



**NAVIGATOR**

**PROOFING PLUG-IN MANUAL**

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**CANON 12-COLOR**

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FEBRUARY 28, 2008



**YOUR BUSINESS. OUR DRIVE.**

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Xitron Part Number Doc-1116-0108

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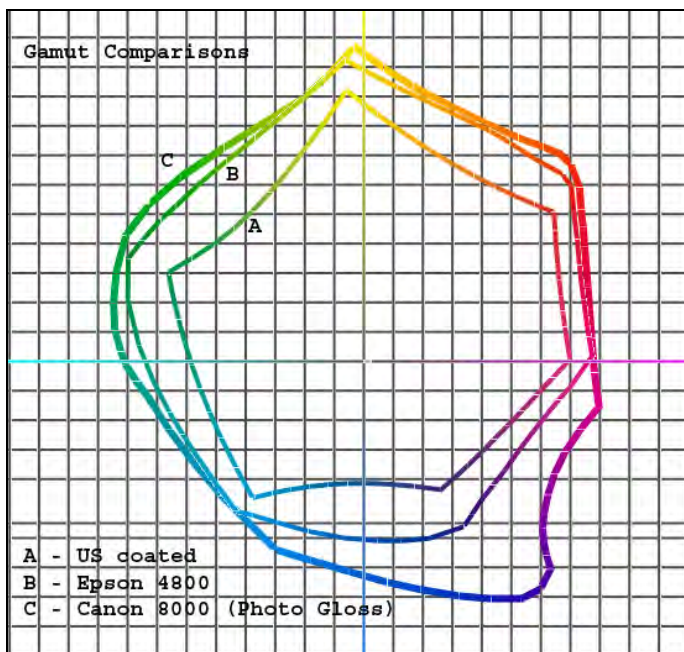
## OVERVIEW

Xitron's Navigator PostScript RIP relies on software modules called plug-ins to communicate with output devices such as imagesetters and platesetters. These plug-ins convert rasterized image data into file formats understood by the various output devices. Transferring this data to a device often requires a specific interface card and cable through which the plug-in communicates.

With ink-jet plotters, job files undergo a complex conversion into a compatible file format before being communicated to the plotter over a network or through a USB connection. In the case of the Canon imageProGraf 12-color printers, the format takes into account the wide-gamut capability provided by the addition of RGB inks within the plotter.

When considering whether to support this family of plotters, Xitron engineers worked to discover whether the additional inks (most current plotters use eight colors) provided any concrete benefit to the commercial printer. Specifically, the combination of CMYK inks along with RGB inks should extend the ability of the plotter to accurately reproduce many Pantone® colors that fall outside the conventional CMYK gamut. An example of these findings appears in Figure 1.

FIGURE 1: COLOR GAMUT COMPARISON



This gamut chart illustrates that colors with predominate greens, blues and grays are more likely to be properly reproduced on the Canon imageProGraf device (using Xitron's plug-in) than similar shades output through an 8-color Epson 4800 on semi-matte proofing paper, or the 4-color CMYK equivalents printed on a press using US coated sheet fed standards. Obviously, both the Epson and Canon devices exceed the gamut of the Press.

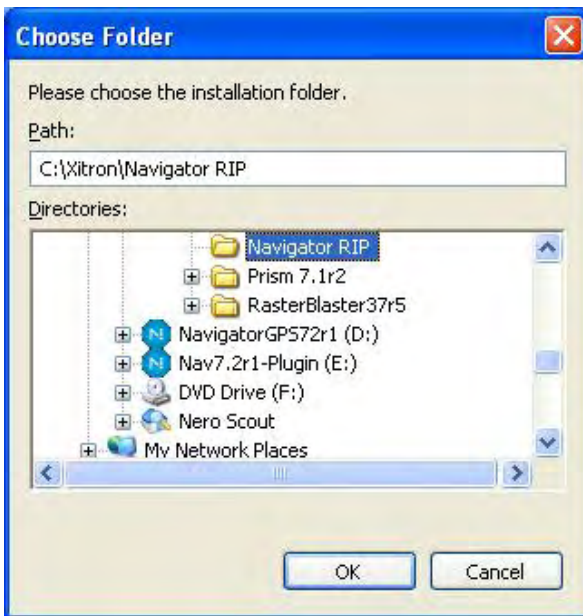
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## PLUG-IN INSTALLATION

If you are using the installer downloaded from the Xitron website (<http://xitron.com/Navdriver.htm>), double click the icon. The dialog box shown in Figure 2 will appear. Locate the folder containing the Navigator Rip before clicking *OK*.

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FIGURE 2: LOCATE THE RIP FOLDER

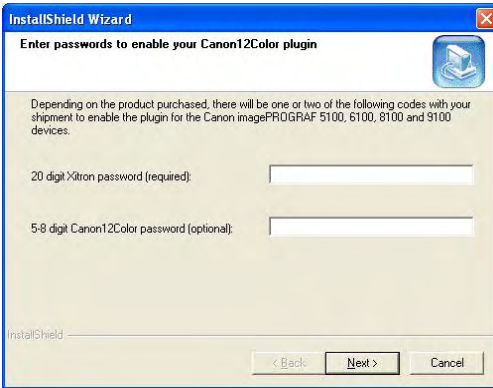


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The installer will place all of the relevant files in their proper locations and then post a window requesting a series of

passwords. The first password is for the Canon 12-color proofer plug-in. The second is for Navigator's ColorPro module. These windows are illustrated in Figure 3.

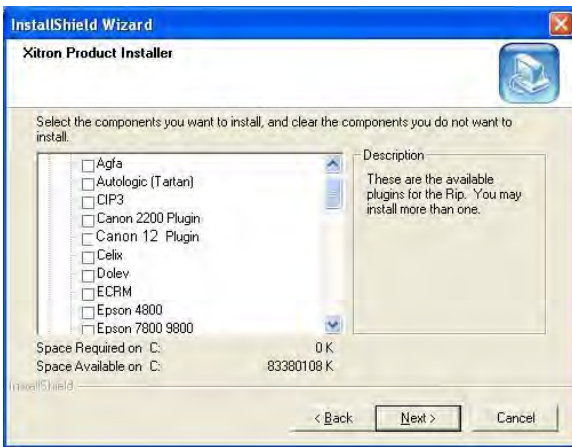
**FIGURE 3: PASSWORDS**



Enter each password before clicking Next.

If you are installing from the Plug-in CD, the plug-in selection window will resemble the example shown in Figure 4. Select the plug-in by clicking the check box next to it and then click *Next*. Follow the instructions for entering passwords as described earlier.

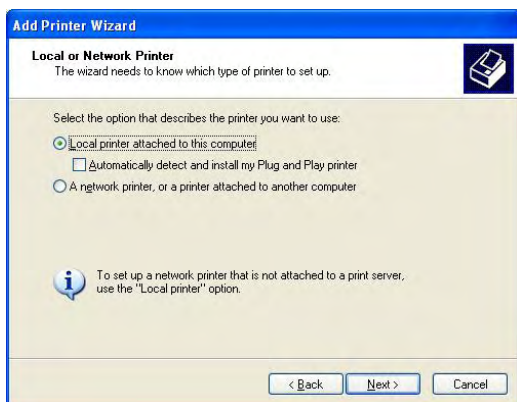
**FIGURE 4: CD INSTALLER**



## ADD A WINDOWS PRINTER

From the Printers and Faxes menu in Windows, click *Add a Printer* under the Printer Tasks section. The Add Printer Wizard will appear. Click *Next*. Windows will display the dialog box shown in Figure 5.

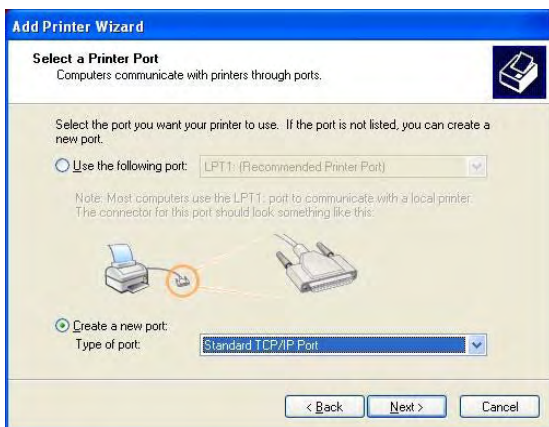
FIGURE 5:



Select *Local printer attached to this computer* and then click *Next*. The first dialog box shown in Figure 6 will appear. Click *Create a new port* and use the pull-down menu to select *Standard TCP/IP Port* if the printer is addressable on the network.

After clicking *Next*, the TCP/IP port Wizard will appear. Enter the TCP/IP address of the Canon printer as shown in the second example of Figure 6. **Note: The IP address shown is an example only. Your address will be different. If this process is unclear, get help from your company's IT person. Likewise, check the Canon documentation for assigning the printer an address on the network.**

FIGURE 6: PRINTER PORTS



After entering the proper address, the TCP/IP Wizard will post a “Completing” message. An example is shown in the upper portion of Figure 7. Click *Finish*.

FIGURE 7: COMPLETING WIZARD



The Add Printer Wizard will then ask what model printer is being installed and allow you to select the driver as shown in the bottom of Figure 7. Do NOT select the Canon drivers. Instead select *Generic* as the manufacturer and *Generic / Text* for

the Printer. Click *Next (and Keep Existing Driver if asked)*. Name the printer as shown in the first example in Figure 8. Give the printer a recognizable name such as Canon 12-Color.

**FIGURE 8: COMPLETING WINDOWS PRINTER**



Whether you select it as the default printer for the PC or not, doesn't matter since it will be driven through the Navigator plug-in. Click *Next* and the Wizard will ask about sharing the printer and printing a test sheet. Do not print the test sheet at this time. The Wizard will then show the final characteristics as displayed in the second example of Figure 8.

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## PAPER CHOICE

The Canon iPF series printers make it simple to use different papers and ensure good results. These printers use on-board densitometry to measure output and calibrate when necessary.

There are two methods to follow, depending on your paper choice.

Method 1- Choose paper already supported and use built-in ICC profiles.

- Install a Windows printer as described in the previous section
- Load the supported paper into the printer
- Calibrate the paper according to the instructions in the next section
- Create a ColorPro setup using the ICC profile for that paper
- Create a Page Setup using that ColorPro setup

## Method 2-Use custom paper and custom ICC profiles

- Install a Windows printer as described in the previous section
- Load your choice of paper into the printer
- Calibrate the paper according to the instructions in the next section
- Create an ICC profile using whatever color management software you have available
- Install the profile into the Navigator RIP
- Create a ColorPro setup using the ICC profile for that paper
- Create a Page Setup using that ColorPro setup

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## CALIBRATING YOUR CHOICE OF PAPER

Load the paper into the Canon iPF printer. From the front panel of the device, press the Menu button. The LCD should display MAIN MENU. Using the directional button wheel, press the appropriate arrow button to locate Media Menu>Roll Media Type. The LCD will display the current selection, such as Proofing Paper or Plain Paper as shown in Figure 9. Use the directional arrows to select your paper stock. If you are using a stock with a matching ICC profile already embedded in the RIP, consult the chart in Figure 10 to match the paper and the profile.

Your printer will have many paper types already listed in its programming. However, this paper list can be updated by

visiting Canon's website and obtaining the Media Configuration Tool.

FIGURE 10:



FIGURE 11: PAPER CHART

Paper Name on Box	RIP Res	Print Intent	Print Quality	icc Profile Name
Xitron X1 Proofing (use Proofing Paper setting on canon)	600x600	Image	Normal	ipfC_XitronX1_Norm_600x600.icc
Glossy Photographic Paper (190 gsm)	600x600	Image	Normal	ipfC_GlossyPhoto_Norm600x600.icc
Commercial Proofing Paper	600x600	Image	Normal	ipfC_ComPrPa_Norm_600x600.icc
RC Commercial Proofing Paper 210	600x600	Image	Normal	ipfC_RCProo210_Norm_600x600.icc
Satin Photographic Paper 190 gsm	600x600	Image	Normal	ipfC_SatinPhoto_Norm_600x600.icc
Satin Photographic Paper 240 gsm	600x600	Image	Normal	ipfC_SatinPhoto_Norm_600x600.icc

If your paper choice is not listed, start with something similar in name, or try the generic “Proofing Paper” listed in the device. Once the paper has been selected, you must calibrate the proofer to the paper, which is discussed in the next section. After calibrating the paper, you can run your own profile creation software on it and create custom ICC profiles or use the built-in profiles cross referenced in Figure 11.

If you choose to create your own custom ICC profiles, read through to the end of this document. Necessary information about connecting the RIP to the Canon printer follows.

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## CALIBRATING THE PAPER

From the printer’s *Main Menu*, scroll through the choices and locate *Adjust Printer*. Enter the submenu and scroll to *Calibration*. Enter the calibration submenu as shown in Figure 12.

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FIGURE 12: CALIBRATION MENU



Enter the menu labeled *Use Adj. Value* and set it as “enabled.” Then enter the *Auto Adjust* Menu shown in Figure 13 to begin the calibration process. Select *Yes* and press the *OK* button in the center of the directional scroll wheel as shown in Figure 14. The system will begin calibration, which takes approximately 15 minutes.

FIGURE 13: AUTO ADJUST

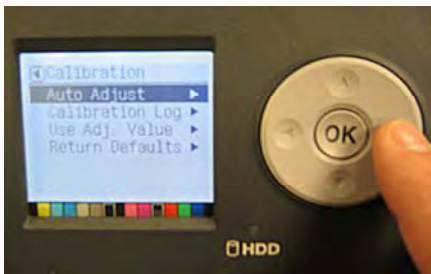
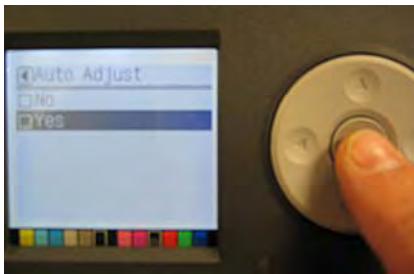


FIGURE 14



Scroll back to the Calibration menu and select Calibration Log. Enter the Calibration Log submenu and it will display data

similar to that shown in Figure 15. This is a reference to which paper is currently calibrated and when the calibration took place.

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**FIGURE 15: CALIBRATION LOG**



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## RIP CONFIGURATION

If you've created your own ICC profiles for the printer, those profiles must be imported into the Navigator RIP as shown in Figure 16. Full instructions for installing these profiles can be found on page 33 of the Harlequin ColorPro User's Guide. This guide and many others are available on the Xitron website at <http://xitron.com/Navdocu.htm>. Once the profiles are properly installed, they can be accessed within the ColorPro Setup. An example can be seen in Figure 17.

FIGURE 16: INSTALL ICC PROFILE

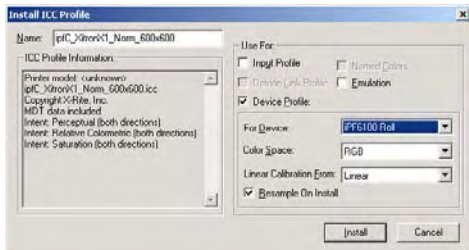
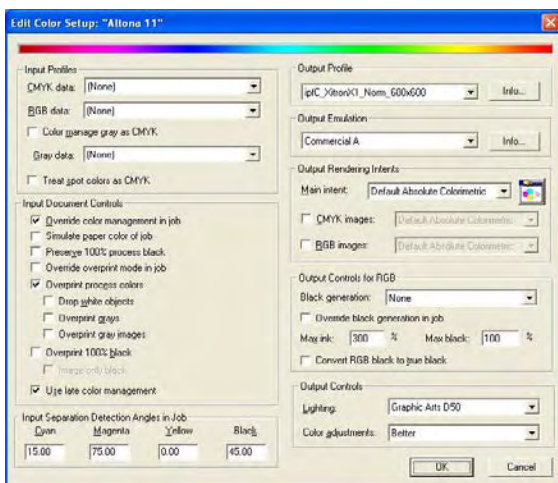
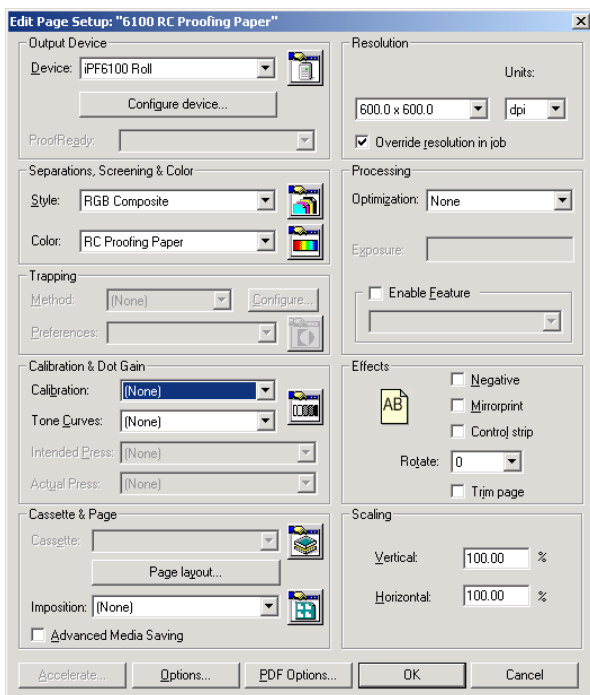


FIGURE 17: COLORPRO SETUP EXAMPLE



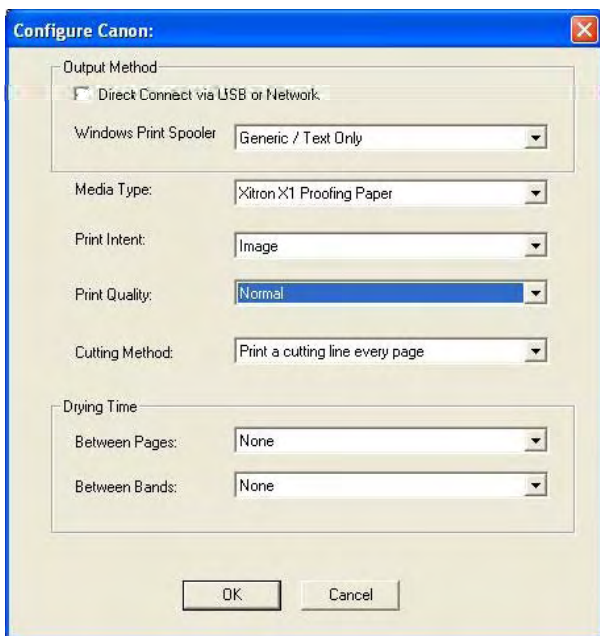
In this example, the output profile chosen is for Xitron X1 Proofing Paper. The output emulation is set for the Commercial-A printing standard. The rest of the settings are optional and information regarding their proper use can be found in the Color Pro User's Guide mentioned earlier.

FIGURE 18: PAGE SETUP



A properly configured Page Setup will resemble the example in Figure 18. Be sure *Calibration* is set to *None*. With the Canon plug-in selected under Output Device, click the Configure Device button and select the Canon printer from the Windows Printer you created at the beginning of this installation. The example shown in Figure 19 reflects the Generic/Text printer and Xitron X1 Proofing Paper as the selected Media Type.

FIGURE 19: CONFIGURE DEVICE



The checkbox “Direct Connect via USB or Network” renders the Windows Print Spooler choice meaningless. The direct connection bypasses the spooler. This can be useful in some cases but ties the RIP up for longer than is necessary.

We recommend you use a spooler with the “generic/text only” driver, as shown. You should pick a more descriptive name for that spooler, such as “Canon IPF 6100”.

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## SENDING JOBS

The RIP and printer communicate with RGB data. However, this has no bearing on the jobs or data that you send to the RIP. You may send CMYK, spot color, or even customize a ColorPro-assisted RGB workflow as you prefer. Regardless, the RIP will honor the full, available gamut of the output device.