



Application Notes

Printing Separations



Printing Separations

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Introduction

In addition to colored output, the large format inkjet printers may also be used for creating separations e.g. for usage in screen printing or offset printing.

There are two possibilities to create the separations:

- 1 When importing the image, separations can be automatically created and printed on special media (e.g. film) using special ink (e.g. artwork black ink) or special black ink settings. This method is described in chapter "Printing Separations on Film Media".
- 2 In addition, there is a function available offering to import the image as usual and just use a special print driver for creating separated TIFF files that can be used for digital screen import in screen or offset printing. This method is described in chapter "Creating Digital Separations".

Printing Separations on Film Media

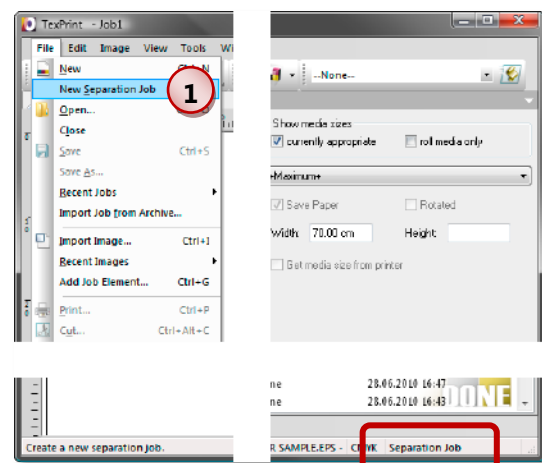
Automatically creating separations for imported images needs some special preparations of the job. The following describes step by step how to create separations and print those on film.

Creating a Separation Job

Printing separation needs the image to be imported in a special job type.

- 1 First, you have to create a separation job using menu *File > New Separation Job*. A new, empty job is opened that is labeled "Separation Job" at the right side of the status bar in the **JobComposer** window.

Please note that a separation job looks identical to a normal job except for the label in the status bar.

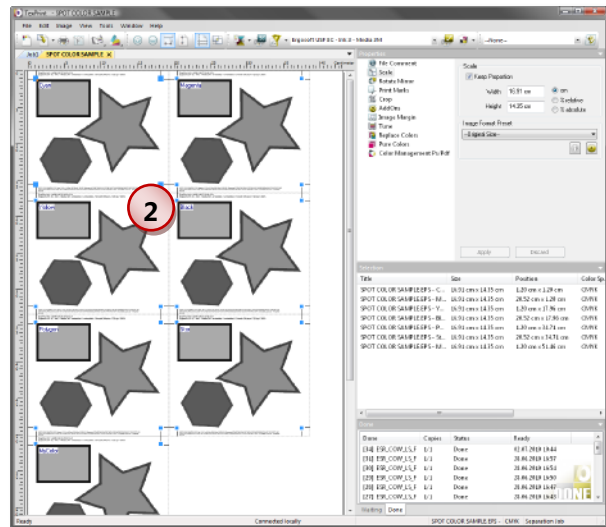


Importing the Image

2 While importing, the image is automatically separated in default channels:

- 4 basic channels CMYK
- PostScript files: another separation for each spot color used in the file
- Multi-channel TIFF files: another separation for each spot color channel saved in the file

Please note that the previews for PostScript files with spot colors do not reflect the actual separations because the spot colors cannot be extracted for the preview creation.



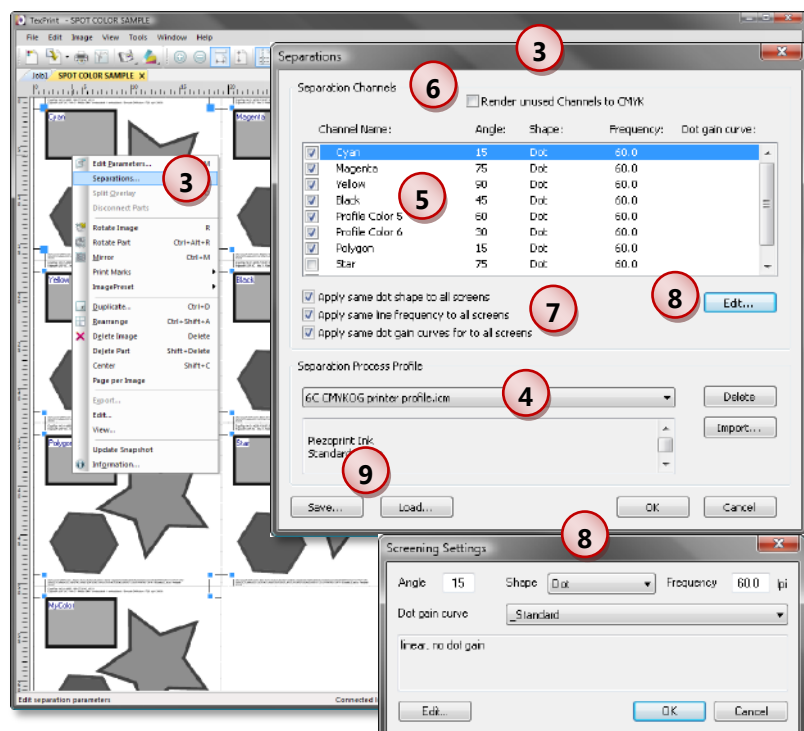
Configuring the Separations

After having imported the image, the separations can be configured:

3 Select command **Separations** from the *Image context* menu.

4 Select the profile that is used to create the separations. Clicking the **Import** button allows copying a separation process profile into the folder in which the **ErgoSoft RIP** expects this profile type to be saved. This function allows using e.g. a CMYKOG printer profile you exported in your print environment.

5 All color channels are listed in which the image is separated. Check the separations you want to print. Please note that you can separate PostScript files into 7 channels maximum including all channels created by the separation process profile whether they are printed or not. When needing more separations, you have to duplicate the image and



select the other channels; but keep in mind that the channels separated by the separation process profile are always created whether they are printed or not. The channel list includes:

- The basic channels **CMYK**. For PostScript files these channels count in the maximum number of channels whether they are checked or not.
- Additional channels created by the separation process profile labeled **Profile Color 5**, **Profile Color 6**, etc. For PostScript files these channels count in the maximum number of channels whether they are checked or not.
- Additional channels automatically created by separating **spot colors** used in PostScript files into color channels.
- Additional channels automatically created by separating **spot color channels** used in multi-channel TIFF files.

6 In order to include spot color channels into the CMYK separations you have to uncheck the channels to be included and check **Render unused channels into CMYK**.

7 When the options **Apply same shape for all screens**, **Apply same frequency for all screens**, and **Apply same dot gain curves for all screens** are checked, changes to the dot shape, frequency, and dot gain curve will not only affect the current separation but all others also.

8 Selecting a separation and clicking the **Edit** button allows modifying the separation settings.

Enter the **Angle** and the **Frequency**, select the **Shape** and the **Dot gain curve**. Click on **Edit** to modify the dot gain curve in another dialog box which also allows saving the new dot gain curve.

9 The separation settings angle, shape, frequency, and dot gain curve for the individual channels can be saved in a set and loaded.

Editing the Image

The image can be edited as usual. Please note the most image editing functions work on the complete image and not on the individual separations. The separations are linked together. Most image editing functions show the colored preview.

Printing the Separations

Printing the separation job is done as usual.

Please note that the settings in the print environment concerning the dithering method, density linearization, and printer profile are ignored. The settings for the individual image in the **Separations** dialog are used instead. Just the output resolution of the print environment is used.

Creating Digital Separations

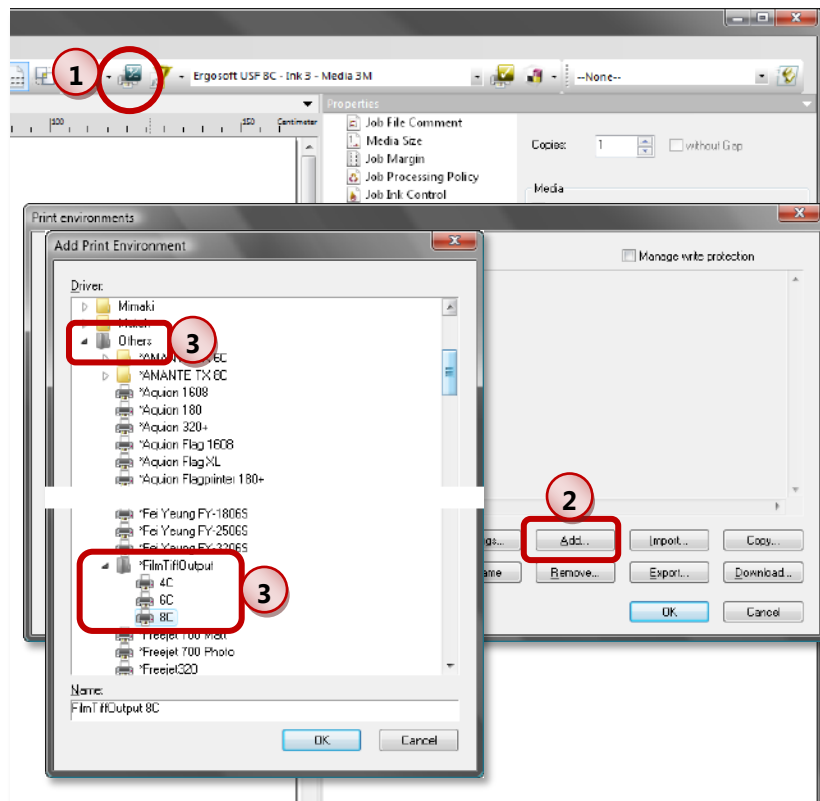
Sometimes, the separated layers are not needed to be printed on film media but simply saved as monochrome TIFF files. For this purpose, the **ErgoSoft RIP** offers a special print driver.

Creating the Print Environment

1 Open the **Print Environment Manager** by clicking the icon in the *Print Environment* toolbar.

2 Click the **Add** button to add a new print environment.

3 Open the **Others** entry and scroll down to **FilmTiffOutput**. Select the driver offering the number of channels you want to separate. When you need more than 8 channels (including CMYK) you have to create another print environment for the other channels and print the same job twice (or more often) using the different print environments until you have all separations.



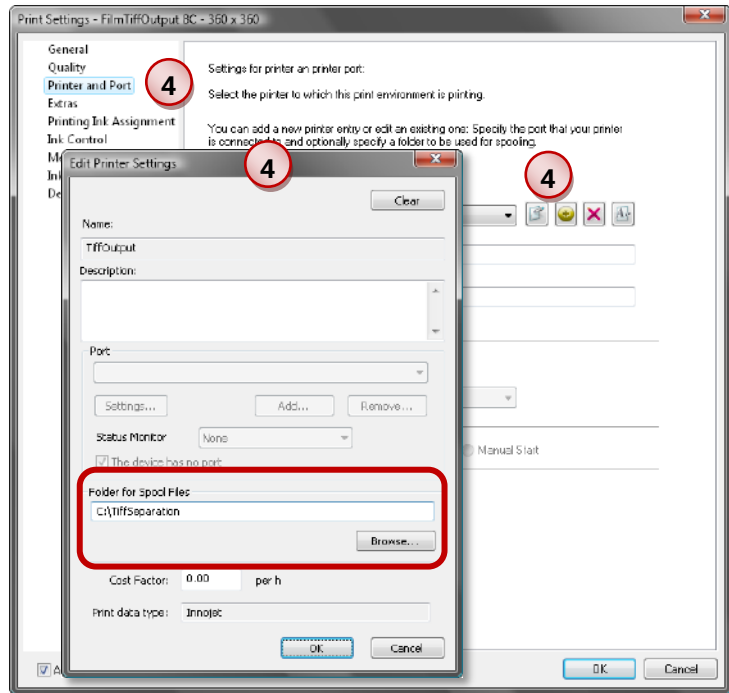
Configuring the Print Environment

Most parts of the print environment are configured as usual. Since this documentation focuses on the special configurations for the TiffOutput driver please refer to the manual part about Print Environments for information on the settings not mentioned here.

On the **Quality** tab, select the dithering method, density linearization and printer profile you want to use for creating the separations. We recommend using dithering method **Screen Printing Applications**.

4 Since this print driver does not create output for a certain printer type, you cannot select a physical port for the printer settings after clicking the appropriate buttons on the **Printer and Port** tab. You can just enter or select a folder name.

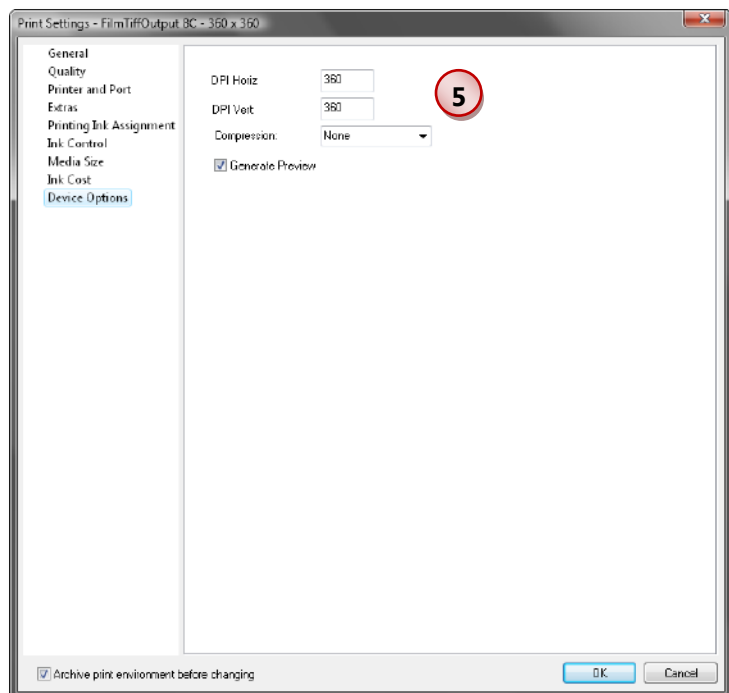
When printing, the **ErgoSoft RIP** will create sub-folders for each job holding the separations as individual monochrome TIFF files. The file names are created automatically.



5 The **Device Options** tab allows entering the resolution in which the separation files are created.

You may also select a **Compression** method for the TIFF files.

Checking **Generate Preview** creates a small RGB TIFF file holding a colored preview of the job.



Importing and Editing the Image

The image is imported and edited as usual. Since the separation is done during the printing process, all modifications are done on the colored image in the original color space.

Printing the Job

When printing the job, a new sub-folder labeled with the job number and name (corresponding to the name in the *JobCenter*) is created in the spool folder specified in the print environment. The monochrome TIFF files are labeled according to the color for which the separation is created.

All settings in the print environment are used to create the separations.