

SEPARATIONS STARTUP GUIDE

Wasatch SoftRIP® SP

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COLOR SEPARATIONS

1. Select Printer Model/Print Mode



Illustration 1: Select the appropriate Printer Model

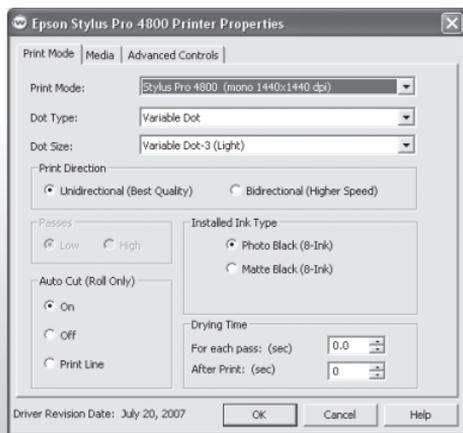


Illustration 2: Select a monochrome or mono Print Mode

In order to begin making separations with SoftRIP SP, you must first choose the appropriate Printer Model from the drop down menu in the Setup window (Illustration 1).

Next, click the **Edit** button. When the Imaging Configuration window opens, click the **Properties** button. In the Printer Properties window, select one of the monochrome or mono print modes (Illustration 2).

Note: Newer inkjet printers offer multiple print modes which affect resolution, speed, maximum density, and banding. Some will be suitable for making

process color separations at high lpi and others will be much faster but suitable only for spot color separations.

COLOR SEPARATIONS

The proper mode may have to be arrived at through testing. Refer to the Printers section of online help for more information on specific models.

2. Printer Maintenance

When creating separations, small issues with your printer can cause big problems with the quality of your output. It's important to make sure your printer is running in its optimal condition by checking media feed calibration, print head clogging, etc. to ensure that your printer is running smoothly.

Refer to the Printers section of online help for more information on specific models. You can also refer to the printer documentation or check with your reseller.

3. Select a Screen Method

SoftRIP SP offers a range of halftone screening methods to be used with color separations:

- PostScript Screens
- Error Diffusion
- Wasatch Precision Rosette Screens®
- Precision Stochastic Screens

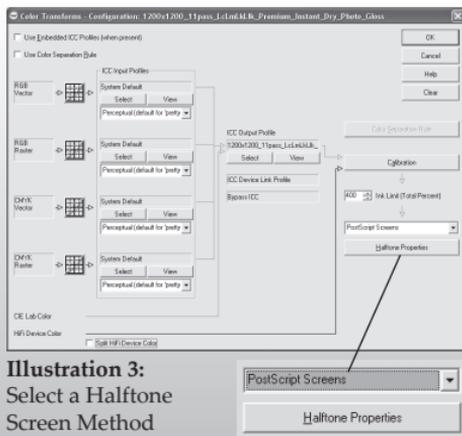


Illustration 3:
Select a Halftone
Screen Method

COLOR SEPARATIONS

Halftone screens are selected in the lower right side of the Color Transforms screen (Print > Setup > Edit > Color Transforms), as shown in Illustration 3. Further controls for the individual screen types are accessed by pressing the **Halftone Properties** button under the drop down menu.

4. Select a Workflow

SoftRIP SP supports several alternatives for creating color separations within a production workflow. The two most common are:

- Make the separations in the RIP
- Make the separations in your graphic application

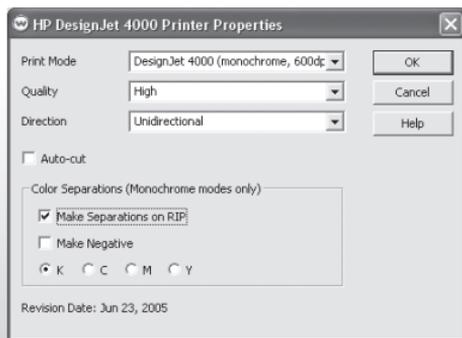


Illustration 4: Select **Make Separations on RIP** in the Printer Properties window

When you make the separations in the RIP, you send a composite color image to SoftRIP SP and let the RIP produce four monochrome prints, one each for the Cyan, Magenta, Yellow, and Black separations. To use this workflow, go to the Printer Properties window as you did in

Step 1. In the Printer Properties window, select a monochrome Print Mode and check the box next to **Make Separations on RIP** (Illustration 4).

The Color Separations options are only enabled when a monochrome print mode is selected.

Advantage: You can configure SoftRIP SP to apply an ICC color profile to your composite color image before it is separated. This creates some powerful possibilities for color management during the printing process.

Disadvantage: You are currently confined to CMYK separations only. This can be limiting in the screen printing business, where the need for numerous spot color plates is common.

Support for PostScript Overprint: Making separations in the RIP often requires support for PostScript Overprint. Although Adobe® documentation recommends very restricted use of this PostScript feature (Adobe® Tech Note 5145), applications such as Adobe® Illustrator®, CorelDRAW®, and QuarkXPress® use Overprint to specify trapping in composite color files. Please note that this PostScript feature is confined to CMYK color only. In SoftRIP SP, support for Overprint can be specified as part of an Imaging Configuration. See details in online help.

Making separations in your graphic application is a more flexible workflow. You can resolve issues involving separations, color management, and trapping in your graphic application before sending your job to SoftRIP SP. To use this workflow, remove the check mark from the **Make Separations on RIP** box in the Printer Properties window.

HALFTONE SCREENS

SoftRIP SP can generally make accurate plate identifications from Adobe® Illustrator®, CorelDRAW®, QuarkXPress®, and other applications that are consistent in their use of standard PlateColor comments.

When plates are accurately identified, your screen specifications for Cyan, Magenta, Yellow, and Black plates are applied properly in your pre-separated jobs. Spot color plates use default settings or whatever has been specified in the PlateColor Table Editor. When identification fails, the most common effect is for all plates, not just spot plates, to be screened with the default settings.

In SoftRIP SP, the Print Queue includes a fourth column of information called Separation. This feature helps identify the plate and halftoning choices that SoftRIP SP has made for the rendering of that plate.

HALFTONE SCREENS

5. Linearize the Printer

Color separation performance on most inkjet printers will be considerably improved if you linearize the printer by performing the calibration step described in online help. Dot gain and dot loss are intimately related to halftone dot size. For this reason, you must perform separate linearizations for every screen frequency (lpi) that you use.

When performing this calibration, begin with the Imaging Configuration set to **none**

(Illustration 5). You only need to calibrate the black channel for the production of monochrome films.



Illustration 5: Set your Imaging Configuration to **none**

6. PostScript Screens

Many users are comfortable with the level of quality produced by PostScript Screens. Control for PostScript Screens is accessible by clicking the **Halftone Properties** button on the Color Transforms screen (Illustration 3). This selection brings up the PostScript Screens window (Illustration 6).

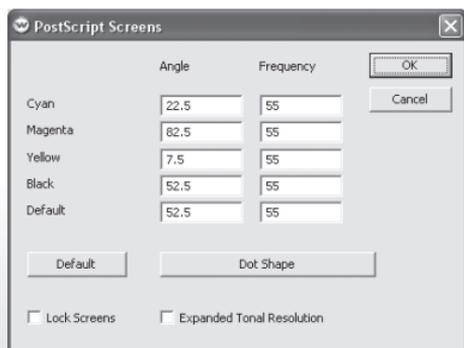


Illustration 6: PostScript Screens window

On this menu, you may enter the desired halftone screen Angle and Frequency. If you are unsure what values to enter, clicking the **Default** button will generate some reasonable numbers automatically. The Angle is expressed in degrees and the Frequency is expressed in lines per inch (lpi).

HALFTONE SCREENS



Illustration 7:
Dot Shape menu

If the **Lock Screens** box is checked, these settings will be used regardless of any attempt by PostScript jobs to set their own screens. If it is not checked, these settings will be defaults and will only be used on jobs that do not set their own screens. Checking the **Expanded Tonal Resolution** box can provide substantial improvements to image quality. Clicking the **Dot Shape** button brings up the menu shown in

Illustration 7.

The elliptical dots produced by the two Euclidean Ellipse selections are most commonly used for screen printing, while the Round selection is usually more suitable for flexography.

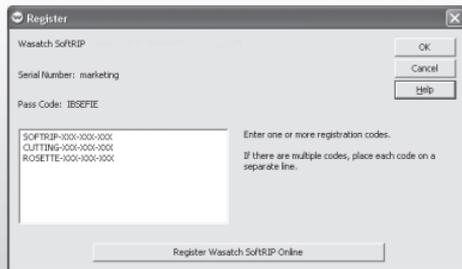


Illustration 8: Enter Registration Codes

7. Wasatch Precision Rosette Screens®

In order to use Wasatch Precision Rosette Screens®, you must enter the enabling code, as shown in Illustration 8. Then generate your own screen set, as detailed

in Step 9. To access the screen sets, select Wasatch Precision Rosette Screens® from the Halftone Properties drop down menu on the Color Transforms window (Illustration 3).

Click on the **Halftone Properties** button to launch the Wasatch Precision Rosette Screens® window (Illustration 9).

Ensure that the dpi in the Screen drop down menu matches the addressable dpi in the Printer menu . Failure to match these will result in screens that are the wrong lpi, are “squashed,” or are otherwise incorrect.

Note that the addressable dpi shown here may differ from the dpi indicated on the main Wasatch list of printers, which is the equivalent or effective dpi advertised by the printer manufacturer.

Swapping Screens: For additional advanced moiré control, the Swap Screen utility is available in the Wasatch Precision Rosette Screens® window. In the illustration, the Swap Screens control has been set to exchange the Black and Magenta screen angles. This is a very common choice for reducing moiré in reddish images and flesh tones. To use this control, simply click and drag the screen you wish to exchange.

See the Color Separations section of online help for a detailed discussion of Wasatch Precision Rosette Screens® and moiré control.

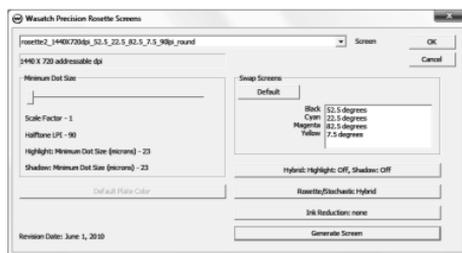


Illustration 9: Wasatch Precision Rosette Screens® window

HALFTONE SCREENS

8. Rosette/Stochastic Hybrid Screens

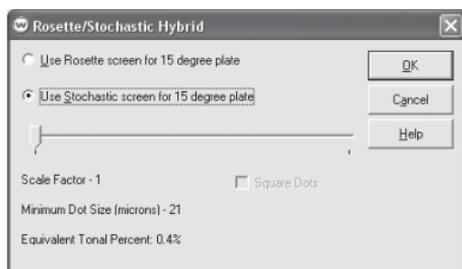


Illustration 10: Stochastic Screen Size

The Rosette/Stochastic Hybrid feature (Illustration 10), allows SoftRIP SP users to print yellows and flesh tones without worrying about moiré or changing screen angles. Prints made with these separations exhibit

the rosette structure that print buyers expect, while using stochastic screening to eliminate moiré.

9. Generating Wasatch Precision Rosette Screens®

SoftRIP SP allows users to generate their own Wasatch Precision Rosette Screens®. To use this workflow, go to Print > Setup. Select your Printer Model, Imaging Configuration, and Physical Connection.

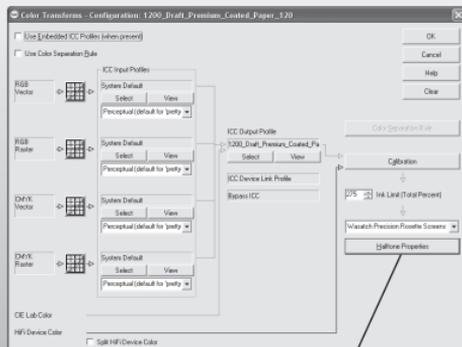


Illustration 11: Select Wasatch Precision Rosette Screens®

Click the **Edit** button, then click the **Color Transforms** button.

In the bottom right corner of the Color Transforms window, select Wasatch Precision Rosette Screens® from the drop down menu and click the **Halftone Properties** button (Illustration 11).

Once you set the LPI, Angles, and Dot Shape, click the **Calculate** button (Illustration 12). Calculations can take two or three minutes, depending on the computer and on the particular set of numbers chosen. The calculation can be interrupted at any time by pressing **Cancel**.

Once the calculation is complete, the new screen is selected for the Imaging Configuration that is currently open.

It is permanently saved and can be reused without having to do the calculation again.



Illustration 12: Generate your own Wasatch Precision Rosette Screens®

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