



NAVIGATOR

TIPS & TRICKS

➤ SELECT TIPS & TRICKS

➤ MOVING AWAY FROM APPLTALK®

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TIPS & TRICKS FOR THE HARLEQUIN® RIP

Tips & Tricks for the Harlequin RIP is a monthly column appearing in major online publications as a service to Harlequin RIP users by Xitron®, the leading provider of RIPs and workflow solutions for small to mid-size printers.

Each month a new topic will be covered that will provide Harlequin RIP users with useful information to help them get the most from their RIP investment. Navigator GPS is Xitron's flagship product offering of their branded Harlequin RIP.

This PDF will be updated as new columns are posted each month to include not only the column from the online publication, but also feature more detailed step-by-step instructions on RIP or setup operations discussed in the column.

The step-by-step directions are based on the operation required to achieve the desired action with the Navigator RIP, Xitron's branded version of the Harlequin RIP. Although operations should be similar with other Harlequin RIPS, slight differences may be found.

Information about Xitron products is located at the back of this PDF. A link to the product information is located on the front page of this PDF.

To receive a detailed version of the articles sign-up via a link from publication to the Xitron website or by going to the Xitron website at www.xitron.com/tips.htm.

Comments or suggestions regarding these Tips should be sent to tips@xitron.com.

COLUMN TOPICS

January 2006

Moving Away from AppleTalk®



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MOVING AWAY FROM APPLE TALK®

Key Points

➤ **AppleTalk is unnecessary in a Harlequin® RIP environment**

No matter what the network configuration

➤ **Printing from OS9 to Windows® without AppleTalk**

Yes, its true

➤ **Printing to a Mac® RIP from Windows without PC MACLAN**

Setting up OS9 or OSX to receive IP printing

➤ **OSX printing options**

Two options which are better than AppleTalk®

➤ **Sending Postscript™ files from OS9 to Windows without AppleTalk® file sharing**

A few years ago Apple® declared OS 9 dead. Are they right? Maybe. But we all know it takes time for this sort of thing to trickle down. We still encounter OS 9 in a lot of print shops even though Apple is currently shipping version 10.4.4 of OS X.

Many printers are still using AppleTalk to communicate with their RIP even though they don't need to. Of course it's the default communication protocol for OS 9 and that is partly why it's still lingering. Why else are people hanging on to AppleTalk? Let's count the reasons. First, they are familiar with it and they know how to set it up. Second, it's easy and straightforward to work with, which provides a level of comfort. Third, its works in OS X and it's easier than learning the new networking tools. Fourth, they have PC MACLAN® installed on Windows machines because the person who installed the RIP knew no other way to connect Mac and Windows.

Let's explore the argument for getting rid of it. AppleTalk has been disdained by network professionals for well over a decade, and with good reason. It generates large amounts of network overhead, essentially "pinging" the entire network constantly. It's as if it suffers from a personality disorder, lonely and scared, screaming every few milliseconds, "I'm here. Is anybody else here? Talk to me! Tell me who you are!"

All this caterwauling and unnecessary packet-slinging burdens the network.

I'm not going to demand you upgrade all of your OS 9 machines today. (I know you'd like to, but there are always those customers with jobs from legacy applications that are running only under the old OS.) What I can do is insist you eliminate AppleTalk on your network. It is no longer necessary and I can make this categorical statement: If you are using a Harlequin-based RIP, you do not need AppleTalk or separate cross-platform communication software.

Whether you wish to prepare for an eventual migration off of OS 9, you simply want a faster network, or you don't want to clog up your Windows machine with third party networking clients, you can kick the AppleTalk habit. It doesn't matter if you have a Windows RIP with Mac clients, or a Macintosh RIP with Windows and Mac clients. You too can kick the AppleTalk habit today.

Summing up the value of this column for Harlequin RIP users, getting rid of AppleTalk will speed up your network and prepare you for a plug-and-play upgrade to OS X. Summing up the value of this column for the network professional or the support technician, you will be able to connect to any Harlequin RIP from ANY operating system whether you are comfortable with that operating system or not. Every modern operating system speaks the protocol we'll use.

For brevity's sake, the following instructions are intended for the knowledgeable user. However, you'll notice I've provided links to more in-depth (step-by-step) instructions for those who aren't as familiar with the setups.

The Windows RIP

If you run a Server OS such as Windows 2003 Server, you may have AppleTalk turned on to support your Macs. If you run XP, you may be using PC MACLAN to get Windows AppleTalk support. Go cold turkey and turn these off.

What's the trick? Use IP Printing instead. Also referred to as LPR printing, you can configure a Windows printer to send to a RIP input and share it out to your Macs as long as the share name is 12 characters or less.

From your OS 9 platform, open the Desktop Printer Utility at Applications (Mac OS9): Utilities.

Select Printer (LPR) from the list.

Type in the TCP/IP address of your Windows PC and the exact name of the shared printer you created.

That's it. You have created a printer you can choose from within your OS 9 applications.

From OS X's printer utility you can simply connect to Windows shared printers directly, or use the Line Printer Daemon (LPD) to duplicate our efforts above using the IP address and share name. To put it simply, OS X does not need AppleTalk for Windows connectivity.

Detailed step-by-step illustrated instructions for creating using Windows Printers may be found at the end of this article by clicking *Printing to a Windows XP Navigator RIP from Mac OS 9 and OS X using LPR or IP Printing*.

Detailed step-by-step illustrated instructions for accessing Windows printers directly from OS X may be found at the end of this article by clicking *Using Windows Printers Instead of AppleTalk with OS X*.

The Mac RIP

How do we print from Windows 98, Windows XP, or Windows 2000 to Mac OS 9 or OS X? You might be thinking of PC MACLAN right now, but did you know there is support for IP printing built right into the Mac RIP? It's called "Socket Input," and it's available in all Harlequin RIPs.

To set up Socket Inputs, create a new input in the RIP's input controller and choose "Socket." Configure it with a number, such as "9100." You'll need this number later.

On another Mac, use the LPR printing technique described above to get to this computer. Use the IP address of the Mac and the exact name of the Socket Input.

On a Windows computer, simply add a new printer.

Make it a local printer and choose "standard TCP/IP port" as your port.

Use the IP address of the Mac when it asks for the IP address.

In the settings tab choose "custom." It is here that you will enter your port number. Remember, in this example we used 9100.

Now your Windows PC has everything it needs to connect to your Mac OS 9 or OS X RIP without using AppleTalk.

Detailed step-by-step illustrated instructions for creating socket inputs on the Mac RIP may be found at the end of this article by clicking [Creating Socket Inputs on the Mac Navigator RIP](#).

File Transfer

I could take you a step further and tell you how to send PostScript files from an OS 9 machine into a Windows spool folder without using AppleTalk, but for that you'll have to email me, which I would welcome. Good luck and happy printing on your much quieter, AppleTalk-less, and less neurotic network.

Additional Tips

If you would like additional information about this TIP email tips@xitron.com.

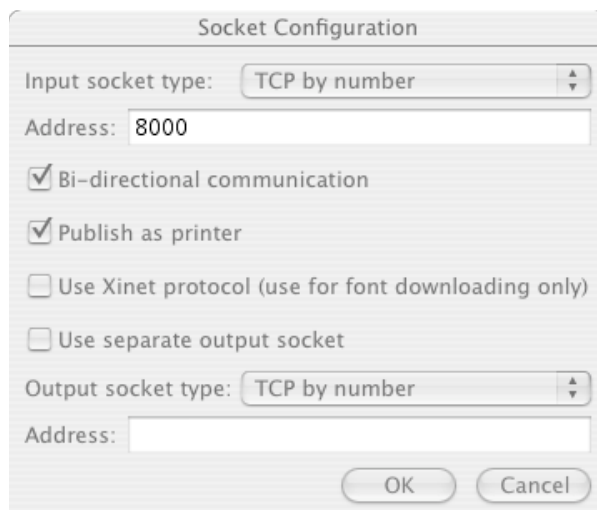
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Creating Socket Inputs on the Macintosh-based Navigator RIP

The Navigator RIP offers many input options for sending in jobs to be processed. The most common methods are AppleTalk and Spool Folder. One method available but not commonly used is Socket Input. Though requiring many steps to set up, the Socket Input type is a great way to send jobs from a PC or Mac to a Mac Navigator RIP without buying a third party software solution. In this tech note we will create Socket Inputs on a Mac OS X Navigator RIP so that Macs and PCs can connect to it but the procedures are similar for any combination of platforms.

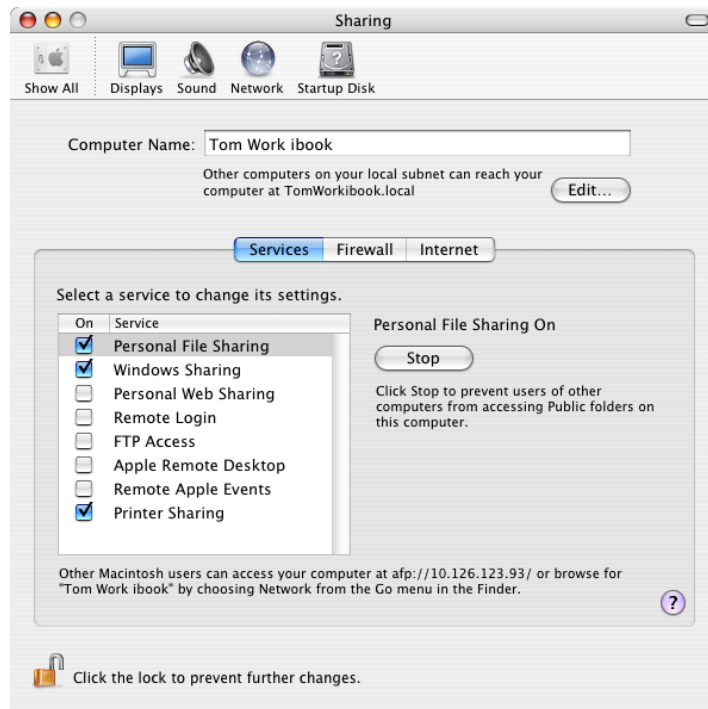
First, make a new input on the Mac RIP. Open your Input Controller and create a new input. Set the type of this input as Socket Input. You can name the input whatever you want and assign it to the proper page setup.

Then select the Configure button to configure the socket input. Select the options shown in the following screen capture. If you are creating several inputs you must change the Port Number for each input (on the PC RIP, Port Number is called Address). For example, in the first input, you set 8000 as the port; in the next socket input you should use 8001 and so on. Once you have your new inputs created start your inputs on the RIP.

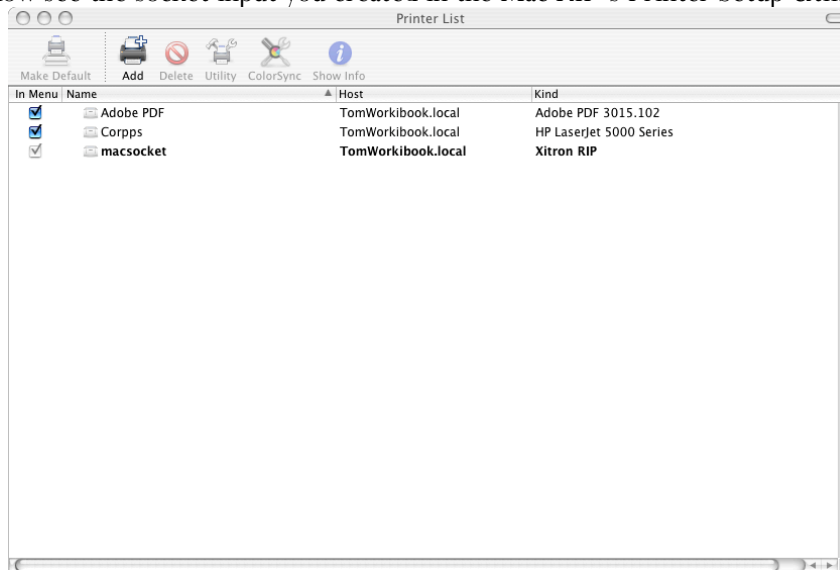


Select OK to save your settings. This completes the socket input configuration for the Mac RIP.

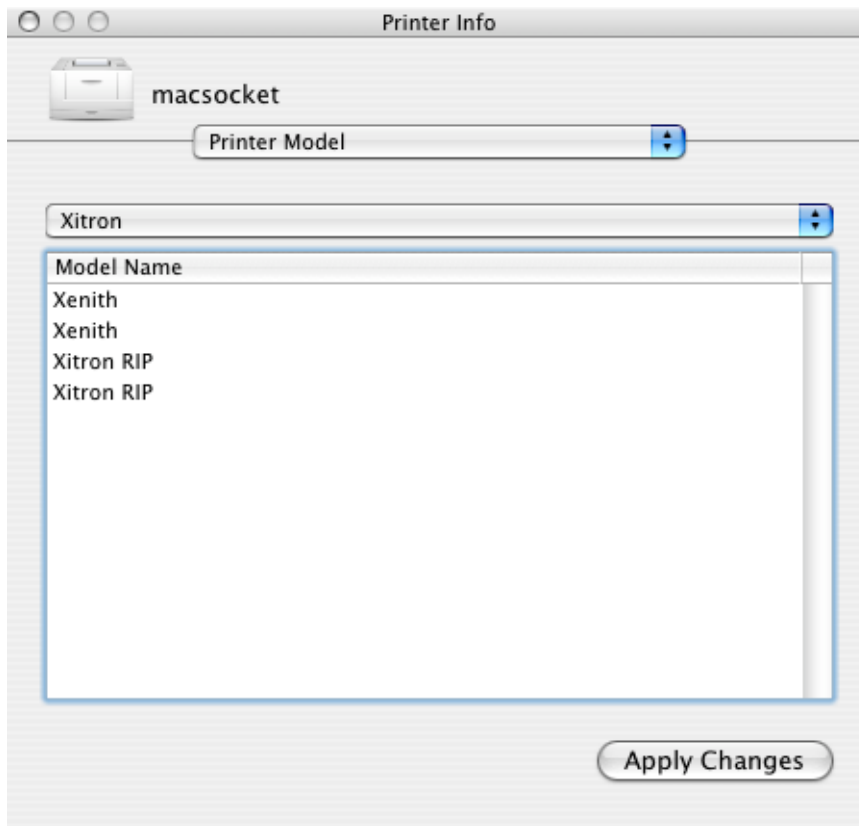
On the Mac RIP platform you will need to make sure that Printer Sharing is on in System Preferences. This will allow another Mac to connect very easily to this socket input as a shared printer.



You should now see the socket input you created in the Mac RIP's Printer Setup Utility.



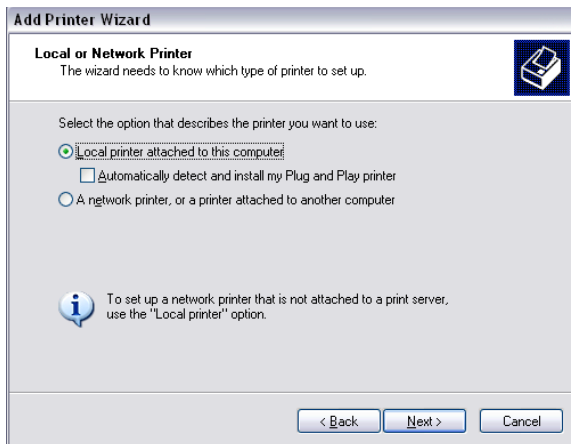
To apply the Xitron PPD to this printer select the printer, click Show Info, select Printer model and select the correct PPD.



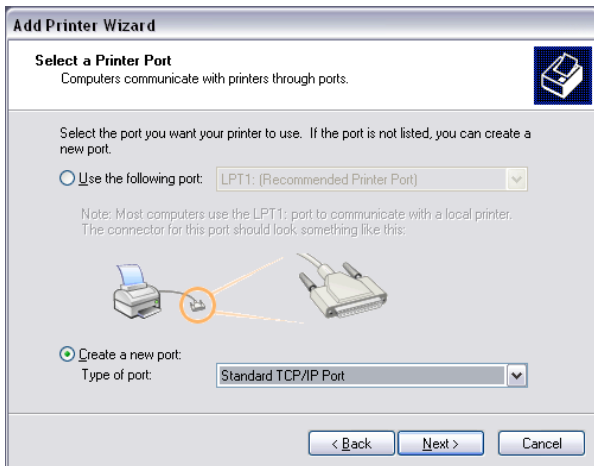
It's now time to go over to the PC workstation. Under the Start menu go to Printers. Once in Printers start the Add a Printer wizard.



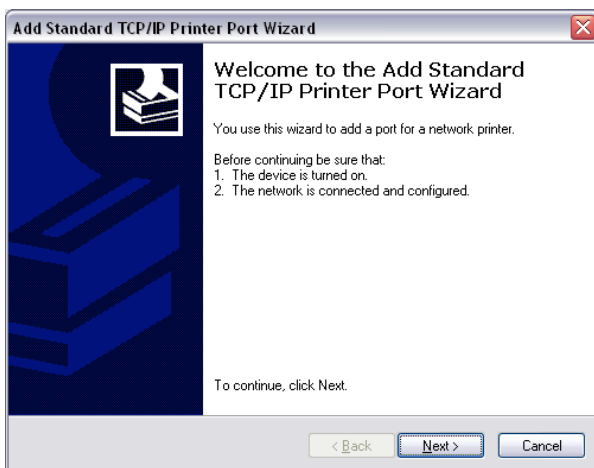
Click Next and select local printer making sure you deselect plug and play and then click Next.



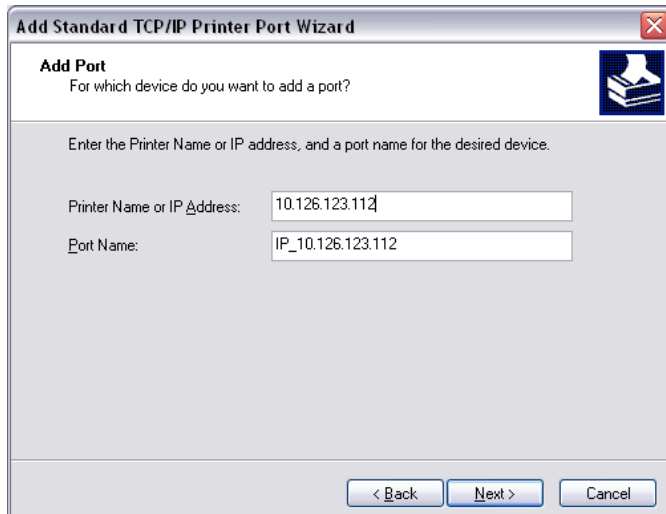
Select create a new port and select TCP/IP from the drop down menu and then click Next.



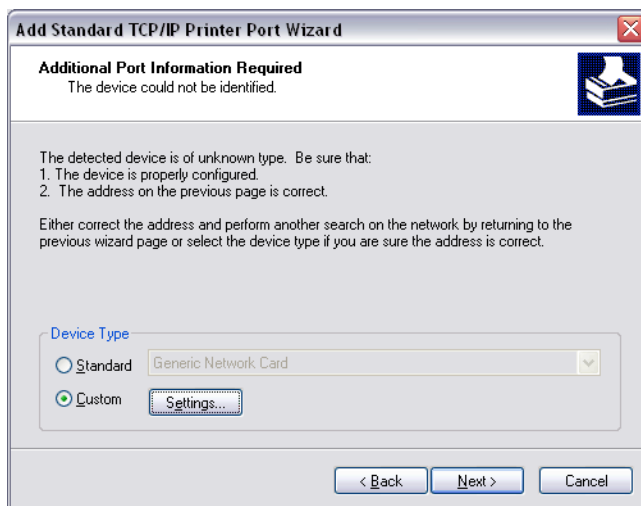
This will pop up TCP/IP port wizard and click Next on it.



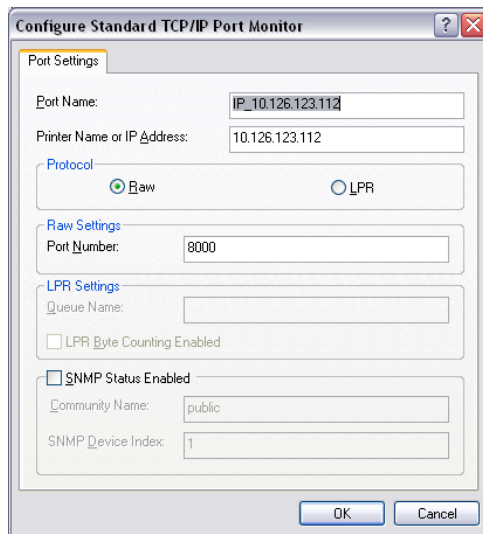
In the next screen you have to type in the IP address of your RIP platform. If you do not know what this is you can check the TCP/IP control panel on your Mac (or on a PC go to Command Prompt and type *ipconfig*). Then click Next.



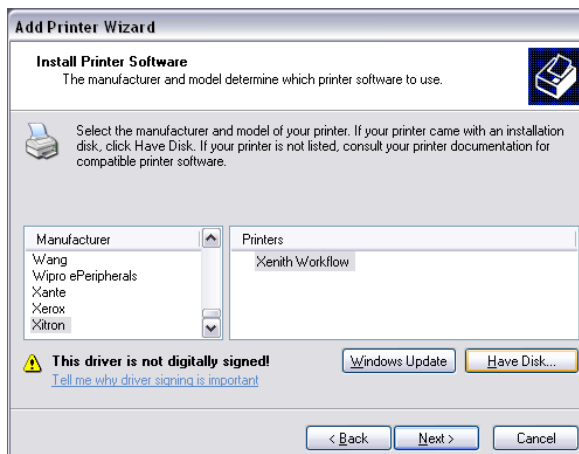
There will be a bit of a pause as Windows attempts to find the RIP. It will then bring up a window that says it cannot identify your printer. Select the button for Custom and then click Settings.



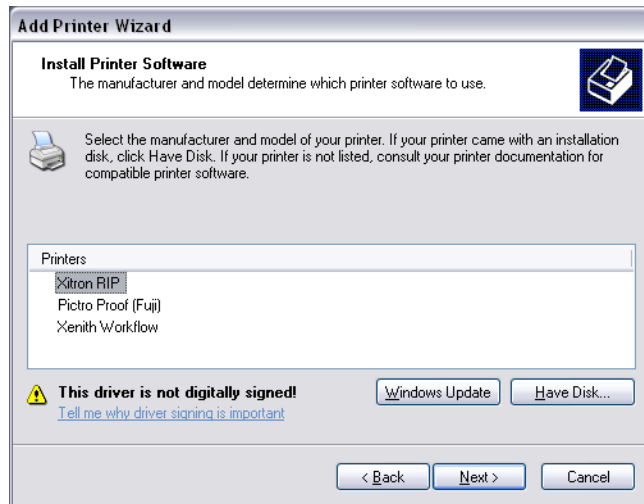
In the Settings tab you want to select Raw as your protocol and then set your port number to same number you used when setting up the socket inputs in the RIP's Input Controller (in our example, 8000) and then click OK.



You will then be presented with a window to select the printer driver. You want to select the Have Disk button and then browse to the Xitron2K.INF file which is with our PPD file available from our website at http://www.xitron.net/Support_files/PPDs.htm.

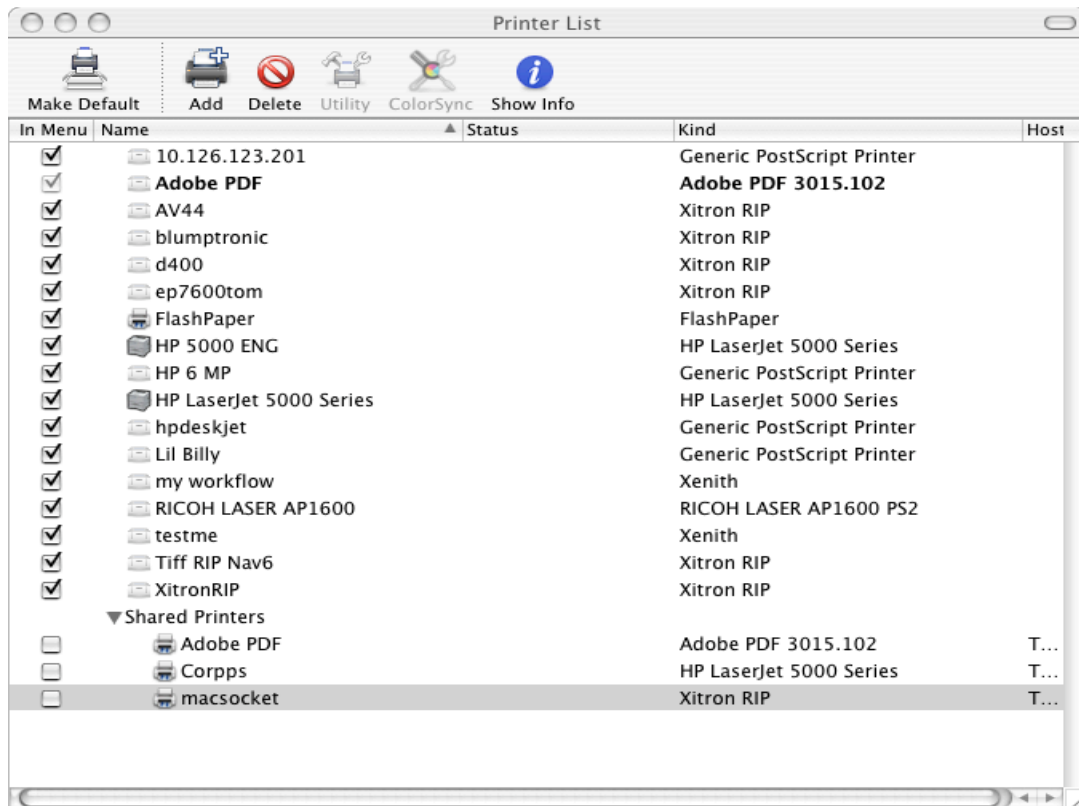


Then select the Xitron Rip choice and click Next.



Finish creating your printer and you should now have a Windows printer you can print to which will send the file directly into the RIP.

For printing to the Mac OS X RIP from another Mac OS X machine you should be able to see the shared input under Printer Setup Utility under the Shared Printers heading.



Using Windows Printers Instead of AppleTalk with OS X

Xitron recommends that PC Navigator RIP users printing from applications on Macintosh workstations under OS X use some form of Windows printing rather than AppleTalk to print jobs to the RIP. Windows printing is faster, more stable and uses less bandwidth over the local area network.

There are two ways to set up Windows Printers when using the Navigator RIP; “NTPipe” and “NTPrint.” Both will result in the creation of a Windows printer on the platform hosting the Navigator RIP, associating the Windows printer with one of the Navigator RIP inputs.

To set up Windows printers using NTPrint, consult the Navigator RIP users manual and Read Me files copied to the hard drive of the RIP after installing NTPrint. If the NTPrint feature is the chosen means for creating Windows printers used in association with the RIP, consider the following configuration suggestions:

Name the Windows Printer to reflect the RIP input name and Page Setup name. Use short but meaningful names or abbreviations for all three. Do not use characters other than standard letters and numbers while avoiding spaces and long names.

Any Windows printers used to accept files for the Navigator RIP should be associated with the Xitron Navigator PPD (printer description file). Do not use any other printer description files or any non-Xitron configuration files when creating these printers.

Make sure to share the Windows printers and to allow all users full access to the printers over the network.

To set up Windows printers using NTPipe, consult the Navigator RIP user’s manual. If the NTPipe feature is the chosen means for creating Windows printers used in association with the RIP, consider the following configuration suggestions.

Name the Windows Printer to reflect the RIP input name and Page Setup name. As described for NTPrint, consider using short but meaningful names or abbreviations for all three and do not use characters other than standard letters and numbers while avoiding spaces and long names.

When setting up the named pipe input, consider removing the default “Scriptworks\Channel” prefix from the Configuration window. Carefully review the information on the syntax of pipe names used while connecting a printer to the pipe input, and ensure accuracy while typing this information during the creation of Windows printers.

Set the number of “Pipe Instances” in the Configuration window to 1.

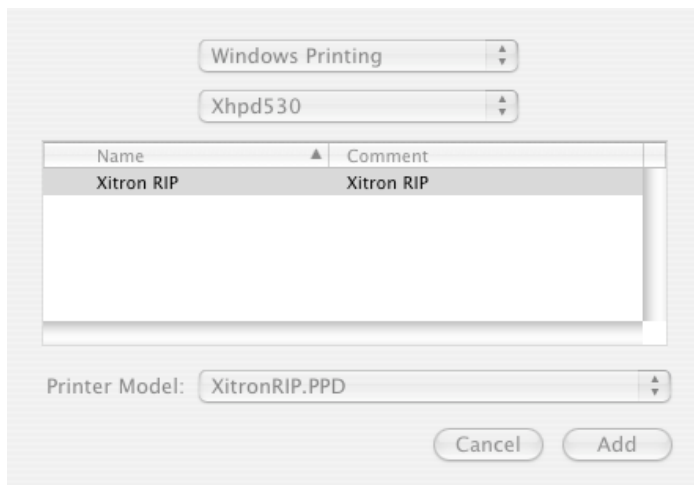
Associate any Windows printers used to accept files for the Navigator RIP with the Xitron Navigator PPD (printer description file). Do not use any other printer description files or any non-Xitron configuration files when creating these printers.

Make sure to share the Windows printers and to allow all users full access to the printers over the network.

Once the printers are created and shared, attaching them in OS X is quite simple. The example given below is based on OS 10.4.1 (the current version as of this writing). To attach to a shared Windows printer:

Using the “Printer Setup Utility” add a printer.

Work your way to the list of available printers shown below. In OS 10.4.1 it is necessary to choose “More Printers” from the “Print Browser” window.



As shown above, choose “Windows Printing” in the first pull down menu and the name of the PC sharing the printer in the second pull down menu.

Choose the shared Windows printer and select the proper Xitron PPD in the Printer Model selection. Note: Xitron PPDs are available on the Navigator distribution CD and the Xitron Web site at www.xitron.com.

After selecting the desired printer and the proper PPD, click “Add” and the Navigator RIP will be available for use from the Mac platform.

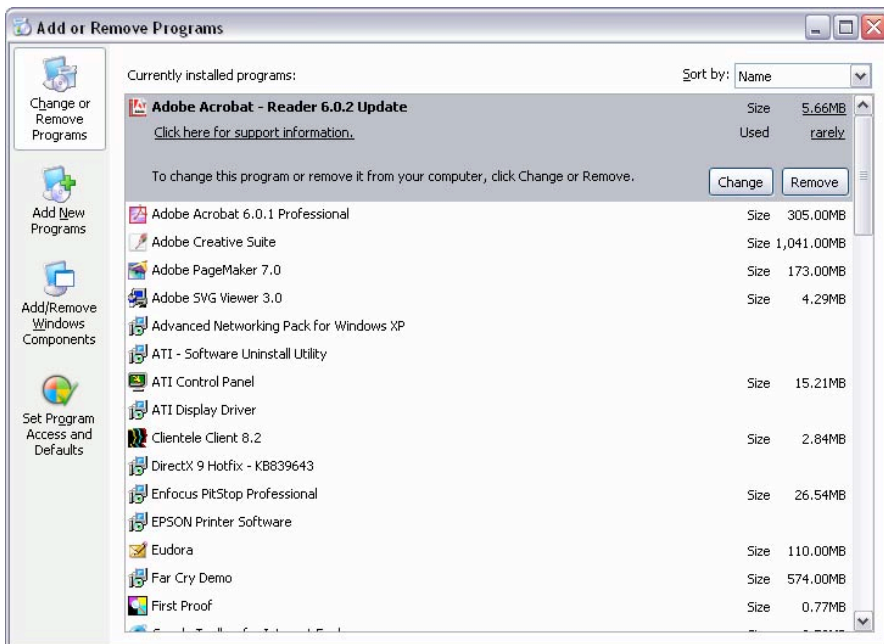
Printing to a Windows XP Navigator RIP from Mac OS 9 and OS X using LPR or IP Printing

Windows XP does not contain the Appletalk network protocol as did previous Windows OS. Therefore, without using a third-party application such as Miramar's PC Maclan, printing from Mac OS 9 or OS X platforms requires the use of either LPR or IP printing.

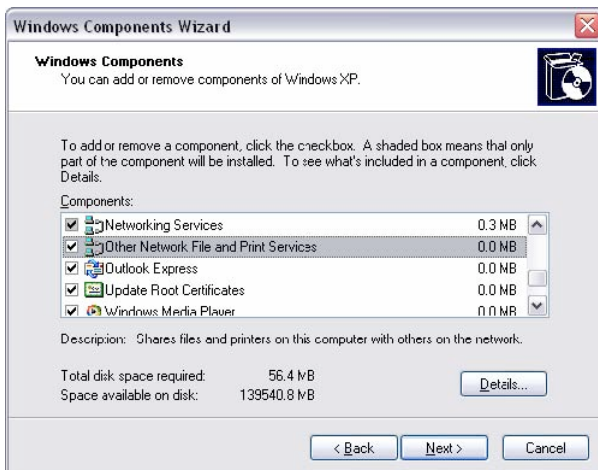
This technical bulletin assumes that the user has created NT Print inputs at the Navigator RIP. For more information on how to create NT Print inputs please refer to Xitron's tech note entitled NTPrint.PDF, available both on the Navigator install CDs and in the Tech Support area of www.xitron.com. Using NT Print will create RIP inputs that are available to all Windows OS and Mac OS platforms.

In order to print to the Navigator RIP on Windows XP you'll need to make sure Print services for Unix is installed. The instructions for loading this service are below.

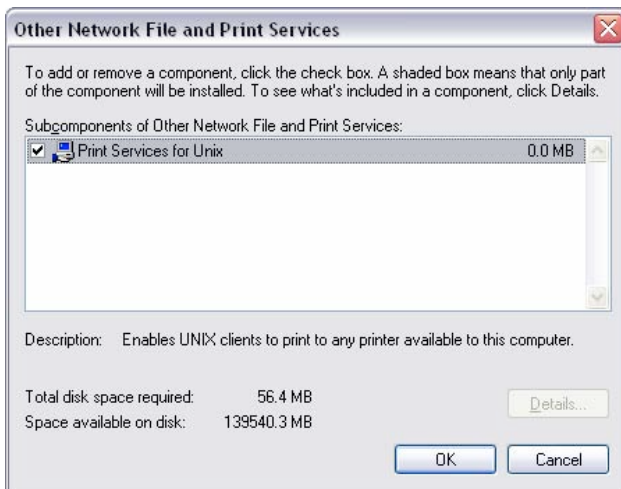
Go to Start, Settings, Control Panel, Add or Remove Programs.



Select the Add/Remove Windows Components. Then select the option for Other Network File and Print Services. Select the Details button.



Click the checkbox for Print Services for Unix.

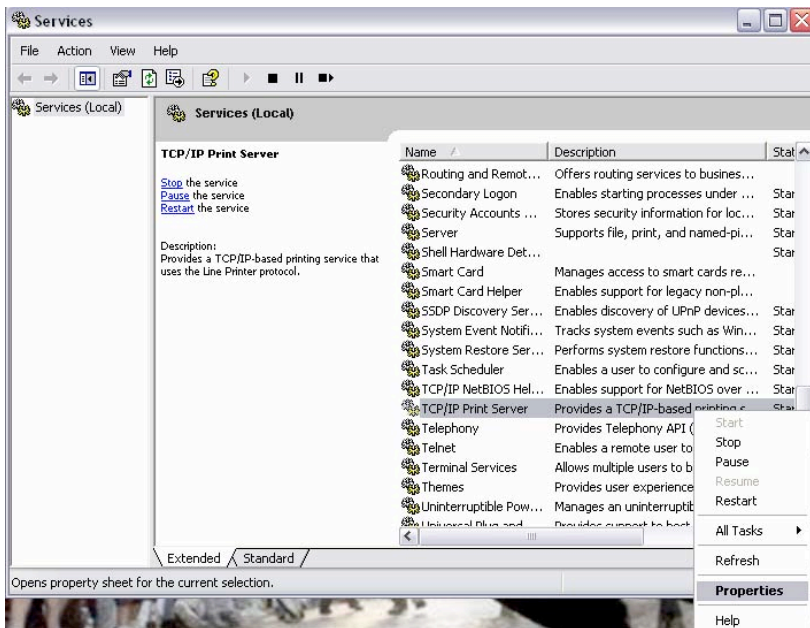


Select OK and Finish. You may be prompted to insert your Windows XP install CD for it to load the Print Services for Unix service.

After you have loaded the Print Services for Unix service you will need to configure Properties.

In Windows XP you'll need to go to Administrative Tools>Services. Depending on how you've set up the theme of your XP PC this may be accessible by going to Start>Control Panel>Performance and Maintenance>Administrative Tools>Services or Start>Settings>Control Panel>Administrative Tools>Services.

When you get to the Services window, scroll down to TCP/IP Print Server. Select it and click on the right mouse button and select Properties.

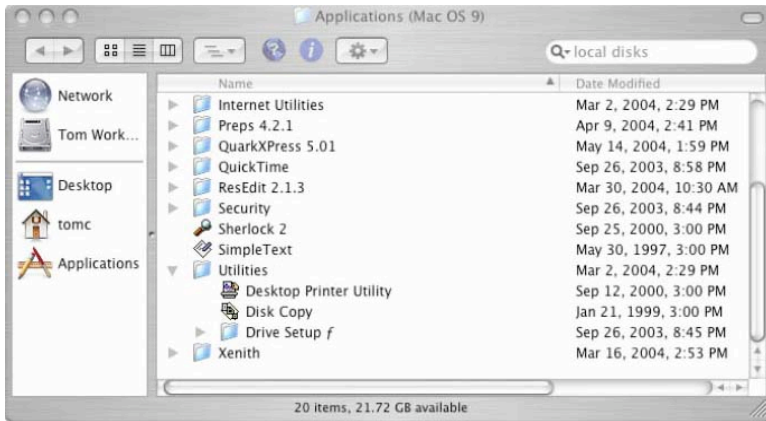


In the TCP/IP Print Server properties window select the Startup type drop down menu and choose Automatic. This will ensure that the service is always available.



The next steps will take place on the Mac. You will need to know the IP Address of the Windows XP PC when configuring the printers on the Mac. You can find this number by going to the Command Prompt and typing *ipconfig*. We will first explain the method for setting up the printer on Mac OS 9 and then Mac OS X.

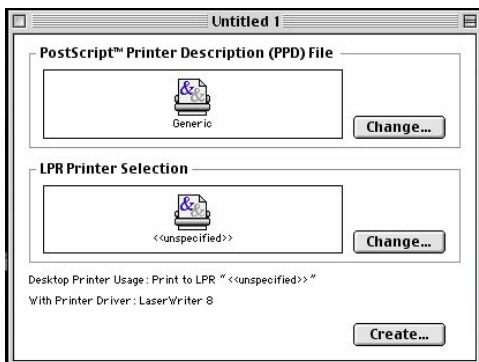
On the Mac, go to the Applications (Mac OS9) folder and then the utilities folder. Launch the Desktop Printer Utility.



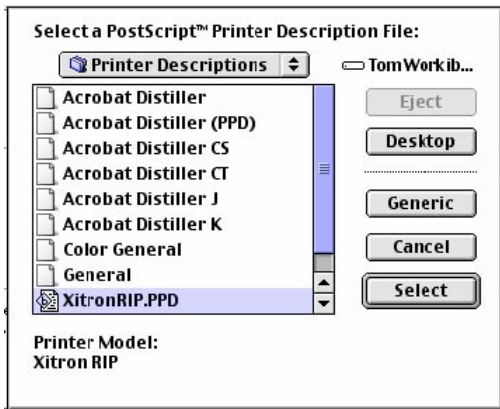
Select Printer (LPR) from the list and then select OK. Notice we've selected LaserWriter 8 as our Printer Driver. You can also select AdobePS.



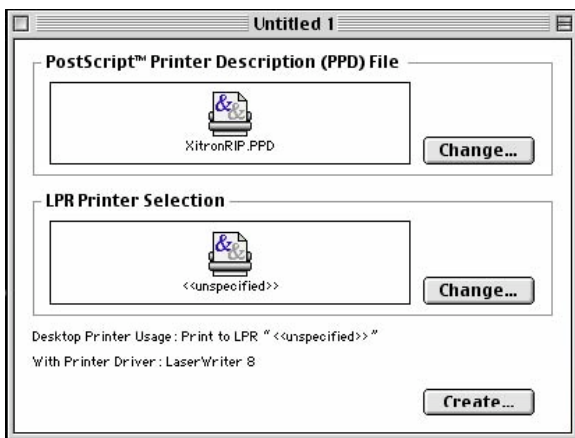
Select the Change button in the PostScript Printer Description (PPD) File Section.



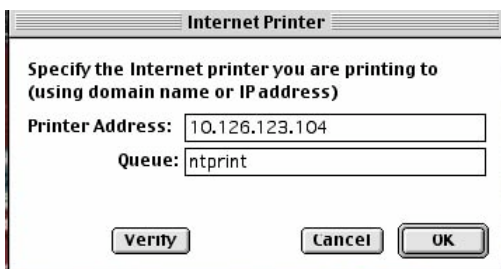
Select the XitronRIP PPD from the list. This PPD file should reside in System Folder, Extensions folder, Printer Descriptions folder.



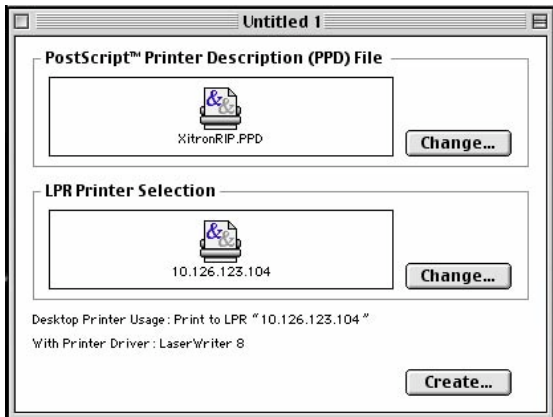
Select the Change button inside the LPR Printer Selection section.



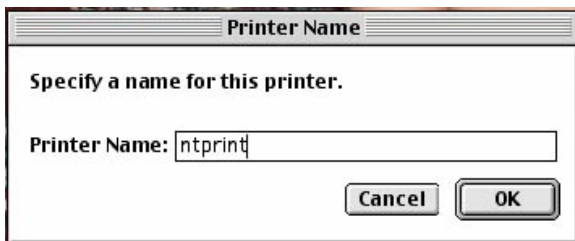
Type in the TCP/IP number of your Windows XP RIP PC and the exact name of the shared printer you made as an NT Print printer in the Queue section and select OK. In our example it is called simply "ntprint". We recommend naming printers, Page Setups, and Inputs something more descriptive.



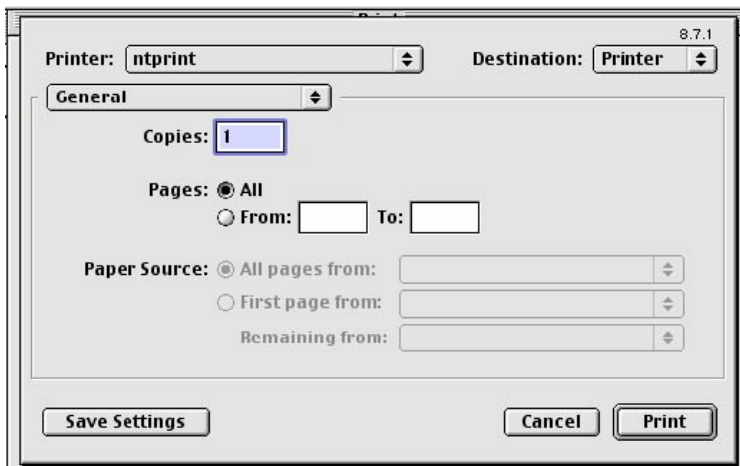
Now you will be able to select Verify to be sure your settings are correct and then select OK.



Select Create... and you will be prompted to name the printer you've just created. In our example we've named it "ntprint". Then select OK.

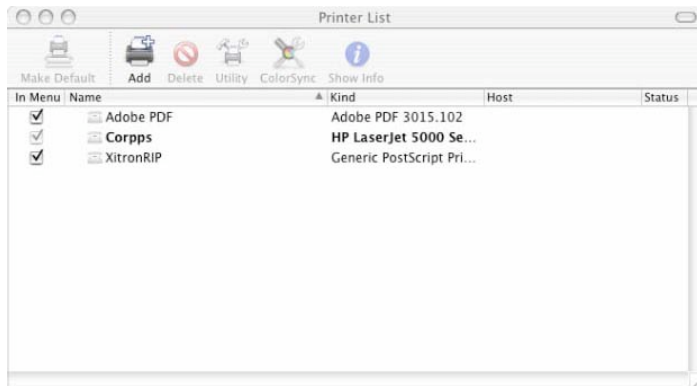


Once you have followed these steps you will have a printer that you can select from within the print dialog windows of your OS 9 applications. In the screen capture below we've selected the printer "ntprint" from within the Quark 5 printer dialog window.

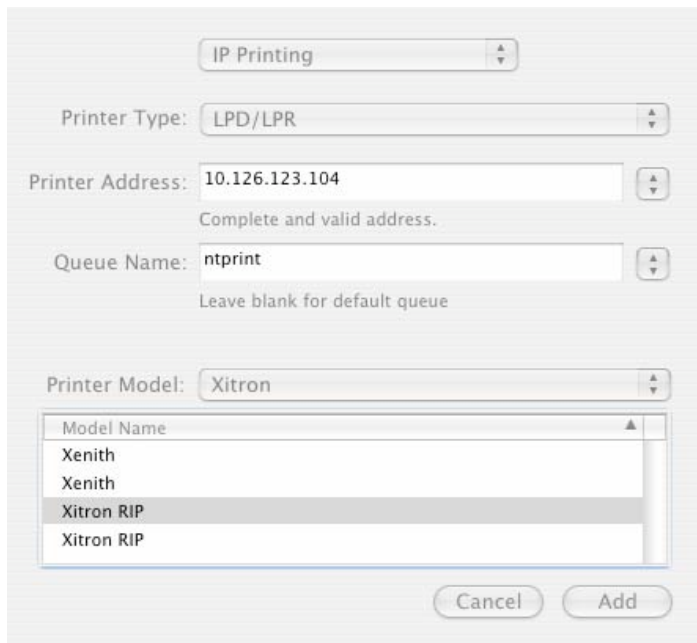


In Mac OS X you'll first want to be sure your XitronRIP PPD file is copied to the correct folder. It should reside in the following path: Library, Printers, PPDs, Contents, Resources, en.lproj folder. Some applications, such as Quark 6, have a default location where they look for PPDs. In Quark you can modify this location by using the PPD Manager under the Utilities pull down menu.

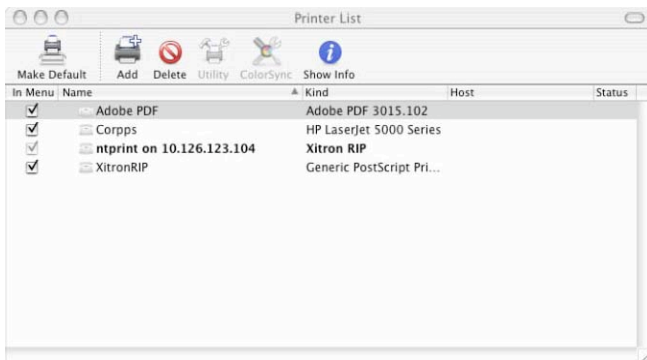
To set up a printer on OS X go to the Applications folder and then to the Utilities folder and launch Print Center. The Printer List will open. Select the Add button to create a new printer.



Select IP Printing from the pull down menu and for Printer Type select LPD/LPR. Type in the Windows XP RIP PC's TCP/IP address in Printer's Address. Un-click the option for Use default queue and type in the exact name of your printer. Again, in our example our printer is called "ntprint". Select Xitron as your Printer Model and XitronRIP from the model list and then select Add.



The new printer will now be shown in Print Center's Printer list. Close Print Center when you're done creating all your printers.



You will now be able to choose the printers you've just created from within the print dialog windows of your OS X applications.



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ABOUT THE AUTHORS



Kern Kuipers

Kern Kuipers has spent more than 20 years in the printing and prepress industry. After holding positions from traditional typesetting to desktop layout and design and electronic prepress, Kern became the “Systems Specialist” (in-house prepress guru) for a national text book publisher. He is also known to occasionally offer his services as an independent printing and prepress consultant and currently serves on the Industry Advisory Board of the Printing and Imaging Technology Department at Ferris State University.

In 1996 Kern joined Xitron, where he currently manages the Test Engineering department, verifying the quality and reliability of Xitron’s PostScript RIP products.

Kern has presented PostScript and pre-press seminars all over the world, covering various topics from color management to pre-press workflow strategies, and of course, the functionality and use of the Harlequin RIP.

He earned a B.B.A. in Marketing from Cleary University and a B.S. in Comparative Religion from Central Michigan. His non-prepress hobbies include history, reading, writing, travel, and occasionally re-creating guitar licks.



Eric Nelsen

Eric Nelsen has been in the pre-press industry for 15 years. Much of this time was spent in the dealer channel and included stints as a prepress systems integrator, and pre-sales support person, training technical reps and sales people on every continent.

He also enjoyed a short detour with an Internet Bubble-era printing-based dotcom, which was eventually sold to major print-for-pay provider. While he found this to be a great learning experience, he also found it was a way to learn how to do things wrong.

Subsequent to this phase, Eric developed a desire to speak and write concisely so as to shorten the meetings in which he takes part. He therefore claims that any wordiness in his articles is attributable to the editing process or mistakes!

Joining Xitron in 2004 as a Support Specialist, he was promoted in 2005 to Product Manager where he is responsible for the development and direction of the Navigator RIP, RIP Manager, and RasterBlaster.

Eric enjoys wine, cooking, and fencing in his spare time, maybe even in that order.

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