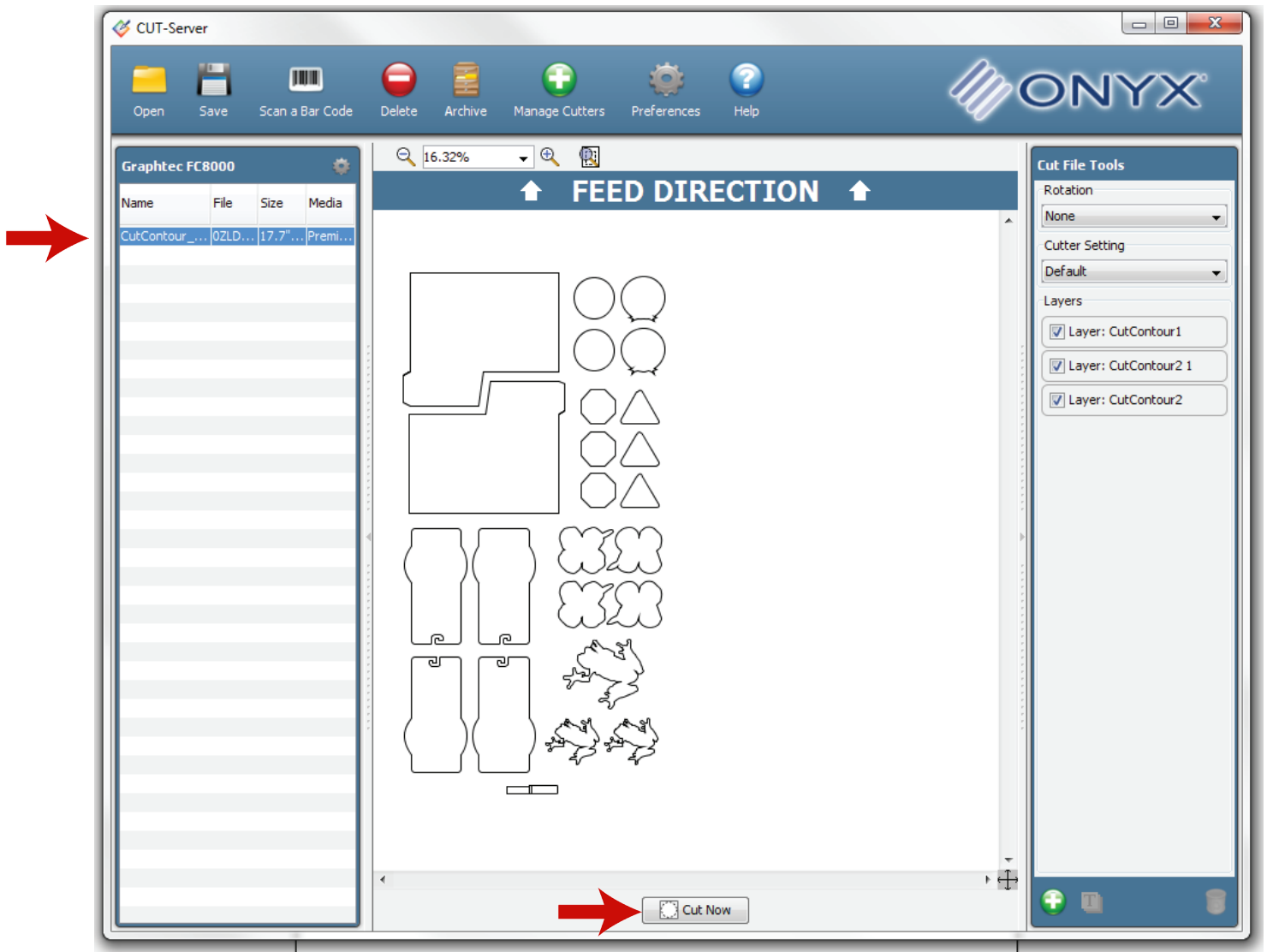


Figure 11

Tips and Tricks

1. **File Creation:** Bring your artwork into the creation application of your choice, and create a new swatch. Make this swatch a spot color and name it CutContour1. When choosing a color for the swatch, ensure that it is noticeable, e.g. 100% Magenta, and not similar to any color currently in the image. Draw the shape that you would like to have cut from the image and fill it with the CutContour1 color.
2. **RIP Queue:** Create a new Quick Set, name it, click *Advanced...* and go to the *Postscript file* tab. In this tab, check the box under *Cutter Path Prefix* and make sure it is set to CutContour. You also need to set up a Contour Cutter in the RIP. To do this, right click on the job, select *Info*, then select your cutter under *Contour Cutter*.
3. In Preflight you should not see the color you created in the file creation step, finally print the image and type the barcode printed on the image into CUT-Server. This will bring up a preview and then send the cut data to your plotter.
4. If your print is successful, but you do not get a cut file, you can generate a cut file without physically printing the image again. To do so, you need to configure your printer to 'print to file' instead of its actual connectivity: in the RIP-Queue, go to *Configure Printer* and click the *Device* tab. Select *Configure Port* and then 'print to file'. Click *OK* back to the main window and drag your image up from the buffered area to the jobs waiting to print area without reprocessing. Click *Print now* and instead of physically printing, RIP-Queue will output a small file on your computer and a cut file will be produced. Do not forget to change the connectivity on your printer back to the original setting otherwise you will be unable to print.

Troubleshooting

Symptoms	Possible Cause	Resolution
1. The cut file does not show up in CUT-Server	<ul style="list-style-type: none"> - The spot data is a process color, not a spot color - Cutter marks were not selected in the RIP-Queue - Full read/write permissions are not enabled for this user or hard drive - Incorrect cutter mark selection 	<ul style="list-style-type: none"> - Ensure the data that represents the cut path color is a spot color, not a process color in your design application - Check the buffered file in the RIP-Queue to ensure that cutter marks were enabled - Log in as a local computer administrator, or change the folder permissions for full read/write ability - Ensure that the marks selected in the RIP-Queue are for your device
2. Stray lines in the cut file	The USECUTSPLINES option is enabled	In the RIP-Queue, go to <i>Setup > PostScript > Configure RIP</i> and check the box next to USECUTSPLINES to disable this option.
3. Missing cut lines in the cut file	The USECUTSPLINES option is enabled	In the RIP-Queue, go to <i>Setup > PostScript > Configure RIP</i> and check the box next to USECUTSPLINES to disable this option.
4. Clicking <i>Cut Now</i> does not do anything	The connectivity for the cutter has not been set up	Click on the gear next to the cutter name in CUT-Server. Under <i>Port Settings</i> , verify the correct connectivity (USB, Serial, TCP/IP, etc.)
5. CUT-Server will not open	A corrupt version of JAVA is installed	Close all ONYX® Software. Go to My Computer > ONYX X10 folder and delete the Vendor folder as well as the Vendor folder in the CUT-Server, Media Manager, and Xrip folders. Then run a repair on the install.
6. I-CUT or Zund cut files do not show up in CUT-Server	These devices are driven from the manufacture software, not CUT-Server	Open the cut file produced by ONYX in the Cutter folder with the current manufacture software.
7. I can see my cut data in Preflight	<ul style="list-style-type: none"> - The setting <i>Use Cutter Path Prefix</i> is not enabled - The spot data is a process color, not a spot color 	<ul style="list-style-type: none"> - In the RIP-Queue ensure that your Quick Set has the setting enabled to Use Cutter Path Prefix (<i>Advanced options > PostScript</i> tab) - Ensure the data that represents the cut path is a spot color, not a process color in your design application.

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