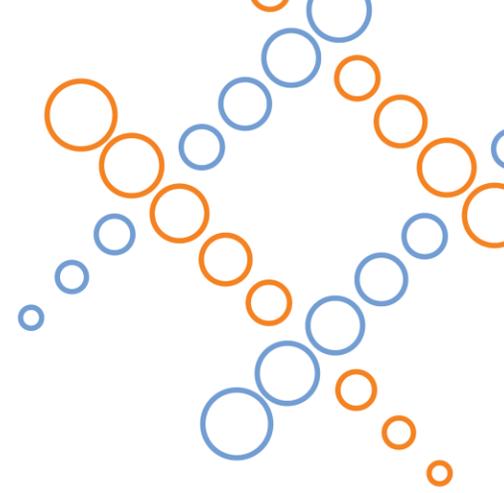


PlotWorks®

Installation Guide for Ricoh, Lanier and Savin Wide Format Printers



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Functional Overview

PlotWorks is a print management solution which enables:

- Batch printing and collated sets
- Visual job preparation with integrated viewer (WYSIWYG)
- Precise control of multi-page images (PDF, DWF/DWFX, TIFF)
- Advanced media management and control
- Scan retrieval, viewing and renaming
- File conversion and soft copy plotting
- Managed workflow with client/server architecture

Supported file formats include CALS (Type 1), DWF/DWFX, HP-GL/1, HP-GL/2, HP-RTL, PDF, PostScript and TIFF.

The software that shipped with your printer is a fully enabled, perpetual software license. This is not a trial copy.

Build and Print Collated Sets

Print jobs can be visually prepared and submitted through PlotWorks. Re-size, re-order and adjust images and the software will collate the desired number of sets. Users can submit the entire set or specific sheets to their printer.

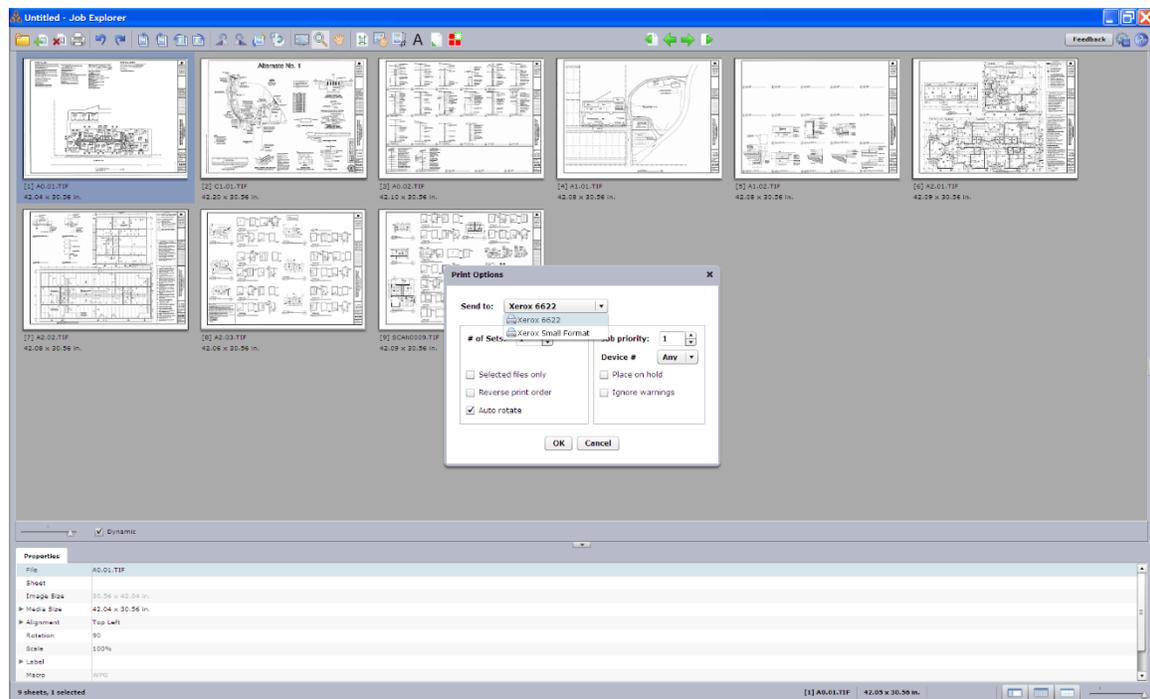


Figure 1 - Job Preparation and Submission

Work with Multiple File Formats

CALS, DWF, DWFx, PLT, PDF, PostScript and TIFF images can be viewed and manipulated through a single interface on any client PC. Properties can be defined for selected sheets or for all sheets including paper size, rotation, scale and offsets.

Scan and Index

As a user scans, images are automatically retrieved and viewed. The user can rotate, modify and rename images with a simple interface. Renaming multiple sheets is easy as PlotWorks maintains the title block zoom from sheet to sheet.

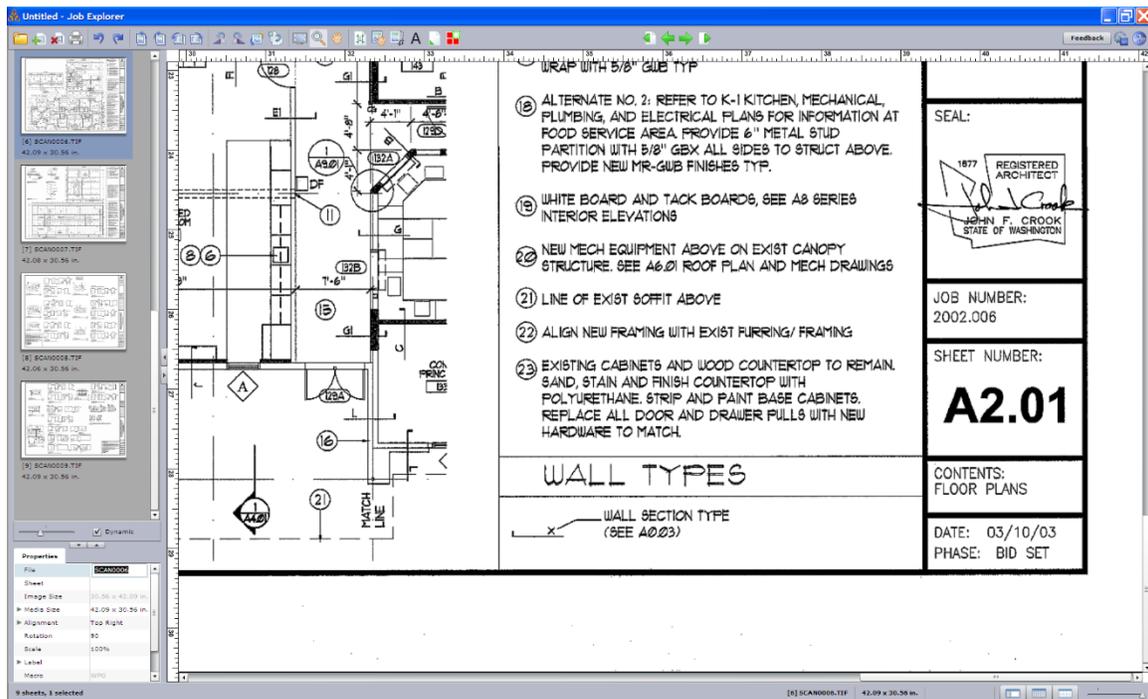


Figure 2 - Indexing

File Conversion and Output-to-File

Rapidly convert any supported image format to either PDF or TIFF in either single- or multi-page format. Typical applications include archiving, distribution, and population of document management systems. Users may specify final resolution, compression method and naming convention.

Hot Folders

Create hot folders on your network for users to drag-and-drop their files. Each folder can be configured to automatically apply predefined printing parameters. For example, create one folder for 50 percent reductions, and another folder for scale-to-fit on ANSI B.

Queue Control

In attended environments the operator has advanced control over every job. Jobs can be paused, interrupted and resumed. Jobs stored in the queue can be reprinted instantly without requiring further processing or spooling.

Unlimited Client Users

The PlotWorks Client may be installed on any PC giving multiple users the ability to print and view with the simple interface. Users appreciate the flexibility, print speed and ability to retrieve past print jobs.

Requirements

PC Requirements

PlotWorks is a computationally intensive application. To ensure optimal performance, please verify that the PC has adequate resources. If the application will primarily be used to view and print monochrome images, a dual-core CPU with 2GB of memory should be sufficient. If the application is to be used with color files or complex PDF images, a quad-core CPU with 4GB of memory is strongly recommended.

Additional requirements:

- Network connection
- USB port for the hardware license key (see below)

Supported Operating Systems

PlotWorks may be installed with any of the following operating systems:

- Windows 10, 8, 7, Vista, XP (32-bit or 64-bit)
- Windows Server 2012, 2008, 2003 (32-bit or 64-bit)

Hardware License Key

This software requires a unique hardware license key ("dongle"). Do not place the dongle in a USB port until prompted to do so by the installer. If you lose the dongle you will need to repurchase the product.



Privileges and Permissions

Administrative privileges are required for installation.

Foreign Language Support

PlotWorks is available in English only.

Before You Begin

Administrative Privileges

You must be logged on as a member of the local Administrators security group in order to install this software.

Activation Codes

Activation codes are required during installation. Open a web browser and visit <http://ricoh.opcenter.com>. Enter the five digit number printed on the side of the dongle, and following the instructions for activation. Download and extract the .zip file to a subfolder on your desktop.

Installation

1. Close all Windows applications.
2. Insert the PlotWorks CD-ROM in the CD-ROM drive.
The installer will automatically open after a few seconds.
3. From the Installation menu, choose Install PlotWorks Server.
The Welcome dialog appears.
4. Press Next.
The License Agreement dialog appears.
5. Press Yes if you accept the terms of the License Agreement, or press No to cancel the installation.

The Choose Destination Location dialog appears. By default, PlotWorks is installed in C:\Program Files\PLP\PlotWorks. If you wish to install in a different location, press Browse to select an alternate folder.
6. Press Next to continue.
A Setup Type dialog appears.
7. Select the unit of measurement you prefer, and then press Next.
A Setup Type dialog appears, asking if you wish to automatically start PlotWorks programs every time the computer is restarted (strongly recommended).
8. Select the appropriate option, and then press Next.
The Job Queue Path dialog appears. By default, the primary Queue is placed in C:\Queue. If you wish to place the primary Queue in a different location, press Browse to select an alternate folder.

Due to the size and quantity of read and write operations while processing and printing jobs, the queue folder (typically C:\Queue) must reside on a local hard drive on the PlotWorks Server. Failure to follow to this guidance will result in poor performance and unnecessary network traffic.
9. Press Next to continue.
The Activation Codes dialog appears.
10. Press Browse to select the folder containing the activation codes.
11. Press OK to continue.
The Select Program Folder dialog appears.
12. Either accept the default program folder name, or type an alternate name.
13. Press Next to begin the installation process.

An Information dialog appears, prompting you to connect the hardware license key (“dongle”) if it is not already installed. If you are connecting a USB dongle for the first time, wait for the driver installation to complete before pressing OK.

14. Press OK.

The InstallShield Wizard Completion dialog appears.

15. Select the desired restart option, and then press Finish.

16. Restart the PC.

Module Overview

PlotWorks Server performs its tasks through several integrated modules. Presuming that you elected to "automatically start PlotWorks programs" during the installation process, each of the following modules will launch on startup.

Please note that modules may be minimized to the Windows System Tray by pressing the X button in the upper right corner. To restore a module, double-click the corresponding icon in System Tray.

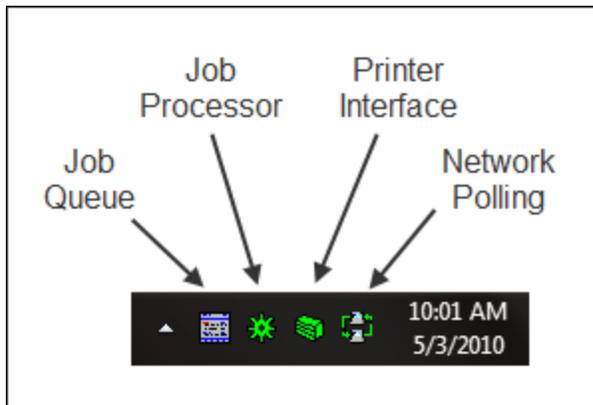


Figure 3 - System Tray

Job Queue

The Job Queue allows operators to hold, interrupt, resume, prioritize and reprint jobs. Every job to be printed must pass through the Job Queue. Operators will frequently interact with this module.

Job Processor

This module processes each job that enters the Job Queue. The corresponding icon in the System Tray shows the current status of the module. The icon is green when idle, yellow when busy and red if stopped. Operators will rarely interact with this module.

The Job Processor must be running at all times. The icon in the System Tray should be green or yellow. If the icon is red, indicating that the process is stopped, right-click on the icon and choose Start Processing.

Printer Interface

This module is responsible for all communication with the printer, including detection of media and status. As soon as a job is processed, the Printer Interface will begin sending sheets to the printer. The corresponding icon in the System Tray shows the current status of the module. The icon is green when idle, yellow when busy and red if stopped.

The Printer Interface must be running at all times. The icon in the System Tray should be green or yellow. If the icon is red, indicating that the process is stopped, right-click on the icon and choose Automatic.

Do not attempt to stop a job using any of the features or controls in the Printer Interface module. Instead, in the Job Queue, highlight the currently printing job and press Hold.

Network Polling

The Network Polling module searches one or more directories, either local or network, for incoming jobs. When a job is found it is added to the Job Queue for subsequent processing and printing. The corresponding icon in the System Tray shows the current status of the module. The icon is green when idle, yellow when busy and red if stopped.

Use of this module is optional. Please see the PlotWorks User Guide for more information.

Configuration

Printer IP Address

The Printer Interface must be configured with the IP address of the printer. From the Printer Interface main menu choose Setup > Device Specific Options, and then enter the IP address as shown.

The screenshot shows the 'Device Specific Options' dialog box with the following settings:

- Folding Options:** Folder type: No Folder/Auto Detected Folder, Serial port: 1, 8180 automatic set rotation: , Send flat output to finisher: , Punching: , Rotation feature: , Reinforcement:
- Smart Switch Options:** Smart Switch control: None, Copy Mode Timeout: 0
- Printer Options:** Print density: 24, Power Save Timeout: 0, Reduce pen widths: , Minimum Pen Width (pixels): 2, Add lead/trailing edges: , Leading: 0 (in), Trailing: 0, Printer name: [empty], Output quality: 600 (Best), 400 (Normal), 300 (Draft), Minimum Paper Length: 8.2 (in), Hardware Port Number: 1
- Socket Options:** IP Address: 0 . 0 . 0 . 0, User Name: Anonymous, Socket Port Number: 9100, Password: [empty]
- Color Management Options:** Bond Profile: [empty], Coated Profile: [empty], Rendering Intent: [empty], Map Best to Normal quality:

Buttons: OK, Cancel

Figure 4 - Printer Interface Setup (Device Specific Options)

Media Inventory

The Media Inventory is a record of the media you have in stock. When PlotWorks is installed, a preconfigured inventory containing commonly used sizes and types is provided.

From the Printer Interface main menu choose Setup > Media Inventory. Add, edit or delete entries from this list as needed. For example, if you do not stock 17 inch rolls, delete this entry from the Media Inventory.

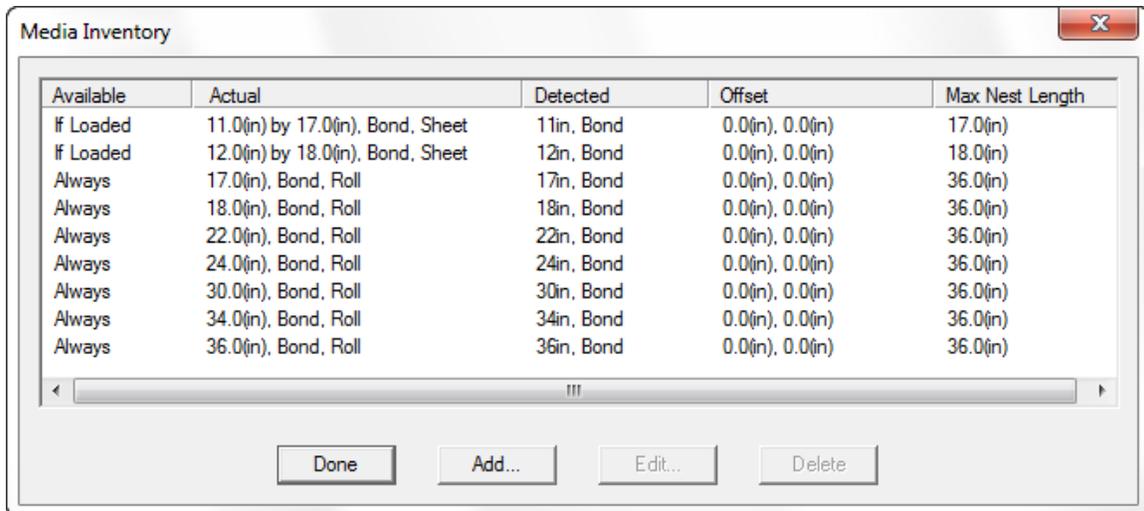


Figure 5 - Printer Interface Setup (Media Inventory)

For attended or actively-managed printers (example: print room, central reprographics department), the "Availability" parameter for each entry in the media inventory should be set to "Yes, always." Operators will be prompted when the ideal size (based on speed and least waste) is not currently loaded in the printer.

For unattended printers, the "Availability" parameter for each entry should be set to "Yes, but only when loaded in the printer." This will allow images to print on larger rolls when the ideal size (based on speed and least waste) is not currently loaded.

Printer Settings

Using the Web Image Monitor as Administrator, enable the Spool Printing option on the printer.

1. Open a web browser and navigate to <http://n.n.n.n> where n.n.n.n is the IP address of the printer.
2. Press the Login link in the upper right corner. The default user name is "admin" and the password is blank.
3. Press the Configuration link on the left side of the page.
4. Under Device Settings, press the System link.
5. Change the Spool Printing setting to "Active" then press the OK button.
6. Press the Logout link in the upper right corner.

Retrieving Scans

1. From the Windows Start menu choose All Programs > PlotWorks > Job Editor.
2. From the Setup menu choose Scan Button Options > Starts Adds Files via Directory Polling.
3. Press Scan and configure the Directory Polling dialog as shown below.

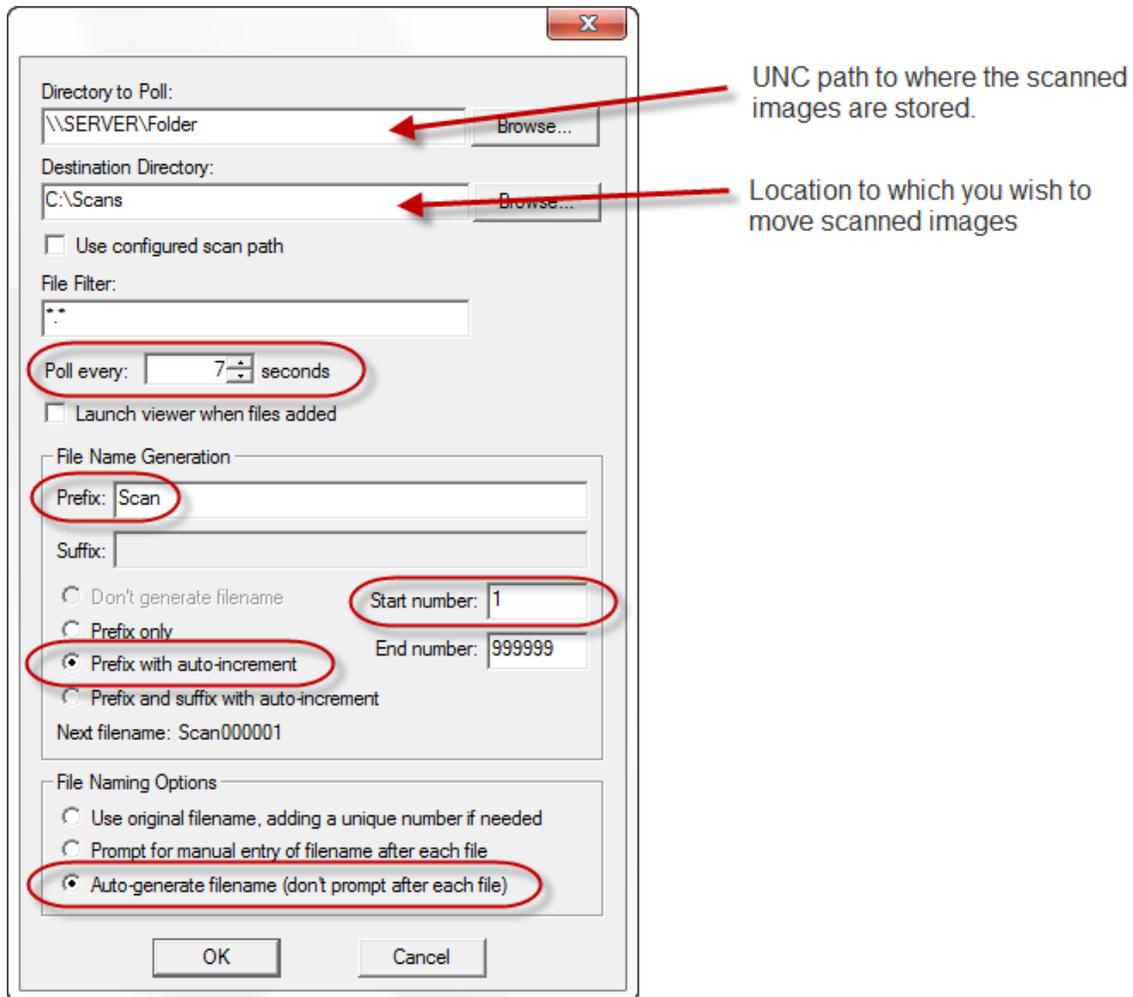


Figure 6 - Directory Polling Dialog

4. Press Exit.

Getting Started

Printing

You will use the Job Editor module to build and submit a print job.

1. From the Windows Start menu choose All Programs > PlotWorks > Job Editor.
2. Press Add Files.
3. Press View.

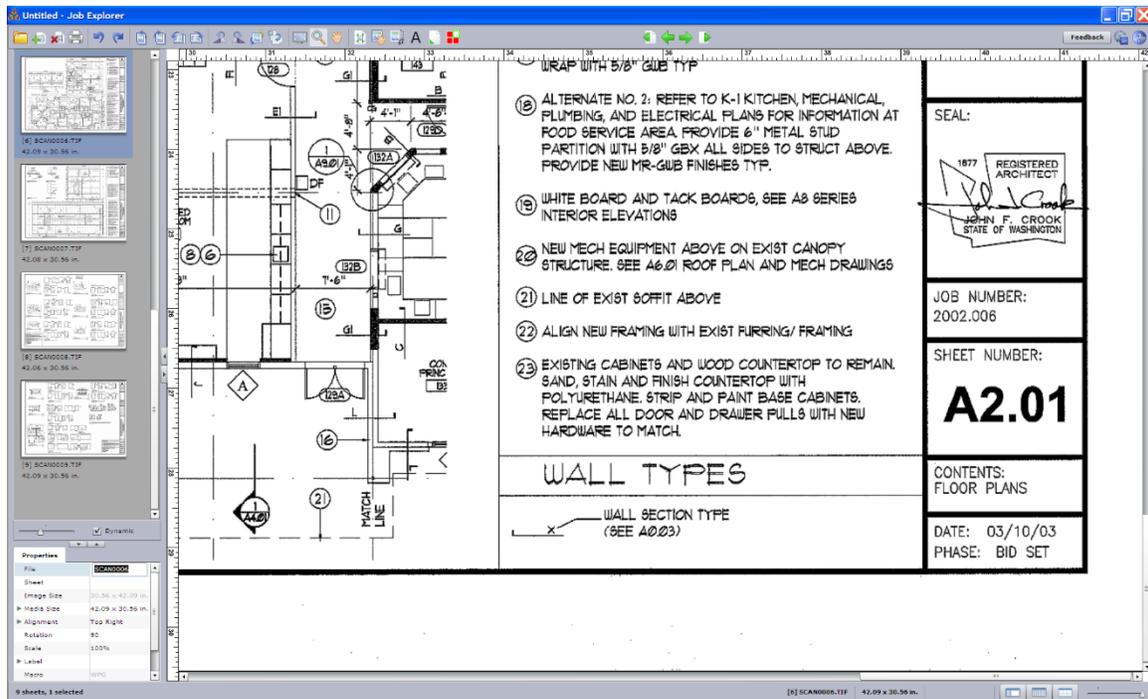


Figure 7 - Viewer

4. View, reorder, rotate, scale or align images.
5. Press Print and then specify the number of collated sets.

An online video tutorial explaining how to build and submit jobs is available at <http://ricoh.opcenter.com>.

Retrieving Scans

Use the Job Editor module to retrieve scanned images from the FreeFlow Accxes controller.

1. From the Windows Start menu choose All Programs > PlotWorks > Job Editor.
2. Press Scan.

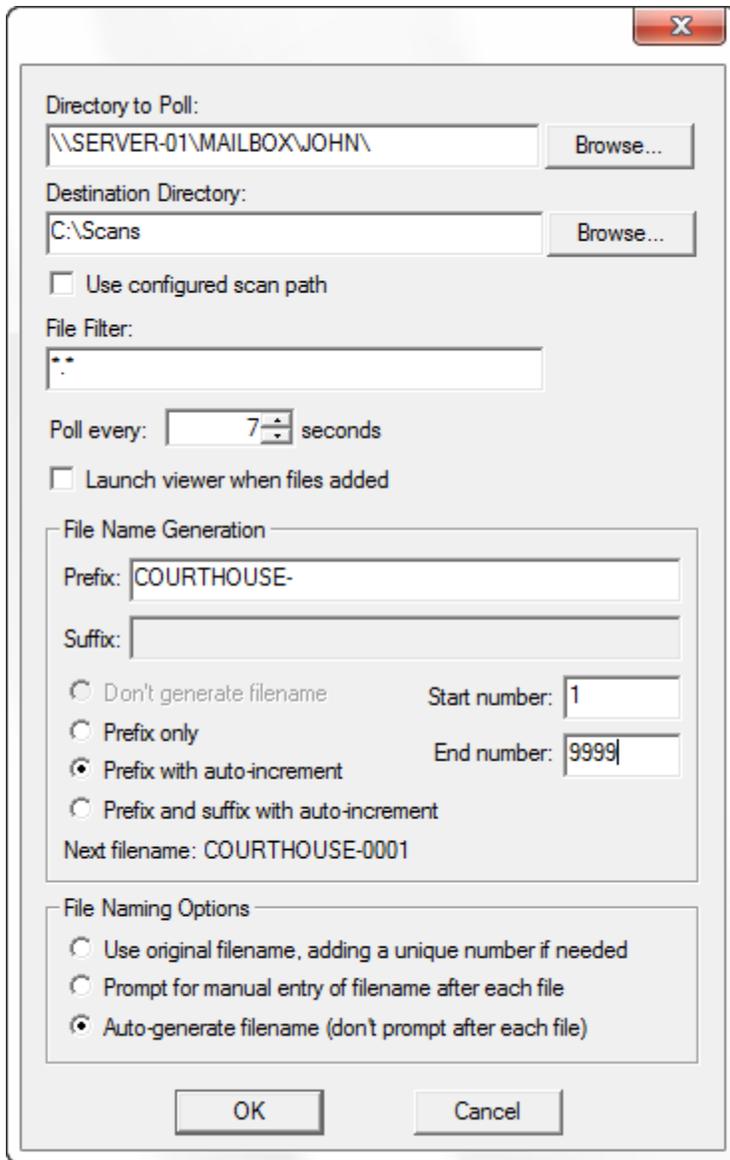


Figure 8 - Directory Polling Dialog

3. Change any of the previously stored settings as needed (e.g., Directory to Poll, Destination Directory, Prefix, and Start Number).
4. Press Start Polling.

The Directory Polling dialog may be opened and started before, during or after your scanning session. Any images currently residing in the path specified by the Directory to Poll field will be immediately moved to the Destination Directory. During the move, each image is renamed using the File Naming Options specified.

An online video tutorial describing how to retrieve and index scanned images is available at <http://ricoh.opcenter.com>.

Managing Jobs in the Queue

The Job Queue allows operators to hold, interrupt, resume, prioritize and reprint jobs. Every job to be printed must pass through the Job Queue. Operators will frequently interact with this module.



Delete

Do not attempt to delete a job that is currently printing. Instead, place the job on hold (see below) then delete it.

To delete a job, select the corresponding row and press Delete. Multiple jobs can be deleted by selecting multiple rows.

Hold

The Hold button is used to stop the currently printing job or to prevent one or more pending jobs from printing. The Job Queue will remember which set and images were last printed, allowing an operator to automatically resume an interrupted job from its last known position.

Reprint

The Reprint button allows an operator to reprint a job starting from a user-specified set and image with a specified priority.

Next

The Next button assigns the selected job a priority of Next. This job will print as soon as the current job (if any) finishes.

Now

The Now button sends the selected job to the printer immediately. If another job is printing, it is interrupted and will resume automatically when the printer is available.

An online video tutorial is available at <http://ricoh.opcenter.com>.

Maintaining the Queue

The Activity column in the Job Queue shows the current activity (if any) for each job. Under certain conditions an operator may see a job with an invalid entry in the Activity column. For example, after a power outage you might see an entry that shows Printing in the Activity column, but the printer is doing nothing. This job is in an invalid state.

To reset a job in an invalid state, right-click on the corresponding row and choose Reset Job. This will clear the current activity and place the job on hold.

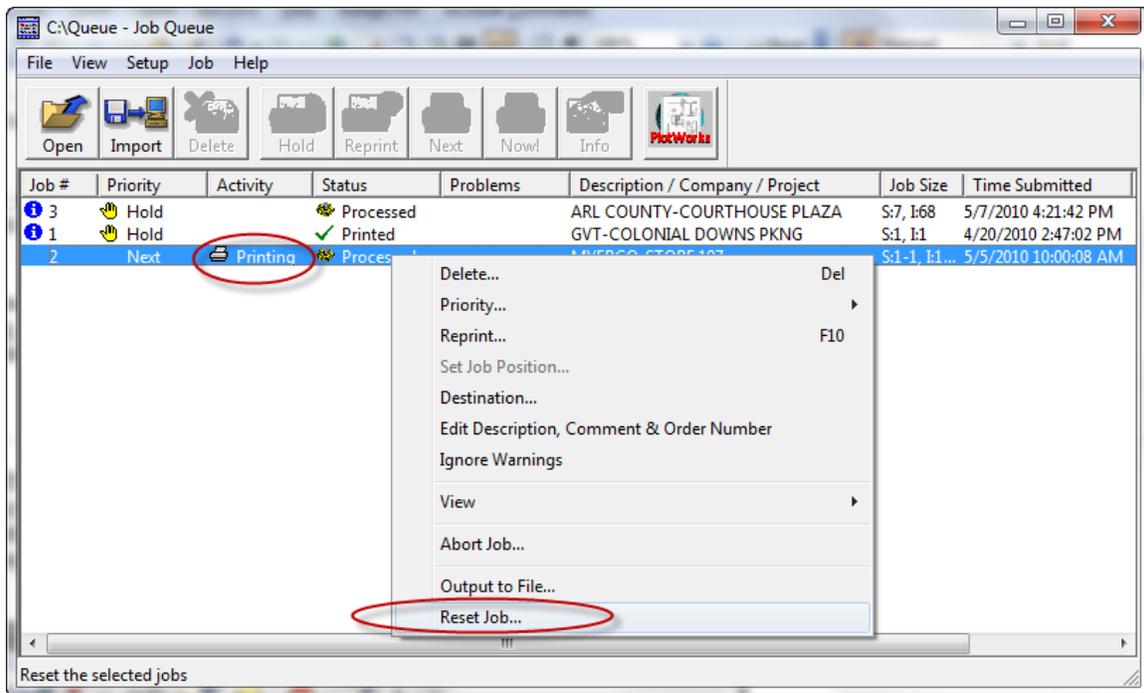


Figure 9 - Job Queue

Job status information is stored in the queue.que file located in the associated queue folder, typically C:\Queue. Like most databases this file requires occasional maintenance to ensure data integrity and improve performance.

To rebuild the queue:

1. Terminate all PlotWorks modules by choosing Exit from the File menu.
2. Open the Job Queue module from the Windows Start Menu.
3. From the File menu choose Rebuild Queue.
4. Press Yes when prompted.

The queue may be rebuilt at any time, as often as you would like. We recommend rebuilding the queue at least once per month.

Additional Considerations

Virus Scanning, Firewalls and Threat Protection

While virus scanning software, firewalls and threat protection packages can prevent various forms of attack, it is important to understand that these protection mechanisms can also prevent your PlotWorks system from operating properly.

Virus Scanning

On-access virus scanning (typically during read, write and copy operations) should be disabled for the following folders:

- PlotWorks installation folder and all subfolders, typically C:\Program Files\PLP\PlotWorks
- PlotWorks queue folder and all subfolders, typically C:\Queue
- Scan destination folder and all subfolders (not present on all systems)
- Network Polling folder and all subfolders (not present on all systems).

Please consult the documentation provided by your vendor to learn how to configure your virus scanning software.

Firewalls

The PlotWorks Printer Interface module communicates with the printer using port 9100. Make sure that network communication over port 9100 between the PlotWorks PC and the printer is not blocked.

Please consult the documentation provided by your vendor to learn how to configure your firewall.

Threat Protection

The Job Editor and its associated viewer communicate with each other via http requests to localhost (127.0.0.1) using port 8887. Some threat protection packages will prevent this communication, causing the viewer to fail with a "dis::Refresh error unknown" message.

As an example, AVG offers a number of security modules with their Anti-virus packages. Two of the available modules, the Link Scanner and the Online Shield, are related to protecting against URL and HTTP communication threats. If a PlotWorks user has either or both AVG modules enabled they may receive an error shortly after launching the viewer. The error message will be followed by several more error messages.

Please consult the documentation provided by your vendor to learn how to configure your threat protection software.

Network Performance

When building a print job, images may be added from directories on a local drive or from a network path. In some cases, performance of the PlotWorks viewer will be considerably faster if the images reside on a local drive.

Paper Exit Path

By default, jobs submitted to the printer will exit from the top/front, collated as intended.

If you wish to select the alternate (rear) exit path when submitting a job, enable the "Reverse standard print order" option in the Output Job dialog. This will reverse the print sequence to ensure correct collation, and will trigger the printer to use the alternate (rear) exit path.

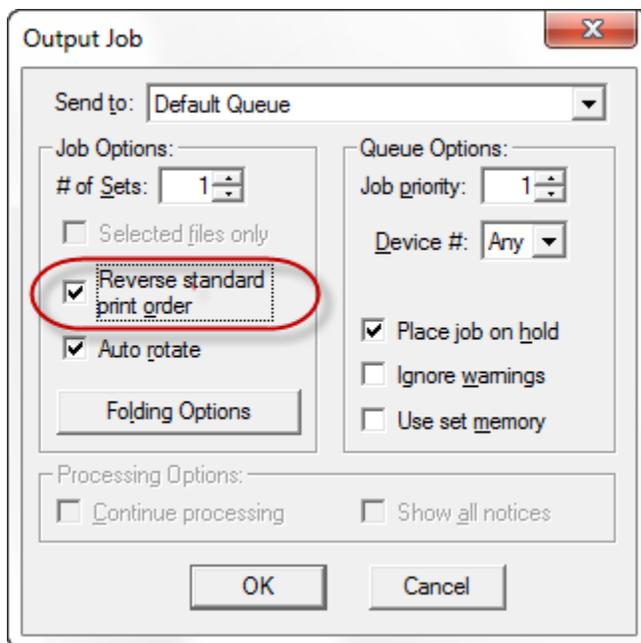


Figure 10 - Output Job Dialog

If you wish to change the default exit path from top/front to rear:

1. Terminate the Printer Interface module.
2. Open the Windows Registry Editor (Start > Run > regedit)
3. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE\PLP\PlotWorks\Printer Interface\XXX where XXX is the subkey of the printer you wish to modify. On a 64-bit operating system the registry path will be HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PLP\PlotWorks\Printer Interface\XXX.
4. Right-click on the "ControllerAlternateExitPath" entry, choose Modify, and change the value from 0 to 1.

5. Launch the Printer Interface module.
6. Run a test job with two or more sheets to verify exit path and sequence.

If you wish to change the default print sequence regardless of exit path:

1. Terminate the Printer Interface module.
2. Open the Windows Registry Editor (Start > Run > regedit)
3. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE\PLP\PlotWorks\Printer Interface\XXX where XXX is the subkey of the printer you wish to modify. On a 64-bit operating system the registry path will be HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PLP\PlotWorks\Printer Interface\XXX.
4. Right-click on the "ReverseStandardPrintOrder" entry, choose Modify, and change the value from 0 to 1.
5. Launch the Printer Interface module.
6. Run a test job with two or more sheets to verify exit path and sequence.

If you wish to change the default print sequence for rear exit only:

1. Terminate the Printer Interface module.
2. Open the Windows Registry Editor (Start > Run > regedit).
3. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE\PLP\PlotWorks\Printer Interface\XXX where XXX is the subkey of the printer you wish to modify. On a 64-bit operating system the registry path will be HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PLP\PlotWorks\Printer Interface\XXX.
4. Right-click on the key you just selected, then choose New > DWORD (32-bit) Value.
5. Set the name to "ReverseRearExitStandardPrintOrder" and set the value to 1.
6. Launch the Printer Interface module.
7. Run a test job with two or more sheets to verify exit path and sequence.

Note: the ability to change the default print sequence for rear exit only is available in version 7.1.0.483 or later. You may download the most recent updater from <http://ricoh.opcenter.com/plotworks-updater>.

Additional Resources

There are several additional resources available to help you learn and use your PlotWorks software.

- The PlotWorks User Guide provides detailed information for each feature, function and module. The User Guide is located in the Documentation folder of the PlotWorks installation CD.
- Context-sensitive help may be accessed by pressing the F1 key on your keyboard, or through the Help menu in each module.
- Several video tutorials are available online at <http://ricoh.opcenter.com>.