

## Chapter 1

# Introduction

PlotWorks is a software solution that manages all aspects of document production. It offers high-speed copying, scanning, and printing as well as job management, image viewing, and remote job submission. PlotWorks provides the greatest production power of any digital solution available today.

PlotWorks modular, customizable design can be used in any reprographics environment, from service bureaus to in-house production facilities. You can choose individual components to meet your document production needs and combine them any way. Build a customized system using only the equipment you need while establishing a flexible foundation that can be easily updated when your needs change.

This documentation applies, either all or in part, to the following PlotWorks packages:

- PlotWorks Server
- PlotWorks Client
- PlotWorks Connect
- PlotWorks Convert
- PlotWorks 9800 Server

### What's New in PlotWorks Version 5.7.0

We are pleased to announce the release of PlotWorks version 5.7.0. The latest generation of PLP's reprographics software includes new features and methods that improve performance, output quality and interoperability. This release once again affirms our commitment to helping you Take Control of Your Business™.

- **600 DPI Production Printing:** PlotWorks now provides optional support for the KIP 7000 printer. With a direct interface to the KIP 7000, PlotWorks users can now enjoy 600 DPI production printing at 13 D size sheets per minute. The KIP 7000 Printer Interface supports independent gamma correction for both raster and vector image components, independent dithering methods (either error diffusion or ordered dither patterns) for both raster and vector components, and full bi-directional communication to obtain media, toner
-

and printer status. The KIP 7000 Printer Interface is compatible with OpCenter, so that customers may track the status of every job, on every printer, in every location.

- **Improved DWF Processing:** PlotWorks users will experience a dramatic improvement in DWF processing speeds compared to earlier versions:
  - Processing DWF files is approximately 350% faster than the default installation of version 5.5.2
  - Performing DWF to TIFF conversions is approximately 160% faster than the default installation of version 5.5.2
  - Processing DWF files is approximately 85% faster than processing to LDF when using the latest version (1.6.4.002) of Océ Client Tools.
- **Resampling Performance Increase:** Monochrome TIFF resampling was first introduced in version 5.5.1 to help our customers produce half-size output from scanned images with unprecedented quality and clarity. The resampling process is computationally intensive, and requires ample memory and processing power. With a new approach to this complex task, PlotWorks now resamples images approximately 45% faster than earlier versions.
- **PDF Processing Improvements:** PlotWorks 5.7.0 introduces a new interpreter for processing PDF files, resulting in:
  - Faster performance
  - Improved data integrity
  - Ability to handle PDF files from more applications than ever before.
- **Online Plan Room Integration:** Through the Job Submission Connector API, PlotWorks has long supported integration with third party applications such as online plan rooms and document management systems. With this release, operators now have the ability to open and print Job Orders and Multi-Page Submittals, if provided, directly from the Job Queue. Operators now have access to all of the transactional documents from one location, eliminating several steps from the existing workflow and improving quality control.

## Supported PlotWorks Devices



*This list was current when this document was printed. If your printer is not on the list, please contact PLP.*

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PlotWorks currently supports the following printers, scanners and folders:

### Printers

KIP 7000

KIP 8000

Kyocera Mita 4850w

Océ 9800

Océ TDS400

Océ TDS600

Océ TDS800

Xerox Wide Format 721

Xerox Wide Format 510

PlotWorks also supports a variety of other printers, both small and wide format, through generic Windows interfaces.

### Legacy Printers

KIP 1230

KIP 2950

KIP 3620

KIP 7095

KIP 9010

Xerox Wide Format 8180

Xerox Wide Format 8825

Xerox Wide Format 8830

Xerox Wide Format 8840

Xerox Wide Format 8845

Xerox Wide Format 8850

Xerox Wide Format 8855

Xerox Wide Format MAX 200

Xerox Wide Format MAX 200 NP

### Scanners

All Twain driven scanners are supported.

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**Xerox Scanners:**

|                               |             |
|-------------------------------|-------------|
| Xerox 7336                    | Xerox 7356  |
| Xerox 7396                    | Xerox 7399  |
| XES 8180                      | XES MAX 200 |
| Xerox Wide Format Scan System |             |

**Context Monochrome Scanners** (All at 400 dpi resolution only):

|               |               |
|---------------|---------------|
| FSS 4300      | FSS 8300      |
| FSS 8300 Plus | FSS 8300 Copy |
| FSS 12300     | FSS 18300     |

**Context Color Scanners** (all in monochrome mode at 400 dpi resolution only):

|               |               |
|---------------|---------------|
| FSC 3010      | FSC 5010      |
| FSC 5010 Copy | FSC 6010      |
| FSC 8010      | FSC 8010 Copy |

**KIP Scanners:**

|          |          |
|----------|----------|
| KIP 2020 | KIP 2030 |
| KIP 2035 | KIP 2040 |
| KIP 7095 | KIP 2950 |

**Other Scanners:**

|                   |                        |
|-------------------|------------------------|
| Océ 9800          | Vidar Flash and Flash+ |
| Kyocera Mita 4850 |                        |

**Folders**

|   |                       |
|---|-----------------------|
| Xerox 8180                              | XES MAX 200           |
| XEROX WIDE FORMAT 8830 (Gera and Bay 3) | Xerox 8845            |
| XEROX WIDE FORMAT 8855 (Bay)            | PrintFold 2150 / 3150 |
| GFI Folders                             |                       |

## Supported File Formats

Support for the following file formats is included with every PlotWorks system:

- CalComp 907/907
- CALS
- HP-GL, HP-GL/2, HP-RTL
- TIFF
- VRF

Support for the following file formats is optional:

- DWF
- PDF/PostScript
- VIC/JOB

Support for the following file formats requires the installation of Global 360 Imaging for Windows:

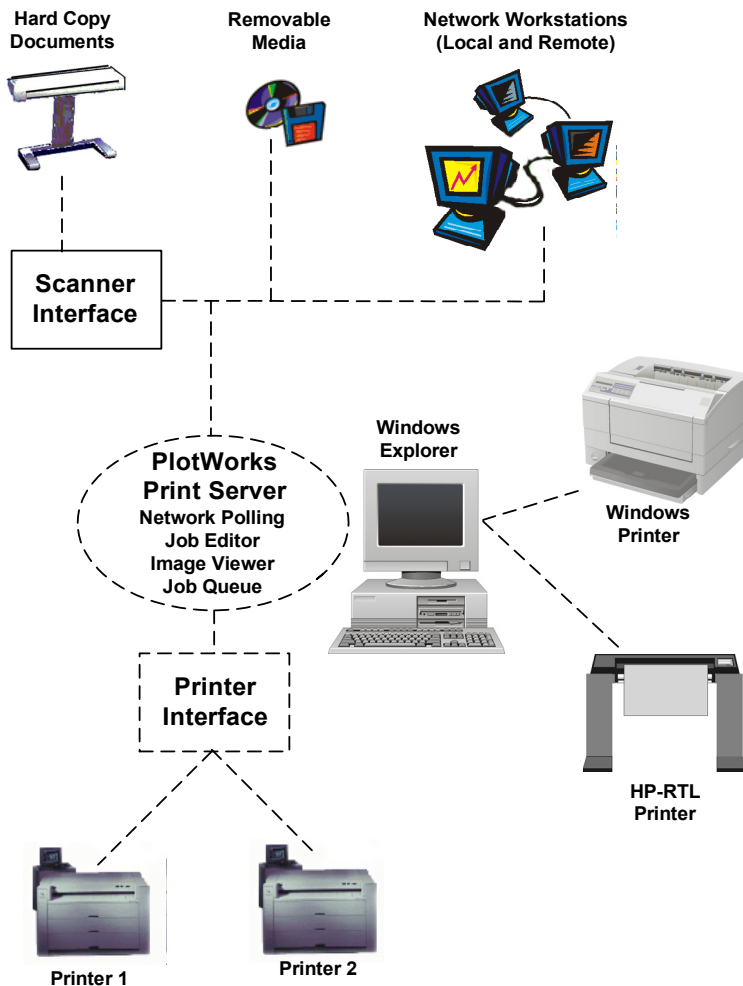
- BMP
- DCX
- JPG
- PCX
- XIF

## Job Ticket Compatibility

PlotWorks 5.7.0 job tickets (.plp files) are fully compatible with systems running versions 5.5.1 or 5.5.2. Job tickets created with PlotWorks 5.7.0 may not be opened by systems running version 5.5 SP3a or earlier. In most cases PlotWorks provides backwards compatibility, so that a system running version 5.7.0 would be able to open job tickets created with versions prior to 5.5.1.

## PlotWorks Hardware Configurations

*Fig 1.1  
Hardware  
Config-  
uration*



The PlotWorks system consists of several hardware and software components. This section describes the various hardware components and provides step-by-step instructions for installing the software.

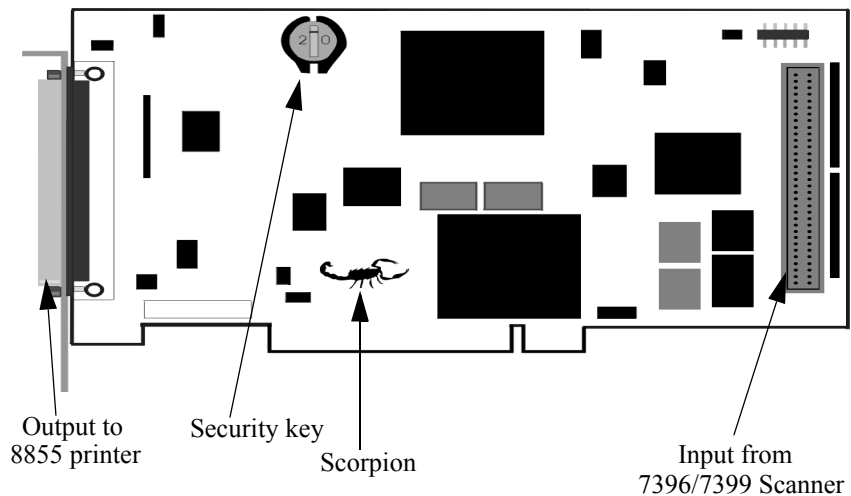
## Interface Cards

The PlotWorks Interface Card is installed in the Print Server (hub) and is responsible for connecting to the printer. There are four different interface cards available, depending on the printer and scanner you are using.

### Scorpion Interface Card

**The Scorpion Interface Card** supports the XEROX WIDE FORMAT 8855 printer, the Xerox 7396 and 7399 scanners, and all KIP printers and scanners. Input/Output ports are shown in the diagram below.

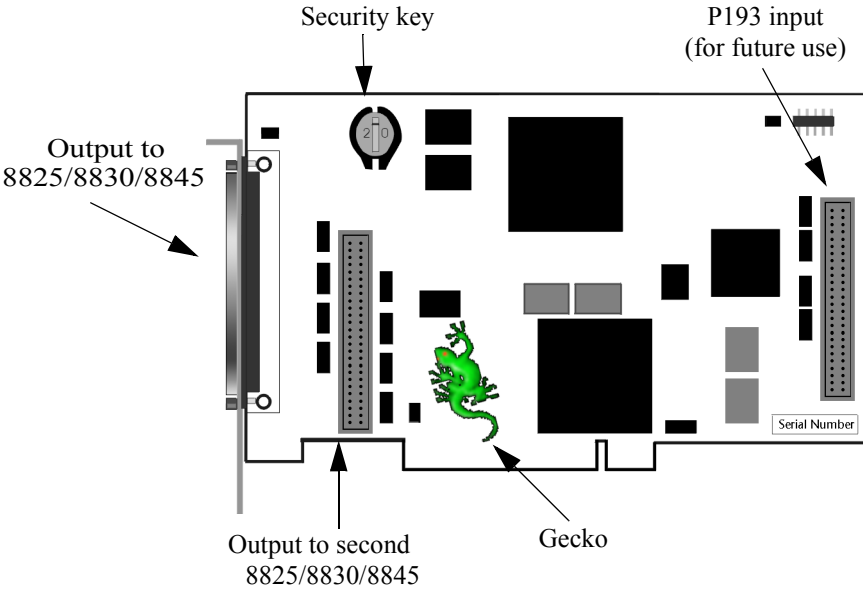
*Fig 1.2  
Scorpion  
Card*



### Gecko Interface Card

**The Gecko Interface Card** supports the XEROX WIDE FORMAT 8825/1, 8825/2, 8830, 8840D, 8845, and Fuji Xerox 4036 printers. (Input/Output ports are shown in diagram below.)

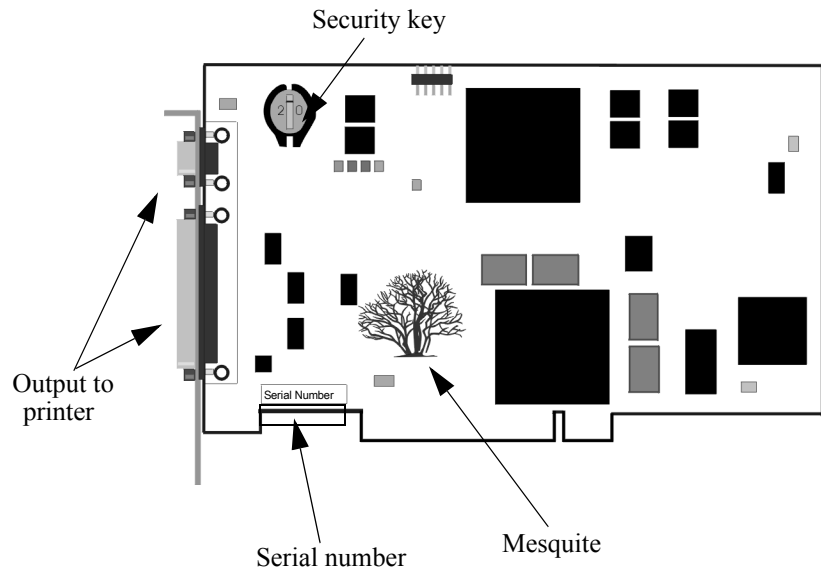
*Fig 1.3*  
*Gecko*  
*Card*





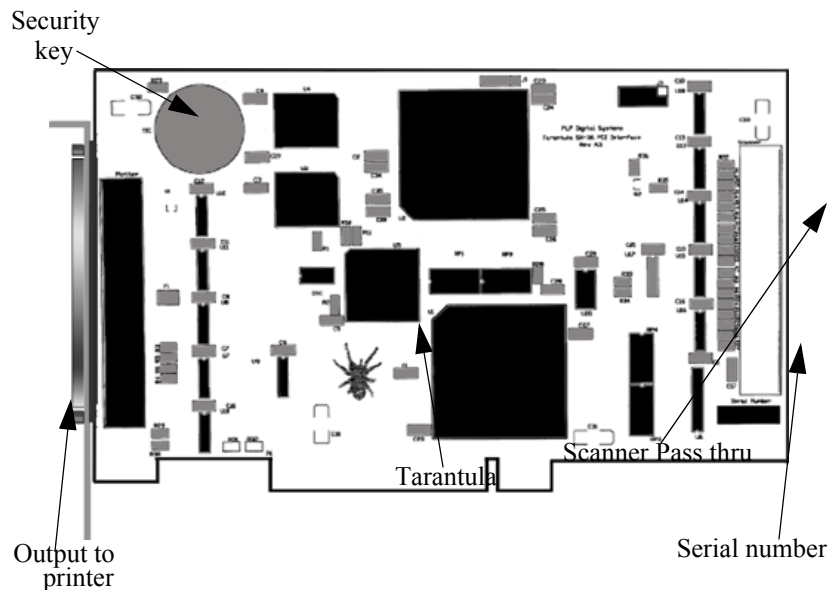
**The Mesquite Interface Card** supports the Océ 9800 printer). (Output ports are shown in diagram below.)

*Fig 1.4  
Mesquite  
Card*



**The Tarantula Interface Card** provides direct support for the MAX 200 printer.

*Fig 1.5  
Tarantula  
Card*



**For parallel printers:**

Use a standard parallel port, like LPT1, to drive the following devices:

- Océ 9400, 9600, and 9800 printers with embedded controllers
- Large Format Inkjet Printers (i.e., HP DesignJet, Xerox 2230/2240)
- Large Format Printers with Embedded Controllers (i.e., XEROX WIDE FORMAT 8825, 8855 and 8830 with the AccXES controller; 8825 and 8830 DDS)
- Windows printers



*RTL and Windows printers can be connected using Windows NT or Ethernet networking.*

**For all others:**

Use an Adaptec 2940U SCSI I card to drive the following devices:

XES 8180 Printer and Scanner

XES MAX 200 Printer and Scanner using the embedded controller

Xerox 7356

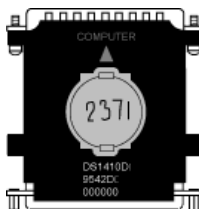
Xerox 7336

Vidar Flash and Flash +

**Security Key/External Dongle**

A provided Security Key must be connected to the computer to run the PlotWorks server software. The Print Server and Scan Station computers usually have the key installed on their interface cards.

*Fig 1.6  
Security  
Key/  
External  
Dongle*



Print and Scan Stations that do not have an interface card, like SCSI or parallel port driven printers or scanners, use an externally mounted, keyed dongle, plugged into a parallel port. **Without this key, your software will not run.** If the Security Key or chip is lost, please contact your PlotWorks Service Representative to **purchase** a new one.

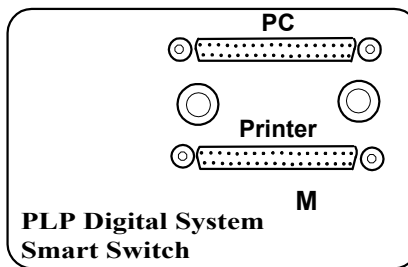


*If you receive an “Invalid Codes” message when attempting to start PlotWorks, check to see that the External Dongle is pushed firmly into the parallel port and that the key is seated properly. If using a key on the controller board, ensure the board is inserted firmly in the motherboard and that the key is seated properly.*

## PlotWorks Smart Switch I

The PlotWorks Smart Switch I selects the scanning mode for scanning/printing systems like the XEROX WIDE FORMAT 8855 printer, the Xerox 7396 and 7399 scanners, and all KIP printers and scanners.

*Fig 1.7  
Smart  
Switch I*



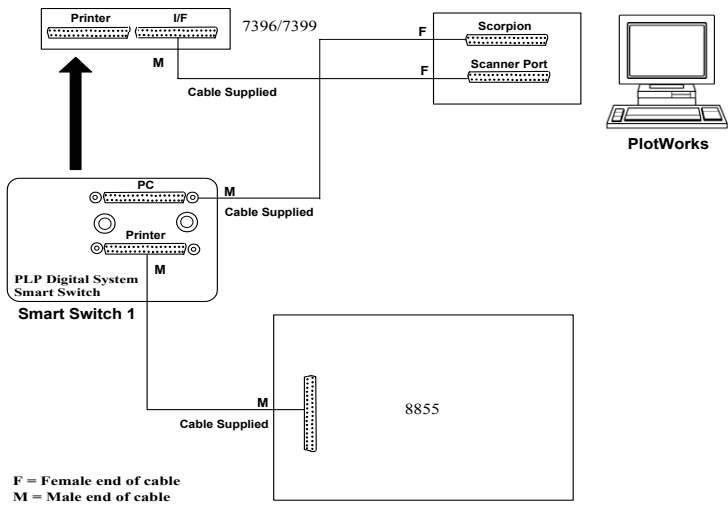
Page 8- 12 provides more information on scanning modes.

There are four possible configurations using the Smart Switch:

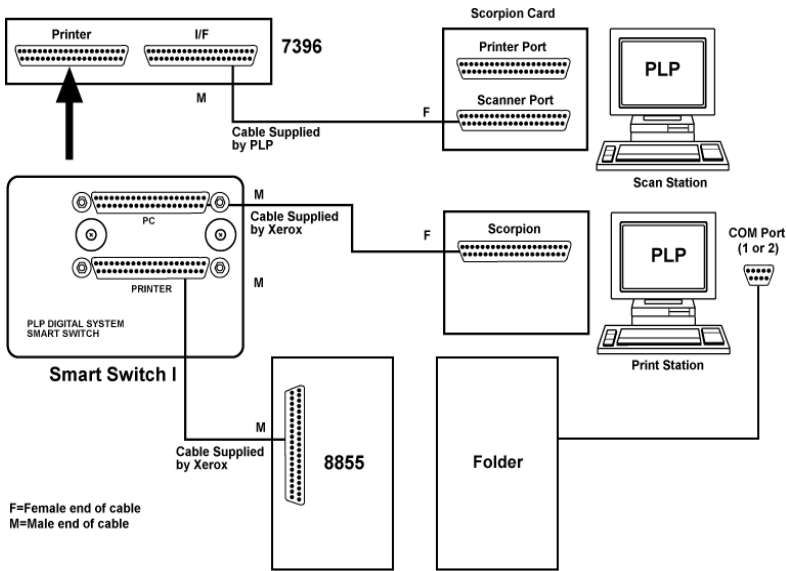
- Single PC workstation as shown in Fig 1.8.
- Dual PC workstations, as shown in Fig 1.9.
- Four port, single workstation configuration, as shown in Fig. 1.10.
- Four port, dual-station configuration, as shown in Fig. 1.11

Select the configuration that best meets your needs and consult the appropriate diagram to connect your cables.

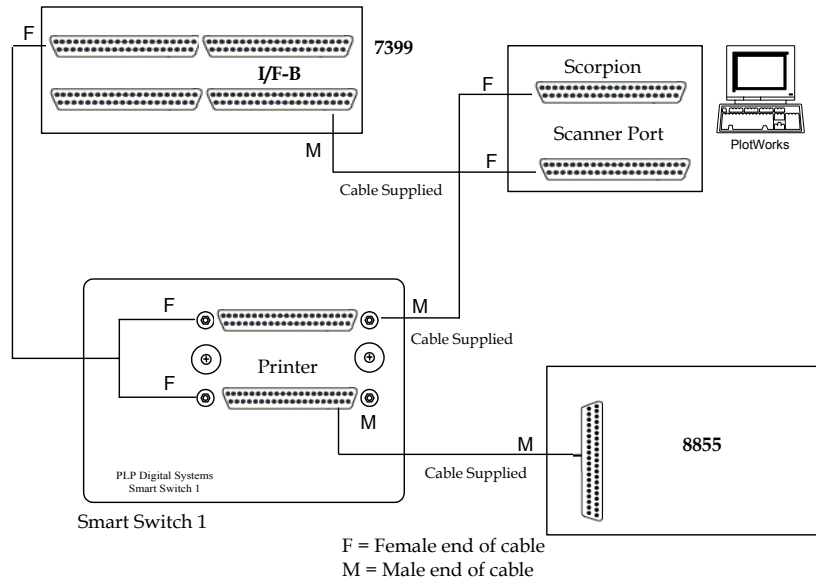
*Fig 1.8 P  
rinter  
Cables,  
Single  
Station  
Config-  
uration*



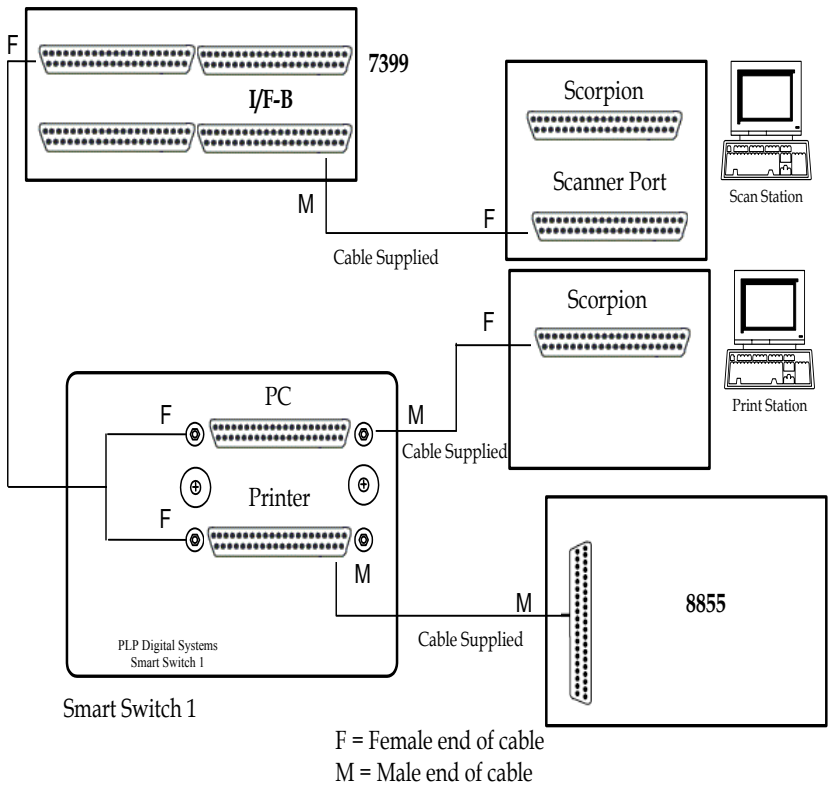
*Fig 1.9  
Printer  
Cables,  
Dual  
Station  
Config-  
uration*



*Fig 1.10  
Four Port,  
Single  
Station  
Config-  
uration*



*Fig 1.11*  
*Four Port,*  
*Dual-*  
*Station*  
*Config-*  
*uration*



## System Requirements

PlotWorks is certified for use with the following PC models:

- Dell OptiPlex GX260
- Dell OptiPlex GX270
- Dell OptiPlex GX280
- Dell OptiPlex GX620
- Dell OptiPlex 170L

Windows XP Professional, either Service Pack 1 or Service Pack 2, is required. Neither Hyper-Threading nor Dual Core processors are supported.

Most configurations will require one or more full height PCI slots, a parallel port, and possibly a serial port. Please contact PLP Customer Support for a current PC specification including recommended processors and memory capacity.

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## PlotWorks Software Components

PlotWorks consists of a group of programs that work together to create, transmit, manage, process, scan and print your jobs. PlotWorks contains many features that are purchased and activated separately.

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*Depending upon your organizations needs and what features are activated, one or more software components or features may not be available. Please see your PlotWorks retailer for more information.*

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The following PlotWorks programs reside on the Print Server and are included with every PlotWorks installation:

### **The Job Queue**

The Job Queue is the heart of the PlotWorks system. All incoming jobs pass through the Queue, where they can be prioritized, edited, and processed.

### **The Job Editor**

The Job Editor is used to create and edit electronic job tickets. Job tickets list the images to print and their printing parameters. The Job Editor also lets you view images, process files, and send jobs to a Job Queue.

### **The Printer Interface**

The Printer Interface is used to rasterize and output each image to the selected printer. It also manages the printer and any attached peripherals (i.e., folders). It provides real time feedback on many printer operations. These include displaying information about the sheet and set printing, printer errors, media drawer contents, and media available in inventory.

### **The Job Processor**

The Job Processor corrects common errors and converts jobs to PGS (Performance Graphics Standard) format to prepare for printing.

### **Network Polling**

Network Polling monitors (polls) a set of target directories for incoming print jobs. These are then submitted to the Queue for printing. The Network Polling program accepts jobs submitted with job tickets or customized text order forms in PFS files. The Network Polling can also apply default printing parameters to single image files.

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## **Optional PlotWorks Components:**

Additional components can be added to the PlotWorks system to increase functionality. These include:

### **The Scanner Interface**

The optional **Scanner Interface** offers copy, Scan-to-File and Scan-to-Print functions. Scanned documents can be added directly to a job ticket, stored digitally or printed. The Scanner Interface can be installed on the Print Server or on a stand-alone Scan Station.

### **Print-to-Queue**

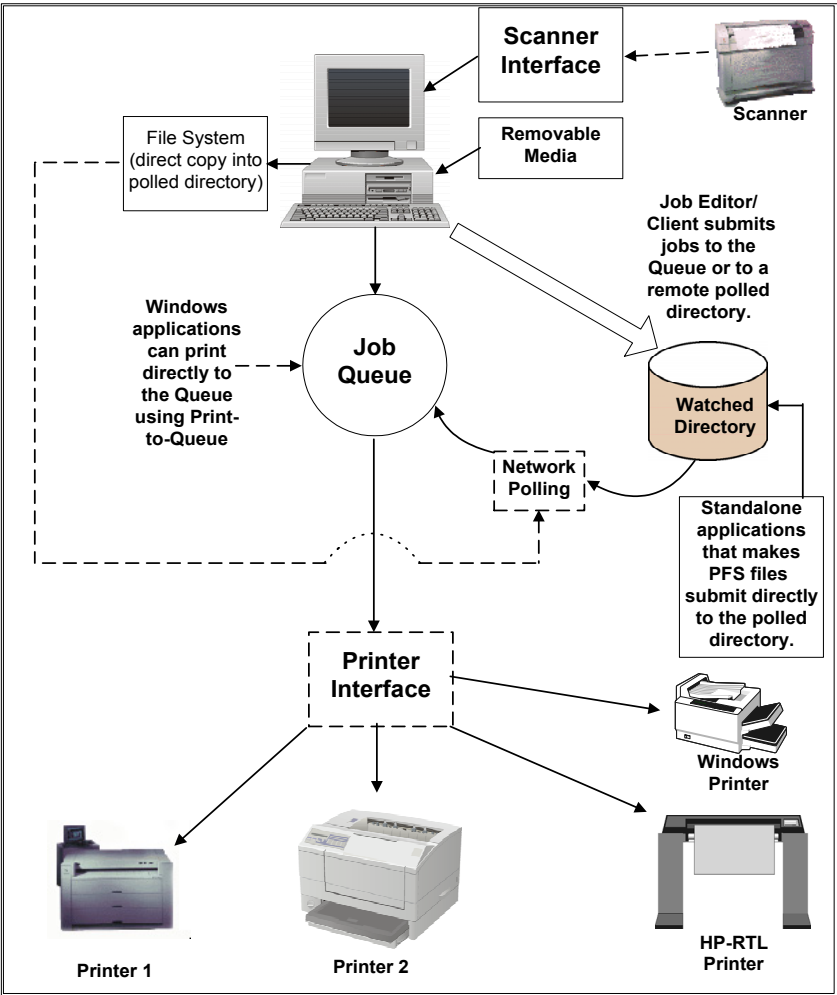
PlotWorks Print-to-Queue is used to print directly to a PlotWorks printer from any Windows application. It is installed on a network server or on local PCs. You can customize Print-to-Queue with PFS files to specify printing parameters like output, media size, fold types, etc.

### **PlotWorks Client**

The PlotWorks Client is a limited version of the Job Editor. It is used to create "job tickets" at remote sites to send to the Job Queue via modem, network or floppy disk. The Client resides on remote user workstations, not on the Print Server.

# Software Flowchart

*Fig 1.12*  
*PlotWorks*  
*Software*



## Using this Manual

This manual is a comprehensive guide to the PlotWorks system. It provides instructions for using the PlotWorks software applications, and troubleshooting information. The following is a list of chapters and what each provides:

### **Chapter 1: Introduction**

Describes the features and capabilities of the PlotWorks system, as well as information on using this manual and other sources of technical help. It also lists the image file formats supported, and any special requirements for using them.

### **Chapter 2: Getting Started**

Provides instructions for hardware setup, software installation and configuration.

The following chapters provide instructions for each PlotWorks module:

### **Chapter 3: The Job Queue**

### **Chapter 4: The Job Editor**

### **Chapter 5: The Network Polling Program**

### **Chapter 6: The Job Processor**

### **Chapter 7: The Post Processor**

### **Chapter 8: The Printer Interface**

### **Chapter 9: The Scanner Interface**

### **Chapter 10: Advanced Reporting Utility (ARU)**

### **Chapter 11: Folder Information**

Provides information on using PlotWorks with folding devices.

### **Chapter 12: Print-to-Queue™**

### **Appendices:**

Provide additional information, including how to calculate memory requirements, warning and error messages, and device specific options. The appendices also provide information on PFS files, and using RAS and Dial-up Networking with PlotWorks.

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## Before You Start

This manual assumes that the reader has an understanding of the following:

- Basic computer use, including keyboard and mouse operation
- Windows conventions such as toolbars, pull-down menus, the Start menu and Windows Explorer
- Image file formats used
- Hardware used. This includes printers, scanners, folders, modems, network servers, and removable media drives

If you are unfamiliar with any of the above topics, please research the appropriate documentation before proceeding.

**Before using PlotWorks**, be sure that you understand the operation and maintenance of your:

- Large-format printer
- Network, if applicable
- Peripheral products like scanners, folders, and modems

## Documentation Conventions

This guide uses several conventions to help you identify different types of information.

Menu names and commands are printed in **bold** type. For example:

Open the **File** menu and select **Exit**.

Dialog box names begin with uppercase letters. For example:

This is the Configure Destination dialog box.

Information to be typed is displayed in Courier text. For example:

Type this sentence.



Many menu commands also are accessible as buttons on the toolbar. These buttons are displayed in the left margin, as shown here.

This guide also provides warnings to help avoid errors and prevent damage to your system. These are marked with the caution symbol as below.



*Do not ignore these warnings!*

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Special tips and hints are marked with a light bulb icon.



*These tips make your job easier!*

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## Help and Technical Support

Several methods of help and technical support are available. These include:

- Online Help
- PLP Technical Support
- PLP Internet Support
- Electronic Documentation on the PlotWorks CD-ROM
- The PLP Knowledge Base on our web site, [www.plp.com](http://www.plp.com)

### Online Help

Each PlotWorks application contains an online Help file that provides detailed information on operating the program. To access an online Help file from within a program either:



- Press **F1**
- Open the **Help** menu and select **Help Topics**. Or click on the **Help** button.

### Technical Support

All PlotWorks customers receive 90 days of free telephone technical support after receipt of their new software. To receive support beyond this 90-day period, you must purchase the *PLP Maintenance and Warranty Plan*.

You can contact PLP technical support at:

PLP Digital Systems  
2300 Clarendon Boulevard  
Suite 711  
Arlington, Virginia 22201  
Phone: 1 (800) 444-7568 or 1 (703) 740-8909  
FAX: 1 (703) 995-4398  
E-mail: [support@plp.com](mailto:support@plp.com)

When you call for technical support, be sure to have the following information available:

- The version number and type of PlotWorks software you are using
  - Printer model and configuration
  - Computer hardware and software configurations
  - Available RAM and hard disk space on the PC
-

- The PlotWorks sample files listed below. These files are usually located on your computer hard drive under Program Files\PLP\Plotworks\Sample Files. These files can also be found on your PlotWorks CD-ROM.

|                   |                      |                      |
|-------------------|----------------------|----------------------|
| Samples.PlotWorks | SampleHP_RTL.PLT     | Sample multipage.TIF |
| Sample CC1.PLT    | Sample Acad 12.DWG   | Sample.PS            |
| Sample CC3.PLT    | Sample Acad 13.DWG   | Sample.TIF           |
| Sample HP1.PLT    | Sample Acad 14.DWG   | Sample.VRF           |
| Sample HP2.PLT    | Sample multipage.PDF |                      |



***You need a phone line available at your printing and scanning stations for Technical support to be able to help you solve your PlotWorks problems.***

## **PLP Internet Support**

PLP's World Wide Web site (<http://www.plp.com>) offers a "Customers Only" section for customers on the Maintenance and Warranty Program.

The section offers:

- Frequently Asked Questions (FAQs) about PlotWorks system software and hardware
- Product documentation
- Early announcements of new products and services

## **Printing Electronic Documentation**

PlotWorks documentation is provided in PDF format on the PlotWorks CD-ROM in the Documentation folder. These files print on 8.5" x 11" or A4 size paper to fit in a 3-ring binder.

The following guides are available on the CD-ROM.

- *Getting Started Guide:* This manual provides basic information on using the PlotWorks system.
- *The PlotWorks User Guide:* This manual provides comprehensive information on the PlotWorks system, including a description of each software component, installation, and instructions.
- *The PlotWorks Preinstallation Guide:* This guide contains information on preparing for installation.

### **Viewing and Printing PDF Files**

Adobe's Acrobat Reader is required to view and print PDF files. A copy is provided on the PlotWorks CD-ROM.

#### **To Install Adobe Acrobat Reader 5.0**

1. Insert your PlotWorks CD in the CD-ROM drive. The PlotWorks Installation window opens.
2. Click on **Install Acrobat Reader**.
3. Click on the text **Adobe Acrobat Reader**. The Adobe Acrobat Reader Auto Install application opens and leads you through the installation process.

#### **To View a PDF File:**

1. Once the Acrobat Reader is installed open **Windows Explorer**
2. Select your CD ROM drive
3. Open the **Documentation** folder
4. Double Click on the PlotWorks guide you wish to open. The guide will open in Adobe Acrobat Reader

#### **To Print a PDF File:**

1. Open the Guide you wish to print in Adobe Acrobat Reader.
2. Select **Print** from the Acrobat Reader File menu

