

Network plotting with CATIA/CADAM Drafting (CCD) on Windows 2000

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This is a supplement to the CATIA/CADAM Drafting Installation Guide for Windows NT. This paper provides instructions to setup a printer spooler on Windows 2000 to facilitate plotting to a network plotter from CCD. Refer to the Windows 2000 documentation for additional information on creating a printer.

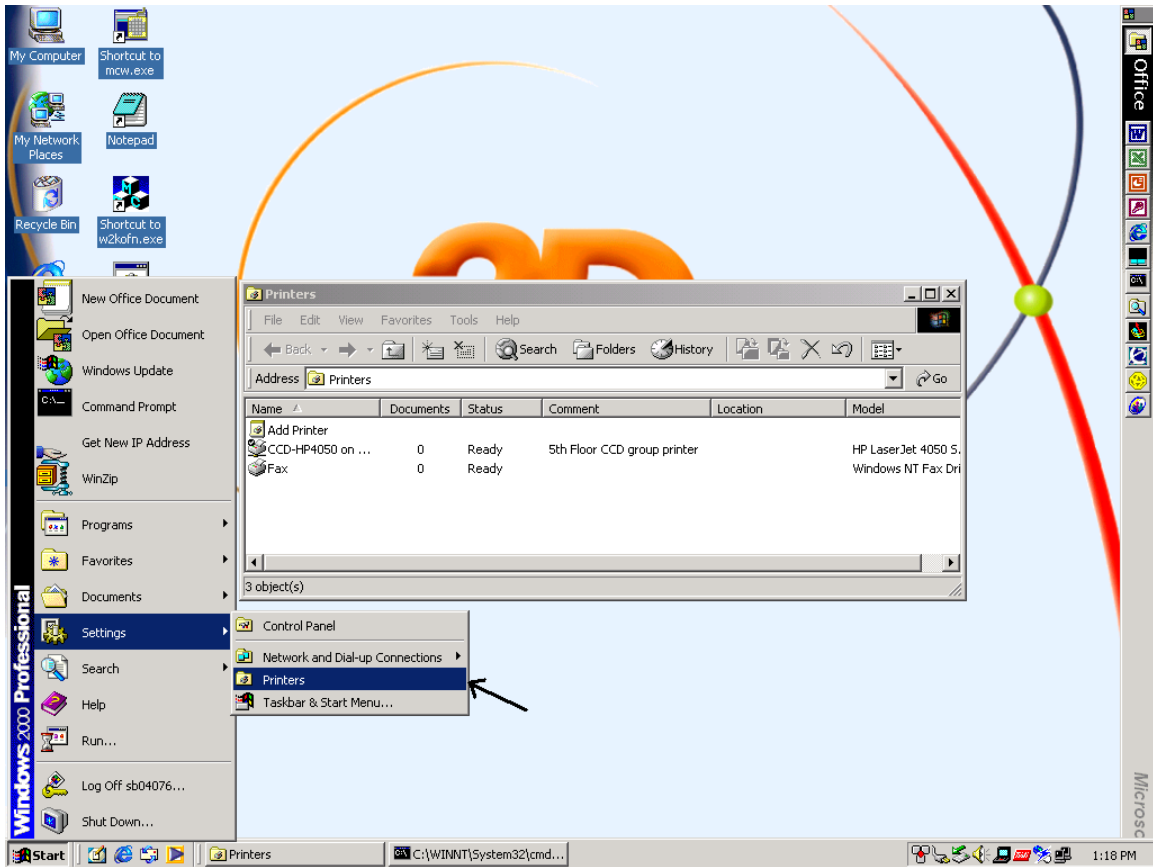
These instructions will help you setup print spooling on Windows 2000 for a network plotter that is controlled by a print server, either internal or external to the plotter. These print servers can be accessed by hostname or IP address, and contain their own LPR queues. It is assumed throughout this paper that the TCP/IP protocol has been installed and is functioning properly.

When plotting from CCD, you have the option to plot to a Windows printer/plotter, using the Windows provided print drivers, or to use CCD's print drivers if a measurable accurate plot is required. This document only addresses the CCD print driver option, which supports CGM, HPGL, HPGL/2 and PostScript printer/plotter format standards. CCD does not use the Windows 2000 print drivers or plotter manufacturer's drivers. The print spooling is only used to manage plot job queues. The following instructions will show you what is required to accomplish this.

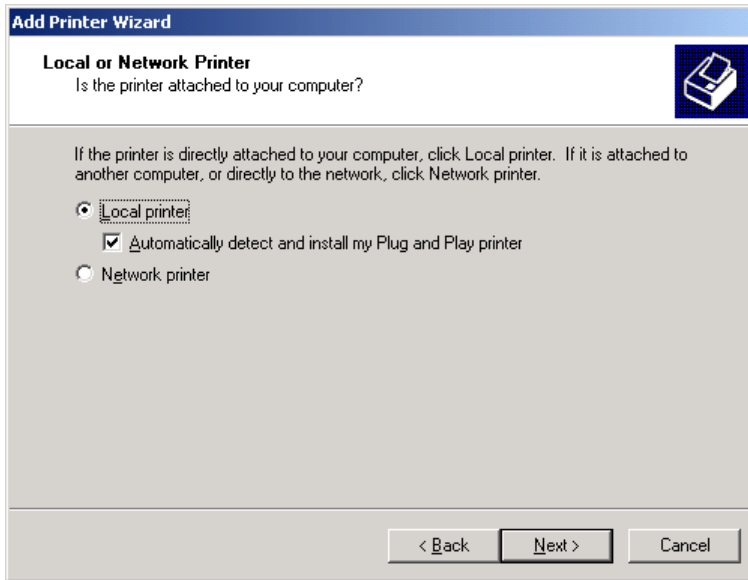
Sample batch (.bat) files are also shown at the end of this paper.

Note: All the screen captures shown in this document are from Windows 2000.

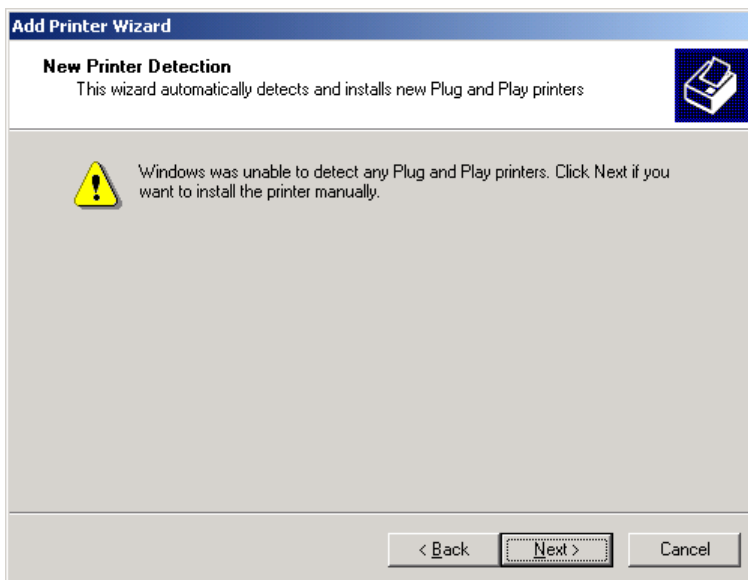
On the system you will assign as the print server, logon as administrator and follow the following steps:



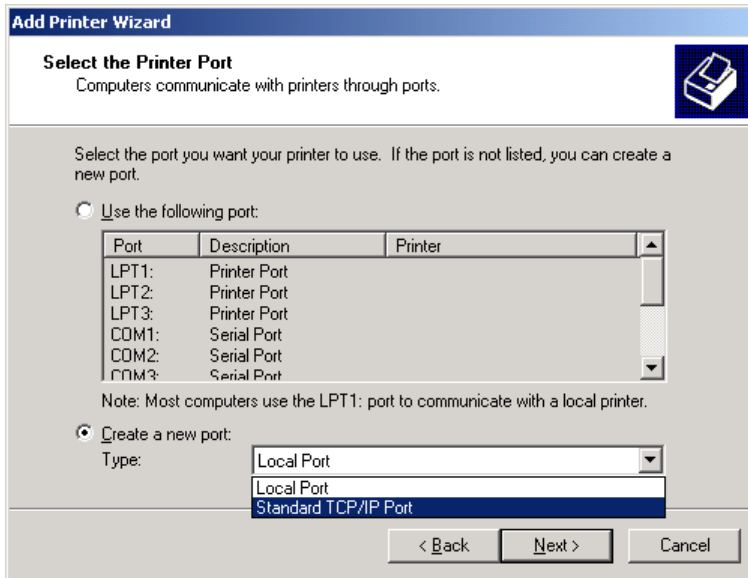
Select **Start -> Settings -> Printers** and click on **Add Printer**



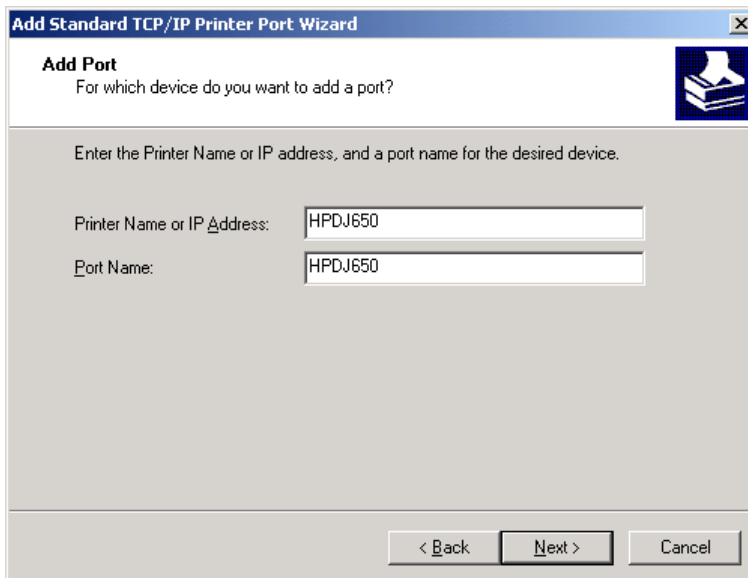
Select Local printer



Click on **Next** to continue.

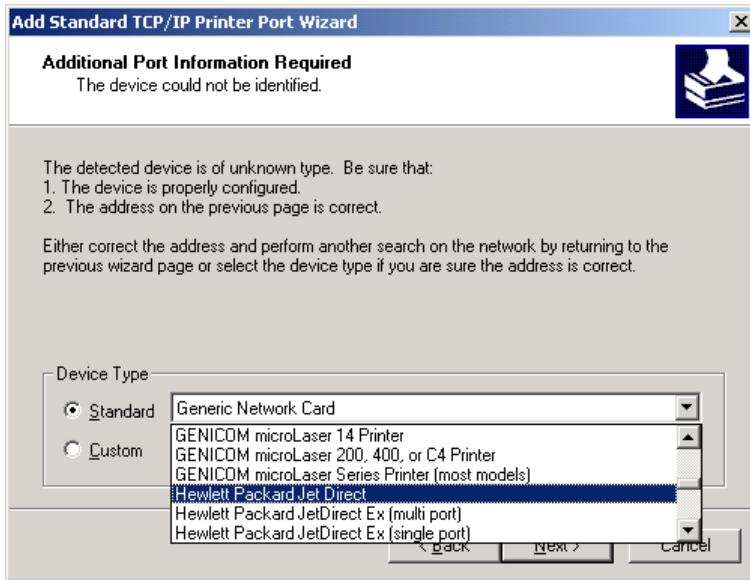


Check **Create a new port** and select **Standard TCP/IP Port**



If you can ping the printer/plotter using its host name, then enter the host name in the Printer name box. Otherwise the IP address, which will also work. The port name, by default, will be set the same as the printer name. Unless desired, there's no need to change this.

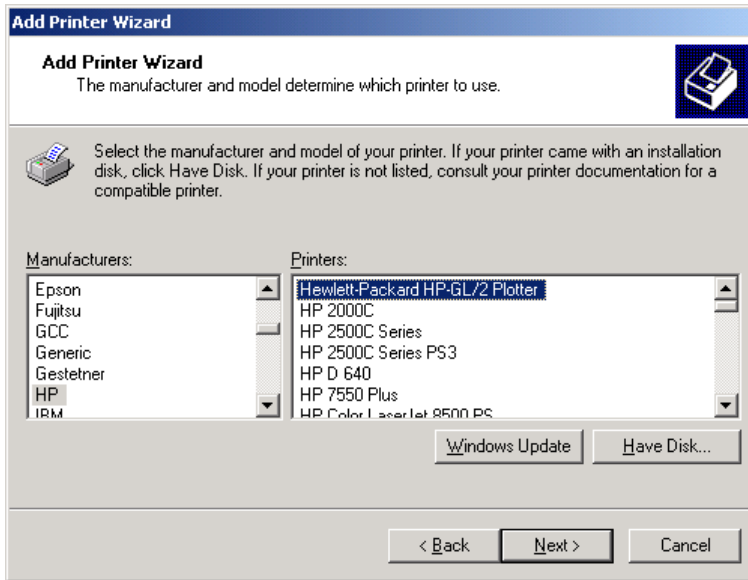
Note: Please do not use spaces.



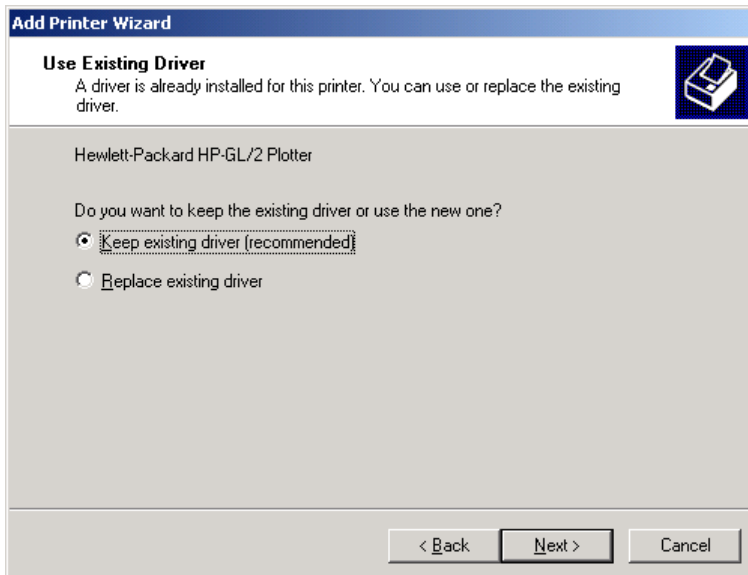
Select the **Device Type** that matches your printer/plotter, otherwise select the Generic one. The sample screen is for an HP 650 C plotter, which has a Hewlett Packard Jet Direct network adapter. Click Next and the following screen is displayed.



Click **Finish** to continue.



Even though CCD does not use this printer driver, you must make a selection to continue. For example: HP for manufacturer and HPGL/2 Plotter.



Check **Keep existing driver**. Click on **Next** to continue

Add Printer Wizard

Name Your Printer
You must assign a name for this printer.

Supply a name for this printer. Some programs do not support server and printer name combinations of more than 31 characters.

Printer name:

Do you want your Windows-based programs to use this printer as the default printer?

Yes
 No

< Back Next > Cancel

Enter a **Printer name** and check **No**, unless you do want this printer/plotter to be the default Windows printer.

Add Printer Wizard

Printer Sharing
You can share this printer with other network users.

Indicate whether you want this printer to be available to other users. If you share this printer, you must provide a share name.

Do not share this printer
 Share as:

< Back Next > Cancel

It is important that you **share** this printer and give it a **share name**. This is the mechanism CCD uses to send the plot file to the printer/plotter device.

Note: **Do not** use spaces in the share name, as it will cause problems.

Add Printer Wizard

Location and Comment
You have the option of supplying a location and description of this printer.

You can describe the location and capabilities of this printer. This information may be helpful to users.

Location: HP 650 C plotter on 5th floor in front of Bob's office

Comment: Color E size roll-feed

< Back Next > Cancel

Add Printer Wizard

Print Test Page
To confirm that the printer is installed properly, you can print a test page.

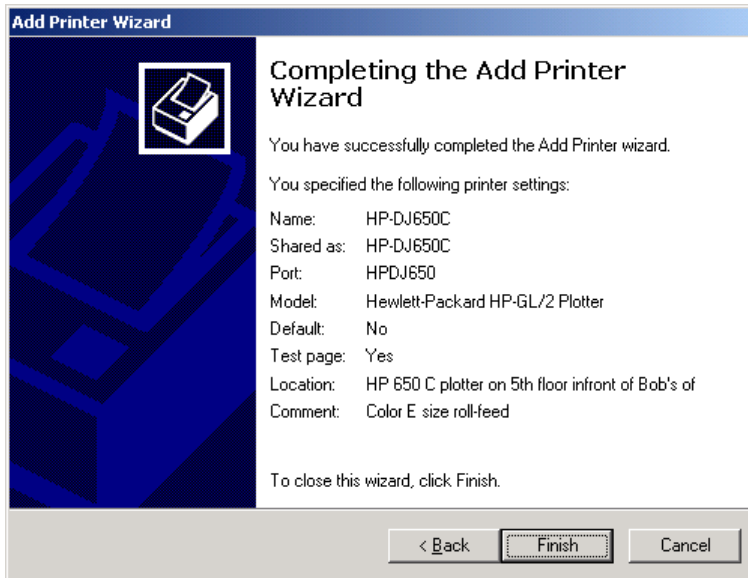
Do you want to print a test page?

Yes

No

< Back Next > Cancel

Check **Yes** on print a test page to ensure that your new printer definition is working.



At this point you should be able to print to this printer/plotter from CCD or any Windows application. If you are only going to use the Windows Printer option to plot drawings from CCD, then you are done. Otherwise, continue on.

Please refer to the “CADAM Drafting Hardcopy Installation Guide” for details on how to configure plotters for using the CCD print driver to produce CGM, HPGL, HPGL/2, PostScript, or other industry standard printer/plotter formats.

Three scripts are required for each plotter definition: xxxx.bat, xxxx.def and xxxx.opt. All the plot scripts reside under the \$CCD_ROOT\Plot directory. Since the modifications to these scripts are well documented this white paper will only cover some useful tips.

The .bat file:

```
ECHO OFF
rem This bat file may be used to send the plot *
rem output file to a plotter. *
rem *
rem The following parameters are passed in here: *
rem %1 copies *
rem %2 plot output file name *
rem %3 number of plots contained in file *
rem %4 newplot file name *
rem %5 status file name *
rem %6 plotcurrent flag *
rem %7 path to tmp directory *
rem %8 to %n member modelids in tmp directory*
rem *****

rem CUSTOMIZE HERE TO SEND OUTPUT TO DESIRED DESTINATION!!!
copy %2 \\oriole\hpdj650

rem Delete plot output file after all copies have been plotted
IF "%1" == "1" DEL %2
IF NOT "%6" == "DELETENEWPLOT" GOTO NO_MORE
DEL %4
SET path2membenames=%7
:REPEAT
IF %8 == "" GOTO NO_MORE
DEL %path2membenames%\%8
SHIFT
GOTO REPEAT
:NO_MORE
SET path2membenames=
```

This is the typical .bat file used for all network printer/plotters. By default the **copy** command is used to send the plot output file to the printer. In some NOVELL networks you may have to use the **print** command as follows:

```
Print %2 /d:\\hostname\hpdj650
```

If you are only interested in creating a plot file to be used for other purposes and don't need a hardcopy, this is the file to modify. Simply remove the copy or print command as well as the **DEL** commands, which are in the script to delete all the plot output files from the Ccdraft\Tmp directory. These plot files can be very large, so make sure that once you are done with the file that it is either moved or deleted from the Ccdraft\Tmp directory.

For troubleshooting purposes, if you have a valid plot output file in a format supported by your printer, you can manually send this file to the plotter by running the copy or print command from a DOS shell. This helps isolate a problem if the plot status in CCD shows "completed", but your plots are not being sent to the printer. If the plot file is successfully sent to the printer from the DOS shell, then check the .bat file for possible syntax errors.

```

ECHO OFF
rem This bat file may be used to send the plot *
rem output file to a plotter. *
rem
rem The following parameters are passed in here: *
rem %1 copies *
rem %2 plot output file name *
rem %3 number of plots contained in file *
rem %4 newplot file name *
rem %5 status file name *
rem %6 plotcurrent flag *
rem %7 path to tmp directory *
rem %8 to %n member modelids in tmp directory*
rem *****

rem CUSTOMIZE HERE TO SEND OUTPUT TO DESIRED DESTINATION!!!

Type C:\Ccdraft\Plot\header.txt > %2.tmp
Type %2 >> %2.tmp
Type C:\Ccdraft\Plot\trailer.txt >> %2.tmp
copy %2 \\oriole\hpdj650
DEL %2.tmp

rem Delete plot output file after all copies have been plotted
IF "%1" == "1" DEL %2
IF NOT "%6" == "DELETENEWPLOT" GOTO NO_MORE
DEL %4
SET path2membenames=%7
:REPEAT
IF %8 == "" GOTO NO_MORE
DEL %path2membenames%\%8
SHIFT
GOTO REPEAT
:NO_MORE
SET path2membenames=

```

In some cases, you may want to modify the header/trailer information for a particular plotter and insert printer control language to indicate the format of the language that follows or to select a printer tray, for example. The printer control language is typically included with the printer manuals.

Some printer/plotter manufacturers, such as CalComp and Hewlett Packard, may give you these options. To accomplish this, all you need to do is provide plotter specific commands or control codes at the beginning and/or at the end of the file that is sent to the plotter.

The sample .bat file above shows how to add header and trailer information to the plot output file before it is sent to the plotter. In this example, two files containing header and trailer control codes for the plotter are inserted in the plot output file before it is sent to the plotter. The first is called header.txt and it is copied to a file called %2.tmp. The plot output file (%2) is appended to the %2.tmp file and finally, the trailer.txt file is appended to the %2.tmp file. The %2.tmp is then sent to the plotter using the copy command.