

# ***Splash PCI Series v6.0 Reference***

Splash Technology, Inc.

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EN55022/CSPR22 CLASS B  
EN0082-1/IEC 801-2,3,4

following the provisions of:

89/336/EEC-EMC Directive

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The signed and dated Declaration of Conformance is on file at the above address.





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## ***Scanning From Adobe Photoshop***

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The Splash Acquire plug-in gives your printer/copier high-resolution color scanning capabilities. Using Adobe Photoshop (or other compatible applications), you can scan printed images in CMYK, RGB, or grayscale and work with them in Adobe Photoshop. There are no network transfer delays during scanning operations, since you scan directly from the Splash Server.

This section describes how to scan a printed image using Adobe Photoshop. For instructions on how to use the Splash plug-in with other applications that are compatible with Adobe Photoshop plug-ins, refer to the manuals included with your applications. For instructions on how to install the Splash plug-in, see the *Splash Set-Up Manual*.

Splash provides a second plug-in for printing directly from Adobe Photoshop to the Splash printer. For information see the next section of this Reference manual.

***IMPORTANT:*** *The Splash Acquire plug-in can only be used on the Splash Server computer. The Splash plug-in does not work on client workstations.*

## System Requirements

Splash Acquire can be used only when it is installed on a Splash Professional Color Imaging Series (v5.0 or later) Server Macintosh. The plug-in does not operate on client workstations or on earlier versions of the Splash Server. (Adobe Photoshop is not provided with the Splash Server. You must install Adobe Photoshop or Adobe Photoshop LE on the Splash Server to use Splash Acquire.)

**Note:** Splash Servers provide the memory needed to run the Splash Server application only. If Adobe Photoshop or other applications will be run on the server computer you will need to add memory to support those applications.

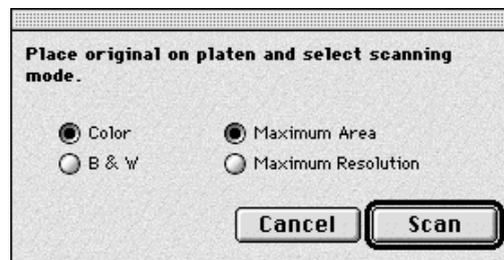
## Preparing the Scan

If you have added system memory to your Splash Server, it is not necessary to close the Splash Server application before you scan with the Splash plug-in. If the Server is currently processing or printing a job, you must wait until the Server has completed these tasks before you can scan with the Splash plug-in. When the plug-in is scanning an image with the printer/copier, the Server cannot print to the printer/copier. An error message appears at the Server if a job is printed while the plug-in is scanning.

To scan an image with the Splash plug-in:

1. Start the Adobe Photoshop application at the Splash Server.
2. Place the print you want to scan on the printer/copier. (Place the print in the upper-left corner of the glass area of the copier.)
3. From the File menu, point to Export and drag to choose Splash Acquire from the submenu. (The Splash plug-in module must be in the proper location to appear in this submenu. See the *Splash Set-Up Manual* or *Splash Install Manual* for information.)

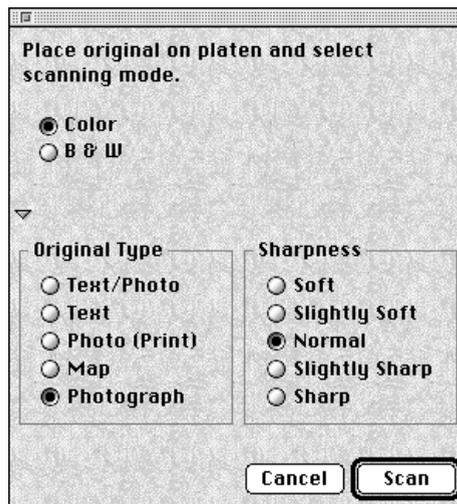
The Splash Acquire setup dialog box appears.



4. Choose **Color** or **B&W** (black and white) for the scan image.
5. Choose **Maximum Area** to capture the largest possible scan area at reduced resolution. Choose **Maximum Resolution** to capture a smaller area in the scanned image, at full color resolution. (These options do not apply to the Splash PCI 1280 Server.)

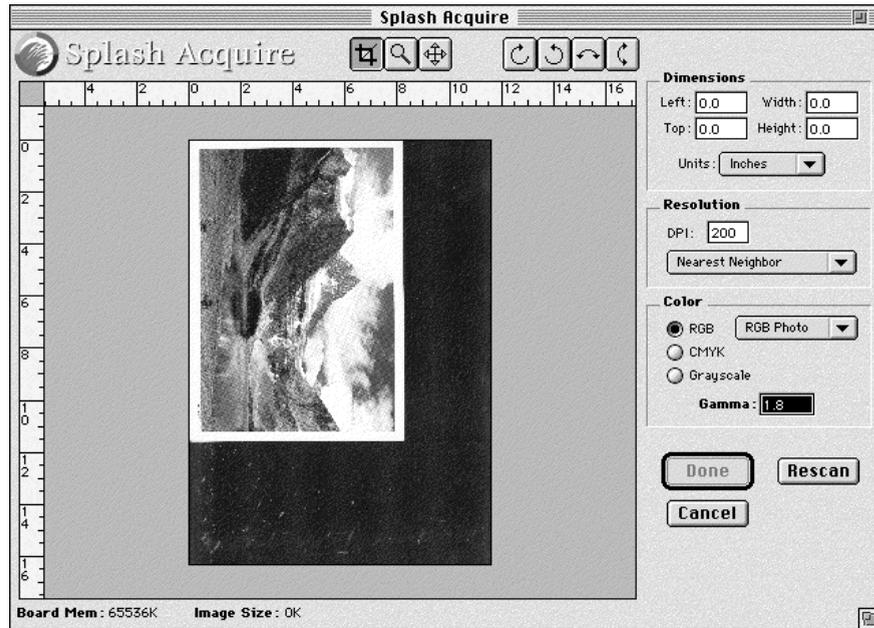
The results of your selections will vary depending on your model of Splash

- The Splash PCI 1280 Server supports 400 x 400 dpi scanning of the entire copier platen.
  - The Splash PCI-E 640 Server supports 200 x 200 scanning of the entire platen.
6. If the Splash Server is connected to a MajestiK, Regal, DocuColor 5799, Acolor 630 or Acolor 930 series printer/copier, click the arrow at the bottom-left corner of the Acquire setup dialog box to select additional options.



7. Select an Original Type option that matches the image being scanned. The Original Image Type setting (not available with an Acolor 620 or DocuColor 5750 printer/copier) lets you specify the type of master image you will use to scan the image (for example, mixed text and graphics, line art, or a photo).
8. Select a Sharpness setting (not available with an Acolor 620 or DocuColor 5750 printer/copier) to enhance or soften the edges of your image during scan operations. When you set Sharpness, no additional processing time is required.
9. Click Scan.

After a short pause, the printer/copier scans the image. The scan is saved to the built-in memory on the Splash card, then a preview of the image appears in the scan area of the Acquire window.



## ***Color Options***

The Color options let you convert the scanned image to RGB or CMYK color, or grayscale. If you select RGB or CMYK color, Splash Acquire lets you apply color correction to the scanned image when the file is saved to disk. The preview image in the Acquire window updates instantly to show the result when you apply a Color option.

### ***RGB Color Correction***

If you select RGB color mode, you can apply these RGB color correction types:

- **RGB Photo** is for scanned photographs.
- **RGB Copy** is for exactly matching a photocopy. (*Note:* For an exact match, apply the Unsharp Mask filter in Adobe Photoshop after you scan the image and before you print. Use the filter parameters: 120,2,1 for a 400dpi scan, or 200,1,1 for a 200dpi scan.)

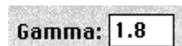
## **CMYK Color Correction**

When you apply CMYK color correction to the scanned image, Splash Acquire adjusts colors in the image to match the Splash ColorCal Pass Through “Uncalibrated” profile. The color output is closer to that found in v3.1 of Splash, though saturated colors are flatter.

For best results with your scanned images, use RGB scanning and use the procedure described in “Improving RGB Scans” on page 18.

## **Gamma**

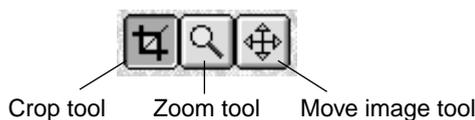
Gamma describes how a device reproduces tonal gradations. For most purposes, the default setting (1.8) is best. Gamma 1.8 simulates tonal gradations as perceived by the human eye.



If desired, you can edit the Gamma text box to lighten or darken the file. Gamma applies to both color and grayscale scans. The scan preview updates automatically as you change the Gamma setting.

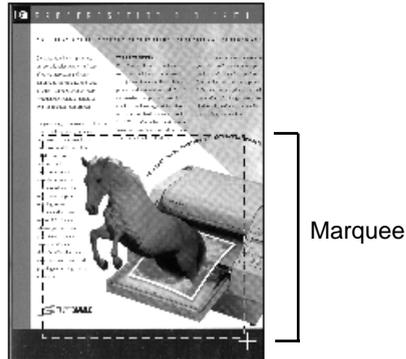
## **Cropping the Scan**

The buttons above the scan preview window help you to select an area of the scanned image to save as a file.



- The Crop tool changes the pointer to a crosshair. This allows you to select a portion of the preview image. Double-click the Crop tool to select the entire preview image.
- Choosing the Zoom tool changes the pointer to a magnifying glass. Click anywhere on the preview image to see a magnified view of the scan preview. Hold down the Option key as you click to make the preview image smaller. When you double-click the Zoom tool, the preview image exactly fits the preview window area.
- The Move tool moves your view of the preview image when it is magnified.

Select the portion of the image you want to open in Adobe Photoshop. Since the amount of time it will take to open the image increases with the size of the selected area, you should select only the portion with which you want to work. To do this, drag the crosshair within the scan area to draw a marquee (dashed rectangle) around any portion of the image:



To constrain the selection area:

- Hold down the Shift key as you drag the crosshair to constrain the aspect ratio of the selection area.
- Hold down the Option key as you drag the crosshair to select an area centered on the pointer.
- Hold down the Shift-Option keys as you drag the crosshair to constrain the aspect ratio of a selection area that is centered on the pointer.

If you want to change the size of the marquee, you can drag the marquee “handles” at each corner of the selection, or enter new values in the Width and Height boxes.

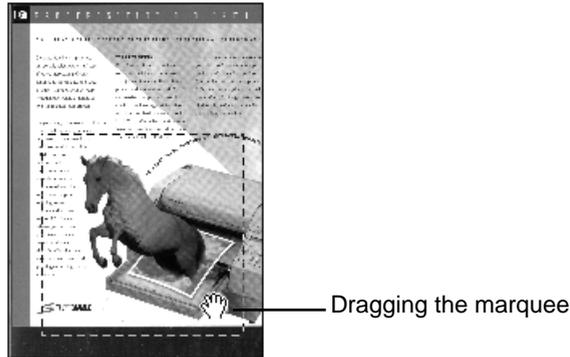
To use the Width and Height boxes,

1. Choose the unit of measure you want to use from the Units menu. You can choose centimeters or inches.
2. Enter values in the Width and Height boxes. The marquee is resized to match the dimensions you enter.

Width:	201.9
Height:	284.0

If you want to move the marquee, you can either do so manually or enter specific values in the Top and Left boxes.

- To move the marquee manually, place the pointer within the marquee and drag it to a different location within the scan area:



3. To move the marquee numerically, enter new values in the Top and Left boxes.

Top:	<input type="text" value="0.0"/>
Left:	<input type="text" value="0.0"/>

## ***Choosing the Scanning Resolution***

1. In the Resolution box, enter the resolution at which you want the image to be transferred into Adobe Photoshop.

The default setting for Resolution depends on the memory configuration for the computer, and the size of the scanned image. The Resolution you can use is limited by the memory and disk space available on the Server computer.

If you change the Resolution from its default setting, the plug-in uses interpolation to adjust resolution for the image. (See Step 3.)

2. Choose a unit of measure from the Units menu. This selection applies to the size and position measurements, as well as the Resolution you enter.

3. If you changed the default resolution of your image in Step 1, choose an interpolation option from the pop-up menu.
  - **Bicubic** interpolation offers the highest-quality reproduction for images with gradual changes of color (such as photographs). However, it is the slowest method of interpolation because it requires the greatest amount of processing.
  - **Nearest Neighbor** (the default setting) is the fastest method of interpolation, and it can be the best method for graphic art with well-defined boundaries between elements. This is the best selection for most instances. However, gradual changes of color can appear jagged when you print images using this type of interpolation.
  - **Bilinear** interpolation produces quality and speed that is between the two other options.

### ***Checking the Disk Space Required***

The amount of Splash frame buffer memory available for your Splash Server model appears at the bottom of the Acquire window. Acquire also determines if the amount of space available on your Adobe Photoshop scratch hard disk(s) will accommodate the scanned image.

If the required space is greater than the available space, you can either reduce the size of the scan or choose a scratch disk with more available space.

- To reduce the amount of space required by the scan, you can select a smaller area to be transferred to Adobe Photoshop (see page 13), or choose a lower scanning resolution (see page 15).
- To choose a scratch disk with more available space, click Cancel. From the Adobe Photoshop File menu, choose Preferences and drag to select Scratch Disks. Choose a primary and/or secondary scratch disk that has more space available, then quit and restart the Adobe Photoshop application.

## ***Choosing an Orientation***

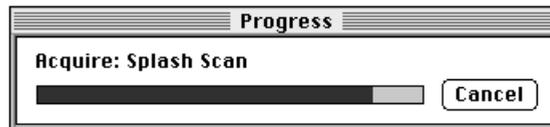
If the preview image does not appear in the orientation you want, you can use the Orientation buttons to rotate the image when it is transferred into Adobe Photoshop.



To choose an orientation, click one of the orientation buttons. Acquire rotates the preview image in the window.

## ***Transferring the Image to Adobe Photoshop***

1. To transfer the scanned image to Adobe Photoshop, click Done. A progress bar indicates that the image is being transferred.

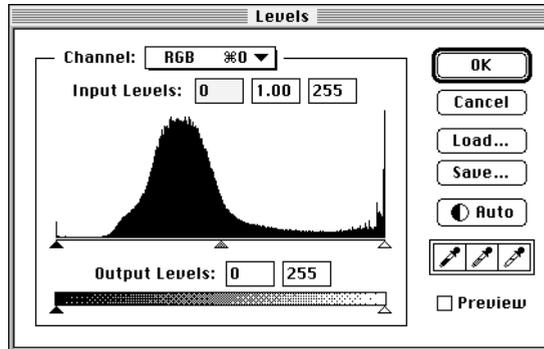


2. The image appears in a new untitled Adobe Photoshop window.
3. Use the Adobe Photoshop tools to work with the image and to save it to your hard disk. For instructions, see the manuals included with Adobe Photoshop.

## ***Splash Acquire Notes***

### ***Improving RGB Scans***

To improve the quality of RGB scans created with the Splash Acquire plug-in, use the Image Levels control in Adobe Photoshop. To do this, in the Image menu, point to the Adjust submenu, then select the Levels command. The Image Levels control window appears.



Drag the left and right Input level sliders so they are below the lowest and highest points shown in the Levels histogram. (Optionally, you can adjust the middle slider until the image looks best.)

### ***First Scan of the Day on Acolor 630 Series May Need to be Rescanned***

On Acolor 630 series printer/copiers, the first scan operation of the day may produce slight flaws in the output. If this occurs, rescan the image. This problem only occurs for the first scan of the day when the printer/copier has been left on overnight.

## ***Export Printing From Adobe Photoshop***

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Splash Export lets you print directly to the Xerox or Fuji Xerox printer/copier from Adobe Photoshop. If your AppleTalk network is used heavily, you can use Splash Export to avoid transferring the print job over the network. Splash Export provides a slightly different set of print options than those available with the Splash driver. Use Splash Export as an alternative to the Adobe Photoshop “Print” command.

This section explains how to use the Splash Export plug-in for Adobe Photoshop 4.0 or later. For instructions on how to use the Splash plug-in with other applications that are compatible with Adobe Photoshop plug-ins, refer to the manuals included with your applications. For instructions on how to install the Splash Export plug-in, see the *Splash Set-Up Manual*.

## ***System Requirements***

Splash Export can be used only when it is installed on a Splash Professional Color Imaging Series (v5.0 or later) Server Macintosh. The plug-in does not operate on client workstations or on earlier versions of the Splash Server. (Adobe Photoshop is not provided with the Splash Server. You must install Adobe Photoshop or Adobe Photoshop LE on the Splash Server to print with Splash Export.)

**Note:** Splash Servers provide the memory needed to run the Splash Server application only. If Adobe Photoshop or other applications will be run on the server computer you will need to add memory to support those applications.

## ***Using Splash Export***

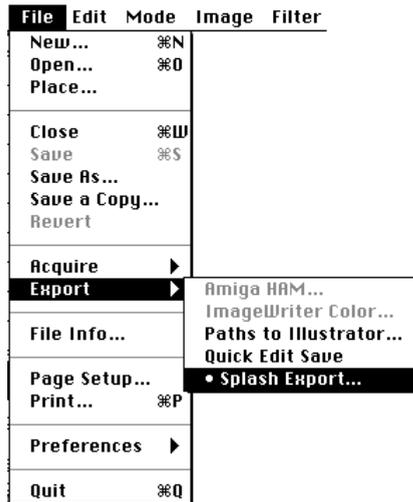
If you add sufficient system memory to the Splash Server Power Macintosh, you can print with Splash Export while the Splash Server application is running. If the Server is currently processing or printing a job, you must wait until the Server has completed these tasks before you can print with Splash Export. When Splash Export is printing to the printer/copier, the Server cannot print jobs in the queue. An error message appears at the Server if a job attempts to print while Splash Export is printing.

## ***Preparing to Print with Splash Export***

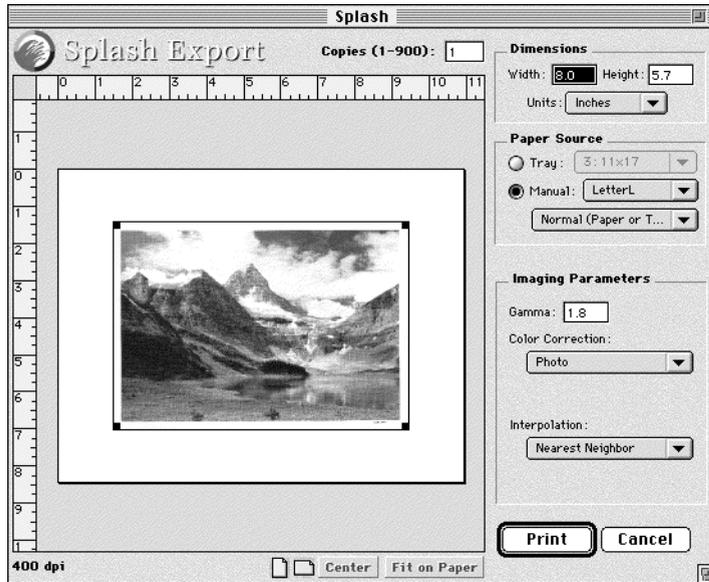
To print to the printer/copier with Splash Export:

1. Double-click the Adobe Photoshop icon to open the application.
2. If you want to print only part of the image, crop the image with the Adobe Photoshop application tools before you use Splash Export. For instructions on how to do this, refer to the Adobe Photoshop manuals.

- Point to Export in the File menu, then drag to choose Splash Export in the submenu.



There is a pause while the image is loaded, then Splash Export appears.



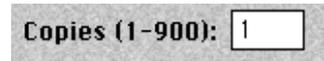
If the image is very large, Splash Export displays an option that allows you to “skip” loading the image. This opens the Splash Export dialog box faster, but a box with the Splash logo appears instead of the image in the preview window.

The Splash Export preview window shows a full-size representation of the image on a larger white rectangle. The white rectangle represents the selected paper size. Splash Export automatically chooses the paper size that seems most appropriate for printing the full-size image. You can change the size of the image, and change the paper size and orientation before you print.

**Note:** Splash Export displays different Imaging Parameter controls for RGB and CMYK images. See page 27 for details.

### ***Specifying the Number of Copies***

Enter the number of copies to print in the Copies box at the top of the Splash Export dialog box.



### ***Changing the Size, Orientation, and Position of the Image***

Drag the image to move it around on the white rectangle. Click the Center button at the bottom of the Splash Export dialog box to center the image on the paper.

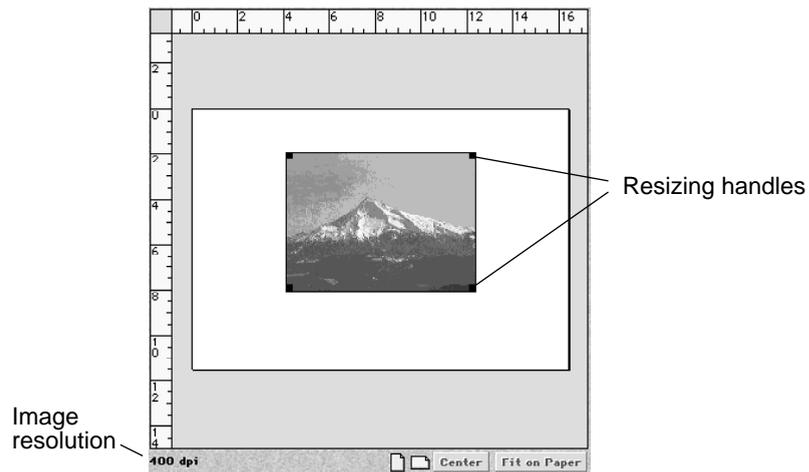


Centers the image on the selected paper size

To resize the image, drag one of the handles located at the corners of the image.

**Note:** The Dimensions boxes do not have any effect on the printed image if you enter an image size using the keyboard.

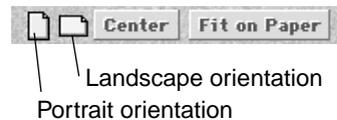
The Fit on Paper button at the bottom of the Splash Export dialog box adjusts the image to the maximum size that will fit on the selected paper size and orientation.



The image resolution indicator at the bottom-left corner of the dialog box shows the maximum print resolution (dots per inch) possible for the image. This number is determined by the size of the image and the available memory on your model of Splash Server interface board.

**Note:** The image cannot be made larger than the paper size. If the full-sized image is larger than the paper, Splash Export automatically reduces the image size to fit the paper. The image maintains its proportions as you increase or decrease the size. You cannot stretch or distort the image.

The orientation buttons at the bottom of the preview window let you choose between landscape and portrait orientations for the printed image. (The image does not rotate in the preview window. The white paper area in the preview window updates to show the orientation change.)



## Selecting a Scaling Option

When you enlarge or reduce the image, Splash Export must add or subtract pixels (dots) to scale the image to the correct size for printing. Splash Export uses one of three “interpolation” methods to do this. The interpolation options appear in the Interpolation pop-up menu under Imaging Parameters.

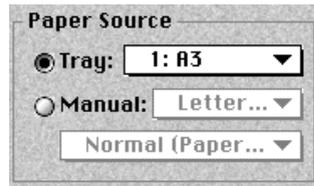


- **Bicubic** interpolation offers the highest-quality reproduction for images with gradual changes of color (such as photographs). However, it is the slowest method of interpolation because it requires the greatest amount of processing.
- **Nearest Neighbor** (the default setting) is the fastest method of interpolation, and it can be the best method for graphic art with well-defined boundaries between elements. This is the best selection for most instances. However, gradual changes of color can appear jagged when you print images using this type of interpolation.
- **Bilinear** interpolation produces quality and speed that is between the two other options.

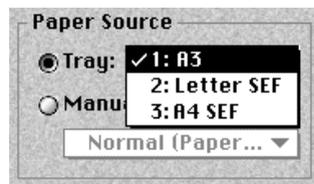
If you resized the image with Splash Export, use the Interpolation pop-up menu to choose the method that best suits the image you are printing.

## Changing the Paper Tray

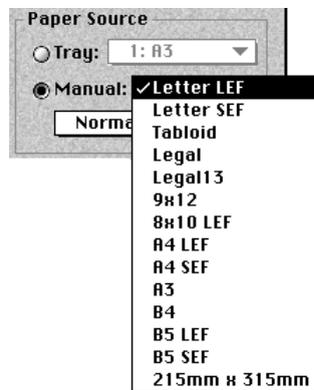
The paper tray options appear under Paper Source.



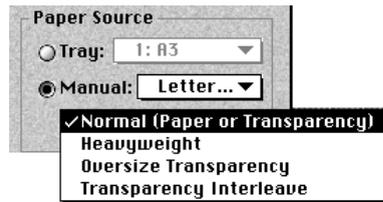
To print to one of the paper trays, choose **Tray** then select the tray with the correct paper size in the pop-up menu.



To print to the Bypass tray, choose **Manual** then select the paper size from the menu.



When you use the Manual feed option, choose a paper type. (Be sure the Bypass tray contains the paper type you specify.)



- Select **Normal Paper** to print on recommended paper between 16 to 24 pound.
- Select **Heavyweight** to print on paper that is heavier than 24 pound or 105 gsm. See the manuals supplied with your printer/copier for information on recommended heavyweight paper.

*Note:* For the MajestiK and Acolor printer/copiers, Splash supports Heavy Weight paper for page sizes: A4 SEF, A4 LEF, B5 SEF, B5 LEF, Letter SEF, Letter LEF, Legal, Legal13, 8x10 LEF, 9x12, and 215mmx315mm. (Paper sizes that do not indicate “SEF” or “LEF” are single edge feed sizes.) Splash supports all Regal printer/copier Heavy Weight paper page sizes.

- Select **Transparency Interleave** to have the printer insert blank sheets of paper between printed transparencies. For transparency interleave, you must have a paper size that matches the transparency film size installed in a cassette. If no matching paper size is installed, the transparencies are printed without separating sheets.

*Note:* When you print a transparency interleave job to the Xerox Regal copier from Splash Export, occasionally the printer fails to insert a blank sheet of paper between some transparencies in the job.

- Select **Transparency** to print 60 to 105 gsm Xerox transparencies with a white leading edge. For information on recommended transparencies, refer to the manuals supplied with your printer/copier. This option is for use with the Acolor 930 series, Regal, DocuColor 5799, Acolor 620 series, or DocuColor 5750 printer/copier models.

The following Bypass Tray options can be used when Splash Export is used with an Acolor 620 or DocuColor 5750 series printer/copier:

- **Special Heavy Paper**
- **Coated Paper**
- **Single Step Transfer**
- **Labels**

See the manuals supplied with your printer/copier for information on recommended paper types for these Bypass Tray options.

The following Bypass Tray option can be used when Splash Export is used with an Acolor 620, DocuColor 5750, or DocuColor 5799 series printer/copier:

- **Tack Film.** The paper sizes supported for this Bypass Tray option are Letter and A4 only. See the manuals supplied with your printer/copier for information on recommended paper.

When you insert paper or transparencies into the Bypass tray, the printer/copier defaults to its Paper Type (Bypass) mode. Push the yellow Clear All button on the printer/copier after you insert the paper or transparencies to return immediately to the print mode.

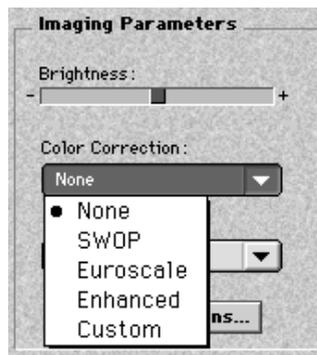
### ***Adjusting Brightness***

When you use Splash Export with a CMYK file, you can darken or lighten the image with the **Brightness** slider that appears under Imaging Parameters. For RGB files, enter a **Gamma** value to darken or lighten the image. (For most purposes, a Gamma of 1.8 is the best selection.)

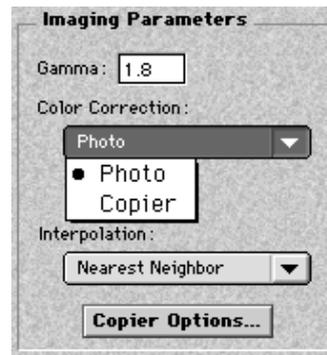
### ***Selecting Color Correction***

To apply color correction, choose an option from the pop-up menu under Imaging Parameters. The color correction options are different for CMYK and RGB files.

CMYK color correction options



RGB color correction options



### **RGB Color Correction**

When you use Splash Export with an RGB image, you can apply these RGB color correction types:

- **Photo** matches the colors of various photographic images scanned by the Xerox or Fuji Xerox printer/copier, or other scanners. This option uses a whitepoint setting of D65 (simulates normal lighting conditions).

*Note:* For best results with this color correction type, run the Splash ColorCal utility at the Splash Server at least once before you apply this option with Splash Export.

- **Copier** is for exactly matching an image that was scanned at the printer/copier. The image must be scanned with the RGB color correction type “RGB Copy” (see “Scanning From Adobe Photoshop” in this Reference manual for instructions).

*Note:* For an exact match, apply the Unsharp Mask filter in Adobe Photoshop before you export the image. Use the filter parameters: 120,2,1 for a 400 dpi export, or 200,1,1 for a 200 dpi export.

### **CMYK Color Correction**

When you use Splash Export with a CMYK image, you can apply these color correction types:

- **SWOP** simulates SWOP inks.
- **Euroscale** simulates Euroscale press inks.
- **Enhanced** prints vivid colors on your output. (This profile is not intended for printing press proofs.)
- **Custom** is used with Splash ColorCal. Ask your Splash Server administrator which option is currently active.

See the Splash on-line manual “*Printing to Splash From a Macintosh*” for more information about Splash CMYK color correction.

## ***Additional Export Options***

If you have a Splash MajestiK, Regal, Acolor 93x series or Acolor 63x series printer/copier, several additional options are available. Choose **Copier Options...** to see more controls you can use with Splash Export. When you do this, the button changes to **Imaging Params...** Click the button again to return to the Imaging Parameters controls.



## ***Specifying the Image Type***

The Original Image Type control sets printer/copier screening and filtering to optimize output based on the image type.

- Choose **Photo** for photographic originals to optimize the output, using a 200-line screen at 400dpi. This is the best option to choose for color images.
- Choose **Text/Graphics/Line Art** to optimize the output of all other data types, including text and line art, using a 400-line screen.

When Text/Graphics/Line Art (400-line screen) is used, even if color correction is selected, appropriate colors are not always output. The colors output sometimes differ from when Photographic is selected. For documents that emphasize the color image, choose Photographic. For documents that emphasize sharp lines (such as a map), choose Text/Graphics/Line Art.

### ***Applying Sharpness***

The Sharpness pop-up menu lets you select an option to enhance or soften the edges of your image when you print. (When you apply a Sharpness setting, no additional processing time is required.) The Sharpness settings are:

- **Much Softer**
- **Slightly Softer**
- **Normal**
- **Slightly Sharper**
- **Much Sharper**

*Note:* Sharpness is not available for the Acolor 620 or DocuColor 5750 series printer/copiers.

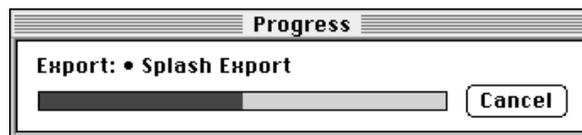
### ***Adjusting Highlights, Midtones, and Shadows***

The sliders at the bottom of the Copier Options let you change the highlights, midtones, and shadows for the image. To adjust these, select **Highlights**, **Midtones**, or **Shadows** from the pop-up menu above the sliders, then set the **K** (black), **C** (cyan), **M** (magenta), and **Y** (yellow) sliders to suit your preferences.

For most purposes, you will achieve the best results when these controls are set near the center of their ranges.

### ***Exporting the File to the Printer***

Click Print to export your file to the printer/copier. A progress bar displays while the image is exported.



## ***Splash Export Notes***

### ***Re-install the Splash Export Software After You Re-install the Splash Server Software***

If you ever re-install the Splash Server software on the Server Power Macintosh, you must re-install the Splash Export software afterward to export files from Adobe Photoshop.



## ***Calibrating with Splash ColorCal***

### ***In this section:***

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A basic characteristic of all color copiers is that the output color drifts over time, producing inconsistent color from day to day, or even hour to hour. This shift in color can be caused by changes in humidity, temperature, and the number of copies made. Splash ColorCal corrects this to ensure that output is consistent over time.

Splash ColorCal, unlike other calibration solutions, is an ideal tool for both business graphics and other less-technical users, as well as for the more traditional prepress users. Splash ColorCal requires no special color knowledge and does not require the use or purchase of an expensive densitometer. Splash ColorCal is more accurate than other calibration solutions because it automatically adjusts gray balance in addition to accurate linearization. Further, it uses three times more color patches, with over six times the resolution in critical regions to provide results more accurate than competitive solutions.

Other Splash ColorCal features include an option that randomizes placement of the patches on the calibration target to minimize the effects of print density variations on a page. In addition, Splash ColorCal allows calibration on heavy stock papers.

Splash ColorCal provides color calibration for your Xerox MajestiK, Regal, DocuColor 5799, DocuColor 5750, or Acolor printer/copier. ColorCal guides you step-by-step through a simple process to quickly calibrate your printer/copier for consistent, accurate color.

Once calibration is complete, you can use Splash CMYK and RGB color correction (selected in the Splash print driver), or use advanced features of ColorCal to create and save custom color profiles. You can perform multiple calibrations, and save the individual profiles for use with specific printing conditions and print media. Calibration takes only a few minutes to complete, so you can test your printer's color output and recalibrate as often as needed.

The ColorCal application is located in the Splash Calibration Folder within the Splash Utilities Folder on the Splash Server. The Splash Calibration Folder can be moved anywhere on the Splash Server hard disk. A folder containing the ColorCal profiles is located in the Preferences Folder within the System Folder. (See "Managing the Profiles Folders" on page 55 for notes about moving Splash color profiles to other folders.)

## ***Calibrating the Printer/Copier***

This section describes how to calibrate your printer/copier with Splash ColorCal. For best color printing results, recalibrate the printer/copier at least once daily. If printer/copier use is heavy, you may want to recalibrate as frequently as several times a day. ColorCal runs only on the Splash Server computer. The printer/copier must have 8.5"x11", A4, or larger paper loaded to print the Calibration Target used in this process.

**Note:** ColorCal calibration does not affect the quality of photocopies. Only files printed with Splash are affected. (*Always* calibrate the printer after a service call.)

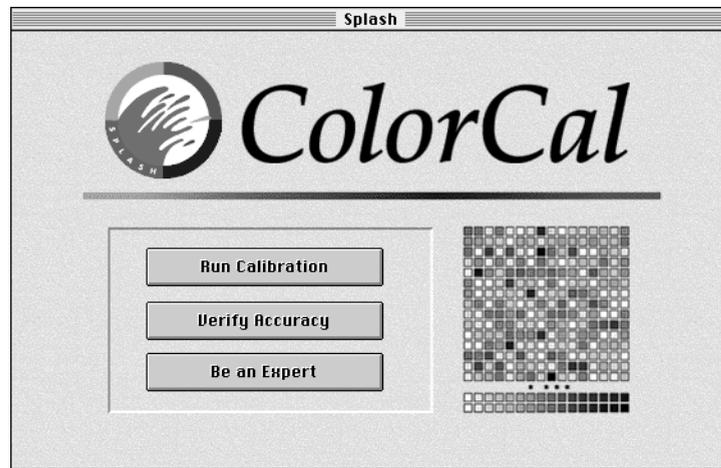
**IMPORTANT:** *Be sure to have the printer/copier running during the entire calibration procedure.*

To calibrate with Splash ColorCal:

1. Double-click the **ColorCal** icon in the ColorCal folder on the Server.  
(The Splash Server application can be running during calibration.)



Splash ColorCal appears.

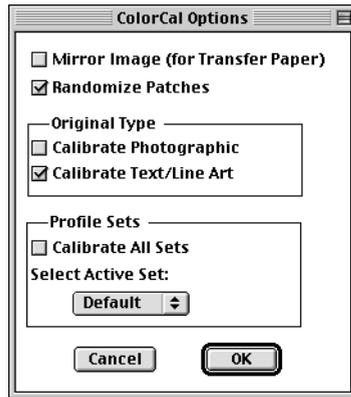


2. If you are using ColorCal for the first time, or if the printer/copier has recently been serviced, choose **Calibrate Scanner** from the ColorCal menu.

This command causes ColorCal to adjust the printer/copier to compensate for scanning differences that could affect calibration quality. (This command affects ColorCal operation only. It does not affect the scanning capability of the printer/copier for other scanning operations.)

If you have calibrated at least once before, go to Step 8.

3. Choose **Printing Options** from the Splash menu. A dialog box appears.



4. Be sure the **Randomize Patches** option is selected.

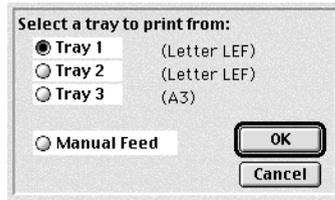
This option averages out print density variations across the calibration target page, and ensures high-quality calibration. For best results, be sure this option is selected before you calibrate with ColorCal.

5. Select **Calibrate Photographic** or **Calibrate Text/Line Art** to indicate the types of jobs that will be printed and for which the copier should be calibrated. If you select both, you will perform calibration for Text/Line Art mode and then perform calibration a second time for Photographic Mode.

*Note:* If only one Original Type is selected, calibration information for the other is removed when calibration is performed. Jobs at the server will be printed in whichever mode was last selected in ColorCal.

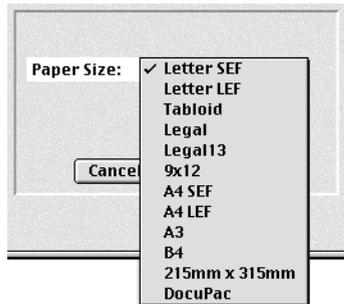
6. Select **Calibrate All Sets** if you want to calibrate all calibration profile sets. Or choose the profile set to calibrate from the **Select Active Set** menu. For information about creating Calibration Sets, see “Creating Calibration Sets” on page 40.
7. Click OK.
8. Be sure that the copier platen cover is closed, then click **Run Calibration**.

9. Select a paper source for the ColorCal calibration target.



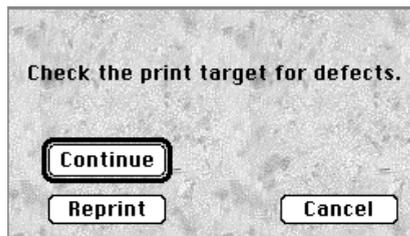
The paper size can be 8.5"x11", A4, or larger. If you select **Manual Feed** you can select “Heavy Weight” paper.

If the Splash Server is connected to a DocuColor 5750 or Acolor 620 copier and you select **Manual Feed**, choose a paper size from the menu that appears.



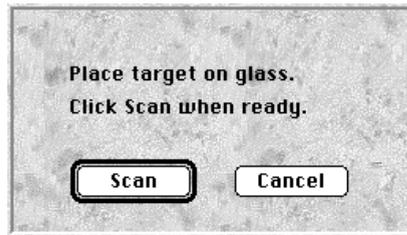
ColorCal prints a calibration target on the printer/copier. The target always shows uncalibrated printer performance—even if you have calibrated the printer before.

ColorCal prompts you to examine the target for printing defects.



If printing defects (such as creased paper or uneven or flaking toner) appear on the target, click **Reprint** to produce a new target on the printer/copier.

10. When you have printed an acceptable Calibration target click **Continue**. ColorCal prompts you to place the target on the copier surface for scanning.



11. Place the Kodak Gray Scale target, (provided with Splash ColorCal) and the printed target face-down on the copier glass.

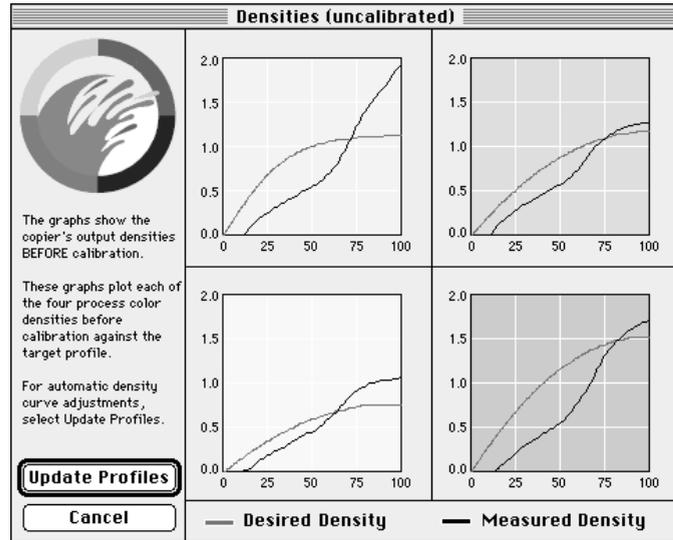
Match the arrow on the target with the arrow on the back of the copier platen glass. Orient the target with the short edge of the paper along the left side of the copier platen. The Gray Scale target must cover the grayscale patches in the upper-left corner of the ColorCal target. (Place the Gray Scale target face-down on the glass first, then place the ColorCal target face-down on top of the Gray Scale target.)

***IMPORTANT:** Handle the Gray Scale target by the edges to avoid smudging the patches. Keep the target in its protective sleeve when it is not being used. Replace the target if the patches become damaged. Contact Xerox Customer Support to order a replacement Gray Scale target.*

***Note:** Be sure to use the Gray Scale target for this step to produce the most accurate scanning results. If the Gray Scale target is not present during calibration, ColorCal uses default information to set grayscale densities.*

12. Click **Scan**.

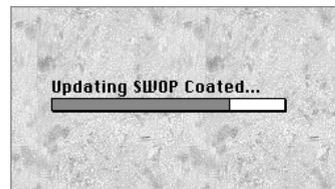
ColorCal scans the Target and determines current color performance based on the acquired image. When this process has concluded, ColorCal displays a graphic representation of color performance for the printer.



The **Desired Density** lines represent accurate CMYK (cyan, magenta, yellow, and black) printing for the current CMYK color profile selected in the Verify Against pop-up menu in the Set Active Profiles dialog box (see page 43). The **Measured Density** lines show actual uncalibrated printer performance as measured from the scanned Target.

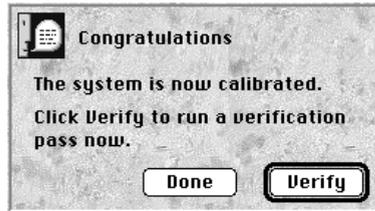
*(Technical note: The vertical axis for each color curve is in units of Status-T less the paper density. The horizontal axis is represented as dot percentage from 0% to 100%.)*

13. Click **Update Profiles** to have ColorCal adjust color output to match the Desired Density levels for your color profiles.



ColorCal updates all profiles at the same time, even custom ones which have been created, so you can use any color profile without repeating color calibration.

When profile updating is complete a message appears.



14. Click **Verify** to check calibration results for the printer (see “Verifying Printer Color Accuracy” on page 42) or click **Done** to return to the ColorCal main window.

Color calibration is complete. After you run calibration, you can select any of the standard color profiles included with ColorCal for consistent, accurate color (see “Using ColorCal Profiles with Splash” on page 44). If printer use is heavy, use Splash ColorCal throughout the day to keep track of color printing performance and recalibrate as needed (see “Verifying Printer Color Accuracy” on page 42).

To exit ColorCal, choose **Quit** from the File menu.

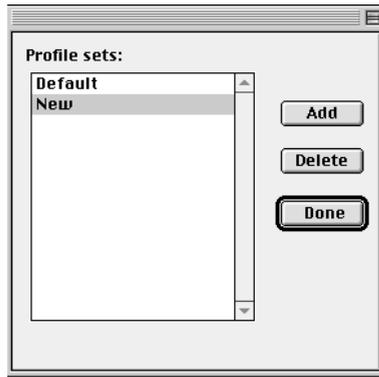
### ***Creating Calibration Sets***

You can perform multiple calibrations and save each one with a unique name. You can then select one of the Calibration Sets to use with a particular tray. The same calibration can be used for multiple trays. Each calibration set contains all of the Splash Profiles.

To create a calibration set:

1. Choose Edit Sets from the ColorCal menu.

2. Click Add.

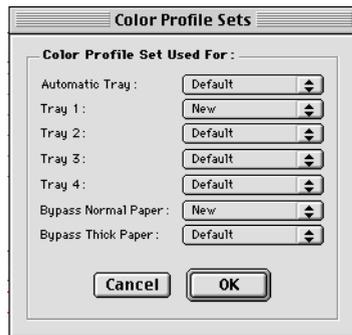


3. Enter a name for the calibration set.
4. When you calibrate the printer/copier, choose the name of the calibration set to calibrate from the ColorCal Options dialog box. Follow the instructions described in "Calibrating the Printer/Copier" on page 34.

**Note:** If both Photographic and Text/Line Art Original Types are selected in the ColorCal Printing Options, you must perform calibration for both modes—two calibrations per set. If only one is selected, ColorCal removes the calibration information for the other when the calibration is performed. Jobs at the server will print in whichever mode was last selected in ColorCal.

To specify calibration from different sets to paper trays:

1. Choose Color Profile Sets from the Splash Server's Server menu.
2. For each tray, choose the calibration set to use.



3. When you are done, click OK.

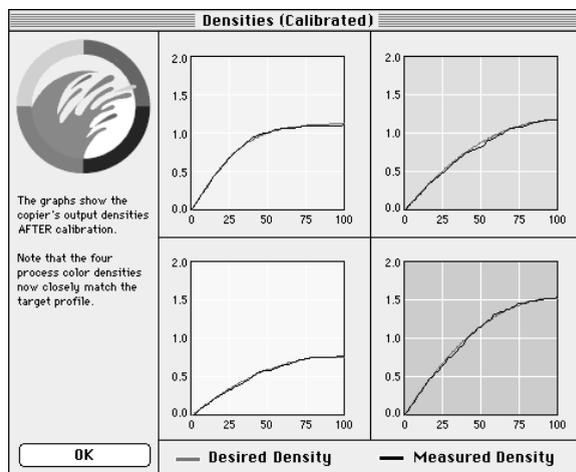
## ***Inverting the Calibration Image***

Splash ColorCal provides a special feature for calibrating to heat transfer paper used for adhering color output to non-standard media such as rice paper, rag paper, or T-shirts. To ensure consistent color output, use the original artwork for the calibration target, and activate the “Mirror Image” option before calibrating (see page 36). This inverts the scanned artwork “target” to match the final transferred piece.

## ***Verifying Printer Color Accuracy***

To verify the accuracy of the calibration process, or to determine the amount of drift since the last calibration, click “Verify Accuracy” in the ColorCal main window (or click “Verify” in the dialog box that appears when calibration is complete). Follow the same steps used to initially calibrate the printer (see “Calibrating the Printer/ Copier” on page 34).

When the verification process has concluded, ColorCal displays the color performance results. Compare the Desired Density lines with Measured Density lines to determine color printing accuracy. The example below shows that measured output closely matches desired color performance. Recalibration is not needed.

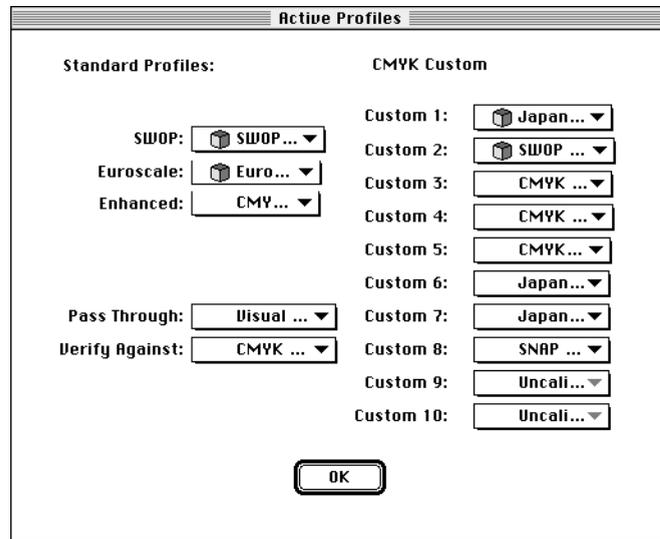


If the Measured Density levels do not match Desired Density levels, calibrate the printer again (see page 34).

## Setting the Verify Against Profile

If desired, you can change the calibrated profile Splash ColorCal uses to create the Desired Density lines during verification. For example, you might want to set the verification profile to CMYK SWOP if you use this profile frequently for printing.

1. In the Splash ColorCal application, choose **Set Active Profiles** from the Splash menu. The Standard and Custom CMYK profiles appear.



2. Choose a profile in the Verify Against pop-up menu.

You can choose any calibrated CMYK profile, custom profile, or Pass Through (standard output) profile for verification.

3. Click OK.

To verify the accuracy of standard color output for your MajestiK or Regal printer/copier, choose the MajestiK Standard or Regal Standard profile in the Verify Against pop-up menu. This causes Splash ColorCal to verify measured densities against a benchmark MajestiK or Regal printer at Xerox laboratories.

For most purposes the Pass Through profile should be set to “Visual Standard” (the default setting). This selection produces the most visually smooth output.

## Using ColorCal Profiles with Splash

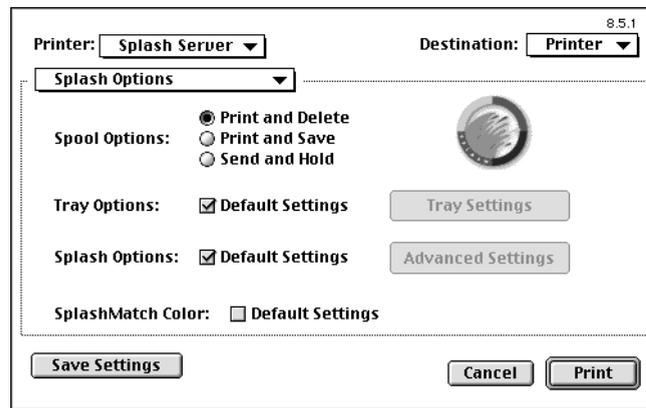
Any network computer with the Splash client software installed can select a Splash CMYK color profile for its print jobs. This section describes how to select a profile for a Macintosh client with the custom Splash driver.

**Note:** Splash provides client software for computers running MacOS, Windows 3.1, Windows 95, and Windows NT. Refer to the appropriate *Printing to Splash...* on-line manual for instructions on how to enable Splash color correction for each of these client computers.

To select a Splash CMYK Press Profile with the custom Splash driver on a Macintosh client:

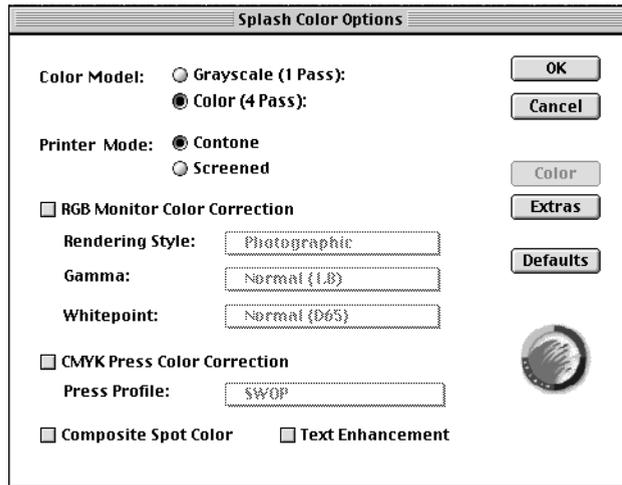
1. From your application, choose Print from the File menu.
2. Click the **Splash** button to select the Splash print features available for your printer/copier.

The Splash Default Options appear.



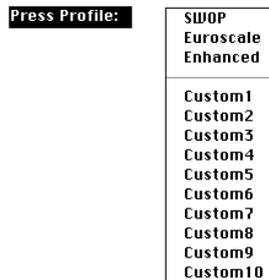
3. Deselect the **Default Settings** checkbox next to **Splash Options**, then click **Advanced Settings**.

4. Click the **Color** button to see Splash color output options.



5. Set RGB Monitor color correction options, CMYK Press color correction options, or both. See the *Printing to Splash...* on-line manuals for information on how to select RGB Monitor color correction options.

To select a CMYK profile, select the **CMYK Press Color Correction** checkbox, then select a Press Profile from the menu.



6. Select other print options as desired, then click OK to send the job to Splash.

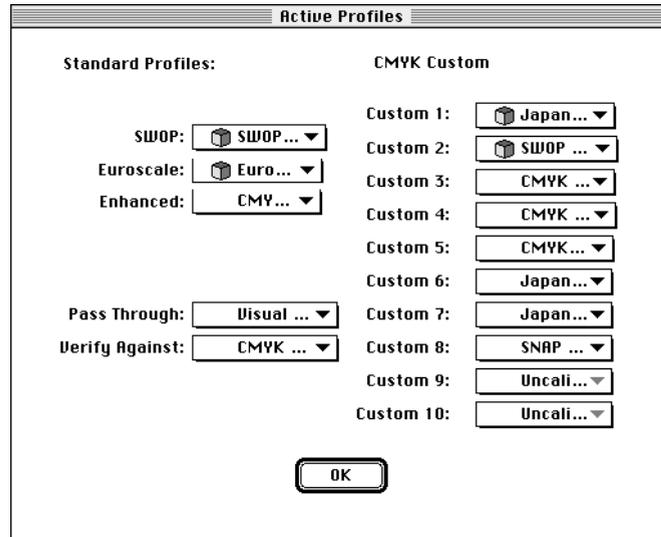
The Custom1 through 10 options are set in the Splash ColorCal Active Profiles dialog box or in the Splash Server application. (See the next section.)

To print to Splash with the printer/copier's standard color characteristics (no color correction applied) deselect both RGB and CMYK color correction checkboxes in the Splash Color Options dialog box. This activates the Pass Through profile selected in the Splash ColorCal Active Profiles dialog box (see page 49).

## Setting the Custom and Pass Through Profiles

To set custom color profiles for the ten Splash CMYK Custom options, or to choose the Pass Through (standard output) setting:

1. In the Splash ColorCal application, choose Set Active Profiles from the Splash menu. The Active Profiles dialog box appears.

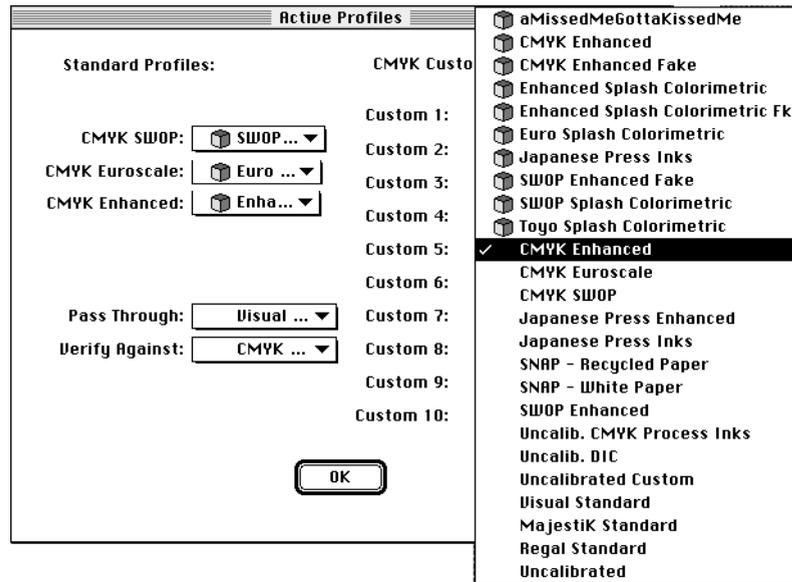


You can set the active profiles for the ten custom CMYK color correction options that appear in the printer driver when you print a job to Splash (for descriptions of the color profiles, see page 46).

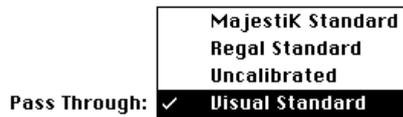
2. Set the Custom profiles with the pop-up menus.

**Custom 1** through **Custom 10** can be configured for any of the CMYK profiles provided with Splash, or for any user-developed calibrated CMYK color profiles (see “Creating a Custom Color Profile” on page 51 for information about how to create your own CMYK custom profiles).

Profiles with a colored cube on the left in the menus are the Splash v5.0/6.0 multi-dimensional color correction profiles. Profiles with no symbol are Splash v4.0 one-dimensional profiles. You can select either type of profile.



3. If desired, you can set the Pass Through profile.



The Pass Through profile is used when Splash Color Correction is not enabled in the Splash printer driver. Pass Through can be set to use a smooth visual standard that is optimized for RGB printing, or to use standard Regal or MajestiK color output characteristics, either calibrated or uncalibrated.

4. If needed, you can change the profiles used for the three standard Splash CMYK profiles.

Standard Profiles:



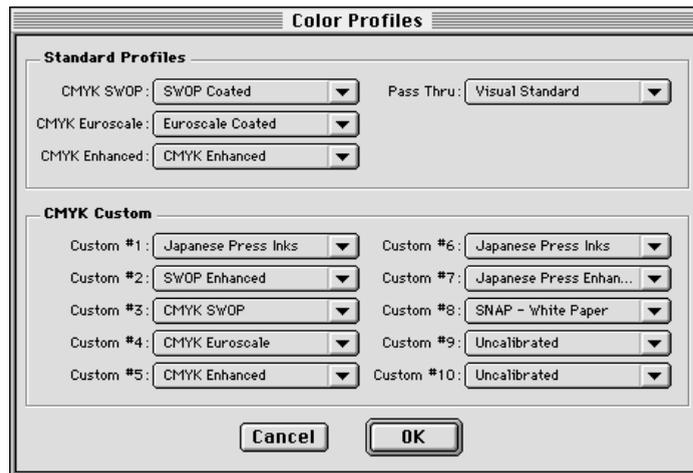
For example, if you find that you prefer a v4.0-style CMYK SWOP profile or a user-developed calibrated CMYK SWOP profile to the standard v5.0/6.0 SWOP profile, you can change it in Active Profiles.

**Note:** If you decide to change the standard SWOP profile, ColorCal limits you to selecting another SWOP-type profile to avoid confusion at the printer driver.

5. When you have finished selecting profiles, click OK.

Splash ColorCal enables your profile selections for client printing.

You can set the Splash CMYK profiles from the Splash Server application as well. Choose **Color Profiles** from the Server menu to set profiles for Splash color correction.



### **CMYK Custom Profiles**

These profiles cause the colors for the printed job to match CMYK inks. Profiles with a colored cube on the left in the menus are the Splash v5.0/6.0 multi-dimensional color correction profiles. Profiles with no symbol are Splash v4.0 one-dimensional profiles.

- **Japanese Press Inks** is a calibrated profile that simulates Toyo inks.
- **SWOP Enhanced** is a calibrated, higher dot gain (darker) version of CMYK SWOP. This profile prints vivid colors on your output, but remains similar to press inks in the mid-tones. Flesh tones may appear darker than normal. This profile is not intended for printing press proofs.

- **Japanese Press Enhanced** is a calibrated, higher dot gain (darker) version of Japanese Press Inks. This profile prints vivid colors on your output, but remains similar to press inks in the mid-tones. Flesh tones may appear darker than normal. This profile is not intended for printing press proofs.
- **CMYK SWOP** simulates SWOP press inks.
- **CMYK Euroscale** simulates Euroscale press inks.
- **CMYK Enhanced** makes colors slightly more vivid in the output. (*Note:* This profile is not recommended for printing press proofs.)
- **SNAP - White Paper** simulates newspaper inks. This profile is for printing to white paper.
- **SNAP - Recycled Paper** also simulates newspaper inks, but is for printing to recycled paper stocks.
- **Uncalib. CMYK Process Inks** is an uncalibrated older “fixed” CMYK profile that does not update when you calibrate with ColorCal. This option is provided for customers who prefer the older profile. (*Note:* Uncalibrated profiles are not recommended for printing jobs with RGB color to Splash.)
- **Uncalib. DIC** is an uncalibrated “fixed” profile certified by DIC of Japan to provide the closest possible match to Japanese DIC press inks. This profile does not update when you calibrate with ColorCal. (*Note:* Uncalibrated profiles are not recommended for printing jobs with RGB color to Splash.)

### ***Pass Through Profiles***

Includes a “Visual Standard” profile for RGB printing, profiles that return the MajestiK, Regal, or Acolor printer/copier to standard color output, and an option for uncalibrated printing. When you use a color management system (from Kodak, Agfa, Apple, EFI and others) for printing, make the appropriate “Standard” profile (MajestiK or Regal) the active Pass Through profile in the Active Profiles dialog box, and disable Splash color correction in the Splash Color Options dialog box at the Client workstation.

- Visual Standard provides the widest gamut and smoothest color transitions when you print RGB colors. This is the default setting for the Pass Through option, and is the best selection for RGB printing to Splash. (*Note:* For best results when you print jobs that contain RGB data only, be sure to turn Splash CMYK color correction off in the Splash Color Options dialog box.)
- **MajestiK Standard** reconfigures a MajestiK or Acolor 630/635 to match the color printing output of a “benchmark” MajestiK printer in the Xerox laboratories in Webster, NY. This setting, used in combination with Splash color correction disabled, should be used when MajestiK is selected with the

PANTONE ColorDrive software or the included PANTONE Toolkit and MajestiK parameters are used to produce the most accurate PANTONE colors with the MajestiK, Regal, or Acolor 630/635/930/935 printer/copiers.

This setting can also be used with the Regal or Acolor 930/935 to more closely match the output characteristics of the MajestiK or Acolor 630/635. This can be useful when printing files originally designed to be printed on a MajestiK or Acolor 630/635 with Splash color correction disabled. This can be useful also when using other commercially available color management systems that provide MajestiK or Acolor 630/635 profile settings. Splash color correction should be disabled when printing using other color management systems. When a Regal or Acolor 930/935 is used with the MajestiK Standard setting, a loss of detail in the shadows may occur with some images.

- **Regal Standard** reconfigures a Regal or Acolor 930/935 printer/copier to match the color printing output of a “benchmark” Regal printer in the Xerox laboratories in Webster, NY. This setting, used in combination with Splash color correction disabled, should be used when Regal is selected with the PANTONE ColorDrive software with the MajestiK, Regal, or Acolor 630/635/930/935 printer/copiers.

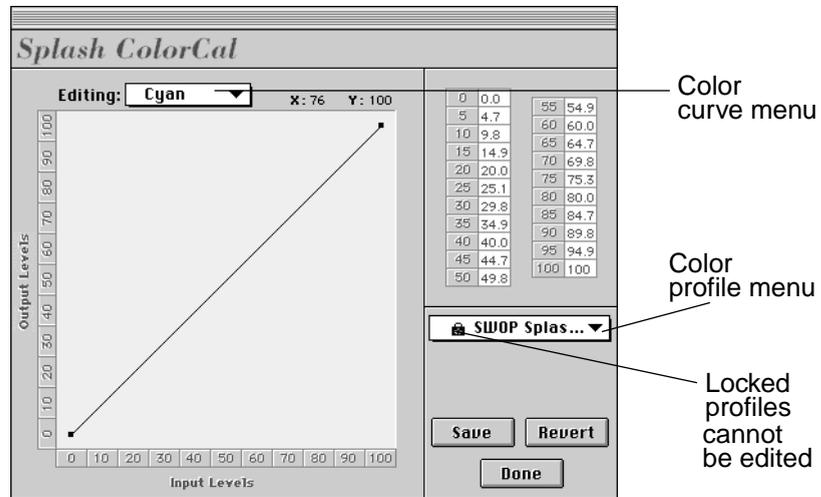
This setting can also be used with the MajestiK or Acolor 630/635 to more closely match the output characteristics of the Regal or Acolor 930/935. This can be useful when printing files originally designed to be printed on a Regal or Acolor 930/935 with Splash color correction disabled. This can be useful also when using other commercially available color management systems that provide MajestiK or Acolor 930/935 profile settings. Splash color correction should be disabled when printing using other color management systems.

- **Uncalibrated** sets the printer for uncalibrated color printing. This setting causes the printer/copier to produce raw, uncalibrated output that reflects the current state of the printer/copier.

## Creating a Custom Color Profile

Splash ColorCal provides expert-level tools for creating custom CMYK user-defined profiles or modifying the calibrated CMYK profiles provided with ColorCal. You can edit only the calibrated CMYK profiles. To create a new profile, save an existing profile under a new name then modify the new profile. To use the profile editor:

1. Click “Be an Expert” in the Splash ColorCal window. The Splash ColorCal edit window appears.



2. Select a color profile to edit from the popup menu on the right.

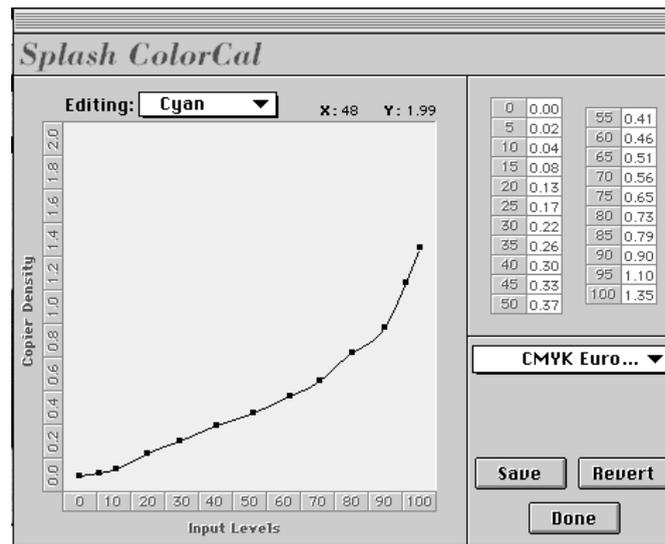
**Note:** You cannot edit the factory installed profiles. If you select one of these profiles, ColorCal forces you to save the new profile with a new name.

3. Select a color curve to edit from the pop-up menu in the upper-left corner.
4. To edit, drag the curve points with the mouse pointer. Output Percentage (0% to 100%) and Input Percentage (0% to 100%) update instantly on the right as you drag a curve point.
  - To add a curve point, click anywhere along the curve. ColorCal allows a maximum of 32 control points for an individual color curve.
  - To remove a curve point, drag it over another point on the color curve.
  - To undo all changes to the curve, click Revert.

**Note:** The color curves you create with the Expert edit controls are similar to those used in Adobe Photoshop, but cannot be directly exchanged with curves created in Adobe Photoshop.

5. When you have finished editing all color curves (C, M, Y, and K) for the profile, click Save.
6. Enter a profile name if you want to save your changes as a new profile.
7. Click Save.
8. If you are finished editing profiles, click Done.

**Note:** If you edit a v4.0-style profile, the color curve editor plots density (from 0.0 to 2.0) against input percentage (0% to 100%).



**(Technical note:** The vertical axis is in units of Status-T less the paper density. The Horizontal axis is represented as dot percentage from 0% to 100%.)

If you saved your changes as a new profile, the new profile name appears in the list of color profiles when you choose Set Active Profile in the Splash menu. Note that the new profile is automatically calibrated to the last time calibration was run as it is created.

## ***Expert-Level Editing with ColorCal***

This section describes a procedure you can use to tailor color output to your environment with the ColorCal Expert-level tools.

1. If desired, use a reliable densitometer that can read Status-T density to measure the 20 patches on the Gray Scale target.
2. Edit the file “Test Strip Adjust (In)” located in the Color Data folder in the ColorCal folder. Enter new visual density values based on your measurements, and save the edited file.

The visual density values are the first numbers in each line that begins: “Kodak.” The density is rounded to the nearest .001 units and is approximately 0.05 for the first patch to 1.95 for the last patch, in increments of 0.10 units. Actual measured values are typically less for the densest patches.

3. Start the ColorCal application, and select the CMYK profile you plan to modify in the Active Profiles dialog box (see page 46).
4. Calibrate the printer with ColorCal as described on page 34.
5. When calibration is complete, quit the ColorCal application and print any CMYK color file to compare with a film proof or printed material that you want to match.

Before you print, be sure to choose the correct CMYK profile in the Color Options dialog box (see page 44).

6. Start the ColorCal application, and click “Be an Expert” to open the color curve editor.
7. Edit the color curves as described on page 51.
8. If you saved the edited profile with a new name, select the new profile in the ColorCal Active Profiles dialog box.
9. Quit the ColorCal application and print the CMYK file again.

Repeat Steps 6 to 9 until you are satisfied with the color output.

You also can use the gray scale patches on a ColorCal Verification target as a reference for adjusting curves. To do this, print a verification target in the ColorCal application (see page 42). The first row of gray patches near the right side of the page is composed of CMY colors mixed together. The second row of gray patches

consists of equivalent black (K) patches. These two rows should look similar for good gray balance when you use a SWOP Coated profile. To change the data values used to create these patches, edit the “Gray Patches (In)” file.

To simulate different paper stocks, change the “paper white” by moving up the Cyan, Magenta, and Yellow curves at 0%. A typical film proof may appear slightly yellow, so moving up 0% Yellow to 0.02 density will add yellow everywhere that can be printed on the page. There will still be a white border where there is no toner on the printed page. Trim this border from your proofs to prevent the appearance that yellow is too strong.

## ***Splash ColorCal Notes***

### ***Failure to Accurately Calibrate***

If, during the verify process immediately after calibrating, the measured curve does not closely correspond to the target curve, it may be that your printer/copier needs servicing. Splash ColorCal cannot operate properly if the printer/copier is printing unevenly or if the scanner is too far out of specification. To verify that this is the case, set the active Pass Through profile to Uncalibrated in ColorCal, then print out the full area on an A4 or 8.5”x11” page with 40% C, 40% M, and 40% Y color mix, with Splash Color Correction disabled in the Splash print driver. Examine the printed page to see if the output is an even gray with little variation. If there is significant variation, this indicates that the printer/copier needs to be serviced. If the printer/copier needs servicing, contact Xerox Service.

### ***First Calibration of the Day on Acolor 630 Series May Need to be Rescanned***

On Acolor 630 series printer/copiers, the first time you calibrate on any day, ColorCal may display the error message “Can’t find registration marks” when the calibration target is scanned. If this occurs, choose Run Calibration in the ColorCal application again (hold down the option key to avoid reprinting the calibration target), and rescan the calibration target. This problem only occurs for the first calibration of the day when the printer/copier has been left on overnight.

## ***Managing the Profiles Folders***

Splash color profiles are located in the “Splash Color Data” folder in the Preferences Folder within the System Folder. This folder contains three profiles folders:

- **Obsolete Profiles** contains older versions of the Splash v4.0 color profiles. (If you did not upgrade from Splash v4.0 to v5.0 or 6.0, this folder is empty.) These profiles can be used with a Splash v4.0 server if needed. They are not used for Splash v5.0/6.0 color correction.
- **Old Style Profiles** contains Splash v4.0 one-dimensional color profiles that were updated for use with Splash v5.0/6.0. If you created any custom color profiles with Splash v4.0 and then upgraded to Splash v5.0 or 6.0, your custom profiles are updated by Splash for use with v5.0/6.0 and then placed in this folder.
- **Calibration Sources** contains the Splash v5./6.0 multi-dimensional color profiles.

To delete a color profile, be sure it is not selected in the Set Active Profiles dialog box (see page 46), then remove the file from the Old Style Profiles folder or Calibration Sources folder.



## ***Setting Up Network Printing to Splash***

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The Splash PCI Series Server makes it easy for clients on a TCP/IP or Novell NetWare network to print to the Xerox or Fuji Xerox copier. No AppleTalk bridge software is needed.

For IPX printing from Novell NetWare, Splash creates a native Novell IPX connection from the Splash Server to the Novell server. NetWare Direct delivers print jobs from a print queue on the Novell NetWare server to the Splash Server for processing. Once NetWare Direct is set up and activated, it operates automatically on the Splash Server each time a Novell client prints to the designated queue on the Novell server. Splash NetWare Direct is simple to set up and supports all Novell Ethernet frame types.

When TCP/IP Direct is enabled at the Splash Server, the server becomes a network printer. Splash accepts LPR/LPD print jobs and jobs from TCP/IP print queues set up on Windows NT or Novell NetWare servers. In addition, clients on a TCP/IP network can send TIFF, EPS, PDF and PostScript files to the Splash Server for printing.

All software needed for both TCP/IP and IPX printing is automatically installed when you install the Splash Server software (pre-installed on Splash PCI Servers). The Enterprise Networking software includes one control panel and four system extension files, which are automatically installed in the Mac OS System Folder during Splash installation.

## ***Setting Up TCP/IP Direct Printing to Splash***

This section describes how to set up the Splash Server to receive print jobs from clients on a TCP/IP network. To do this you need to connect the Splash Server to the TCP/IP network using the appropriate network cable, and set up the TCP/IP control panel. You can then enable TCP/IP print services in the Splash Server application preferences.

**Note:** TCP/IP, IPX, and AppleTalk networking can all run simultaneously on the same cable, or on different cables. For example, you can run at the same time AppleTalk networking on Ethernet and IPX networking on TokenRing.

## ***Configuring the TCP/IP Control Panel***

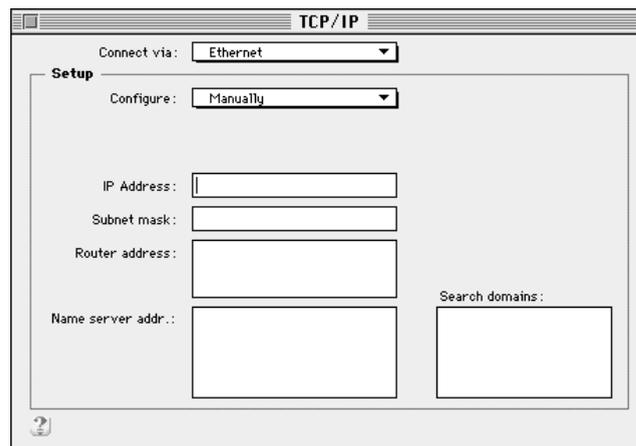
Use the TCP/IP control panel to set up an Internet address for the Splash Server. You will need to assign the Splash Server a static Internet address so clients can reliably locate the Splash Server on the network. (A static IP address is required if you set up the server to use the Splash Web Queue Manager option.)

Before you begin, you need to have all address information available. Obtain a static Internet address (and subnet mask number if needed) from your network administrator.

To set up an Internet address for the Splash Server:

1. At the Splash Server, point to Control Panels in the Apple menu, then select TCP/IP in the submenu.

The TCP/IP control panel appears.



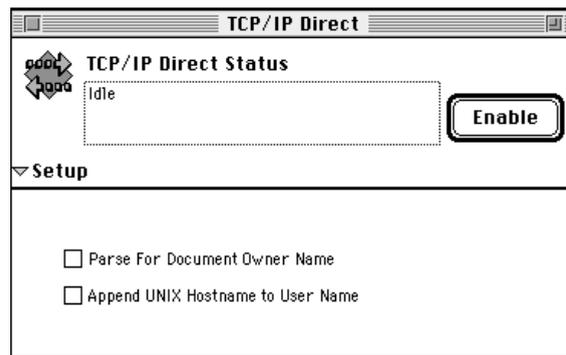
2. Choose the network connection type for the Splash Server's TCP/IP network in the **Connect via** menu.
3. Select "Manually" in the **Configure** menu.
4. Enter the **IP Address** for the Splash Server.
5. Enter a **Subnet mask** number if needed. A subnet mask provides additional address information for some networks.

6. Enter the **Router address** if needed. A network router maintains a list of IP addresses for two or more groups of network devices. The router then uses the list of addresses to direct network data to the appropriate location on the network. To enter two or more router addresses, press the Return key after you enter each address.
7. Enter a **Name server address** for the DNS server on your network (for example, design.corp.com).
8. When you have finished entering network information, close the TCP/IP control panel. A dialog box asks you to confirm the new setup. Click OK. You are ready to enable TCP/IP printing for the Splash Server.

### ***Enabling TCP/IP Printing at the Splash Server***

After you set up the TCP/IP control panel, you can enable TCP/IP direct printing in the Splash Server application. To do this:

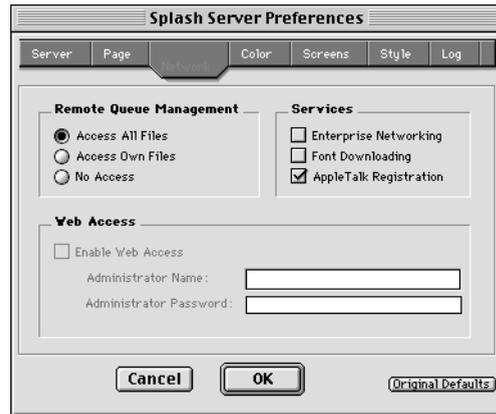
1. Start the Splash Server application.
2. Choose **Enterprise Networking** from the Server menu. The TCP/IP Direct window appears.



**Note:** The NetWare Direct window appears also when you choose Enterprise Networking. For information about how to use the NetWare Direct window to set up Splash for IPX printing, see page 73.

3. Click **Enable**.
4. Click on the Splash Server window to bring the Splash Server application to the foreground.
5. Choose **Preferences** from the Server menu. The Splash Server Preferences appear.

6. Click Network at the top of the window to see Splash Network preferences.



7. Select the Enterprise Networking checkbox, then click OK.

Splash is ready to receive network print jobs from TCP/IP clients.

### **Setting TCP/IP Direct Options**

You can select the following options in the TCP/IP Direct window:

- **Parse For Document Owner Name**  
When selected, the Document Owner name is extracted from each print job as it is received at the Splash Server. When this option is not selected, Enterprise Networking determines the user name from the network connection.
- **Append UNIX Hostname to User Name**  
When selected, the network host name is added to the print job's owner name that appears in the print queue and job log at the Splash Server. For example, when the user "Diane" prints from the UNIX host "Santana" the print job's owner name is "Diane@Santana." When this option is not selected, the print job's owner name is "Diane." For most situations, do not select this option.

**Note:** This option is useful for UNIX environments where all users share the same username, such as "root."

## **Restricting TCP/IP Printing to Specific Machines**

The Splash Server can be set up to accept TCP/IP print jobs from only the machines you specify in the “Hosts.LPD” file. This file is located in the Extras folder within the Splash Folder on the Splash Server. You can edit the Hosts.LPD file with any text editor (such as SimpleText) to enable TCP/IP printing from only specific host names, IP addresses, or ranges of IP addresses. This allows print access control at the individual, group, and subnet levels. Specific examples of how to set up host names are provided in the Hosts.LPD file on the Splash Server.

## **Setting Up a Novell Server Print Queue**

This section describes how to set up a Splash TCP/IP print queue on a Novell NetWare server. The PCONSOLE Quick Setup option creates a print queue object, a printer object, and a print server if one does not exist.

To set up a Novell NetWare print queue:

1. From a workstation, log in to the server as a user with sufficient privileges to create a print queue (Admin or Supervisor).
2. From the client workstation, run PCONSOLE.EXE in SYS:PUBLIC (D:\PUBLIC).  
*Note:* The root directory name or drive may be different for your machine.
3. Select “Quick Setup”. PCONSOLE prompts you for information about the print queue.
4. Enter a Print Server name if prompted for one.
5. Enter Print Queue and Printer names.
6. Specify the print Queue volume.
7. Choose the banner type (“No banner” is the recommended setting).
8. Be sure to set the Printer Type field to “UNIX printer.” This causes the host name and printer name fields to appear.
9. Enter the Host Name for the Splash Server (set up with the TCP/IP control panel at the Splash Server) or the static IP address for the server.
10. Enter the Printer Name “SplashLPD” when prompted.
11. Press Enter to complete setup. PCONSOLE prompts you to save the new print queue settings. Choose Yes.

Novell NetWare print queue setup for the Splash Server is complete.

## **Setting Up a Windows NT Server Print Queue for Splash**

This section describes how to set up a TCP/IP print queue for Splash on a computer running Microsoft Windows NT (4.0 or later). You can set up the Splash print queue on either a Windows NT Server or a Windows NT Workstation system.

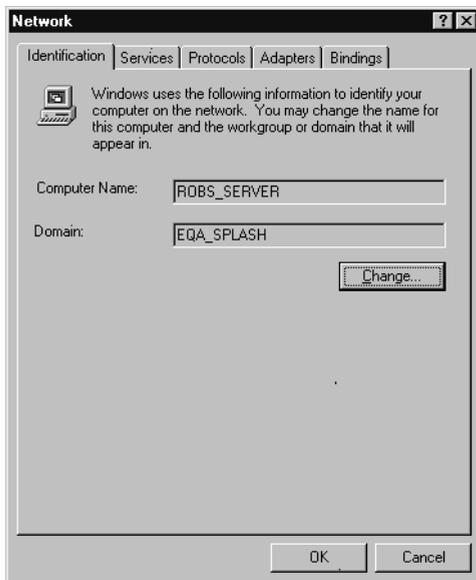
After the Splash TCP/IP print queue setup is complete, it becomes easy for other Windows NT and Windows 95 clients on the network to use the print queue to send jobs to Splash.

**Note:** You must set up and enable TCP/IP Direct at the Splash Server before you can set up an LPR print queue for Splash on Windows NT. Windows NT will report an error during print queue setup if the Splash Server is not identified as an LPD server on the network.

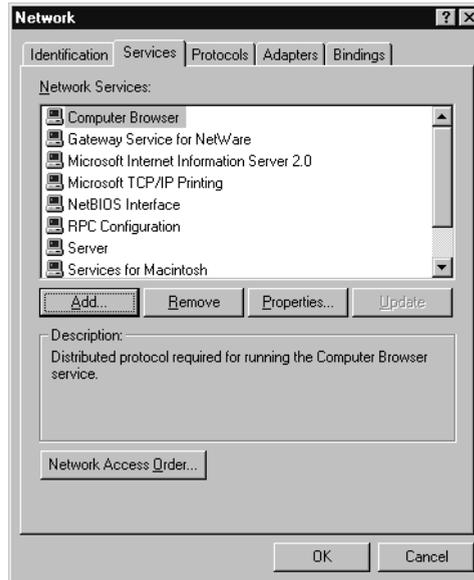
### **Enabling the Microsoft TCP/IP Print Service**

Before you can connect to the Splash Server for printing over TCP/IP, you must first enable TCP/IP print services in the Network control panel. To do this:

1. Click the Start button, point to Settings, then choose Control Panel.
2. Double-click the Network control panel to open it.



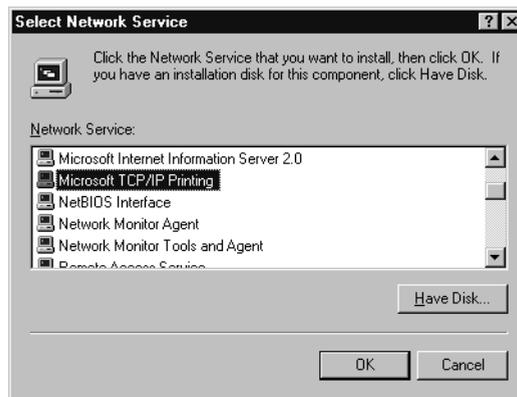
3. Click the Services tab.



If “Microsoft TCP/IP Printing” appears in the Network Services list, this service is already enabled. Close the Network control panel, then go on to “Setting Up the Splash Server TCP/IP Print Queue” on page 65.

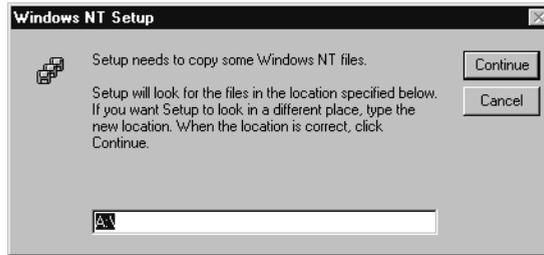
If this service does not appear, you must add it to the list of network services.

4. Click Add. A list of the network services you can add appears.



5. Select “Microsoft TCP/IP Printing” in the Network Service list, then click OK.

Windows NT displays a message. Windows NT must copy files needed to set up TCP/IP printing from the Windows NT system CD-ROM.



6. Enter the drive letter for your CD-ROM drive, place the Windows NT system CD-ROM in the drive, then click Continue.
7. When setup is complete, close the Network control panel.
8. Restart Windows NT to enable the new network service.

Setup for TCP/IP printing from Windows NT is complete.

### ***Setting Up the Splash Server TCP/IP Print Queue***

Follow these steps to connect to the Splash Server and create a print queue that sends jobs to Splash over the TCP/IP network. You need the following items to complete this procedure:

- TCP/IP address for the Splash Server
- *Splash CD* (provided with the Splash Server)

To set up the Splash TCP/IP print queue:

1. Click the Start button, point to Settings, then choose Printers. The Printers control panel appears.

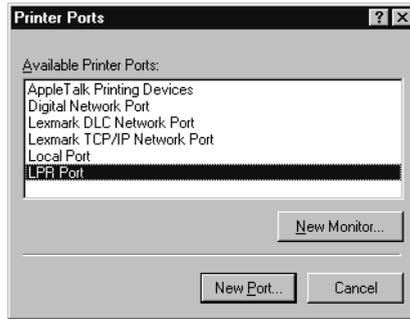
2. Click Add Printer. The Windows NT Add Printer Wizard appears.



3. Select “My Computer” then click Next. A list of printer ports appears. You must add an LPR port to support TCP/IP printing.

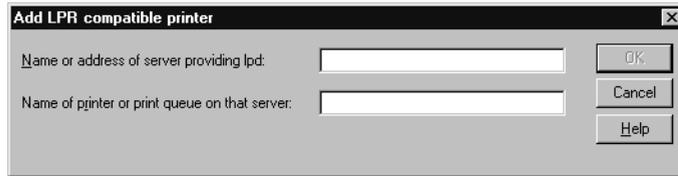


- Click Add Port. A list of printer port types appears.



- Select "LPR Port" then click New Port.

The Add Printer Wizard asks you to provide the TCP/IP address for the Splash Server.

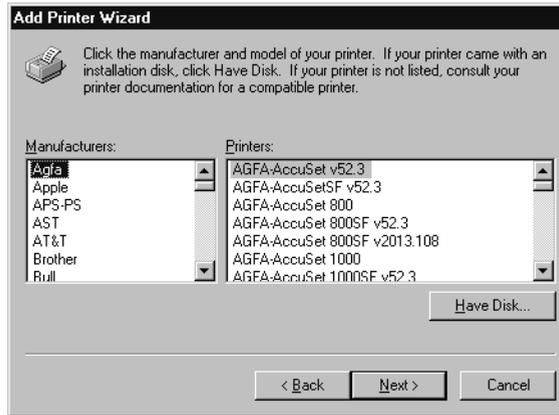


- Enter the address for the Splash Server, and if desired, enter a name for the server. (The name you enter here appears in the list of ports in the Add Printer Wizard.) Click OK to continue.

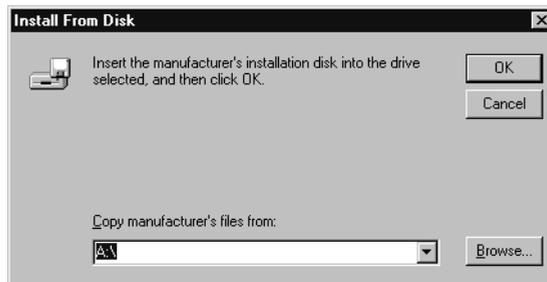
The Splash Server TCP/IP address appears as a new port in the list.



7. Be sure the Splash TCP/IP port is selected, then click Next.



8. Click Have Disk.



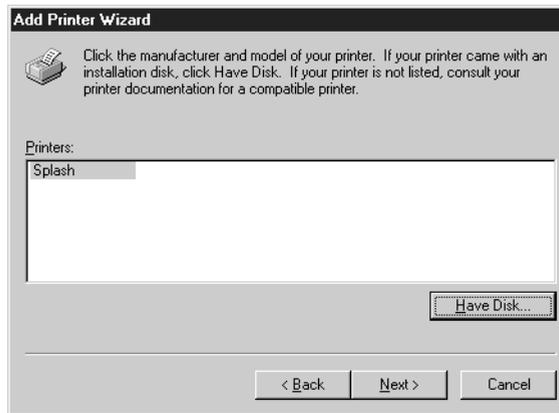
9. Insert the *Splash* CD in the computer, then click Browse.



10. Select the file “Splash” then click Open.



11. Click OK. Windows NT asks you to select the model of your Splash printer.



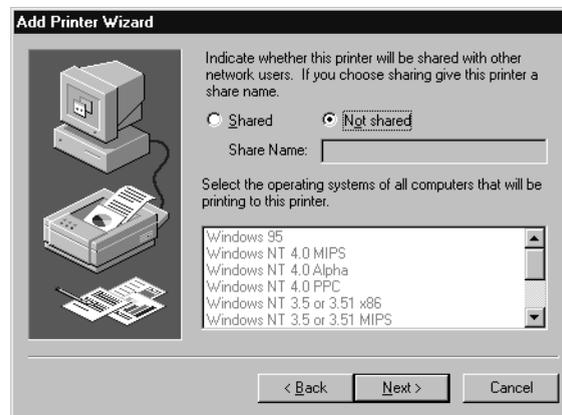
12. Select the model of your Xerox or Fuji Xerox printer/copier from the Printers list, then click Next.

Windows NT displays more options for setting up the print queue.



- If you want to change the name for the Splash printer/copier, type a new name in the text box. (The name you enter becomes the name of the printer as it appears in your applications and in the Printer control panel.)
- If you want the Splash printer/copier to be the default printer for your computer, choose Yes. Otherwise, choose No.

13. Click Next to continue.



14. Choose Shared to allow other Windows NT and Windows 95 clients to connect to this print queue for printing to Splash. If you do not choose Shared, only this computer will be able to use the LPR port to print to Splash.

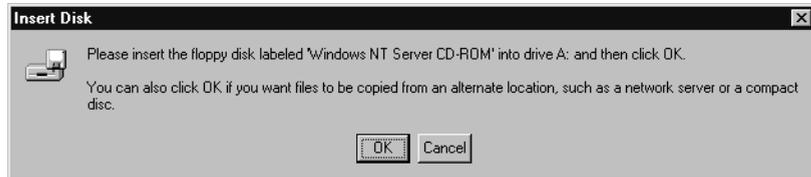
If you choose Shared, select the operating systems for all computers that will use the print queue from the list.

**15. Click Next.**

Windows NT asks you to insert system software disks for the operating systems you selected in the previous step. Insert the floppy disks or CD-ROMs and click OK as directed by the Add Printer Wizard. When all files are copied, the Add Printer Wizard asks if you want to print a test page.



**16. Select Yes to print a test page then click Finish.**

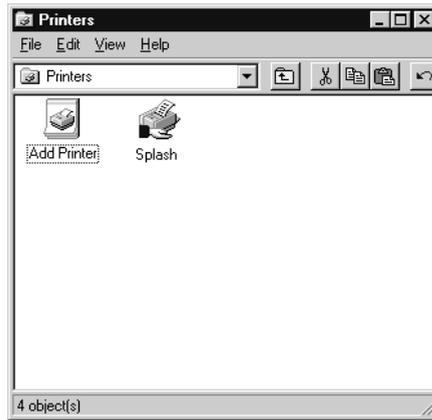


**17. Click OK, insert the Windows NT system software CD-ROM in your computer's CD-ROM drive then click OK.**

Windows NT copies the files needed to set up the print queue. A test page prints at the printer/copier to confirm that setup was successful.



18. Click Yes. The Splash TCP/IP print queue appears as a shared printer in the Printers control panel.



Set up for the Splash TCP/IP print queue is complete. For instructions on how to use the print queue from a Windows 95 or Windows NT client on the network, see the on-line manuals *Printing to Splash From Windows NT* or *Printing to Splash From Windows 95*, provided with the Splash Server.

## ***Setting Up NetWare Direct Printing to Splash***

This section describes how to set up the Splash Server to receive print jobs from clients on an IPX network.

### ***Setting Up the Novell Server for Printing to Splash***

To set up the Novell Server for NetWare Direct use PCONSOLE from a client connected to the Novell Server to create a print server and a print queue for Splash. Instructions are provided for running PCONSOLE from a NetWare 3.1.x Server, a NetWare 4.0.x Server, and a NetWare 4.1.x Server.

#### ***Creating a Print Server and Print Queue for a NetWare 3.1.x Server***

To create a print server and print queue for the NetWare Direct connection:

1. From a workstation, log in to the server as a user with sufficient privileges to create a print queue (Admin or Supervisor).
2. From the client workstation, run PCONSOLE.EXE in SYS:PUBLIC (D:\PUBLIC).

*Note:* The root directory name or drive may be different for your machine.

3. Select “Print Server Information” and press Enter to show the list of print servers.
4. Press Insert and type a name for the Splash print server (recommended name: “SPLASH”).
5. Press Enter to create the print server, then press Escape to close the Print Servers window.
6. Select “Print Queue Information” and press Enter to show the list of print queues.
7. Press Insert and type a name for the Splash print queue (recommended name: “SPLASH\_Q”).
8. Press Enter to create the print queue.
9. Make sure the new SPLASH\_Q print queue is highlighted, then press Enter again.
10. Select “Queue Servers” and press Enter to show the list of Queue Servers (it should be empty).

11. Press Insert to display a list of available print servers in the “Queue Server Candidates” window.
12. Select the print server (“SPLASH”) that you created in Step 4. Press Enter to copy it to the print queue.
13. Press Escape four times to close the windows, then press Enter (Yes) to exit PCONSOLE.

### ***Creating a Print Server and Print Queue for a NetWare 4.0.x Server***

To create a print server and print queue for the NetWare Direct connection:

1. From a workstation, log in to the server as a user with sufficient privileges to create a print queue (Admin or Supervisor).
2. From the client workstation, run PCONSOLE.EXE in SYS:PUBLIC (D:\PUBLIC).

*Note:* The root directory name or drive may be different for your machine.

3. Select “Print Server” and press Enter to show the list of print servers.
4. Press Insert and type a name for the Splash print server (recommended name: “SPLASH”).
5. Press Enter to create the print server, then press Escape to close the Print Servers window.
6. Select “Print Queue” and press Enter to show the list of print queues.
7. Press Insert and type a name for the Splash print queue (recommended name: “SPLASH\_Q”).
8. Press Enter to create the print queue.
9. Make sure the new SPLASH\_Q print queue is highlighted, then press Enter again.
10. Select “Print Servers” and press Enter to show the list of Print Servers (it should be empty).
11. Press Insert to display a list of available print servers in the “Print Queue Server Candidates” window.
12. Select the print server (“SPLASH”) that you created in Step 4. Press Enter to copy it to the Print Server window.

13. Press Escape four times to close the windows, then press Enter (Yes) to exit PCONSOLE.

You are ready to set up NetWare Direct on the Splash Server. For more information about PCONSOLE see your Novell NetWare manuals.

### ***Creating a Print Server and Print Queue for a NetWare 4.1.x Server***

To create a print server and print queue for the NetWare Direct connection:

1. From a workstation, log in to the server as a user with sufficient privileges to create a print queue (Admin or Supervisor).
2. From the client workstation, run PCONSOLE.EXE in SYS:PUBLIC (D:\PUBLIC).

*Note:* The root directory name or drive may be different for your machine.

3. Select "Print Server" and press Enter to show the list of print servers.
4. Press Insert and type a name for the Splash print server (recommended name: "SPLASH").
5. Press Enter to create the print server, then press Escape to close the Print Servers window.
6. Select "Print Queue" and press Enter to show the list of print queues.
7. Press Insert and type a name for the Splash print queue (recommended name: "SPLASH\_Q").
8. Press Enter. The "Print Queue's Volume" window appears. If you know the name of the volume needed for storing the print queue, enter it in the window.

If you do not know the volume name, press Insert, then select the "Organizational Unit" for your server. The mounted volume names appear. The volume names should correspond with the server name (for example, TESTLAB\_40.SYS). Select the volume for your server, then press Enter to create the print queue.

9. Make sure the new SPLASH\_Q print queue is highlighted, then press Enter again.
10. Select "Print Servers" and press Enter to show the list of Print Servers (it should be empty).

11. Press Insert to display a list of available print servers in the “Print Queue Server Candidates” window.
12. Select the print server (“SPLASH”) that you created in Step 4. Press Enter to copy it to the Print Server window.
13. Press Escape four times to close the windows, then press Enter (Yes) to exit PCONSOLE.

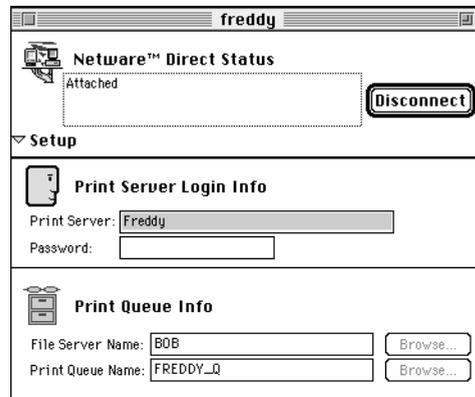
You are ready to set up NetWare Direct on the Splash Server. For more information about PCONSOLE see your Novell NetWare manuals.

### ***Setting Up NetWare Direct on the Splash Server***

The Enterprise Networking application connects NetWare Direct to the Novell NetWare server for delivering print jobs to Splash.

To set up NetWare Direct:

1. Start the Splash Server on the server computer.
2. Choose Enterprise Networking from the Server menu.
3. In the Print Server text box, type the name of the Novell print server you created for Splash. (“SPLASH” was the print server name recommended in the setup instructions.)



4. Type the password for the print server (if one was assigned).
5. Under Print Queue Info, click the Browse button next to the File Server Name text box and select the name of the Novell NetWare file server where you created the Splash print queue.

6. Click Browse next to the Print Queue Name text box and select the Splash print queue. (“SPLASH\_Q” was the print queue name recommended in the setup instructions.)
7. Choose Save from the File menu to save the NetWare Direct connection document. The document is saved to the NetWare Direct folder inside the Splash Extras folder on the Splash Server.

*IMPORTANT: Give the document a name that describes the Novell print queue (for example: “SPLASH\_Q on MARKETING server”).*

8. Click Connect.
9. Close the NetWare Direct setup window.

Setup for NetWare Direct is complete.

### **Activating NetWare Direct at Startup**

You activate NetWare Direct from the Splash Server application. In the Server menu choose Preferences, click the Network button, then select the “Enable Enterprise Networking” checkbox. This opens and connects NetWare Direct when the Splash Server application starts, and disconnects and closes NetWare Direct when the Server application is closed. NetWare Direct runs in the background while the Server application is running. When a PC client workstation sends a print job to the Splash print queue on the Novell file server, NetWare Direct automatically opens and delivers the print job to the Splash Server.

**Note:** The NetWare Direct setup window does not need to be open for NetWare Direct to run.

To deactivate NetWare Direct, uncheck the Enable Enterprise Networking checkbox in the Server Network Preferences.

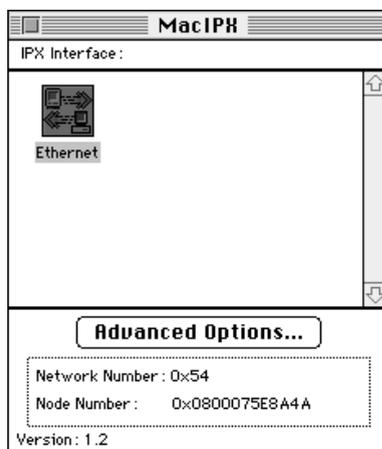
**Note:** If NetWare Direct is not set up and opened, jobs sent to the designated Splash print queue on the Novell server are held at the Novell server. To have these jobs processed by the Splash Server, NetWare Direct must be opened.

## NetWare Direct Notes

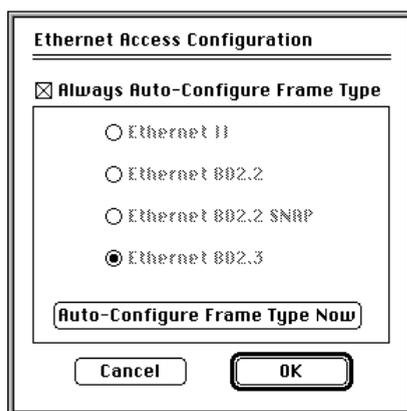
### ***If the Novell File Server Does Not Appear During NetWare Direct Setup***

If, during NetWare Direct setup, a list of Novell file servers does not appear when you click the Browse button under Print Queue Info, you may need to specify the Novell server's Ethernet frame type in the Mac IPX control panel. To do this:

1. On the Splash Server computer, open the Apple menu, point to the Control Panels submenu, then choose the Mac IPX control panel. The Mac IPX control panel appears.



2. Double-click the Ethernet icon under IPX Interface. The Ethernet Access Configuration dialog box appears.



3. Deselect "Always Auto-Configure Frame Type."

4. Select the option that matches the Novell file server Ethernet frame type.
5. Click OK.

### ***Novell Network Number and Node Number Locations***

If you need to find the Novell network or node numbers for the Splash Server, they appear in the Mac IPX control panel on the Splash Server computer.

### ***AppleTalk Network Protocol Changes***

If the network protocol for the Splash Server is changed from Ethernet to Modem Port or Printer Port (LocalTalk), this does not interfere with the ability of Splash NetWare Direct to print jobs to Splash from Novell NetWare print queues. Novell Server print jobs resume downloading to the Splash Server after the Server is restarted.

### ***Print Queue Connections***

Enterprise Networking is configured to support up to three Novell NetWare print queue connections and four TCP/IP connections to Splash. You must install additional memory on the Splash Server computer to support additional IPX and TCP/IP print queues (about 100K per additional print queue).

### ***Job Status Notes***

Print jobs received at the Splash Server via IPX do not display an “R” in the Splash Server window.

## ***Setting up NetWare Directory Service***

Enterprise Networking provides native support for NetWare 4.1 and IntranetWare NetWare Directory Services (NDS). This section describes how to create print queues on NDS and how to set up the Splash Server for receiving print jobs from NDS print queues.

Novell 4.x and IntranetWare servers include NetWare Directory Service (NDS) support. NDS is a naming scheme and database that allows a company to put all of its servers and services into one large, hierarchical database.

With NDS and the Splash software you can create a single print server object and assign virtual printers to that print server. Virtual printers can have one or more print queues associated with them. To change the printers or queues, change the Print Server assignment in the NDS database. Splash Enterprise Networking reads the NDS database for the print server information and services the specified queues. This allows you to control print queues associated with the Splash Server without making adjustments at the Splash Server.

### ***Setting Up an NDS Print Queue***

To create an NDS print queue:

1. From Microsoft Windows, run NWAdmin.
2. Navigate through the directory tree to find the container where you want to create printing objects.
3. Highlight that container and select “Print Services Quick Setup” from the Tools menu.
4. In the Print Services Quick Setup dialog box, enter a new print server name or browse the directory tree to select an existing print server. This name, with its full path (Fully Distinguished) is the name that you will use in the Novell NDS setup window in Enterprise Networking.
5. Enter a name for the printer you want to create and the associated configuration information.
6. Enter a Print Queue name.
7. Click the Browse button to the right of the volume field to browse the tree for the volume where you want this print queue to be created.
8. When you finish, click Create to create the objects and have all of the necessary assignments made (Printer to print server, Queue to printer).

You are ready to set up NetWare NDS Direct at the Splash Server.

## Setting Up NetWare NDS Direct at the Splash Server

To set up NetWare NDS Direct:

1. Choose Enterprise Networking from the Server menu in the Splash Server application.

An untitled Novell document appears.

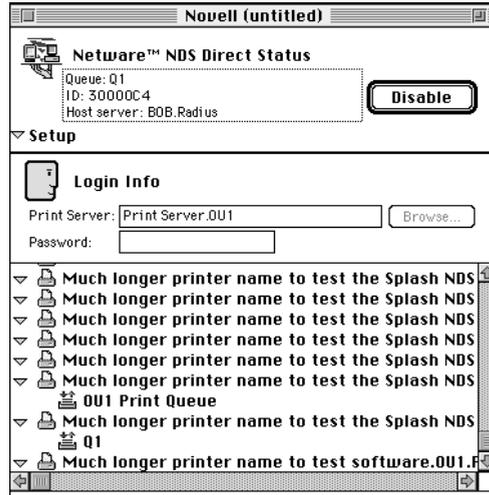


2. In the Print Server text box, type the Fully Distinguished name of the Novell print server you created for Splash. Type the password for the print server (if one was assigned).

If you click the Browse button next to the Print Server text box, Enterprise Networking displays a list of print servers.



3. Select a print server then click OK.
4. Click the Connect button to enable NetWare NDS Direct. A list of printers appears at the bottom of the Novell document window.



The status area at the top of the document window shows the current queue being checked.

The queues are checked in round-robin order and any waiting jobs are pulled from the queues.

Splash NetWare NDS Direct setup is complete.

## ***Setting Up the Splash Web Queue Manager***

### ***In this section:***

<b>Installing the Splash Web Queue Manager</b> .....	<b>84</b>
Upgrading the Splash Server.....	85
Installing the WebSTAR Software .....	86
Installing the Splash Web Queue Manager Software .....	87
<b>Setting Up the Web Queue Manager</b> .....	<b>88</b>
Configuring the TCP/IP Control Panel .....	88
Enabling Web Access at the Splash Server.....	90
<b>Controlling Remote Queue Management Privileges</b> .....	<b>91</b>

If you purchased the optional Splash Web Queue Manager, clients on a TCP/IP network can view and control print jobs at the Splash Server.

Clients can use the Splash Web Queue Manager to:

- Review the status of print jobs that were sent to the Splash Server
- Place a hold on print jobs to prevent printing
- Release a print job on hold to print
- Move print jobs up or down in the print queue
- Review and change print options for a job in the print queue
- Send graphics files (such as PDF, EPS, and TIFF files) and text-based PostScript files to the Splash Server for printing

The Splash Web Queue Manager upgrade kit comes with all software needed to enable the Splash Web Queue Manager option at the server. Client computers must have an established Intranet or Internet connection and Netscape Navigator (version 3.0 or later) or Microsoft Internet Explorer (version 3.0 or later) installed to use the Splash Web Queue Manager.

**Note:** Microsoft Internet Explorer version 3.0 and earlier do not support sending graphics or PostScript files to the Splash Server for printing.

This chapter explains how to install the Splash Web Queue Manager upgrade and how to set up the Splash Server to allow remote clients (including MacOS, Windows 3.1, Windows 95, Windows NT and UNIX-based systems) to connect to Splash. Refer to the appropriate *Printing to Splash...* on-line manual for instructions on how to use the Splash Web Queue Manager from a client computer.

## ***Installing the Splash Web Queue Manager***

The Splash Web Queue Manager upgrade kit is available separately as an option for the Splash PCI v6.0 Server. The kit includes:

- Splash Web Queue Manager Upgrade Key
- StarNine's WebSTAR server software

In addition to the above items, you will need the Splash PCI v6.0 software CD-ROM (provided with your Splash Server) to complete the Splash Web Queue Manager installation.

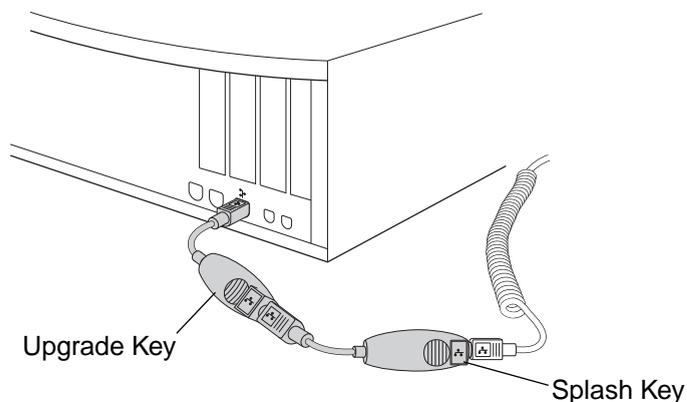
To install the Splash Web Queue Manager you will:

1. Upgrade the Splash Server Power Macintosh with the provided Upgrade Key.
2. Install the StarNine WebSTAR software.
3. Install the Splash Web Queue Manager software from the Splash PCI v6.0 software CD-ROM.

## Upgrading the Splash Server

To upgrade the Splash Server:

1. Quit the Splash Server application and shut down the Splash Server Power Macintosh.
2. Unplug the Splash Key from the ADB port on the back panel of the Splash Server Power Macintosh.
3. Connect the Splash Web Queue Manager Upgrade Key to the Splash Key and to the ADB port on the Splash Server.



The mouse, keyboard, and the original Splash Key for the Splash server system should all be connected in a chain to the ADB port on the back of the Splash Server.

*IMPORTANT: Do not remove the original Splash Key from the ADB chain. Before proceeding with the next step, make sure that both the original Splash Key and the Upgrade Key (and your keyboard and mouse) are all connected to the Splash server's ADB chain.*

4. Start up the Splash Server Power Macintosh.
5. If the Splash Server application opens automatically when you start up the Splash Server, choose Quit from the File menu.
6. Open the Splash Utilities folder, then open the Splash Configuration folder.
7. In the Splash Upgrade Utility folder, double-click the Splash Upgrade icon. The Upgrade utility activates the Web Queue Manager upgrade.

A message appears when the configuration has successfully completed.

8. Click OK, then choose Restart from the Special menu to restart the Splash Server.

The Splash Server upgrade is complete. You are ready to install the WebSTAR software and enable web services for the Splash Server.

After you complete the upgrade procedure, you can shut down the Splash Server Power Macintosh and remove the Upgrade Key from the ADB chain. (Do not remove the original Splash Key, and do not unplug devices from the ADB chain while the server computer is powered-up.)

*Note:* Once the upgrade is complete, the Upgrade Key becomes inoperative and cannot be used for additional Splash Server upgrades. If you prefer, you can leave the Upgrade Key in place.

### ***Installing the WebSTAR Software***

Follow the instructions provided with the StarNine WebSTAR package to install WebSTAR on the internal hard disk of the Splash Server Power Macintosh.

The WebSTAR installer creates a WebSTAR application folder. Splash will move this folder to another location on the Splash Server when you install the Splash Web Queue Manager software.

## ***Installing the Splash Web Queue Manager Software***

Locate the original Splash PCI v6.0 software CD-ROM provided with your Splash Server before you begin. To install the Splash Web Queue Manager:

1. Quit the Splash Server application if it is running.
2. Insert the Splash CD-ROM in the CD-ROM drive on your computer. Open the Splash Install folder. Double-click the Splash Installer icon.

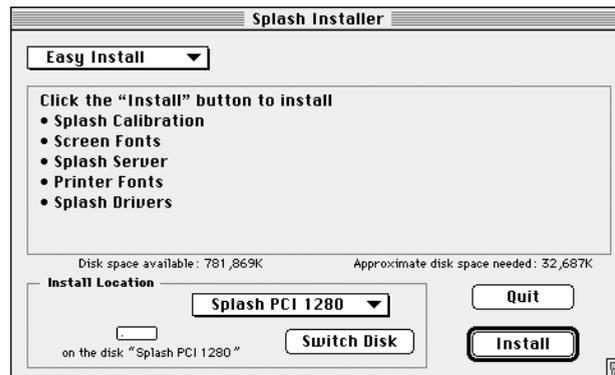


Splash Installer

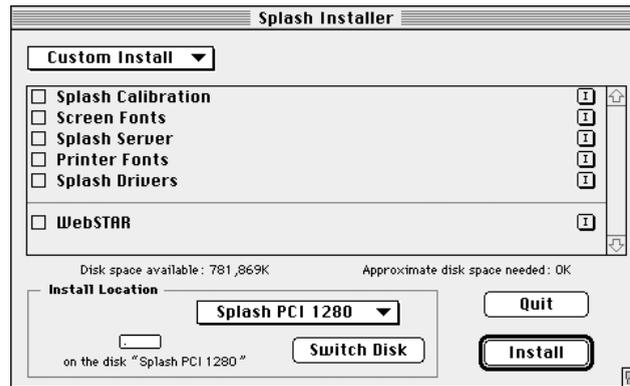
The Splash Installer welcome screen appears.



3. Click Continue. The Server Easy Install dialog box appears.



4. Choose Custom Install from the menu at the top of the Installer window. The Splash Custom Install options appear.



5. Select the WebSTAR checkbox, then click Install.
6. When the Splash Installer is finished copying files to the server hard disk, click Restart to restart the Splash Server Power Macintosh.

Installation of the Splash Web Queue Manager software is complete. You are ready to set up and enable web services for Internet or Intranet clients.

## ***Setting Up the Web Queue Manager***

To set up the Splash Web Queue Manager you will:

1. Configure the MacOS TCP/IP control panel.
2. Enable web access in the Splash Server application preferences.

### ***Configuring the TCP/IP Control Panel***

Use the TCP/IP control panel to set up an Internet address for the Splash Server. You will need to assign the Splash Server a static Internet address so clients can reliably locate the Splash Web Queue Manager on the network.

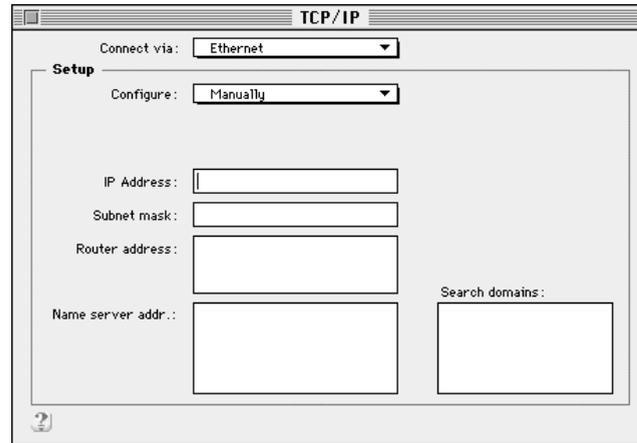
**Note:** If your Splash Server has TCP/IP Direct printing enabled, the MacOS TCP/IP control panel is already configured for the Splash Web Queue Manager. Go on to “Enabling Web Access at the Splash Server” on page 90.

Before you begin, have all address information available. Obtain a static Internet address (and subnet mask number if needed) from your network administrator.

To set up an Internet address for the Splash Server:

1. At the Splash Server, point to Control Panels in the Apple menu, then select TCP/IP in the submenu.

The TCP/IP control panel appears.

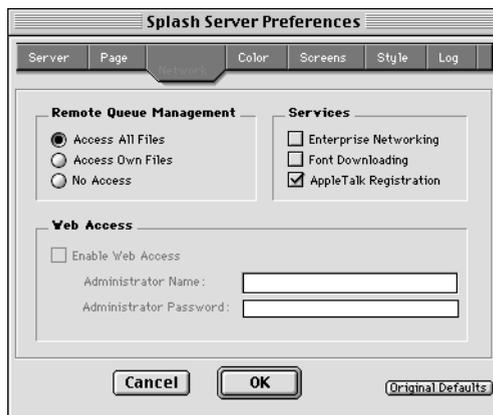


2. Choose the network connection type for the Splash Server's TCP/IP network in the **Connect via** menu.
3. Select "Manually" in the **Configure** menu.
4. Enter the **IP Address** for the Splash Server.
5. Enter a **Subnet mask** number if needed. A subnet mask provides additional address information for some networks.
6. Enter the **Router address** if needed. A network router maintains a list of IP addresses for two or more groups of network devices. The router then uses the list of addresses to direct network data to the appropriate location on the network. To enter two or more router addresses, press the Return key after you enter each address.
7. Enter a **Name server address** for the DNS server on your network (for example, design.corp.com).
8. When you have finished entering network information, close the TCP/IP control panel. A dialog box asks you to confirm the new setup. Click OK.

Configuration is complete. You are ready to enable web access at the Splash Server.

## Enabling Web Access at the Splash Server

1. Start the Splash Server application, then choose Preferences from the Server menu. The Splash Server Preferences dialog box appears.
2. Click **Network** at the top of the Preferences dialog box.



3. Under Web Access select the “Enable Web Access” checkbox.
4. Type an Administrator Name and Password into the text boxes provided.

The Administrator name and password allow a Splash administrator to remotely edit any print jobs in the Splash queues with the Web Queue Manager. The administrator name and password override the Remote Queue Management setting.

When a user logs in as the Administrator, they can change all Splash Server Preferences from the Splash Web Queue Manager.

5. Click OK.

The Splash Web Queue Manager is enabled. Clients on a TCP/IP network with Netscape Navigator or Microsoft Explorer installed can connect to the Splash Web Queue Manager to remotely view and manage print jobs on the Splash Server.

You will need to provide the Internet address for the Splash Web Queue Manager to clients so they can connect to the Splash Server over the Internet or Intranet. This address will include the IP address (or DNS assigned name) for the Splash Server (entered in the TCP/IP control panel), followed by “/splash/”. For example:

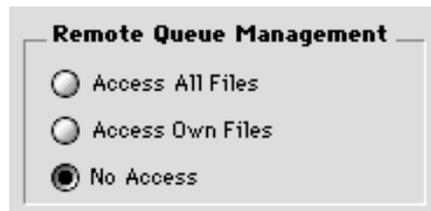
`http://design.corp.com/splashpci60/splash/`

## ***Controlling Remote Queue Management Privileges***

The Remote Queue Management options in the Network Preferences dialog box control a client's ability to change or delete jobs in the Splash print queue. This option affects clients who use the Splash Web Queue Manager and clients who use the Macintosh Remote Status DA.

To set the Remote Queue Management option:

1. In the Splash Server application, choose Preferences from the Server menu.
2. Click Network in the Server Preferences.
3. Select a Remote Queue Management option.



The options are.

- **Access All Files** means that client computers can put any job on hold, delete any job, change its position in the queue, and change print options for any job.
  - **Access Own Files** means clients can hold, delete, edit, or change the position in the print queue for their own jobs only. Clients who use the Splash Web Queue Manager must log on to make changes to the print queue.
  - **No Access** means clients can view information for print jobs, but they cannot perform any queue management functions.
4. Click OK.



## ***Using the Printer/Copier***

### ***In this section:***

<b>Switching Between Printer and Copier Modes .....</b>	<b>93</b>
<b>Changing the Paper Size in a Tray .....</b>	<b>94</b>
<b>LEF Paper Substitution .....</b>	<b>94</b>
<b>Correcting Out of Paper Errors .....</b>	<b>95</b>
<b>Printing Full-Bleed Images .....</b>	<b>95</b>
<b>Printer Output Tray Maintenance .....</b>	<b>96</b>
<b>Interruptions During Stack or Sort Printing .....</b>	<b>96</b>
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This chapter contains helpful tips for successful printing with Splash. For complete instructions on how to use specific features of the printer/copier, refer to the appropriate printer/copier user manual.

### ***Switching Between Printer and Copier Modes***

To interrupt a print job to make copies:

1. Press the Interrupt button on the printer/copier. The green Interrupt light flashes, and the display on the printer/copier tells you to wait. Printing stops when the page in the printer/copier has finished printing.
2. When the Interrupt light goes out and the display on the printer/copier says “Ready to make copies,” proceed with your copy job.

3. When you finish making copies, press the yellow Clear All button. The printer/copier goes back to printer mode in a few seconds, and printing resumes where it left off.

**Note:** If the Interrupt light is on, and you see the message “Ready to make copies,” press the Interrupt button to turn the Interrupt light off, then press the All Clear button to resume printing.

If you do not press the Clear All button in step 3, a time-out feature returns the printer/copier to the printer mode after you finish using the copier. The time-out interval is one minute, by default, but can be changed. (Refer to the printer/copier manual for more information.) If the time-out interval is allowed to pass, the Splash Server sends the next job in the queue, or the next copy of the interrupted job, to the printer.

You cannot interrupt a copy job to print, then resume the copy job where you left off once printing is completed. To cancel a copy job to print, press the Interrupt button, then press the yellow Clear All button. Printing begins immediately.

## ***Changing the Paper Size in a Tray***

Before you change a paper size in a printer/copier paper tray, choose Stop Processing on the Splash Server to avoid misprinting an active job. After you insert a different size cassette, choose Continue Processing to resume printing. Refer to the printer/copier manual for complete instructions on how to change the paper size. See the *Splash Set-up Manual* for instructions on how to start and stop the Splash Server.

When you insert paper or transparencies into the Bypass tray, the printer/copier defaults to its Paper Type (Bypass) mode. Press the yellow Clear All button on the printer/copier after you insert the paper or transparencies to return immediately to print mode.

## ***LEF Paper Substitution***

If you are using Auto Tray Select, and you choose an SEF paper size that is unavailable, the Splash Server substitutes the corresponding LEF paper size. Conversely, if you choose an LEF paper size that is unavailable, the Splash Server substitutes the corresponding SEF paper. In either case, the job prints with incorrect margins and the image may be clipped.

## ***Correcting Out of Paper Errors***

After a job is active, if there is no paper in the tray, the Splash Server waits for you to add paper. A dialog box displays the amount of time you have to add paper. (The Status DA also displays a warning.) If no paper is inserted during the wait interval, the job is transferred to the Error queue and displays an E (error) code in the Splash Status DA and Server Status windows.

The amount of time the Splash Server waits before transferring the job to the Error queue is configured at the Splash Server. See the *Splash PCI v6.0 Set-Up Manual* for information.

Print jobs are transferred to the Error queue when:

- You choose a specific tray in the Splash Print dialog box, and the paper size you specified in the Page Setup dialog box is not available in the tray.
- You choose Automatic tray selection in the Print dialog box, and no tray is set for the correct size.

To print the job successfully, correct the error condition, then drag the job from the Error queue to the Waiting queue in the Splash Server window. With the Splash Remote Status DA (for Macintosh clients only), highlight the job in the Status DA window and choose Remove Hold from the Jobs menu.

## ***Printing Full-Bleed Images***

To print full-bleed Letter-size images at 400 dpi in both directions on Splash Servers that support this feature, select an image size that is slightly larger than 8 1/2" x 11" (8 3/4" x 11 1/4", for example) in your application and print on 9" x 12" paper from a cassette tray, or choose Full Bleed Letter on Oversize in the Page Setup dialog box Paper list and print from the Bypass tray.

To print full bleed A4 images at 400 dpi in both directions on the Splash Servers, select 12" x 18" and print an image that is slightly larger than A4 from your application.

If you select Full Bleed Letter on Oversize, load any oversize paper (Tabloid paper is recommended) into the Bypass tray. If you select 12" x 18" , load any oversize paper (A3 is recommended) into the Bypass tray. When you select the Full Bleed paper sizes in Page Setup, Splash uses the Bypass tray regardless of the paper tray selection.

## ***Printer Output Tray Maintenance***

Though you can set Splash to print up to 999 copies, the output tray holds a maximum of 250 pages. You must empty the output tray during printing if you specify more than 250 copies so that the total number of copies in the tray never exceeds 250. When specifying 100 or more copies, a delay occurs after each multiple of 99 copies is printed.

## ***Interruptions During Stack or Sort Printing***

If the “Allow copier interrupt” option is selected in the Splash Server Preferences, and a print job is interrupted while performing Stack or Sort operations with the printer/copier sorter, Splash reprints all copies of the page that was printing when the interruption occurred. This causes one page of the print job to have more copies than expected. This will occur, for example, when a user interrupts a print job temporarily to use the copier, or when the current paper tray runs out of paper during the print job.

## ***Printing to Heavy Weight Paper***

Although the copier allows heavy weight paper to go to the catch tray of the sorter, jobs from Splash that use heavy weight paper always go to the stacker.

## ***Printing to Transparencies***

If you attempt to sort a transparencies job, the job does not print and no error message appears at the server. Splash does not support sorting transparency jobs.

## ***Disconnecting the Splash Interface Cable***

To avoid risk of damage, always shut down the Splash Server and turn off power to the printer/copier when you disconnect the printer cable from the Splash Server or from the printer/copier.

To disconnect the interface cable from the Splash Server:

1. Shut down the Splash Server, and turn off the display and all SCSI devices.
2. Turn off the printer/copier.
3. Squeeze the metal buttons on each side of the connector to release the cable from the interface card port on the back of the Splash Server Macintosh.
4. Gently pull the cable out of the port.
5. Restart the Macintosh and the printer/copier.

To disconnect the interface cable from the printer/copier,

1. Shut down the Splash Server, and turn off the display and all SCSI devices.
2. Turn off the printer/copier.
3. Loosen the two screws that secure the interface cable.
4. Gently pull the cable out of the port on the back of the printer.
5. Restart the Macintosh and the printer/copier.

To reconnect the printer/copier to the Splash Server, see the *Splash Set-up Manual* for instructions.



# ***Splash Specifications***

## ***Features***

All Splash Servers feature:

- 32 bit full-color PostScript printing
- Selectable screen-to-print color correction for RGB images
- Press-to-print color correction for CMYK images
- Accurate color correction for files with mixed RGB and CMYK data
- Separations printing support
- Composite print color correction for PANTONE, DIC, HKS, or Toyo spot colors
- Progressives printing support
- Custom screening support
- Save as TIFF capability
- Color calibration application
- Support for PostScript Level 3-ready applications
- High-performance custom Macintosh driver, plus LaserWriter 8 support for applications that require the LaserWriter 8 driver
- Adobe Photoshop-compatible plug-ins, supporting direct high-speed color scanning to the Splash Server and direct Export printing for scanned images.
- Full Macintosh networking features
- Native IPX print support
- Native TCP/IP print support
- Windows 95, Windows 3.1, and Windows NT driver support
- Optional Web Print Queue Management software
- 136 Roman printer fonts standard

The Splash Professional Color Imaging Series PCI-E 640 Server and PCI-E 640 Kit features:

- 64 MB on-board memory (upgrade option to 128)
- Full contone 400 x 400 dpi A4 printing and visually lossless 400 x 400 dpi A3 printing

The Splash Professional Color Imaging Series PCI 1280 Server and PCI 1280 Kit features:

- 128 MB on-board memory
- 400 x 400 dpi contone printing for all supported page sizes

### ***Supported Software Applications***

The following Macintosh and Windows applications are tested and known to be compatible with Splash:

- QuarkXPress
- Adobe Illustrator
- Adobe PageMaker
- Macromedia FreeHand
- Adobe Photoshop
- Deneba Canvas
- Microsoft Word
- Microsoft PowerPoint
- Microsoft Excel

## **Supported Paper Sizes**

<i>Splash Page Size Names</i>	<i>MajestiK/ Regal DC 5799 Americas</i>	<i>MajestiK/ Regal DC 5799 Europe</i>	<i>DC 5750</i>	<i>Acolor</i>	<i>mm</i>	<i>inches</i>
A3	yes	yes	yes	yes	297 x 420	11.7x16.5
A4 SEF	yes	yes	yes	yes	210 x 297	8.3 x 11.7
A4 LEF	yes	yes	yes	yes	297 x 210	11.7 x 8.3
B4	no	yes	yes	yes	257 x 364	————
A6	no	no	yes	no	100 x 148	————
B5 SEF	yes	yes	yes	yes	182 x 257	————
B5 LEF	yes	yes	yes	yes	257 x 182	————
Legal	yes	yes	yes	yes	215 x 356	8.5 x 14
Legal13	yes	yes	yes	no	215 x 330	8.5 x 13
Letter SEF	yes	yes	yes	yes	215 x 279	8.5 x 11
Letter LEF	yes	yes	yes	yes	279 x 215	11 x 8.5
12 x 18	no	no	yes	no	————	12 x 18
Tabloid	yes	yes	yes	no	279 x 432	11 x 17
8 x 10 LEF	yes	no	yes	no	————	8 x 10
9 x 11 LEF	no	no	yes	no	————	9 x 11
9 x 11 SEF	no	no	yes	no	————	9 x 11
9 x 12	yes	no	yes	no	————	9 x 12
215 x 315 mm	yes	yes	no	no	215 x 315	————
4 x 6	no	no	yes	no	————	4 x 6
Letter Bleed on Oversize	yes	yes	yes	yes	Note 1	Note 1
Docupac	yes	yes	yes	yes	662x820	————

## ***Paper Size Notes:***

**Note 1:** If you select Letter Bleed on Oversize, load any oversize paper (Tabloid paper is recommended) into the Bypass tray.

## ***Resolutions***

Splash PCI-E 640 (64 MB on-board memory):

- 400 x 400 dpi contone printing on all page sizes up to A4; visually lossless  
400 x 400 dpi printing on paper sizes up to A3
- 200 x 200 scanning of entire platen

Splash PCI 1280 (128 MB on-board memory):

- 400 x 400 dpi contone printing for all page sizes
- 400 x 400 dpi scanning of entire platen

## ***Maximum Printing Speed***

### **MajestiK or Acolor 63X printer/copier**

A3 Short Edge Feed:

- Grayscale: 18 pages per minute
- Full Color: 4 pages per minute

Letter Short Edge Feed:

- Grayscale: 18 pages per minute
- Full Color: 4 pages per minute

Letter Long Edge Feed:

- Grayscale: 36 pages per minute
- Full Color: 6 pages per minute

**DocuColor 5750 or Acolor 62X printer/copier**

A3 Short Edge Feed:

- Grayscale: 18 pages per minute
- Full Color: 4.5 pages per minute

Letter Short Edge Feed:

- Grayscale: 18 pages per minute
- Full Color: 4.5 pages per minute

Letter Long Edge Feed:

- Grayscale: 36 pages per minute
- Full Color: 9 pages per minute

**Regal, DocuColor 5799, or Acolor 93X printer/copier**

A3 Short Edge Feed:

- Grayscale: 18 pages per minute
- Full Color: 4 pages per minute

Letter Short Edge Feed:

- Grayscale: 18 pages per minute
- Full Color: 4 pages per minute

Letter Long Edge Feed:

- Grayscale: 36 pages per minute
- Full Color: 6 pages per minute



## ***List of Fonts***

The Multi-Master fonts are:

- AdobeSansMM
- AdobeSerifMM

The following Adobe Roman Fonts are provided with the Splash software.

- AlbertusMT
- AlbertusMT-Italic
- AlbertusMT-Light
- AntiqueOlive-Bold
- AntiqueOlive-Compact
- AntiqueOlive-Italic
- AntiqueOlive-Roman
- Apple-Chancery
- Arial-BoldItalicMT
- Arial-BoldMT
- Arial-ItalicMT
- ArialMT
- AvantGarde-Book
- AvantGarde-BookOblique
- AvantGarde-Demi
- AvantGarde-DemiOblique
- Bodoni
- Bodoni-Bold
- Bodoni-BoldItalic

- Bodoni-Italic
- Bodoni-Poster
- Bodoni-PosterCompressed
- Bookman-Demi
- Bookman-DemiItalic
- Bookman-Light
- Bookman-LightItalic
- Carta
- Chicago
- Clarendon
- Clarendon-Bold
- Clarendon-Light
- CooperBlack
- CooperBlack-Italic
- Copperplate-ThirtyThreeBC
- Copperplate-ThirtyTwoBC
- Coronet
- Courier
- Courier-Bold
- Courier-BoldOblique
- Courier-Oblique
- Eurostile
- Eurostile-Bold
- Eurostile-BoldExtendedTwo
- Eurostile-ExtendedTwo
- Geneva
- GillSans
- GillSans-Bold
- GillSans-BoldCondensed
- GillSans-BoldItalic
- GillSans-Condensed
- GillSans-ExtraBold

- GillSans-Italic
- GillSans-Light
- GillSans-LightItalic
- Goudy
- Goudy-Bold
- Goudy-BoldItalic
- Goudy-ExtraBold
- Goudy-Italic
- Helvetica
- Helvetica-Bold
- Helvetica-BoldOblique
- Helvetica-Condensed
- Helvetica-Condensed-Bold
- Helvetica-Condensed-BoldObl
- Helvetica-Condensed-Oblique
- Helvetica-Narrow
- Helvetica-Narrow-Bold
- Helvetica-Narrow-BoldOblique
- Helvetica-Narrow-Oblique
- Helvetica-Oblique
- HoeflerText-Black
- HoeflerText-BlackItalic
- HoeflerText-Italic
- HoeflerText-Ornaments
- HoeflerText-Regular
- JoannaMT
- JoannaMT-Bold
- JoannaMT-BoldItalic
- JoannaMT-Italic
- LetterGothic
- LetterGothic-Bold
- LetterGothic-BoldSlanted

- LetterGothic-Slanted
- LubalinGraph-Book
- LubalinGraph-BookOblique
- LubalinGraph-Demi
- LubalinGraph-DemiOblique
- Marigold
- MonaLisa-Recut
- Monaco
- NewCenturySchlbk-Bold
- NewCenturySchlbk-BoldItalic
- NewCenturySchlbk-Italic
- NewCenturySchlbk-Roman
- NewYork
- Optima
- Optima-Bold
- Optima-BoldItalic
- Optima-Italic
- Oxford
- Palatino-Bold
- Palatino-BoldItalic
- Palatino-Italic
- Palatino-Roman
- StempelGaramond-Bold
- StempelGaramond-BoldItalic
- StempelGaramond-Italic
- StempelGaramond-Roman
- Symbol
- Tekton
- Times-Bold
- Times-BoldItalic
- Times-Italic
- Times-Roman

- TimesNewRomanPS-BoldItalicMT
- TimesNewRomanPS-BoldMT
- TimesNewRomanPS-ItalicMT
- TimesNewRomanPSMT
- Univers
- Univers-Bold
- Univers-BoldExt
- Univers-BoldExtObl
- Univers-BoldOblique
- Univers-Condensed
- Univers-CondensedBold
- Univers-CondensedBoldOblique
- Univers-CondensedOblique
- Univers-Extended
- Univers-ExtendedObl
- Univers-Light
- Univers-LightOblique
- Univers-Oblique
- Wingdings-Regular
- ZapfChancery-MediumItalic
- ZapfDingbats



# ***Splash Error Messages***

## ***Installation Messages***

Some INITs and control panel devices (cdevs) can interfere with the proper installation of your Splash software, resulting in an error message when you try to start the Splash Server application. Different messages appear for conflicts caused by different inits and cdevs.

If you see an error message when you try to launch the Server application and you have just installed (or reinstalled) your Splash software (or any other software), remove any unnecessary inits and cdevs from the Extensions and Control Panels folders. Restart the Server and launch the Server application again. If this does not solve the problem, follow the instructions in “Splash Diagnostics” on page 133.

## ***Alphabetical Listing of Error Messages***

This appendix contains an alphabetical list of messages that you may encounter while using the Splash Server. The recommended user action follows each message. These messages appear in one or more of the following areas:

- Server status line
- Printer/Copier status line
- Pop-up window
- Log file
- Get Info window for a job in the print queue

### **A timeout occurred while waiting for a sheet of paper to be manually inserted**

Moves the job to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

### **Access card or code not entered properly**

Enter the correct access card or code into the printer/copier.

**Add Reference failed**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software and restart your Server. Start up Splash and resend the job. If the error still occurs, run Splash Diagnostics.

**Add Resource failed**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software and restart your Server. Start up Splash and resend the job. If the error still occurs, run Splash Diagnostics.

**Address was odd, or out of range**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software and restart your Server. Start up Splash and resend the job. If the error still occurs, run Splash Diagnostics.

**All paper trays out of paper: printer on hold**

Add paper to the printer/copier and choose Continue Processing from the Server menu in the Splash Server.

**An internal consistency check has failed**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software and restart your Server. Start up Splash and resend the job. If the error still occurs, run Splash Diagnostics.

**A postscript error has been reported by the PostScript Interpreter**

This message indicates that the “Splash Lib” extension is missing from the Extensions folder. To resolve the problem, copy the missing extension file from the Splash Software CD-ROM into the Extensions folder within the System Folder.

**A potentially fatal and unrecoverable condition has been detected within the software; the operation has been aborted**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software and restart your Server. Start up Splash and resend the job. If the error still occurs, run Splash Diagnostics.

**Bad master directory block**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, call an Authorized Apple Repair Center.

**Black toner low - warning**

Add toner. Refer to the printer/copier manual for instructions.

**Block Check failed**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software and restart your Server. Start up Splash and resend the job. If the error still occurs, run Splash Diagnostics.

**Communication link error to the Splash card**

Reconnect the cable between the copier and the server and choose Continue Processing from the Server menu in the Splash Server. If the error still continues, run Splash Diagnostics.

**Communications with the device has failed. Please check that the device is powered up and that the cables are OK**

Check the power source, On button, and cables for the printer/copier. Choose Continue Processing from the Server menu in the Splash Server. If the error still occurs, run Splash Diagnostics.

**Copier is warming up or in use**

Stops processing of the queue. Within a specific amount of time (which you set in the printer/copier interface) after you are finished making copies, printing resumes.

**Copier/printer door open: close door**

Stops processing of the queue. Close the door of the printer/copier. This error can also occur if the optional sorter is not attached properly.

**Copier/printer failure**

Run Splash Diagnostics. Call Technical Support, if needed.

**Copier/printer IFU failure**

Run Splash Diagnostics. Call Technical Support, if needed.

**Cyan toner low - warning**

Add toner. Refer to the printer/copier manual for instructions.

**Device busy**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, run Splash Diagnostics.

**Device not found**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, run Splash Diagnostics.

**Drive volume already on-line at MountVol**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Driver reported an error: “%% [error text]”**

A PostScript error occurred during processing. Check that all printer description files (PPDs) required by your application are properly installed, and that the proper printer description file was selected in the Page Setup or Print dialog box in your application.

If you are printing a PostScript file, try printing the file to another PostScript Level 2 printer. (If the file does not print successfully on this printer, the problem may be in your application. Contact the publisher of the application for Technical Support.) If the file prints successfully, the PostScript file cannot be printed with Splash. Re-create the file using the Splash printer driver. (PostScript files created with other drivers may not print reliably on Splash.) See any of the *Printing to Splash...* on-line manuals for more information about creating and printing PostScript files to be printed with Splash.

If you still have a problem, write down the error code that appears in the brackets, then call Technical Support.

**Driver reported an error: “Timed out during error condition...”**

A correctable error (“out of paper,” for example) was detected after the job was processed. The error was not corrected before the server’s error timeout elapsed, so the job was moved to the Error queue. Drag the job to the Waiting queue after ensuring the problem has been corrected.

**Duplicate filename (rename) or File found instead of folder**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**End of file; no additional data in the format**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Error during font declaration**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Error in user parameter list**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Error: Not responding. Please check that the printer/copier is on and that the cable from the Splash card is properly connected.**

Make sure that the printer/copier is plugged in and turned on and that the cable from the Splash Server is properly connected.

**Extended resource has a bad format**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs and you have added extended resources in the Resources Folder inside the Splash Folder, remove them, restart the Server computer and open the Server application. If the error still occurs, reinstall the Splash software and send the print job again. If the error still occurs, run Splash Diagnostics.

**External file system identifier is nonzero**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**File already open with write permission**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**File is busy (delete); Section doing I/O**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**File not found; Folder not found; Edition container not found; Target not found**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**File not open**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**File system internal error: during rename the old entry was deleted but could not be restored.**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Font not declared**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Font substitution occurred**

Check to make sure the font is properly installed in the Resources Folder inside the Splash Folder.

**Fuser web almost empty**

Refer to the printer/copier manual for instructions.

**Fuser web empty**

Stops processing of the queue. Refer to the printer/copier manual for instructions. Choose Continue Processing from the Server menu in the Splash Server after the problem is corrected.

**Get file position error**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**GetHandlSize failed on baseText or substitutionText; Nil master pointer  
[handle was NIL in HandleZone or other]**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**I/O error**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Magenta toner low - warning**

Add toner. Refer to the printer/copier manual for instructions.

**Manual feed timeout**

Moves the job to the Error queue. Put paper or transparencies in the bypass tray. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Memory full (open) or file won't fit (load)**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**No Splash card could be found**

**No Splash card could be found. Please ensure that the card is properly installed in your Macintosh.**

Make sure the Splash Risc Startup file is installed in the Extensions folder in the System folder. Restart the Splash Server computer and open the Server application. Send the job again. If this does not solve the problem, run Splash Diagnostics (see page 133).

**No such drive (tried to mount a bad drive num)**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**No such volume or volume not found**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Not a Macintosh diskette (sig bytes are wrong)**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Not returning proper status**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Offset or count out of bounds**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Operation has been aborted**

Puts the job on hold. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Out of A3 paper**

Stops processing of the queue for the duration of the server's error timeout, or until you add paper to the A3 paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Out of A4 paper**

Stops processing of the queue for the duration of the server's error timeout, or until you add paper to the A4 paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Out of A4L paper**

Stops processing of the queue for the duration of the server's error timeout, or until you add paper to the A4L paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Out of B4 paper**

Stops processing of the queue for the duration of the server's error timeout, or until you add paper to the B4 paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Out of B5 paper**

Stops processing of the queue for the duration of the server's error timeout, or until you add paper to the B5 paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Out of B5L paper**

Stops processing of the queue for the duration of the server's error timeout, or until you add paper to the B5L paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Out of black toner**

Stops processing of the queue. Refer to the printer/copier manual for instructions. Choose Continue Processing from the Server menu in the Splash Server.

**Out of cyan toner**

For color jobs, stops processing of the queue for the duration of the server's error timeout, or until you add cyan toner. After the server's error timeout elapses, the job is moved to the Error queue. Add toner. Refer to the printer/copier manual for instructions. Drag the job to the Waiting queue to resend the job. Grayscale jobs can still print.

**Out of Legal paper**

After the server's error timeout elapses, the job is moved to the Error queue. Add paper to the Legal size paper tray. Drag the job to the Waiting queue in the Splash Server Window to resend the job.

**Out of Letter paper**

After the server's error timeout elapses, the job is moved to the Error queue. Add paper to the Letter size paper tray. Drag the job to the Waiting queue in the Splash Server Window to resend the job.

**Out of LetterL paper**

After the server's error timeout elapses, the job is moved to the Error queue. Add paper to the LetterL size paper tray. Drag the job to the Waiting queue in the Splash Server Window to resend the job.

**Out of magenta toner**

For color jobs, stops processing of the queue for the duration of the server's error timeout, or until you add magenta toner. After the server's error timeout elapses, the job is moved to the Error queue. Add toner. Refer to the printer/copier manual for instructions. Drag the job to the Waiting queue to resend the job. Grayscale jobs can still print.

**Out of yellow toner**

For color jobs, stops processing of the queue for the duration of the server's error timeout, or until you add yellow toner. After the server's error timeout elapses, the job is moved to the Error queue. Add toner. Refer to the printer/copier manual for instructions. Drag the job to the Waiting queue to resend the job. Grayscale jobs can still print.

**Paper jammed**

Stops processing of the queue. Splash waits for you to remove the paper jam from the printer/copier. The job automatically resumes when the paper jam is cleared. If the paper jam is not cleared, the job is moved to the Error queue after the server's error timeout has elapsed.

**Paper tray 1 is not properly seated**

When a job selects paper tray 1, the Server stops processing of the queue for the duration of the server's error timeout, or until you reseal the paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Paper tray 2 is not properly seated**

When a job selects paper tray 2, the Server stops processing of the queue for the duration of the server's error timeout, or until you reseal the paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Paper tray 3 is not properly seated**

When a job selects paper tray 3, the Server stops processing of the queue for the duration of the server's error timeout, or until you reseal the paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Paper tray 1 out of paper**

When a job selects paper tray 1, the Server stops processing of the queue for the duration of the server's error timeout, or until you add paper to the paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Paper tray 2 out of paper**

When a job selects paper tray 2, the Server stops processing of the queue for the duration of the server's error timeout, or until you add paper to the paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Paper tray 3 out of paper**

When a job selects paper tray 3, the Server stops processing of the queue for the duration of the server's error timeout, or until you add paper to the paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Drag the job to the Waiting queue in the Splash Server window to resend the job.

**Please remove sheets from sorter**

Stops processing of the queue. Splash waits for you to remove sheets in the sorter bin. The job automatically resumes when the sheets are removed. If the server's error timeout elapses before the sheets are removed from the sorter, the job is moved to the server's Error queue.

**Pointer Check failed**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Printer error**

Quit the Splash application, restart the Server, and restart Splash. Resend the job. If the error still occurs, call the key operator or Technical Support for your printer/copier.

**Publisher writing to an edition**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Reference number invalid**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Remove Reference failed**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Remove Resource failed**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Resource already in memory**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Resource Attribute inconsistent with operation**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Resource file not found**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

### **Resource Map inconsistent with operation**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

### **Resource not found**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

### **Selected paper size is unavailable in the tray**

Stops processing of the queue for the duration of the server's error timeout, or until you add the correct size paper cassette to the paper tray. After the server's error timeout elapses, the job is moved to the Error queue. Select Bypass in the Splash Tray Options dialog box. After you add the correct size paper to the Bypass tray, drag the job to the Waiting queue in the Splash Server window to resend the job.

### **Size Check failed**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

### **Software lock on file; Not a subscriber (permissions error on file open)**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

### **Sorter bin failure**

Puts transparency jobs on hold. Paper jobs continue processing correctly. Prints are placed in the top tray. Call Technical Support for your printer/copier.

### **Sorter capacity exceeded. Please remove all sheets from sorter bins.**

Job errors to the print queue. Clear sorter bins and re-send job.

**The application ‘Splash Server’ could not be opened because ‘DeviceSharedLib’ could not be found.**

This message indicates that the “Splash Print Library” extension is missing from the Extensions folder. To resolve the problem, copy the missing extension file from the Splash Software CD-ROM into the Extensions folder within the System Folder. If this does not solve the problem, run Splash Diagnostics (see page 133).

**The application ‘Splash Server’ could not be opened because ‘FIPLib PPC’ could not be found.**

This message indicates that the “Splash Spool Lib” extension is missing from the Extensions folder. To resolve the problem, copy the missing extension file from the Splash Software CD-ROM into the Extensions folder within the System Folder. If this does not solve the problem, run Splash Diagnostics (see page 133).

**The application ‘Splash Server’ could not be opened because ‘:obj:PowerPlantLib’ could not be found.**

This message indicates that the “Splash UI Lib” extension is missing from the Extensions folder. To resolve the problem, copy the missing extension file from the Splash Software CD-ROM into the Extensions folder within the System Folder. If this does not solve the problem, run Splash Diagnostics (see page 133).

**The application ‘Splash Server’ could not be opened because ‘reddog.mot’ could not be found.**

This message indicates that the “Splash Board Enabler” extension is missing from the Extensions folder. To resolve the problem, copy the missing extension file from the Splash Software CD-ROM into the Extensions folder within the System Folder. If this does not solve the problem, run Splash Diagnostics (see page 133).

**The application ‘Splash Server’ could not be opened because ‘MWRuntimeLib’ could not be found.**

This message indicates that the “Splash Runtime Lib” extension is missing from the Extensions folder. To resolve the problem, copy the missing extension file from the Splash Software CD-ROM into the Extensions folder within the System Folder. If this does not solve the problem, run Splash Diagnostics (see page 133).

**The copier is currently in use by another application. Please quit that application and try again.**

Exit the application that is using the printer/copier and resend the job.

**The directory is full.**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**The disk is full**

Delete unneeded files from your hard disk or add more hard disk storage.

**The operation has been aborted by the user**

Puts the job on hold. Drag the job to the Waiting queue in the Splash Server window to resend the job. Select the job in the queue and press the Delete key to delete the job.

**There is no further information available for this error condition. If the error continues please seek technical support**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**There is not enough available memory for the application to start up**

Quit other applications. If this is not successful, add more RAM.

**There is not enough disk space/memory available to complete this operation**

Puts the job on hold. Delete unneeded files from your hard disk or add more hard disk storage. Drag the job to the Waiting queue in the Splash Server window to resend the job. If the error still occurs, run Splash Diagnostics.

**There is not enough memory to print the Job Log**

This message appears at the Splash Server when the Job Log file is too big to be read into memory before it prints. This problem prevents the Job Log from printing. To resolve the problem, increase memory for the Splash Server application, or use a text editor application to open the Job Log file and delete some of the records. See the *Splash PCI Series v6.0 Set-Up Manual* for information about using the Job Log.

**This print requires significant work and may take a prolonged amount of time to complete**

Informational notice.

**Too many copies have been requested for this device**

Prints the maximum amount of copies. Resend the job to print more copies. The printer/copier copy limit is 999.

**Too many files open**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Transparency from trays 1, 2, or 3**

Puts the job on hold. Take transparencies out of trays 1, 2, or 3. To print on paper, drag the job to the Waiting queue in the Splash Server window. To print on transparencies, double-click the job to select a Bypass Tray Option in the server's job editor, then use the Bypass tray to feed transparencies.

**Transparency without white frame detected**

Puts the job on hold. Add white frame transparency or plain paper to the Bypass tray. Drag the job to the Waiting queue in the Splash Server window to resend the job. If you have no white frame transparencies or plain paper to add to the Bypass tray, double-click the job to choose another paper type or source in the server's job editor.

**Tray size and paper setting mismatch; job printed on incorrect paper**

This error appears at the Server when the Bypass Tray print option is selected together with either Sorter Collate or Sorter Uncollate print options. This results in the print job printing continuously at the printer/copier until the job is placed on hold, or the Server application is closed.

**Tried to position to before start of file (r/w)**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Trying to move a locked block (MoveHHi)**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Trying to purge a locked or non-purgeable block**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Volume is off line**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Volume is locked through software**

Restart the Splash Server computer and open the Server application. Send the job again. If the error still occurs, reinstall the Splash software, restart the Server computer, open the Server application and send the job again. If the error still occurs, run Splash Diagnostics.

**Waiting. Acquire is using the hardware**  
**Waiting. ColorCal is using the hardware**

One of these message will appear if the Splash Server is unable to process the current print job because Splash Acquire or Splash ColorCal is using the Splash interface card. The print job must wait until the Acquire or ColorCal operation is completed, then the message goes away and the print job is processed.

**Waiting. Key has been removed from ADB**

This message appears when the Splash Key has been removed from the Splash Server ADB chain and a print job is sent to the Server. Contact your Splash system administrator to have the Splash Key replaced on the Server so your print job can be processed.

**Waiting for the printer to respond**

Check the power source, On button, and cables for the printer/copier. Choose Continue Processing from the Server menu in the Splash Server. If the error still occurs, run Splash Diagnostics.

**Waste toner bottle almost full**

Refer to the printer/copier manual for instructions.

**Waste toner bottle full**

Stops processing of the queue. Refer to the printer/copier manual for instructions.

## Splash File Locations

The following table lists the recommended locations for the Splash files.

<i>Software Description</i>	<i>File Name or File Type</i>	<i>Location</i>
<i>Spool Folder</i>	<i>Spool Folder</i>	<i>Variable, but must be kept with Server Application and Persistent Parameters.</i>
<i>Persistent Parameters</i>	<i>Persistent Parameters Folder</i>	<i>Variable, but must be kept with Server Application and Spool Folder.</i>
<i>PostScript Setup File</i>	<i>PostScript.VM</i>	<i>Splash Folder</i>
<i>Splash CPSI Printer Driver</i>	<i>Splash Driver</i>	<i>System Folder: Extensions</i>
<i>Splash CPSI Status DA</i>	<i>Splash Status</i>	<i>System Folder: Apple Menu Items</i>
<i>Splash Server Application</i>	<i>Splash Server</i>	<i>Splash Folder</i>
<i>PostScript Drop Folder</i>	<i>Drop Folder</i>	<i>Splash Folder</i>
<i>PostScript Unprintable Files Folder</i>	<i>Unprintable Files</i>	<i>Splash Folder (created when a job cannot be printed)</i>
<i>136 PostScript Printer Fonts (provided with Splash)</i>	<i>Printer Fonts (names vary)</i>	<i>Splash Folder:Fonts</i> <i>If you add fonts to the Splash Server, install using the instructions provided with the fonts, then download the installed fonts to the Splash Server. (See the Splash Set-Up Manual for information on how to do this.)</i>

<i>Software Description</i>	<i>File Name or File Type</i>	<i>Location</i>
<i>136 PostScript Screen Fonts (provided with Splash)</i>	<i>Screen Fonts (names vary)</i>	<i>Splash Folder:Screen Fonts See note for Printer Fonts.</i>
<i>Server Startup Files</i>	<i>Splash Board Enabler Splash Board Startup Splash Spool Lib Splash Print Lib Splash Lib Splash UI Lib</i>	<i>System Folder: Extensions</i>
<i>Enterprise Networking Files</i>	<i>MacIPX</i>	<i>System Folder:Control Panels</i>
	<i>MacIPX AppleTalk MacIPX Ethernet MacIPX Token Ring NetWare Client Netware Client Library</i>	<i>System Folder: Extensions</i>
	<i>Enterprise Networking</i>	<i>Splash Folder: Extras</i>

# ***Splash Diagnostics***

The Splash Diagnostics application provides a way to troubleshoot the Splash Interface Board quickly and accurately. Use the Splash Diagnostics application when printer output is abnormal, or when the Splash Server application fails to report an obvious error condition (for example, the printer/copier has a paper jam, or is turned off, but the error is not reported by the Server application).

## ***Before Running Splash Diagnostics***

Follow these steps before you run the Splash Diagnostics application.

1. Disconnect the printer cable from the port on the Splash interface card. (The interface card port protrudes through the back of the Splash Server.) See the *Splash Install Manual*, or *Splash Set-Up Manual* for instructions on how to remove the cable.
2. Install the diagnostics loopback connector: align the loopback connector with the port on the Splash interface card and push until the connector clicks into place.

## ***Running the Splash Diagnostics Utility***

1. Double-click the Splash Diagnostics icon to start the diagnostics utility.  
The Splash Diagnostics utility is located in the Splash Diagnostics Folder within the Splash Utilities folder on the Splash Server hard disk.



Splash Diagnostics

The Splash Diagnostics window appears.



2. Click Run.

The Reports status window shows the progress of each series of tests. When all tests have completed, the Diagnostics utility creates a file with the test results and places it in the same folder as the Diagnostics utility. If the Diagnostics utility reports errors for any tests, contact Xerox Technical Support and report the errors.

3. When the tests have completed, a message appears.



4. Click Restart. The Splash Server CPU restarts.

### ***Returning the System to Normal***

After you run the Splash Diagnostics utility:

1. Disconnect the loopback connector from the Splash interface card. To do this, squeeze the metal buttons on each side of the loopback connector and gently pull it out of the port on the Splash interface card.
2. Connect the printer cable to the port on the Splash interface card. See the *Splash Install Manual* or *Splash Setup Manual* for instructions.

### ***Troubleshooting After a Completed Test***

If the Server application does not work, or if the printer/copier produces abnormal prints, even though all diagnostic tests ran successfully and xerographic copies are normal, the problem may be in the cable that connects the Splash interface card to the printer/copier. Replace the printer cable with a new cable. If you still need assistance, call Xerox Technical Support.



# Adobe PostScript Language Printer Addendum

Throughout this Appendix, *Reference Manual* refers to the *PostScript Language Reference Manual, Second Edition* and *Supplement* refers to the *PostScript Language Supplement for Version 2013.114*.

## 1.0 Device Setup

The page device parameters represent particular raster output device features or processing options; the values represent the current settings of those features or options. The **setpagedevice** operator is used to set the values of the page device parameters and the **currentpagedevice** operator is used to get the current values of these parameters.

For more information about how the **setpagedevice** operator is used to set up a raster output device, refer to section 4.11 of the *Reference Manual*.

### 1.1 Page Device Parameters

The following table lists all of the page device parameters present in the Xerox MajestiK Printer/Copier. The semantics for all parameters appear in the *Reference Manual* and the *Supplement*.

Key	Type	Default	For more information see:
<i>BeginPage</i>	<i>procedure</i>	<i>{pop}</i>	<i>section 4.11.6 of the Reference Manual</i>
<i>/Duplex</i>	<i>boolean</i>	<i>false</i>	<i>section 4.11.3 of the Reference Manual</i>

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<i>EndPage</i>	<i>procedure</i>	<i>{exch pop 2 ne}</i>	<i>section 4.11.6 of the Reference Manual</i>
<i>ExitJamRecovery</i>	<i>boolean</i>	<i>false</i>	<i>chapter 2 of the Supplement</i>
<b><i>HWRResolution<sup>†</sup></i></b>	<i>array</i>	<i>[400 400]</i>  <i>Note: resolutions of [400 200] and [200 200] are also supported on some devices dependent on memory configuration and feature selection.</i>	<i>section 4.11.3 of the Reference Manual</i>
<i>ImagingBBox</i>	<i>array or null</i>	<i>null</i>	<i>section 4.11.3 of the Reference Manual</i>
<i>InputAttributes</i>	<i>dictionary</i>	<i>see <b>Input Attributes</b> on the next page</i>	<i>section 4.11.3 of the Reference Manual</i>
<i>Install</i>	<i>procedure</i>	<i>see <b>Install Procedure</b> at the end of this section</i>	<i>section 4.11.3 of the Reference Manual</i>
<i>/Jog</i>	<i>integer</i>	<i>0</i>	<i>section 4.11.3 of the Reference Manual</i>
<i>ManualFeed</i>	<i>boolean</i>	<i>false</i>	<i>section 4.11.3 of the Reference Manual</i>
<i>ManualFeedTimeout</i>	<i>integer</i>	<i>60</i>	<i>chapter 2 of the Supplement</i>
<i>Margins</i>	<i>array</i>	<i>[0 0]</i>	<i>section 4.11.3 of the Reference Manual</i>
<i>MediaColor</i>	<i>string or null</i>	<i>null</i>	<i>section 4.11.3 of the Reference Manual</i>

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<i>MediaType</i>	<i>string or null</i>	<i>(ShortEdgeFeed)</i> <i>Note: default is dependent on the contents of the first tray.</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<i>MatchAll</i>	<i>boolean</i>	<i>false</i>	<i>section 4.11.4 of the <b>Reference Manual</b></i>
<i>MediaWeight</i>	<i>integer or null</i>	<i>null</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<b>NumCopies</b>	<i>integer or null</i>	<i>null</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<i>Orientation</i>	<i>integer</i>	<i>0</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<i>OutputDevice</i>	<i>name</i>	<i>Printer</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<b>OutputFaceUp</b> <sup>†</sup>	<i>boolean</i>	<i>true</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<i>OutputPage</i>	<i>boolean</i>	<i>true</i>	<i>chapter 2 of the Supplement</i>
<i>/PageDeviceName</i>	<i>null or string</i>	<i>null</i>	<i>chapter 2 of the Supplement</i>
<i>PageOffset</i>	<i>array</i>	<i>[0 0]</i>	<i>chapter 2 of the Supplement</i>
<i>PageSize</i>	<i>array</i>	<i>see below</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<i>Policies</i>	<i>dictionary</i>	<i>&lt;&lt;/PolicyNot Found1 /PageSize 0 /PolicyReport{pop}&gt;&gt;</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<i>ProcessColorModel</i>	<i>name or string</i>	<i>/DeviceCMYK</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<i>/RollFedMedia</i>	<i>boolean</i>	<i>false</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>
<i>/SeparationOrder</i>	<i>null or array</i>	<i>[/Black /Cyan /Magenta /Yellow]</i>	<i>chapter 2 of the Supplement</i>
<i>/Tumble</i>	<i>boolean</i>	<i>false</i>	<i>section 4.11.3 of the <b>Reference Manual</b></i>

‡ = value is constant, † = **value is persistent across power cycles**

**InputAttributes:** The entries for the slots in the **InputAttributes** dictionary correspond to the following input sources in the Xerox MajestiK Printer/Copier:

<i>Slot number</i>	<i>Input Source (examples)</i>
0	<i>&lt;&lt;/PageSize [842 1191] /MatchAll false /MediaColor null /MediaType (ShortEdgeFeed)&gt;&gt;</i>
1	<i>&lt;&lt;/PageSize [792 612] /MatchAll false /MediaColor null /MediaType (LongEdgeFeed)&gt;&gt;</i>
2	<i>&lt;&lt;/PageSize [792 612] /MatchAll false /MediaColor null /MediaType (LongEdgeFeed)&gt;&gt;</i>

The **InputAttributes** dictionary always contains the actual installed page sizes for slots 0, 1, and 2. If the physical tray is not installed in the printer, the corresponding entry in the **InputAttributes** dictionary will be set to null. The only time this will happen for the main tray (slot 0) is when the printer is booted and the tray is not installed.

If a job is sent to the printer and the tray is removed—or the actual and software-specified tray sizes vary—a dialog box is displayed to alert the user to the problem. The PostScript Interpreter has no role in this process.

**PageSize:** The following paper size values are permissible for the **PageSize** key:

<i>Paper Sizes</i>	<i>Paper Size Names</i>	<i>Non-Kanji Printers</i>	<i>Kanji Printers</i>
[288 432]	4x6	5750	none
[297 420]	A6	5750	none
[284 420]	A6 (Gov. Post-card)	none	620
[516 729]	B5	Regal, MajestiK, 5750	93x, 63x, 620
[729 516]	B5L	Regal, MajestiK, 5750	93x, 63x, 620
[720 576]	8 x10L	Regal, MajestiK, 5750	none
[595 842]	A4	Regal, MajestiK, 5750	93x, 63x, 620
[842 595]	A4L	Regal, MajestiK, 5750	93x, 63x, 620
[609 893]	215x315	Regal, MajestiK	none
[612 792]	Letter	Regal, MajestiK, 5750	93x, 63x, 620
[792 612]	LetterL	Regal, MajestiK, 5750	93x, 63x, 620
[612 936]	Legal13	Regal, MajestiK, 5750	none
[612 1008]	Legal	Regal, MajestiK, 5750	93x, 63x, 620
[618 895]	A4 Bleed	Regal, MajestiK, 5750	none
[635 845]	LetterBleed	Regal, MajestiK, 5750	none
[648 792]	9x11	5750	none
[792 648]	9x11L	5750	none
[648 864]	9x12	Regal, MajestiK, 5750	none
[728 1032]	B4	Regal, MajestiK, 5750	93x, 63x, 620
[792 1224]	11x17	Regal, MajestiK, 5750	none
[842 1191]	A3	Regal, MajestiK, 5750	93x, 63x, 620
[864 1296]	A3Bleed	5750	620

**Note 1:** The smallest page sizes and all full-bleed page sizes are supported only via the manual feed tray. These include: 4x6, A6, A6 Gov. Postcard, A4 Bleed, Letter Bleed, and A3 Bleed.

**Note 2:** The compatibility operator for “Government Postcard” is A6, though the page size is different than the standard A6 of non-Kanji systems.

```
Install Procedure
{/DefaultHalftone /Halftone findresource sethalftone} stopped
{pop vmstatus pop pop 0 eq {<< /HalftoneType
1 /Frequency currentpagedevice /HWResolution get aload
pop 2 copy gt {exch pop} {pop} ifelse
{<< 300 53 400 71 600 75 1200 85 2400 133 >> exch get}
stopped {exch pop 5.6 div cvi} if /Angle 45
/SpotFunction {abs exch abs 2 copy add 1 gt
{1 sub dup mul exch 1 sub dup mul add
1 sub} {dup mul exch dup mul add 1 exch
sub} ifelse} bind readonly >> sethalftone} if
if
% Select appropriate ColorRendering based on ProcessColorModel
currentpagedevice /ProcessColorModel known {
  currentpagedevice /ProcessColorModel get /ColorRendering fin-
dresource
}{
  /DeviceGray /ColorRendering findresource
} ifelse
setcolorrendering
% Set transfer functions
{}
dup
settransfer
dup dup dup setcolortransfer
{0.5 mul} setblackgeneration
{0.5 mul} setundercolorremoval
false setstrokeadjust} bind
```

**Note:** The procedures shown above for “setblackgeneration” and “setundercolor removal” are for SM ICS systems only. For Xerox these procedures are empty, as shown below.

```
{ } setblackgeneration
{ } setundercolorremoval
```

## 2.0 Interpreter Parameters

The semantics for interpreter parameters appear in the *Reference Manual*. For more recent parameters and their semantics, see the *Supplement*.

## 2.1 User Parameters

User parameters can be altered, within reasonable limits, by any PostScript language program without requiring a password. The user parameters establish temporary policies on matters such as whether to insert new items into caches.

The ***setuserparams*** operator sets user parameters, and the ***currentuserparams*** operator reads their current values. The initial value of user parameters at the time the printer is turned on for the first time is product dependent. Unless otherwise specified, all user parameters are subject to ***save*** and ***restore***.

The following table is a list of the user parameters present in the Xerox MajestiK Printer/Copier.

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<i>AccurateScreens</i>	<i>boolean</i>	<i>false</i>	<i>chapter 3 of the Supplement</i>
<i>JobName</i>	<i>string</i>	<i>()</i>	<i>chapter 3 of the Supplement</i>
<i>JobTimeout</i>	<i>integer</i>	<i>0</i>	<i>section 3.1 of the Supplement</i>
<i>MaxDictStack</i>	<i>integer</i>	<i>530</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxExecStack</i>	<i>integer</i>	<i>10015</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxFontItem</i>	<i>integer</i>	<i>12500</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxFormItem</i>	<i>integer</i>	<i>100000</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxLocalVM</i>	<i>integer</i>	<i>2147483647</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxOpStack</i>	<i>integer</i>	<i>100000</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxPatternItem</i>	<i>integer</i>	<i>20000</i>	<i>section C.1 of the Reference Manual</i>

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<i>MaxScreenItem</i>	<i>integer</i>	<i>80000</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxUPathItem</i>	<i>integer</i>	<i>5000</i>	<i>section C.1 of the Reference Manual</i>
<i>MinFontCompress</i>	<i>integer</i>	<i>1250</i>	<i>section C.1 of the Reference Manual</i>
<i>VMReclaim</i>	<i>integer</i>	<i>0</i>	<i>section C.1 of the Reference Manual</i>
<i>VMThreshold</i>	<i>integer</i>	<i>40000</i>	<i>section C.1 of the Reference Manual</i>
<i>WaitTimeout</i>	<i>integer</i>	<i>300</i>	<i>section 3.1 of the Supplement</i>

## 2.2 System Parameters

System parameters, in many cases, permanently alter the overall configuration of a product. They are set using the operator *setsystemparams* and read using the operator *currentsystemparams*. In general, setting system parameters requires a password. System parameters are not subject to *save* and *restore*. Their values persist across jobs.

The following table is a list of the system parameters present in the Xerox MajestiK Printer/Copier.

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<b><i>BuildTime</i></b> <sup>‡</sup>	<i>integer</i>	<i>1194934807</i>	<i>section 3.2 of the Supplement</i>
<b><i>ByteOrder</i></b> <sup>‡</sup>	<i>boolean</i>	<i>false</i>	<i>section C.1 of the Reference Manual</i>
<i>CurDisplayList</i>	<i>integer</i>	<i>0</i>	<i>section C.1 of the Reference Manual</i>
<i>CurFontCache</i>	<i>integer</i>	<i>11136</i>	<i>section C.1 of the Reference Manual</i>

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<i>CurFormCache</i>	<i>integer</i>	<i>0</i>	<i>section C.1 of the Reference Manual</i>
<i>CurInputDevice</i>	<i>string</i>	<i>(%CPSI%)</i>	<i>section 3.2 of the Supplement</i>
<i>CurOutlineCache</i>	<i>integer</i>	<i>0</i>	<i>section C.1 of the Reference Manual</i>
<i>CurOutputDevice</i>	<i>string</i>	<i>(%CPSI%)</i>	<i>section 3.2 of the Supplement</i>
<i>CurPatternCache</i>	<i>integer</i>	<i>0</i>	<i>section C.1 of the Reference Manual</i>
<i>CurScreenStorage</i>	<i>integer</i>	<i>22198</i>	<i>section C.1 of the Reference Manual</i>
<i>CurSourceList</i>	<i>integer</i>	<i>0</i>	<i>section 3.2 of the Supplement</i>
<i>CurStoredScreenCache</i>	<i>integer</i>	<i>1082</i>	<i>section 3.4 of the Supplement</i>
<i>CurUPathCache</i>	<i>integer</i>	<i>0</i>	<i>section C.1 of the Reference Manual</i>
<b><i>DoStartPage</i></b> <sup>†</sup>	<i>boolean</i>	<i>true</i>	<i>section 3.2 of the Supplement</i>
<b><i>FactoryDefaults</i></b> <sup>†</sup>	<i>boolean</i>	<i>false</i>	<i>section 3.2 of the Supplement</i>
<b><i>FatalErrorAddress</i></b> <sup>†</sup>	<i>integer</i>	<i>0</i>	<i>section 3.2 of the Supplement</i>
<i>FontResourceDir</i>	<i>string</i>	<i>(Fonts/)</i>	<i>section 3.2 of the Supplement</i>
<i>GenericResourceDir</i>	<i>string</i>	<i>(Resource/)</i>	<i>section 3.2 of the Supplement</i>
<i>GenericResourcePathSep</i>	<i>string</i>	<i>(/)</i>	<i>section 3.2 of the Supplement</i>
<b><i>JobTimeout</i></b> <sup>†</sup>	<i>integer</i>	<i>0</i>	<i>section 3.2 of the Supplement</i>

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<i>LicenseID</i>	<i>string</i>	<i>LN-063-002</i>	<i>section 3.2 of the Supplement</i>
<i>MaxDisplayList</i>	<i>integer</i>	<i>262144</i>	<i>section C.1 of the Reference Manual</i>
<b>MaxFontCache</b> <sup>†</sup>	<i>integer</i>	<i>204800</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxFormCache</i>	<i>integer</i>	<i>100000</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxImageBuffer</i>	<i>integer</i>	<i>65536</i>	<i>section 3.2 of the Supplement</i>
<i>MaxOutlineCache</i>	<i>integer</i>	<i>65536</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxPatternCache</i>	<i>integer</i>	<i>100000</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxScreenStorage</i>	<i>integer</i>	<i>100000</i>	<i>section C.1 of the Reference Manual</i>
<i>MaxSourceList</i>	<i>integer</i>	<i>262144</i>	<i>section 3.2 of the Supplement</i>
<i>MaxStoredScreenCache</i>	<i>integer</i>	<i>8388608</i>	<i>section 3.4 of the Supplement</i>
<i>MaxUPathCache</i>	<i>integer</i>	<i>300000</i>	<i>section C.1 of the Reference Manual</i>
<b>PageCount</b> <sup>†</sup>	<i>integer</i>	<i>0</i>	<i>section 3.2 of the Supplement</i>
<b>PrinterName</b> <sup>†</sup>	<i>string</i>	<i>(Splash Regal v6.0)</i> <i>Note: string varies based upon the product.</i>	<i>section 3.2 of the Supplement</i>
<i>RamSize</i>	<i>integer</i>	<i>67590008</i>	<i>section 3.2 of the Supplement</i>
<b>RealFormat</b> <sup>‡</sup>	<i>string</i>	<i>(IEEE)</i>	<i>section C.1 of the Reference Manual</i>
<b>Revision</b> <sup>‡</sup>	<i>integer</i>	<i>0</i>	<i>section 3.2 of the Supplement</i>

<i>Key</i>	<i>Type</i>	<i>Default</i>	<i>For more information see:</i>
<b>StartJobPassword</b> <sup>†</sup>	<i>string</i>	<i>()</i>	<i>section 3.2 of the Supplement</i>
<b>StartupMode</b> <sup>†</sup>	<i>integer</i>	<i>1</i>	<i>section 3.2 of the Supplement</i>
<b>SystemParamsPassword</b> <sup>†</sup>	<i>string</i>	<i>()</i>	<i>section 3.2 of the Supplement</i>
<i>ValidNV</i>	<i>boolean</i>	<i>true</i>	<i>section 3.2 of the Supplement</i>
<b>WaitTimeout</b> <sup>†</sup>	<i>integer</i>	<i>300</i>	<i>section 3.2 of the Supplement</i>

### 2.2.1 Product Strings

**product strings:** The **systemdict** operators **languagelevel**, **product**, **revision**, **serialnumber**, and **version** have the following values:

<i>String name</i>	<i>Type</i>	<i>Value</i>
<i>languagelevel</i>	<i>integer</i>	<i>2</i>
<b>product</b> <sup>§</sup>	<i>string</i>	<i>same as PrinterName, shown above</i>
<b>revision</b> <sup>§</sup>	<i>integer</i>	<i>same as Revision, shown above</i>
<i>serialnumber</i>	<i>integer</i>	<i>28E000E</i>
<b>version</b>	<i>string</i>	<i>2017.102</i>

§ = also defined in **statusdict**

### 2.3 Device Parameters

Device parameters are set using the operator **setdevparams** and read using the operator **currentdevparams**. Device parameters are similar to system parameters in that they require a password, are global to the PostScript environment, and have similar persistence characteristics. As with system parameters, some of these parameters can be stored in non-volatile memory.

One property that distinguishes device parameters from both system and user parameters is that device parameters may be interdependent: the legality of a value for a given parameter might depend on the value of another parameter.

Device parameters are subdivided into sets that correspond to a particular device (*%Serial%*, *%disk2%*, etc.). Even if two products have the same device, the parameters in the set might differ, for example, because the hardware support for that device differs.

For *%CPSI%*, *%CPSI\_NV%*, *%CPSI\_Pending%*:

<i>Key</i>	<i>Value</i>
<i>/Enabled</i>	<i>true</i>
<i>/HasNames</i>	<i>false</i>
<i>/Interpreter</i>	<i>PostScript</i>
<i>/On</i>	<i>true</i>
<i>/Type</i>	<i>Communications</i>

For *%os%*

<i>Key</i>	<i>Value</i>
<i>/Free</i>	<i>1341600</i> <i>(value is installation dependent)</i>
<i>/HasNames</i>	<i>true</i>
<i>/InitializeAction</i>	<i>0</i>
<i>/LogicalSize</i>	<i>2076928</i> <i>(value is installation dependent)</i>
<i>/Mounted</i>	<i>true</i>
<i>/Removable</i>	<i>false</i>
<i>/SearchOrder</i>	<i>2</i>
<i>/Searchable</i>	<i>false</i>

<i>Key</i>	<i>Value</i>
<i>/Type</i>	<i>FileSystem</i>
<i>/Writeable</i>	<i>true</i>

For %disk0%

<i>Key</i>	<i>Value</i>
<i>/Free</i>	<i>1341600</i> <i>(value is installation dependent)</i>
<i>/HasNames</i>	<i>true</i>
<i>/InitializeAction</i>	<i>0</i>
<i>/LogicalSize</i>	<i>2076928</i> <i>(value is installation dependent)</i>
<i>/Mounted</i>	<i>true</i>
<i>/Removable</i>	<i>false</i>
<i>/SearchOrder</i>	<i>1</i>
<i>/Searchable</i>	<i>true</i>
<i>/Type</i>	<i>FileSystem</i>
<i>/Writeable</i>	<i>true</i>

For %macresource%

<i>Key</i>	<i>Value</i>
<i>/HasNames</i>	<i>true</i>
<i>/InitializeAction</i>	<i>0</i>
<i>/Mounted</i>	<i>true</i>
<i>/Removable</i>	<i>false</i>
<i>/SearchOrder</i>	<i>0</i>
<i>/Searchable</i>	<i>false</i>

<i>Key</i>	<i>Value</i>
<i>/Type</i>	<i>FileSystem</i>
<i>/Writeable</i>	<i>false</i>

For %fontset%

<i>Key</i>	<i>Value</i>
<i>/HasNames</i>	<i>true</i>
<i>/Mounted</i>	<i>true</i>
<i>/Removable</i>	<i>false</i>
<i>/Searchable</i>	<i>true</i>
<i>/SearchOrder</i>	<i>10</i>
<i>/Type</i>	<i>FileSystem</i>
<i>/Writeable</i>	<i>false</i>

### 3.0 Resource Categories

The following tables list the factory-installed categories and resource instances. New resources of the regular resource categories can be installed by the user. For example, the user can add font and pattern resource. The categories of implicit resources represent built-in capabilities of the interpreter. For example, the **Font-Type** category indicates that the interpreter understands types 0, 1, 3, 4,5, and 6. There are also categories used to define new categories.

Most of the instances listed in the tables below are described in the **Reference Manual** and the **Supplement**. The following information about instances is specific to the Xerox MajestiK Printer/Copier.

<i>Category name</i>	<i>Instances</i>	
<i>ColorRendering</i>	<i>DefaultColorRendering</i>	<i>DeviceGray</i>
	<i>DeviceRGB</i>	<i>DeviceCMYK</i>

<i>Category name</i>	<i>Instances</i>	
	<i>StandardRendering</i>	
<i>ColorSpace</i>	<b><i>DefaultCMYK</i></b>	<i>DefaultRGB</i>
	<i>DefaultGray</i>	
<i>Emulator</i>	<i>No instances defined.</i>	
<i>Encoding</i>	<i>(JISEncoding)</i>	<i>(SJEencoding)</i>
	<i>(Ext-SJ-A-CFEncoding)</i>	<i>(KatakanaEncoding)</i>
	<i>(NotDefEncoding)</i>	<i>(Add-JIS12-88-CFEncoding)</i>
	<i>(Add-SJ-B-CFEncoding)</i>	<i>(Add-SJ12-88-CFEncoding)</i>
	<i>(EUC12-88-CFEncoding)</i>	<i>(EUCEncoding)</i>
	<i>(Ext-JIS12-88-CFEncoding)</i>	<i>(Ext-SJ12-88-CFEncoding)</i>
	<i>(HRoman83pvEncoding)</i>	<i>(HRomanEncoding)</i>
	<i>(HankakuEncoding)</i>	<i>(HiraganaEncoding)</i>
	<i>(ISOLatin1Encoding)</i>	<i>(JIS12-88-CFEncoding)</i>
	<i>(NWP-JIS12-88-CFEncoding)</i>	<i>(NominalJISEncoding)</i>
	<i>(PCHiraKataEncoding)</i>	<i>(PCSymEncoding)</i>
	<i>(SJ-A-CFEncoding)</i>	<i>(SJ-B-CFEncoding)</i>
	<i>(SJ12-88-CFEncoding)</i>	<i>(StandardEncoding)</i>
<i>Font</i>	<i>AvantGarde-Book</i>	<i>AvantGarde-BookOblique</i>
	<i>AvantGarde-Demi</i>	<i>AvantGarde-DemiOblique</i>
	<i>Bookman-Demi</i>	<i>Bookman-Demiltalic</i>
	<i>Bookman-Light</i>	<i>Bookman-Lightltalic</i>
	<i>Courier</i>	<i>Courier-Bold</i>
	<i>Courier-BoldOblique</i>	<i>Courier-Oblique</i>
	<i>Helvetica</i>	<i>Helvetica-Bold</i>
	<i>Helvetica-BoldOblique</i>	<i>Helvetica-Narrow</i>

<i>Category name</i>	<i>Instances</i>	
	<i>Helvetica-Narrow-Bold</i>	<i>Helvetica-Narrow-BoldOblique</i>
	<i>Helvetica-Narrow-Oblique</i>	<i>Helvetica-Oblique</i>
	<i>NewCenturySchlbk-Bold</i>	<i>NewCenturySchlbk-BoldItalic</i>
	<i>NewCenturySchlbk-Italic</i>	<i>NewCenturySchlbk-Roman</i>
	<i>Palatino-Bold</i>	<i>Palatino-BoldItalic</i>
	<i>Palatino-Italic</i>	<i>Palatino-Roman</i>
	<i>Symbol</i>	<i>Times-Bold</i>
	<i>Times-BoldItalic</i>	<i>Times-Italic</i>
	<i>Times-Roman</i>	<i>ZapfChancery-MediumItalic</i>
	<i>ZapfDingbats</i>	
<i>Form</i>	<i>No instances defined.</i>	
<i>Halftone</i>	<i>DefaultHalftone</i>	
<i>HWOPTIONS</i>	<i>No instances defined.</i>	
<i>OutputDevice</i>	<i>Printer</i>	
<i>Pattern</i>	<i>No instances defined.</i>	
<i>ProcSet</i>	<i>CPSI</i>	<i>Kanji</i>
	<i>AdobeScreenProcs</i>	<i>CPSIHalftonePhase</i>

The following information about instances is specific to the Xerox MajestiK Printer/Copier.

<i>Category name</i>	<i>Instances</i>		
<i>ColorRenderingType</i>	<i>1</i>		
<i>ColorSpaceFamily</i>	<i>CIEBasedA</i>	<i>CIEBasedABC</i>	<i>DeviceCMYK</i>
	<i>CIEBasedDEF</i>	<i>CIEBasedDEFG</i>	<i>DeviceGray</i>
	<i>DeviceRGB</i>	<i>Indexed</i>	<i>Pattern</i>
	<i>Separation</i>		

<i>Category name</i>	<i>Instances</i>		
<i>Emulator</i>	<i>No instances defined.</i>		
<i>Filter</i>	<i>ASCII85Decode</i>	<i>ASCII85Encode</i>	
	<i>ASCIHexDecode</i>	<i>ASCIHexEncode</i>	
	<i>CCITTFaxDecode</i>	<i>CCITTFaxEncode</i>	
	<i>DCTDecode</i>	<i>DCTEncode</i>	
	<i>LZWDecode</i>	<i>LZWEncode</i>	
	<i>NullEncode</i>	<i>RunLengthDe- code</i>	
	<i>RunLengthEn- code</i>	<i>SubFileDecode</i>	
<i>FMapType</i>	<i>2, 3, 4, 5, 6, 7, 8, 9</i>		
<i>FontType</i>	<i>0, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 32, 42</i>		
<i>FormType</i>	<i>1</i>		
<i>HalftoneType</i>	<i>1, 2, 3, 4, 5, 6</i>		
<i>ImageType</i>	<i>1</i>		
<i>IODevice</i>	<i>%CPSI%</i>	<i>%CPSI_NV%</i>	<i>%CPSI_Pending %</i>
	<i>%os%</i>	<i>%macresource%</i>	<i>%fontset%</i>
	<i>%disk0%</i>		
<i>PatternType</i>	<i>1</i>		

**FontType:** The integers 0, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 32 and 42 are the instances supported for this particular printer.

The following information about instances is specific to the Xerox MajestiK Printer/Copier.

<i>Category name</i>	<i>Instances</i>		
<i>Category</i>	<i>Category</i>	<i>CDevProc</i>	<i>Charstring</i>
	<i>CIDFont</i>	<i>CMap</i>	<i>ColorRendering</i>
	<i>ColorRendering-Type</i>	<i>ColorSpace</i>	<i>ColorSpaceFamily</i>
	<i>ControlLanguage</i>	<i>Emulator</i>	<i>Encoding</i>
	<i>Filter</i>	<i>FMapType</i>	<i>Font</i>
	<i>FontSet</i>	<i>FontType</i>	<i>Form</i>
	<i>FormType</i>	<i>FSupp</i>	<i>Generic</i>
	<i>Halftone</i>	<i>HalftoneType</i>	<i>HWOPTIONS</i>
	<i>ImageType</i>	<i>IODevice</i>	<i>OutputDevice</i>
	<i>Pattern</i>	<i>PatternType</i>	<i>PDL</i>
	<i>ProcSet</i>		
<i>Generic</i>	<i>No instances defined.</i>		

## 4.0 **Compatibility**

The following operators are included for compatibility with existing Level 1 PostScript language driver software. These compatibility operators are present in Level 2 printers for compatibility purposes only and their use in PostScript Level 2 language programs is strongly discouraged.

The following compatibility operators are present in the Xerox MajestiK Printer/Copier. They appear below in two groups by dictionary.

*In statusdict:*

**Note:** The operator ***sccinteractive*** does not perform any operation

*In userdict:*



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