CreoScitex

Print Console 2.0
Using the Print Console Service Pane

1. INTRODUCTION

This document explains how to access and use the **Service pane** in Print Console 2.0 (previously called the Service menu in Print Console 1.0). It is important to note that the configurations and features that are accessed via this password-protected menu are intended for CreoScitex-trained service representatives and *not for customers* (the **Service pane** is mentioned only briefly in Print Console user documentation). Thus, this document is intended for CreoScitex-trained service personnel only.

This document answers the following questions:

- How has the **Service pane** has changed between Print Console 1.0 and 2.0?
- What is the Print Console **Service pane**?
- How do I access the **Service pane**?
- How do I close the **Service pane**?
- How do I use the various **Service pane** options and related dialog boxes?

For more information about Print Console, refer to the most current documentation available on the Print Console web site in the Customer Support Technical Library.

2. CHANGES TO THE SERVICE PANE

The Print Console team added, removed, and fixed a number of features in the **Service pane** between version 1.0 and 2.0.

2.1 Features Added to Service Pane in Print Console 2.0

We added two new features to the **Service pane** in this version of Print Console:

- Heidelberg UI check box—Integrates Print Console into a Heidelberg Delta Technology Application/Workflow. If this box is checked, you will not be able to shut down Print Console independently of Delta. For more information, see the Heidelberg UI section on page 15.
- Trace Level box—Filters UI (User Interface) and DM (Data Manager) messages from the debug log. For more information, see the Trace Level section on page 16.

2.2 Features Removed from the Service Pane in Print Console 2.0

We removed two features from the **Service pane** in this version of Print Console:

- Switch Device button/menu—Formerly used to switch output devices, this button (and corresponding dialog box) no longer exists. To switch devices, run the Print Console installation program from the Print Console CD and choose the **Select Device** option.
- Narrow-mode thermal head exposure for high line frequency printing options—Previously located on the General tab in the Configure System dialog box, these options are now located on the Additional tab of the Print Setups pane and on the Job Properties dialog box. For more information, please refer to the Print Console Online Help system.

2.3 Features Fixed/Changed in the Service pane in Print Console 2.0

We fixed or changed the following features on the **Service pane** in this version of Print Console:

- The names of three tabs in the Configure System dialog box have changed:
  - The Device Clippings tab is now called the “Device Margins” tab
  - The Margins tab is now called the “Material Margins” tab.
  - The Tinting tab is now called “Digital Masking”

  For more information on the functions of these tabs, see pages 6 and 9, respectively.
- Home and Away Edge Margin settings—Located on the Material Margins tab of the Configure System menu, the Home and Away Edge Margin settings are now operational. For more information, see the Home and Away Edge sections on page 12.

3. WHAT IS THE SERVICE PANE?

The Print Console **Service pane** is a password-protected pane that is used to:

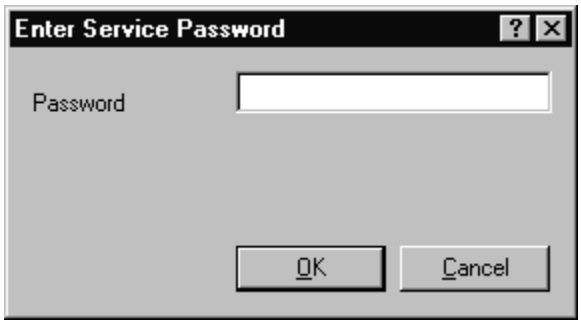
- change where the software looks for the output device animation images
- set Print Console device clipping (now called “device margin”) values
- define media margins for device media
- set up tinting (now known as “digital masking”) capabilities for selected device media
- submit test plots directly to the output device (not yet fully implemented)
- configure the debugger to include/exclude information about the User Interface and the Data Manager
- Integrate Print Console into Heidelberg workflow

Again, the **Service pane** is not meant for general customer use. **Service pane** configuration changes should be made by CreoScitex-trained service representatives only.

4. HOW TO ACCESS THE SERVICE PANE

To access the Print Console **Service pane**:

1. In the Configuration window, press **Ctrl+Alt+S**, which displays the Enter Service Password dialog box:



2. Enter the password (as supplied in your Print Console training course). If necessary, this password can be obtained by calling the Response Center.

   Note: The password is case sensitive.

3. Click **OK**. The **Service pane** opens on the Configuration screen.

5. HOW TO CLOSE/REMOVE THE SERVICE PANE

To close the **Service pane** and hide it from the Configuration screen:

1. Press **Ctrl+Alt+S.**

The **Service pane** disappears from the Configuration screen.

6. SERVICE PANE DIALOG BOXES AND OPTIONS

The **Service pane** contains three buttons and two boxes:

- **Configure System button**—opens the Configure System dialog box (refer to the following section, “Configure System Dialog Box”)
- **Test Plot button—**opens the Test Plot Maintenance dialog box (refer to the “Test Plot Dialog Box” section on page 13)
- **Change Password button**—opens the Enter Service Password dialog box (refer to the “Service Password Dialog Box” section on page 14)
- **Heidelberg UI box**—integrates Print Console with the Heidelberg Delta workflow (refer to the “Heidelberg UI” section on page 15)

- **Trace Level box**—filters messages in the debugger (refer to the "Trace Level" section on page16)

7. CONFIGURE SYSTEM DIALOG BOX

The Configure System dialog box is used to set the location of the output device animation images, to configure certain settings that Print Console uses when communicating with output devices, to let Print Console know the device margin values (offset margins) that are set in the output device's firmware, to set media margins for selected device media, and to set up digital masking capabilities for selected device media.

The Configure System dialog box includes 5 tabs:

- General (refer to the following section, "General Tab")
- Serial I/O (refer to the "Serial I/O Tab" section on page 5)
- Device Margin (refer to the "Device Margin Tab" section on page 6)
- Material Margins (refer to the "Material Margins Tab" section on page 9)
- Digital Masking (refer to the "Digital Masking Tab" on page 12)

7.1 General Tab

The **General** tab contains the Images Path option:

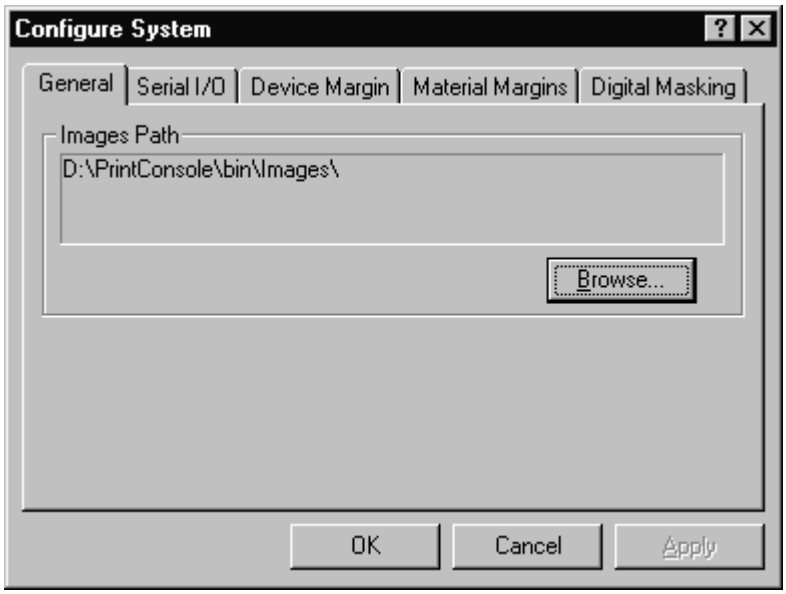


Figure 1 – General tab, Configure System dialog box

Use the **General** tab to change the directory path where Print Console looks for device images.

Note: in Print Console 1.0, this tab also contained options for Narrow Mode Usage. These options are now on the Additional tab in the Print Setups pane, or in the Job Properties dialog box.

7.1.1 Images Path Setting

The Images Path section displays the directory path where Print Console device images are stored. During installation, Print Console automatically installs the device images in the Print Console\bin\Images folder. If the Print Console device images are not stored in the \Print Console\bin\Images folder, click the **Browse** button—which opens the Locate the 'Images' directory dialog box—and search for the folder where the images are stored.

7.2 Serial I/O Tab

The **Serial I/O** tab contains 4 boxes:

- Echo timeout
- Startup interval
- Running interval
- Running timeout

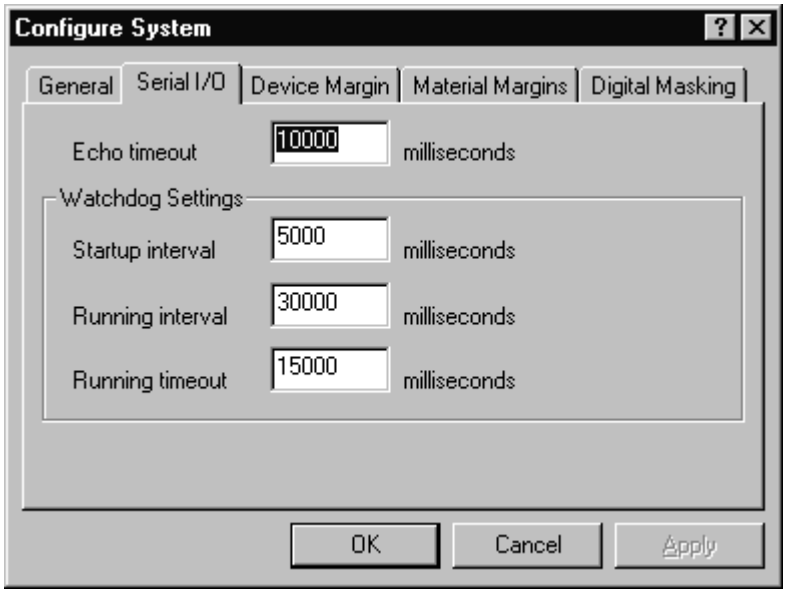


Figure 2 – Serial I/O tab, Configure System dialog box

The **Serial I/O** tab sets the default character echo timeout, watchdog timeout, and watchdog polling periods that Print Console uses to communicate with the output device.

IMPORTANT! The values displayed in the screenshot above are the default values: it is *strongly* recommended that you do not change these settings!

7.2.1 Echo Timeout Setting

Print Console sends commands to the output device one character at a time and waits for the output device to echo back each character as a confirmation that the device received the command. If the command line is not echoed back, then Print Console knows that there is something wrong with the device and prompts the user with a message.

The **Echo timeout** value is the amount of time (in milliseconds) that Print Console waits for the output device to echo back each character while sending a command. If the output device does not echo back a character by the defined time, Print Console displays a message—Waiting for Device, for example—in the status/message field (visible at the top of the Print Console main screen).

7.2.2 Watchdog Settings

Print Console sends special commands called watchdog commands to the device on a periodic basis to make sure that the output device is still available and to query the general status of the device (ready, active, suspended, etc.). The commands are sent more frequently during system startup when the device is intializing.

The Watchdog Settings section defines the timing used when prompting the output device to make sure that the output device is still available and to check its overall status:

- Print Console uses the **Startup interval** time between watchdog commands when Print Console is initially started and is polling for the output device on the serial cable. Also, after detecting the output device, Print Console sends a flush command to it and continues to use this interval between watchdog commands until the output device is finished initializing. This interval is much shorter than the Running interval used during normal operation.
- Print Console uses the **Running interval** time between watchdog commands after the output device has finished initializing to make sure that the output device is still available and to check its overall status.
- When checking to see if the device is still available, Print Console uses the **Running timeout** time. The device must reply to the watchdog command within this timeout period, or else Print Console assumes the device is no longer available. The **Running timeout** time must always be less that than the **Running interval** time.

If at any time the device fails to respond by the allotted time, Print Console displays a message (again, in the status/message field at the top of the main screen).

7.3 Device Margin Tab

The **Device Margin** tab contains 2 boxes:

- Clip for leading edge clamps
- Clip for trailing edge clamps

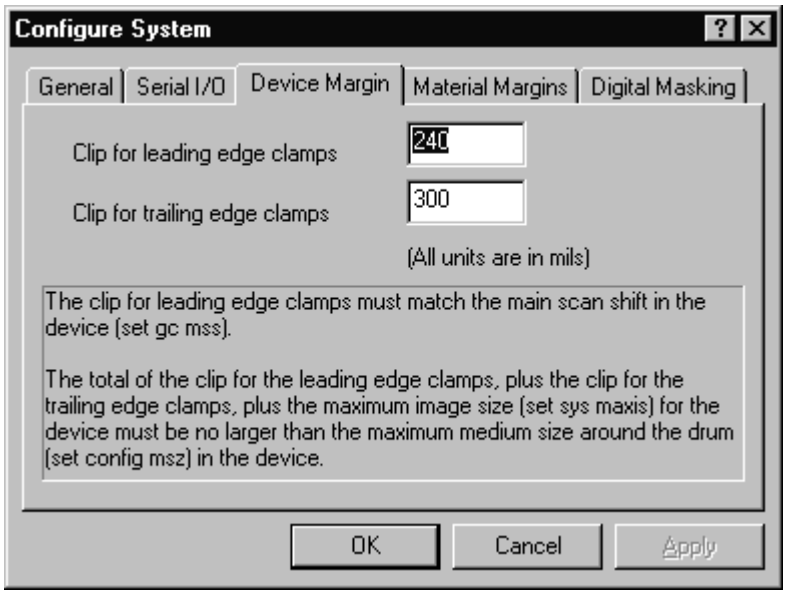


Figure 3 – Device Clipping tab in Configure System dialog box

Use the **Device Margin** tab to enter the device margin settings configured in the device firmware. Since Print Console cannot actually read the output device firmware (except for the Trendsetter 400), you have to make sure the values in the **Device Margin** tab match those in the device firmware. These settings tell Print Console where (on the media) the device will start imaging in relation to the leading edge clamps, and where it will stop imaging in relation to the trailing edge clamps. (Device margins prevent the output device from imaging too close to the clamps.)

Print Console uses the device margin parameters to allow the RIP (TIFF Downloader) to determine the length of the image to be processed on the plate; thus, the in-device offsets have a direct impact on raster clipping. Print Console uses the leading edge clipping to instruct TIFF Downloader to clip the correct amount of image off of the leading edge of the raster: when this amount is equal to the device margin, the image is placed in the correct relative position on the media.

For example, if you have a 32” by 44” plate with device margins defined as 300 mils (a mil is one thousandth of an inch) for the leading edge clamps and 240 mils for the trailing edge clamps, and an image that is 32” by 44”, then the RIPed file length will have to be 31.46” in order to be properly imaged on the plate.

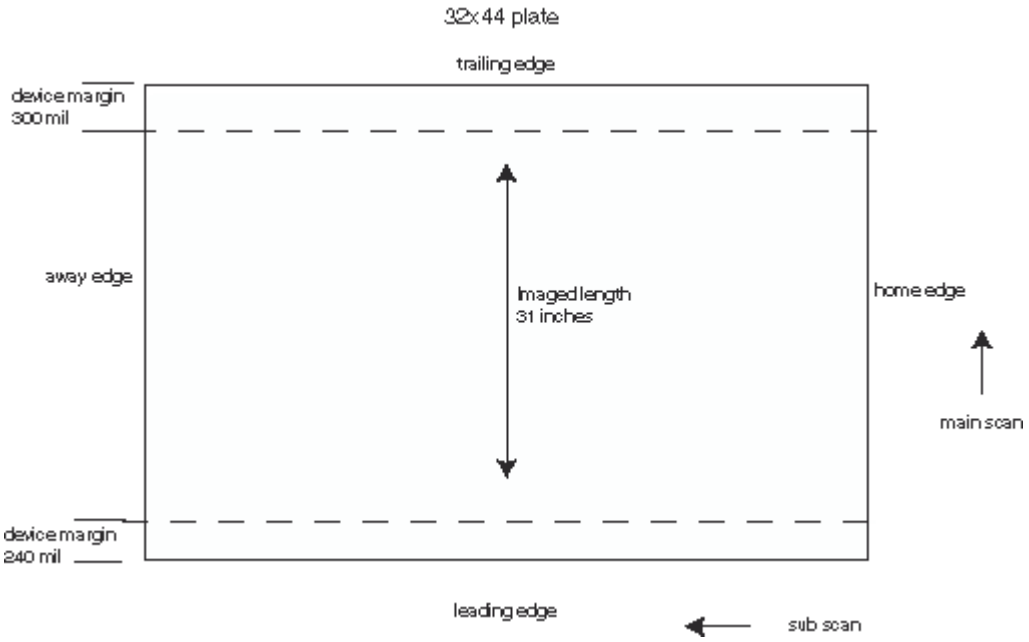


Figure 4 – Clipping margins on a 32” by 44” plate

The default device margin settings for all output devices—except the Platesetter 3244, the ThermoFlex, and the Trendsetter 400—are 240 and 300 mils, respectively.

The default settings for the Platesetter 3244 are 300 and 500 mils. The default settings for the ThermoFlex are 500 and 500 mils.

The setting for the Trendsetter 400 automatically matches the device firmware setting since this device has a binary interface that allows Print Console to query the firmware for this value. Therefore, the device margin settings for the Trendsetter 400 (usually 8000 microns—*a micron is one millionth of a metre*) cannot be changed through Print Console, only from the firmware. These values, then, are dimmed and unavailable from the **Device Margins** tab.

Warning: Older devices in the field may have different Device Margin settings in their firmware. In the past, the Trendsetter 3244 and 3230 devices were set to 300 by 500 mils, and the ThermoFlex devices were set to 500 by 500 mils. So, when you upgrade a site from Print Console 1.0 to Print Console 2.0 and later, make sure to check the **gc mss** values (geometric correction main scan shift) in the device firmware to ensure the device margins match. (You can view the output device’s gc mss value by looking at the diagnostic port of the workstation attached to the device, and typing “set gc mss”.)

7.3.1 Clip for Leading Edge Clamps Setting

Use the **Clip for leading edge clamps** field to set the leading edge device margin to match the **gc mss** (geometric correction main scan shift) setting in the device's firmware, which is set during manufacturing.

Again, this value is currently 300 mils for the Platesetter 3244, and 240 mils for the all other output devices (except the Trendsetter 400). However, these values may be different on older devices, so it is wise to check the gc mss value of your device to ensure that the leading edge clip matches it. (You can view the output device's gc mss value by looking at the diagnostic port of the workstation attached to the device, and typing "set gc mss".)

Note: Print Console does not actually read the gc mss value from the output device (notwithstanding the Trendsetter 400), so if you change the default values in the **Device Margins** tab, be aware that you may also have to change the gc mss value in the output device. In other words, if the leading edge clipping does not match the gc mss value from the device, images will shift on the media. (For a more detailed explanation, refer to the *Configuring Print Console for a Default Negative Mainscan Direction Image Shift* document, available through the Print Console web pages in the Customer Support Technical Library.)

7.3.2 Clip for Trailing Edge Clamps Setting

Use the **Clip for trailing edge clamps** field to set the trailing edge device margin.

This default value is currently 500 mils for the Platesetter 3244, and 300 mils for the all other output devices (except the Trendsetter 400). Again, older devices may have different settings in their firmware, so to be sure, check the gc mss settings in the device firmware. Make sure the values match.

Note: If you want to image more closely to the trailing edge clamps, you *can* change this value; however, the imaging quality may be affected at the edge of the plate near the clamps.

7.4 Material Margins Tab

The **Material Margins** tab contains a list box and 4 boxes:

- Medium material list
- Leading edge margin
- Trailing edge margin
- Home edge margin
- Away edge margin

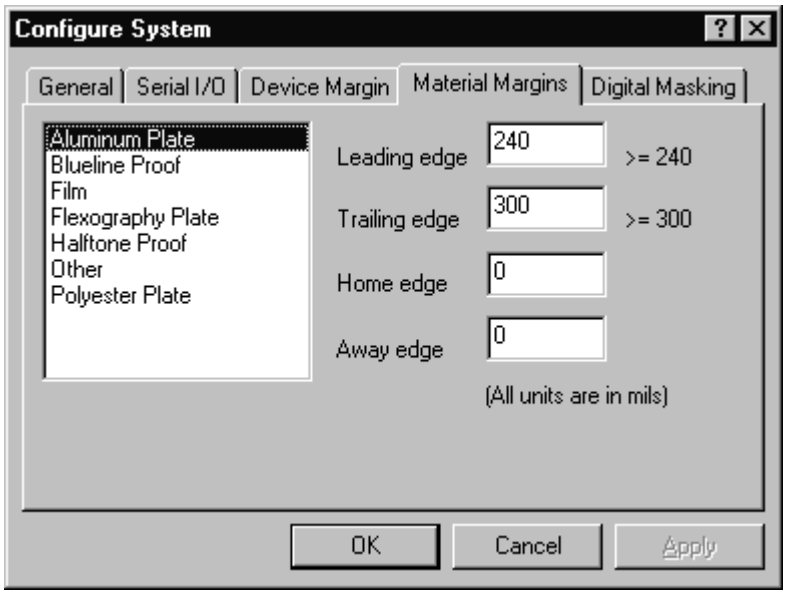


Figure 5 – Material Margins tab in Configure System dialog box

Use the Material Margins tab on the Configure System dialog box to specify margins for media material. Print Console, via TIFF Downloader 2.x, supports the use of margins on all four sides of the media.

The material margin settings define areas of the media beyond the device margin settings that cannot be imaged. For media other than digital-halftone proofing media, you must make sure that the material margins are equal to or greater than the device margins. If the material margins are less than the device margins, Print Console displays an error message.

Once you have set the material margins, the output device will not allow imaging in these areas, and the RIP removes these areas from the raster file before it is output. The exact handling of the margins depends on the sizes of the image and the media. The RIP always removes the leading and home edge margins from the image. The trailing and away edge margins are removed from the image only if the image extends into these regions on the plate.

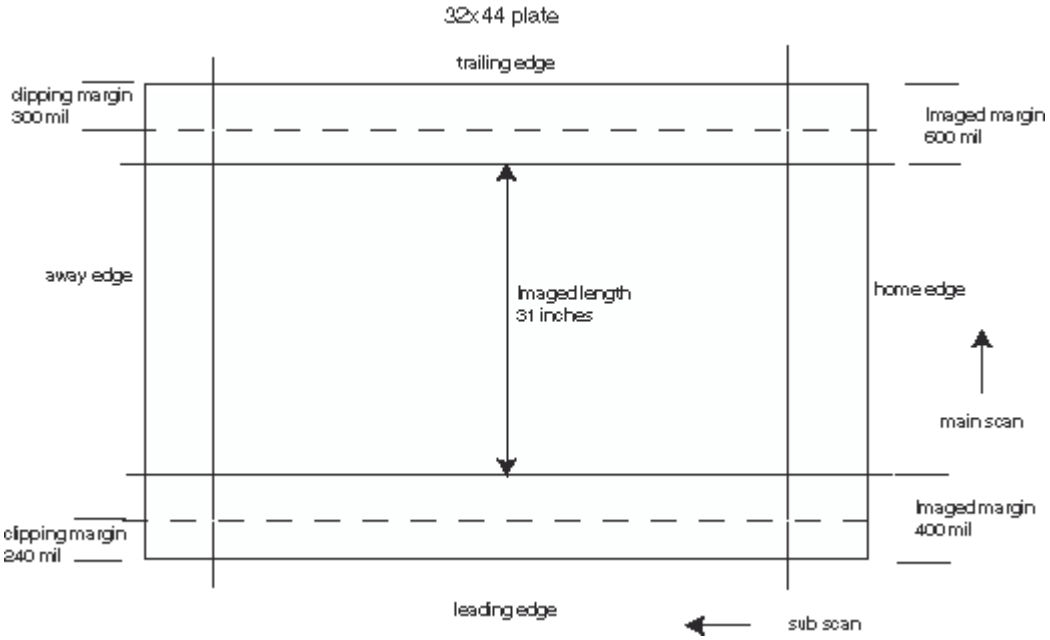


Figure 6 – Clippings and margins for a 32” by 44” plate

For example, assume the following margins are set:

Leading edge: 400 mils
Trailing edge: 600 mils
Home edge: 100 mils
Away edge: 100 mils

If a 32" by 44" raster image is imaged on a 32" by 44" plate, all margins are applied and the RIP outputs an image that is 31" by 43.8". If the same file is imaged on a 22" by 33" plate, the RIP produces a 21" by 32.8" image. Imaging this file on a 40" by 50" plate produces a 31.6" by 43.9" image.

Note that there is a minor limitation in the way the TIFF Downloader handles the leading edge clip (for the normal case where there is no transformation). The leading edge clip is converted to pixels and rounded down to the nearest multiple of 8. This will result in an image shift on plate of up to 7 pixels, which at 2400 dpi is about 0.003" (3 thousands of an inch). For example, if a leading edge clip of 115mils is specified for a 2400 dpi image, the actual leading edge clip will be 113.3 mils (corresponding to 272 pixels instead of 276).

For halftone proofing material, the margins can all be set to "0", because the proof carrier is clamped to the drum and the halftone proofing material is attached by vacuum, which allows for the maximum use of the proofing media. Also, Spectrum digital halftone proofing devices are by default configured (in the device firmware) with 0.5" margins for proofing material.

Note: CreoScitex recommends for Blueline proofing material that the Home and Away margins have values defined.

7.4.1 Medium Material List

The **Medium material** list box (which does not have a label) displays the available medium material. Use this list to select the medium material that you want to assign margins to.

7.4.2 Margin Settings

The value in this box cannot be less than the **Clip for leading edge clamps** value in the **Device Margin** tab, as the output device cannot image the plate below the leading edge offset margin.

The value in this box cannot be less than the **Clip for trailing edge clamps** field in the **Device Margin** tab, as the output device cannot image the plate above the trailing edge offset margin.

The **Home edge** box sets the material margin for the home edge of the plate. The RIP removes raster from the home edge, while the overall image stays in the same location.

The **Away edge** box sets the material margin for the away edge of the plate.

Note: It is recommended that for Blueline proofing material, the **Home** and **Away** margins have values defined.

7.5 Digital Masking Tab

Use the **Digital Masking** tab to configure the available device media for digital masking (formerly called “Tinting”).

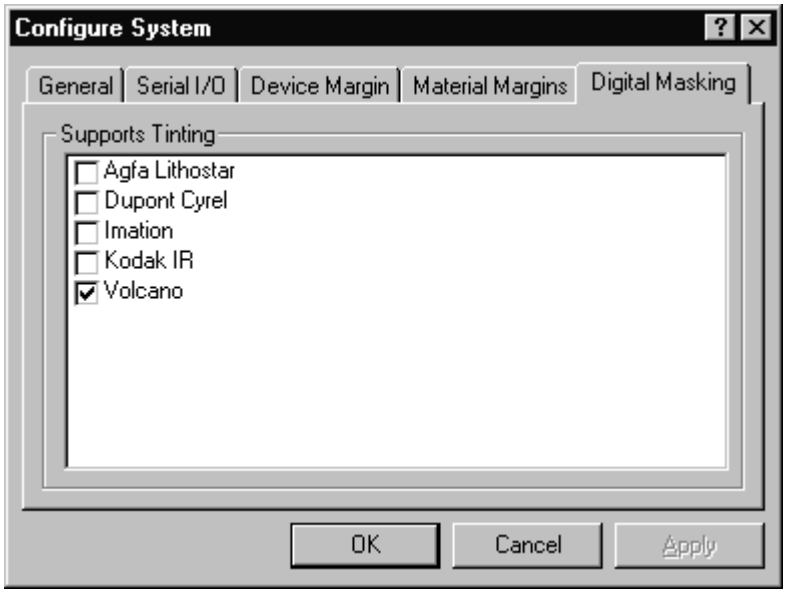


Figure 7 – Digital Masking tab in Configure System dialog box

Print Console, through TIFF Downloader, supports ThermoFlex “digital masking” mode. Digital masking is the process of applying a digital mask to thermal film. Digital masking has been developed for the packaging industry, more specifically for the liquid photopolymer

flexography industry. In the liquid flexo business, tonal ranges in the 1%–4% and 97% to 100% are almost impossible to achieve at the same time. The limiting factor is that the liquid is hardened by exposure to UV light; if a flexo plate is exposed long enough to develop the tones in the 1%–4% range so they will last and print on press, then the 97%–100% tones will overexpose and all become 100% (and vice versa). Digital masking provides a process by which the amount of light reaching the liquid can be controlled, thereby providing the wider overall tonal range needed.

Liquid photopolymer is exposed with UV light until it hardens. The UV light is transmitted through a film (Kodak DITF–a.k.a. Volcano film–in the case of ThermoFlex) allowing an image to be imposed on the hardening liquid. If we half expose the film in the 97%–100% range, and fully expose it in the 1%–4% range, we can, in effect, regulate how much light is allowed to reach the liquid photopolymer.

We can go one step further and vary the amount of exposure based on the target tonal percentage and get a nice, smooth curve customized for maximal tonal range on the finished plate. This functionality resides in CreoScitex TIFF Downloader 2.x, which is part of Print Console. The final result coming out of TIFF Downloader is 2 full images –the original TIFF file and the masking image–interlaced together scan line by scan line. We image the entire original TIFF file at half exposure, and the masking image fully exposes the areas required for proper exposure levels, all in one pass of the head.

For more detailed information about digital masking, refer to the C*reoScitex TIFF Downloader 2.x Reference Guide* in the Customer Service Technical Library's TIFF Downloader page.

7.5.1 Digital Masking Support Setting

To configure a device media for digital masking support:

1. In the **Service pane**, select the **Configure System** option.

   The Configure System dialog box is displays.

2. Select the **Digital Masking** tab.
3. Enable digital masking for a particular device media by selecting the appropriate check box.
4. Click **OK**.

   - Once digital masking has been enabled for a device media, Print Console displays the **Digital Masking Scheme** drop-down box when that device media is selected in the **Device Media** pane. (See the Print Console Online Help for more information on the **Device Media** dialog box and the **Digital Masking Scheme** drop-down box.)

8. TEST PLOT DIALOG BOX

The **Test Plot** dialog box features have not yet been implemented. This functionality will be included in a later release of Print Console.

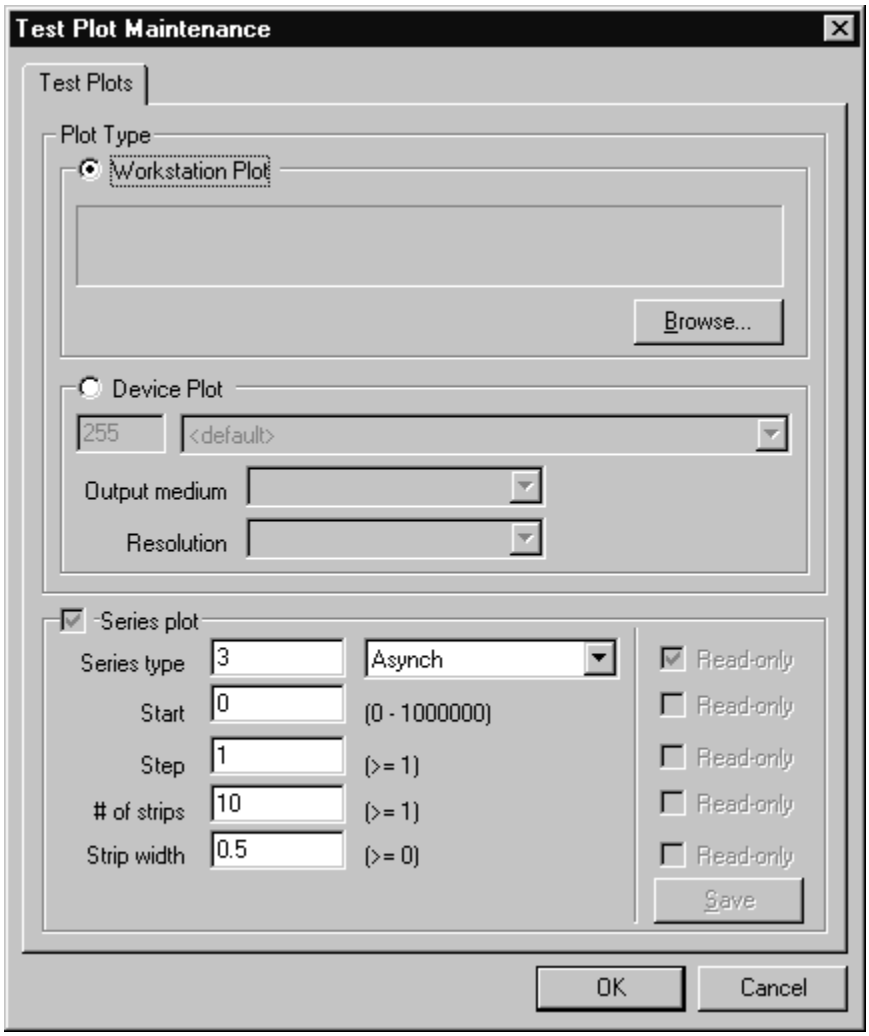


Figure 8 – Test Plot dialog box

9. SERVICE PASSWORD DIALOG BOX

Use the Enter Service Password dialog box to change the **Service pane** access password from the default (as supplied in the Print Console training course) to your own unique password.

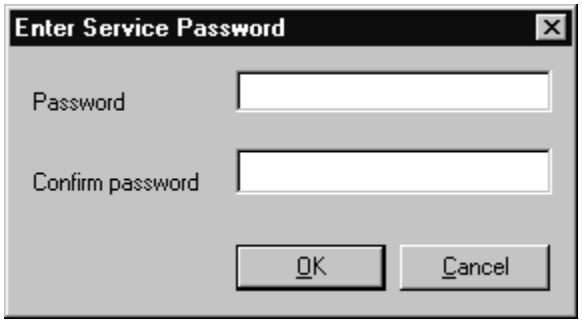


Figure 9 – Enter Service Password dialog box

9.1.1 Service Password Setting

To change the **Service pane** password:

1. In the **Service pane**, select the **Change Password** option.

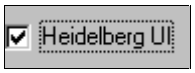
   The Enter Service Password dialog box is displayed.

2. In the **Password** field, type the new password.
3. In the **Confirm password** field, re-type the new password.
4. Click **OK**, which saves the new password.

   IMPORTANT! Don't forget the new password! Also, other CreoScitex service representatives may need access to the Print Console **Service pane**, so please ensure that the password change is made known to those who may require it. (If necessary, however, a member of the Print Console development team can be contacted for assistance in resetting the password to the default value.)

10. HEIDELBERG UI

The Heidelberg UI check box was added to the **Service pane** to integrate Print Console with the Heidelberg Delta workflow.



Selecting this box does the following:

- hides the PPD pane—to make the pane re-appear without clearing this check box, press Ctrl+Alt+End. To hide it again, press the same combination of keys.
- hides the Hot Folders pane
- disables the shutdown functions in Print Console—When the Heidelberg UI check box is selected, Print Console cannot be shutdown independently of the Delta Technology Application/Workflow.

  However, if you do not want to shut down Print Console through Delta, but you want to keep this option selected, simply press Ctrl + Alt + End.

  For more information on the Delta Technology Application/Workflow and Print Console, see the Delta Technology & Print Console Users Guide.

11. TRACE LEVEL

The **Trace Level** box in the **Service pane** filters UI (User Interface) and DM (Data Manager) messages in the debug log.



- To set the Debugger to display UI messages only, type the number "**1**" in this box. Doing this instructs the Debugger to display all message lines with a >>>MF extension (Main Frame), for example, >>>MF: WM_DM_ENDACTIVEJOB.
- To set the Debugger to display DM messages only, type the number "**2**" in this box. Doing this tells the Debugger to display all message lines with a >>>DM extension, for example, DM>>>: WM_DM_ENDACTIVEJOB.
- To display both UI and DM messages, add the two values together (**1**+**2**) and type in the end value (**3**).
- To display a basic set of messages in the debug log, clear this box.