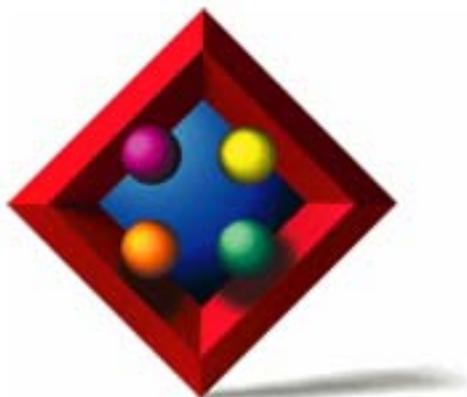




# MarkVision Professional 11.1

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## User's Guide



**April 2007**

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# Introducing MarkVision Professional

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## What is MarkVision Professional?

*MarkVision™ Professional (MVP)* is a Web-enabled device management utility designed for IT professionals. MVP works as a client-server application. The server discovers and communicates with devices on the network and provides information about them to a client. The client displays device information and provides a user interface to manage those devices.

MVP's built-in security provisions prevent unauthorized access to devices on the network. Authorized users can use the MarkVision Web Client to access MVP's management options by connecting to the MarkVision Server from a supported Web browser.

Customize MVP to see only the device information that you select. Quickly and efficiently locate specific devices on the network with Quick Find or Discovery Profiles. Use Folders and Filters to group devices based on single or multiple characteristics (such as color capability, input capacity, and speed) or conditions (such as cover open, low toner, low paper, and paper jam).

## What can MarkVision Professional do?

This guide is written for administrators. To complete these tasks successfully, you should have a working knowledge of your network hardware and software.

MarkVision Professional lets administrators:

- Troubleshoot and fix network printing issues before they are disruptive.
- Perform printer and print server maintenance and routine updates remotely.
- Diagnose and fix printing problems using Quick Find to locate a specific device on the network.
- Use extensive Filters to find and group devices based on one or more characteristics (such as color capability or multifunction capabilities) or conditions (such as cover open or paper jam).
- Configure settings on multiple devices simultaneously with customizable device policies.
- Display devices that meet predefined criteria (such as Toner Low).
- Schedule time-intensive activities, such as company-wide device discovery or updating print server firmware when network use is at a minimum.
- Prevent unauthorized access to devices on the network.
- Download plug-ins for additional device support at runtime.

## What's new in MarkVision Professional 11.1?

Several new features and enhancements provide even greater control of your network devices:

### ***Expanded support for Embedded solutions***

MVP 11.1 includes built-in support for many embedded solutions and supports additional solutions by installing solution descriptors. These descriptors provide MVP with information about supported settings such as types, descriptions, ranges, defaults, and internationalization values and strings.

### ***Expanded device support***

MVP 11.1 supports more Lexmark and 3rd party devices than ever before. MVP 11.1 natively supports the same devices as MVP 11.0, including devices previously supported through plug-ins. For a complete list of supported devices, see the included *Release Notes*.

## ***Incorporation of previous plug-ins***

MVP 11.1 natively supports service packs and functional plug-ins designed for MVP 11.0. See the included *Release Notes* for details.

## ***IPDS configuration***

MVP 11.1 supports the management of *Intelligent Printer Data Stream* (IPDS) on supported devices.

## ***Enhanced filtering options***

MVP 11.1 offers increased manageability of supplies. The Toner/Ink filter has been reorganized into the Supplies filters and the Cartridge Levels filters. For example, use advanced filter parameters to filter based upon an individual color Cartridge Level percentage or capacity and differentiate toner (Cartridge Levels) from non-toner supplies (Supplies).

## ***Improved configurability***

MVP 11.1 allows you to configure how non-communicating devices are handled upon restart.

# **Understanding MarkVision components**

## ***Understanding MarkVision terminology***

Within this document:

- Printers and print servers are sometimes called devices.
- MarkVision Client is referred to as either MarkVision Client Application or MarkVision Web Client.
- MarkVision Client Application refers to MarkVision Client as a standalone application installed locally on a user workstation.
- MarkVision Web Client refers to MarkVision Client when it is accessed through a Web browser.

## ***MarkVision Client***

**MarkVision Client Application**—The standalone application can be installed locally on a user workstation. MarkVision Client files are then copied onto the user computer during the installation process.

**MarkVision Web Client**—The browser-based client is a Java applet version of the client that can be accessed through a supported Web browser by way of the following URL: **http://<yourserver>/markvision**. If the MarkVision Server is not the default server on the machine, access the client through a supported Web browser by way of the following URL **http://<yourserver>:9180/markvision**.

### **Notes:**

- Enable the Web browser to support Sun's Java Runtime Environment (JRE) by installing the Java plug-in. In Windows environments, the plug-in is provided and the user will automatically be prompted to install it the first time they run the MarkVision Web Client.
- For information on the Java plug-in software and to download available versions of the plug-in for UNIX and other platforms, visit **http://java.sun.com**.

## ***MarkVision Messenger***

MarkVision Messenger works with MVP to provide e-mail notification or command line execution when a network printer triggers a pre-defined event (such as Paper Tray Missing or Toner Low). MarkVision Messenger is a service that runs inside the MarkVision Server. To use this service, the user creates actions using a browser-based interface. Users can open MarkVision Messenger from the Action menu in the MVP application, or by visiting the URL **http://<yourserver>/messenger** by way of a Web browser.

## ***MarkVision Web Server***

The MarkVision Web Server is the browser-based component of MarkVision Web Client and MarkVision Messenger. The MarkVision Web Server is automatically installed with the MarkVision Server. The MarkVision Web Server can access the server from the standard port (80) if it is selected as the default server during installation. If it is the default server it accepts HTTP requests on the non-standard port (9180).

## ***MarkVision Server***

The MarkVision Server is the engine that powers MVP. The MarkVision Server is the single point of contact between an instance of the MarkVision Client and all of the devices that MVP manages. The first time a client requests information, the MarkVision Server gathers the new information from the device and stores it in a cache. Each subsequent request for the same information is then retrieved from the cache. This eliminates the complexity of talking to a wide variety of network devices. Client programs only need to send a single protocol to the server, which knows how to communicate with the devices. In order for the system architecture to work, at least one MarkVision Server must exist on a network. While it is possible to install multiple instances of the MarkVision Server on a network, a client can only connect with one server at a time.

# Understanding system requirements

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## Computer RAM and processor requirements

### **RAM**

- 512 MB required
- 1 GB recommended

### **Processor speed**

- 1.8 GHz or greater

## MarkVision Client requirements

The following are minimum requirements for running MarkVision Client. These requirements should be satisfied before installing MVP.

- Windows 2003 Server SP1 (32-bit), Windows XP SP2 (32-bit), Windows XP (32-bit), Windows 2000, Mac OS X 10.4 (or higher), or a supported UNIX client or Linux operating system
- 100 MB available hard disk space
- Internet or TCP/IP connection
- If using the MarkVision Web Client, a supported Web browser, such as Windows Internet Explorer 6.x or later, Netscape Navigator 6.x or later, or the Mozilla version that shipped with your operating system
- Java 1.5 software update

## MarkVision Server requirements

The following are minimum requirements for running MarkVision Server. These requirements should be satisfied before installing MarkVision Professional.

- Windows 2000, Windows 2003 Server SP1 (32-bit), Mac OS X server 10.4 (or higher), or a supported UNIX server system
- 500 MB available hard disk space
- Internet or TCP/IP connection
- Java 1.5 software update

## Supported UNIX and Linux systems

MarkVision Professional for UNIX systems is available for all supported UNIX platforms that provide Java Runtime Environment 1.5.

Operating systems	Version numbers	Hardware
IBM AIX	5.2, 5.3	IBM RISC System/6000
HP-UX	11.11	Hewlett Packard 9000/700 and 9000/800
Sun Solaris SPARC	8,9,10	Sun SPARC and Ultra SPARC
Red Hat Enterprise Linux	ES 4.0	Intel (IA32)
SUSE Linux Enterprise	9,10	Intel (IA32)

## Java Virtual Machine recommendations

Operating systems	Java VM level
Windows	JDK 1.5.0_09
Mac OS X 10.4, 10.5	Each client and server must have a Java 1.5 virtual machine installed.
IBM AIX	1.5.0 pap32devifx-20061013
HP-UX	1.5.0
Linux	1.5.0_10
Sun Solaris SPARC	1.5.0_10

# Installing MarkVision Professional

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## Before installing

### *Minimizing network traffic*

MVP lets you choose where to install components. To minimize network traffic and improve performance, install the MarkVision Server on a host that provides high-speed access to users and to the devices you want to monitor. If your devices are distributed across a local area network (LAN) or wide area network (WAN), network traffic increases as users try to access them.

### *Selecting installation components*

While installing the MarkVision components, a dialog appears that shows the hierarchy in which the different components can be installed.

**Note:** For Windows-based operating systems, you must select the parent branches in the hierarchy to include any items located in a sub-branch.

Component	Description
MarkVision Client Application <sup>1</sup>	Installs the primary application that is used to manage your devices <b>Note:</b> The MarkVision Client Application does not require the installation of Sun's Java Runtime Environment (JRE) Plug-in.
MarkVision Web Client <sup>1</sup>	Installs a version of the MarkVision Client, which can be accessed through a Web browser <b>Notes:</b> <ul style="list-style-type: none"><li>• In order to run the Web Client, you must first enable your Web browser to support Sun's Java Runtime Environment (JRE) by installing the Java Plug-in.</li><li>• The MarkVision installation process is operating system specific. Install one of the following smaller versions of the Web browser on a local machine: Windows Web package, Mac OS X Web package, or UNIX Web package.</li></ul>

<sup>1</sup> The MarkVision Client Application and the MarkVision Server may be installed separately. The application only requires one instance of the MarkVision Server installed somewhere on the network, not necessarily on the same machine.

Component	Description
MarkVision Server	Installs the necessary files to set up the MarkVision Server <b>Notes:</b> <ul style="list-style-type: none"> <li>• You must use the MarkVision Web Server with the MarkVision Web Client.</li> <li>• You may make the MarkVision Web Server the default server on HTTP port 80. This allows the browser-based application to access the server from the HTTP port 80, which requires no additional numbering in the URL. If HTTP port 80 is already in use, assign the server to HTTP port 9180.</li> <li>• To publish the URL to access MarkVision Professional or Messenger, create a URL on your Web server that automatically forwards the user's browser to the URL used by either tool.</li> </ul>
MarkVision Messenger	Installs the MarkVision Messenger Web-based utility
<p><sup>1</sup> The MarkVision Client Application and the MarkVision Server may be installed separately. The application only requires one instance of the MarkVision Server installed somewhere on the network, not necessarily on the same machine.</p>	

## Downloading MarkVision Professional

- 1 Go to [www.lexmark.com](http://www.lexmark.com).
- 2 Click **CARTRIDGES INK & SUPPLIES**.
- 3 Click **Software**.
- 4 Click **MarkVision Professional**.
- 5 Click **Download MarkVision Professional 11.1 Now!**
- 6 Click **Application**.
- 7 Type your registration information, and then select your operating system type.
- 8 Click **Start Download Now**.

**Note:** For UNIX or Linux operating systems, save the MVP package to the /tmp directory.

## Installing MarkVision Professional

Follow the installation instructions for your operating system.

### Installing for Windows

- 1 Download MVP.
- 2 Open the MVP Installation package, and then follow the instructions on the screen.

### Installing for Mac

MarkVision Professional for Mac requires two separate installations: one for MarkVision Server and one for MarkVision Client.

Installing MarkVision Server:

- 1 Download the **Mac-MVJServer.dmg** file. Save the file to **/tmp**.
- 2 Double-click the **Mac-MVJServer.dmg** file to mount the drive image.
- 3 Double-click the **MarkVision Pro Server.mpkg** installation package.
- 4 Follow the instructions on the screen.

Installing MarkVision Client:

- 1 Download the **Mac-MVJClient.dmg** file. Save the file to **/tmp**.
- 2 Double-click the **Mac-MVJClient.dmg** file to mount the drive image.
- 3 Double-click the **MarkVision Pro Client.mpkg** installation package.
- 4 Follow the instructions on the screen.

## ***Installing for HP-UX***

- 1 Make sure you have enough disk space in **/opt** to install the printer driver. The packages will be installed into the **/opt** file system. If this file system is full, create a symbolic link that points to a directory in another file system. The symbolic link appears to be a real directory, but the files are actually installed in the location the link references.

For example, to install MVP in **/disk2/lexmark**, do the following:

- a Create a directory in the location where you want the packages to be installed.  
For example: **mkdir /disk2/lexmark**
- b Create a symbolic link pointing to the directory you created.  
For example: **ln -s /disk2/lexmark /opt/lexmark**.

- 2 Download and save the package in the **/tmp** directory, and then uncompress the package file:

```
# /usr/contrib/bin/gunzip /tmp/markvision-pro-hpux11.11.pkg.gz
```

- 3 Start the Software Depot Install dialog box by entering: **# /usr/sbin/swinstall**.
- 4 Make sure the Source Depot type is **Network Directory/CDROM**, and the hostname of the computer you are installing on appears in the Source Host Name box. If either of these fields are incorrect, enter the correct value, or select it from the list.
- 5 In the Source Depot Path field, type the following to specify the full path to the HP-UX package file:  
**/tmp/markvision-pro-hpux11.11.pkg**

- 6 Select the bundles you want to install.

Installing the complete MarkVision Professional package:

- a Click the **MarkVisionPro** bundle.
- b Go to the Actions menu, and then select **Mark for Install**.

Installing individual MarkVision Professional components:

- a Double-click the **MarkVisionPro** bundle.  
Server and Client component bundles appear.
- b Double-click each component bundle to view its contents.



- To install individual MVP components, specify the file name of the MVP component that you want to install. For example, to install only the MarkVision Server, issue one of these commands:

```
- rpm -ivh markvision-pro-MVJserver-*.i386.rpm  
- rpm -ivh markvision-pro-MVJclient-*.i386.rpm
```

- 4 Type `/usr/local/lexmark/setup.mvjserver` in the command line, and then answer any questions that appear.

## Installing for Sun Solaris SPARC

- 1 Set the `NONABI_SCRIPTS` environment variable to `TRUE`.
- 2 Download and save the package in the `/tmp` directory, and then uncompress the package file:  

```
# gunzip /tmp/markvision-pro-solaris8-10.pkg.gz
```
- 3 Start the package installation program:  

```
# pkgadd -d /tmp/markvision-pro-solaris8-10.pkg
```
- 4 Install the complete MarkVision Professional package or select the component bundles you want to install. You *must* install all the packages in the same location.
  - If you want to install the complete MVP package, type `a11`, and then press **Enter**.
  - If you want to install component bundles, type each bundle number separated by a comma, and then press **Enter** (For example: 1,2,3,4).
- 5 Follow the prompts, and then answer any questions that appear on the screen.
  - a To accept the defaults, press **Enter**.
  - b To answer yes/no questions, type `y`, `n`, or `?`, and then press **Enter**.  
A message appears when installation is successful.
  - c Type `q` to quit.
- 6 If the `NONABI_SCRIPTS` was not set to `TRUE`, type `/opt/lexmark/setup.mvjserver` on the command line, and then answer any questions that appear.

## Importing MarkVision Server settings

Only a few MarkVision Server settings are imported with this task, including folders and filters. This is not a complete import of all MarkVision Server settings.

- 1 From the MarkVision Professional Home screen, select **Import Server Settings** from the All Tasks list.
- 2 Click **Browse** and find to the appropriate server settings file.
- 3 Click **Import**.

## Exporting MarkVision Server settings

Only a few MarkVision Server settings are exported with this task, including folders and filters. This is not a complete export of all MarkVision Server settings.

- 1 From the MarkVision Professional Home screen, select **Export Server Settings** from the All Tasks list.
- 2 Browse to the export location.

**3** Name the file.

**4** Click **Export**.

# Using MarkVision Professional

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## Getting started

Access MarkVision Client through the Markvision Client Application or the MarkVision Web Client.

### ***Starting the MarkVision Client Application***

The MarkVision Client Application is installed locally.

- 1 In Windows XP and earlier, click **Start**.
- 2 Click **Programs** or **All Programs** → **Lexmark** → **MarkVision Professional** → **MarkVision Professional**.

### ***Accessing the MarkVision Web Client***

After the MarkVision Web Server is configured, access MarkVision Web Client through a Web browser.

For example, to start the MarkVision Web Client on a Web server whose IP address is 190.168.112.21, type **http://190.168.112.21:9180/markvision** in the address bar of a Web browser.

### **Starting the MarkVision Client Application in Mac OS X**

MarkVision Client Application is installed locally.

- 1 Start **Finder**.
- 2 Click **Applications**.
- 3 Select **MarkVision Pro Client.app**.

### ***Starting the MarkVision Client Application in UNIX or Linux***

The MarkVision Client Application is installed locally.

- 1 Start an X-Window Terminal or xterm.
- 2 Type: **/usr/bin/mvp** in the command line, and then press **Enter**.
- 3 Set the DISPLAY environment variable.

#### **Korn (ksh) and Bourne (sh) shell users**

Type the following commands in the command line:

- **DISPLAY=hostname:0.0**
- **export DISPLAY**

#### **C shell users**

Where hostname is the name of your workstation, type the following commands in the command line:

- **setenv DISPLAY disphost:0.0**

- 4 If you are running the MarkVision Professional UNIX Client on a different host computer than your X Windows server, make sure the remote host has permission to access your screen.

If the MVP UNIX Client is running on the host flora, type **xhost + flora** in the command line.

- 5 Type **mvp** in the command line, and then press **Enter**.

## ***Selecting a server***

After opening MVP for the first time, you *must* select a server. Select a server based the server status. For example, if there are multiple instances of the MarkVision Server on the network, and multiple clients are active, select a supported server that has the least number of connections. This provides faster access to MVP.

- 1 Enter the computer/hostname or IP address of the machine running the MarkVision Server, or click **Browse** to locate it, and then click **Connect**.
- 2 Click **Browse** to locate a supported MarkVision Server.

**Note:** By default, the version of each MarkVision Server is displayed. Only connect a MarkVision Client version 11.1 to a MarkVision Server version 11.1.

## ***Using the MarkVision Setup wizard***

### **Device Discovery**

Create device profiles and find printers and print servers on a network.

### **Folder Setup**

Organize and manage multiple devices using folders. Using folders allows for quick identification of devices within a subset of the entire list of devices being managed. Use preconfigured MarkVision folders or configure folders.

### **Custom Tables / Custom Views**

Present device information through customized or preset tables and views.

**Custom Tables**—Create custom tables that are user-defined, tabular views of device information based on Address Information, Asset Tracking, Code Levels, or Device Overviews. Export the table as a *comma separated variable* (.csv) file, which can be opened by spreadsheet or word processing software.

**Custom Views**—Create multiple views of printers. View the LCD panel, picture of printer, and status of printer for selected devices. View the operator panel and lock/unlock options in a single task.

### **Secure Communication**

Create a secure channel between a printer and the MarkVision Server.

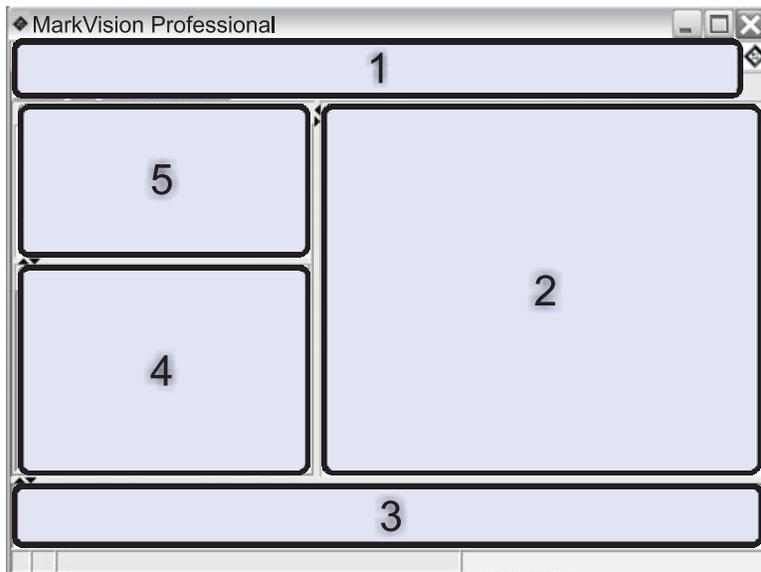
### **User Accounts / User Groups**

Control access to functionality by limiting user access to tasks and devices. Define groups and set permission levels for multiple users.

## **Understanding Home screen navigation**

### ***Navigating from the Home screen***

The MarkVision Professional Home screen appears after you log on to MVP. MVP tasks can be accessed from different areas of the Home screen. You may access a task by way of a menu or icon from the menus area, a task link from the configurable tasks area, or from the All Tasks list. The All Tasks list is the default starting point for all documented paths in this guide.



1	Menus area—Contains MVP menus, frequent tasks icons, navigation buttons, and the All Tasks list
2	Configurable tasks area—Contains commonly-used MVP functions and the Frequently Asked Questions list <b>Note:</b> You can add, delete, or rename tasks or list names in this area.
3	Messages area—Reports real-time updates of MVP actions, events, tasks, and functions
4	Results area—Contains Quick Find results or folder contents
5	Quick Find or Folders area—Contains a search tool or folders

### ***Using the All Tasks list***

The All Tasks list is available from the menus area of the MarkVision Professional Home screen.

<b>Task name</b>	<b>Task function</b>
About	View MVP version information.
Add Devices	Search networks and add devices.
Address Information	View network identification information about devices
Administrative Settings	Configure MVP server-level settings and change settings for device discovery, naming, and communication.
AppleTalk	View or modify AppleTalk network settings.
Application Links	Configure external applications to launch from MVP.
Asset Tracking	View information with device inventory relevance for selected devices.
Bookmark Management	Create, save, and edit printer bookmarks in a printer permanent memory.
Code Levels	View firmware code levels for selected devices.
Communication Password	Synchronize a server communication password for one or more devices.

<b>Task name</b>	<b>Task function</b>
Complete Operator Panel View	Access a printer control panel.
Create Windows Print Objects	Create a Windows print object (queue) or a remote host computer.
Custom Media - Custom Paper Name	View or modify custom paper names.
Custom Media - Custom Paper Type	View or modify custom paper type settings.
Custom Media - Paper Loading	View or modify paper loading settings.
Custom Media - Paper Texture	View or modify custom texture settings.
Custom Media - Paper Type Bin	View or modify custom paper bin settings.
Custom Media - Paper Weight	View or modify custom paper weight settings.
Custom Tables - Create/Manage	Configure and export tables of device information.
Custom Views - Create/Manage	Create custom views with multiple pieces of information.
Device Discovery Profiles	Create discovery profiles to search attached networks and add discovered devices to MVP.
Device Discovery Results	Display device discovery results based on specific discovery profiles.
Device Overview	View a table of general information about selected devices.
Device Password	Change a selected device password or create a new password for a device.
Device Policies - Apply	Apply created policies to selected devices to enforce settings.
Device Policy - Check Device Conformance	Determine if selected devices are conforming to device policies.
Device Policies - Create/Manage	Manage a list of device policies to quickly configure or edit device settings (such as print quality), or enforce those settings.
Drivers and Utilities (On the Web)	Open the Lexmark driver and utilities Web page.
Email Destinations	Create and manage e-mail destinations for selected devices.
Embedded Solutions - Features	View a table of information about the Embedded Solutions framework settings, license settings (if applicable), and settings for installed solutions on selected devices.
Embedded Solutions - Framework Management	Manage settings for the Embedded Solutions framework on selected devices.
Embedded Solutions - Get Host ID	Retrieve the Host ID from selected devices fro deliver to a license provider in order to generate a solution license.
Embedded Solutions - Solutions Management	Manage Embedded Solutions on selected devices: install, remove, and license solutions and manage their settings.
Emulators	View emulator (printer language interpreters) settings for selected printers.
Enter Device Password	Enter a password to gain access to a password protected device for the duration of the current client session.

Task name	Task function
Export Server Settings	Export MVP Server settings to a file that can imported to another server or used to back up an existing server filter or folder.
Fax (Printer)	View or modify a printer fax settings.
Fax Destinations	Create and manage fax destinations for selected devices. <b>Note:</b> This task applies only to older devices. For most current devices with fax capability, the Fax Settings task is appropriate.
Fax Settings	View or modify the fax settings for a specified device. <b>Note:</b> This task applies only to newer devices. For most older devices with fax capability, the Fax (Printer) task is appropriate.
Feature Overview (Printers)	View printer data, such as identification information, capabilities, code levels, and page count information.
Feature Overview (Print Servers)	View print server data, such as identification information, protocol, and fax settings.
Filters	View or edit the list of saved filters, which can be used to limit the number of devices displayed.
Finishing	View or modify printer finishing settings, such as copies, collation, and resolution.
Firmware (On the Web)	Open a Web page to obtain print server upgrades for supported print servers.
Firmware Download (Print Server)	Upgrade print server firmware.
Folder Configuration	Organize devices using folders. Filter folder contents based on printer attributes.
Font Cartridges	View information about any installed font cartridges.
FTP Destinations	Create and manage FTP destinations for selected devices.
General Settings (Printer)	View or modify printer settings, such as timeout, emulation, and power saver.
General Settings (Print Server)	View or modify print server settings, such as job timeout, contact name, contact locations, and network speed.
Generic File Download	Download miscellaneous files such as PostScript files, universal configuration files (UCF), or font files to one or multiple devices on your network.
Home	Return to the Home screen.
Home Page (On the Web)	Visit the Lexmark Web site.
Hosts Table	A configuration of host computer names (a part of Print Permissions Technology).
HTTP Settings	View or modify device HTTP settings.
Import Server Settings	Import MarkVision Server folder and filter settings from a saved file to a server.
Inputs	View settings for paper trays and other printer inputs.

Task name	Task function
Install CA Certificate	Install a CA Certificate for one or more printers.
IPDS	Manage Intelligent Printer Data Stream (IPDS) settings on selected devices.
IPSec	Manage <i>Internet Security Protocol</i> (IPSec) settings on selected devices.
IPv6	Specify general settings information for a selected device to support <i>Internet Protocol version 6</i> (IPv6).
Job Timeout (Print Server)	View or modify device job timeouts.
Kerberos Setup	Import, view, or modify Kerberos Setup. <i>Kerberos</i> —A computer network authentication protocol that allows the user and the server to verify each other.
LCD Panel Configuration	Provides a limited view of the printer control panel.
LexLink	Configure LexLink settings on the device print server. <i>LexLink</i> is a print protocol used in some older Windows environments such as OS/2 Lan Server, OS/2 Lan Manager, and Windows NT Advanced Server.
Manage Global Password List	View and edit a list of passwords for devices managed by MVP.
Map	Create a graphical representation that illustrates the distribution of discovered devices.
MarkVision Messenger Launch	Open the MarkVision Messenger application.
MarkVision Setup	Access the MarkVision Setup wizard.
Menu Lockout Setup	View or modify Menu Lockout settings for a device.
MFP - Backup Configuration Information	Create a backup copy of all configuration settings on MFP device(s). The backup copy will be used to restore the settings during disk recovery or code update operations.
MFP - Default Copy Settings	View or modify Copy Settings for an MFP device.
MFP - Default Scan to Email Settings	View or modify Scan to Email Settings for an MFP device.
MFP - Default Scan to FTP Settings	View or modify Scan to FTP settings for selected MFP devices.
MFP - Default Scan to Network Settings	View or modify Scan to Network Settings for an MFP device.
MFP - Features	View feature information for multifunction devices.
MFP - General Settings	View or modify General Settings for an MFP device.
MFP - Kerberos Setup	View or modify Kerberos Setup for an MFP device.
MFP - LDAP Settings	View or modify LDAP Settings for an MFP device.
MFP - Manage Function Access	View or modify Function Access for an MFP device.
MFP - NT Setup	View or modify NT Setup settings for an MFP device.
MFP - OptralImage Job Statistics Settings	View or modify OptralImage™ job statistics settings for an MFP device.

Task name	Task function
MFP - Specify External Destination File	View or modify OptraImage external destination settings for an MFP device.
MFP Status	View the current status conditions of multifunction devices.
Names of Devices	View or modify device names.
NetWare	View or modify the NetWare network settings.
Network Time Protocol	Synchronize a print server internal clock with the MarkVision Server.
Operator Panel	View a functional control panel for a specified printer.
Operator Panel LCD	View the LCD from the control panel for a specified printer.
Operator Panel Lock/Unlock	Remotely locks and unlocks a printer control panel.
Output Bin Names	View or modify printer custom bin names.
Outputs	Summarizes device output options. This task is associated with the Feature Overview tasks.
Page Counts	View the current page count information for a printer.
Paper Settings	View or modify printer paper settings.
Password Configuration	Configure password rules and criteria for selected devices.
PCL	View or modify the PCL settings for a printer.
Personal Settings	Personalize MVP to accommodate the way you work.
Picture of Printer	Display a picture of a selected printer.
Ports	View or modify device ports.
PostScript	View or modify PostScript settings for a printer.
PPDS	View or modify PPDS settings for a printer.
Printable Margins	Configure the printable margin area for specialized applications such as <i>Magnetic Ink Character Recognition</i> (MICR).
Printer Lockdown	Force one or more supported devices to communicate exclusively over a secure communication channel.
Print Pooling	Configure print pooling rules on multiple port external print servers.
Profile Destinations	Create and manage profile destinations for selected devices.
Property Tag	View or modify a property tag (user identification) for a printer.
Publications (On the Web)	Open the Lexmark publications Web page.
Refresh Devices	Refresh cached information for selected printer and/or print server devices.
Registration (On the Web)	Open the Lexmark printer registration Web page.

Task name	Task function
Remove Devices (Advanced)	Remove one or more devices from the list of devices managed by MVP. Use the Remove Printer icon or the Delete key shortcut.
Remove Windows Print Objects	Removes Windows print objects (queues) from remote host computers.
Reset	Reset a specified printer or print server.
Resource Management	Download fonts and overlays to printers.
Scheduling	Specify times to automatically initiate certain tasks.
Service Location Protocol	Enable or disable the <i>Service Location Protocol</i> (SLP) function on a print server.
SNMP Traps	View or modify device SNMP trap destination settings.
Software Update (Manage PlugIns / Solutions)	Install and remove new MVPView or modify Kerberos Setup for an MFP device plug-ins for additional device support.
SSL Setup	Configure <i>Secures Socket Layer</i> (SSL) settings on selected devices.
Status of Printer	View the current status conditions of selected printers.
Status Overview	View the LCD panel, picture of printer, and status of printer for selected devices.
Storage Devices	View information about a printer storage devices, such as hard disks and flash memory.
Supplies	View supply levels for selected devices.
Supplies (On the Web)	Open a Web page where printer supplies can be ordered.
TCP/IP	View or modify the TCP/IP network settings.
Technical Support (On the Web)	Open a Web page where technical support for Lexmark products can be obtained.
User's Guide	Opens the MVP User's Guide.
User Accounts and Groups	Create or edit individual accounts or account groups to restrict access to certain tasks.
Users Table	Configure user printing privileges on devices that support Print Permissions Technology.
Web Page (Print Server)	Open a Web page displaying settings for a selected device.
WLAN	Setup and configure wireless devices (Lexmark™ N8050).

## Results area

Devices that are selected using either the Quick Find or Folders tabs are displayed in the results area. The results area contains a Find Results window if the Quick Find tab is selected, or a Folder Contents window if the Folders tab is selected. Devices that appear with a strikethrough are not supported for the selected task. Devices that are displayed in red text are password protected.

## Using Quick Find

Use Quick Find to find or discover devices on a network.

### Using Quick Find

- 1 Select a device characteristic:
  - Available search characteristics are: IP Address/Hostname, Device Name, Hardware Address, Model (Printer/Print Server), Property Tag, Serial Number, or Other.
  - Type IP addresses in the form of x.x.x.x (for example, 192.168.12.34).
- 2 Type or select the appropriate value for the search field.
- 3 Click **Find**.
- 4 Click **Stop** to terminate the current discovery operation.

### Changing SNMP Community names

Change the read or write access privileges associated with Quick Find with *Simple Network Management Protocol* (SNMP) community names. SNMP is used by network management systems to monitor network-attached devices for conditions that warrant administrative attention.

- 1 From the MarkVision Professional Home screen, select **Administrative Settings** from the All Tasks list.
- 2 Click the **Quick Find** tab.
- 3 Type the new community name in the appropriate text box to change the default value.  
**Note:** The default value for the Read and Write boxes is **public**. The community names are case-sensitive.
- 4 Click **Stop** to terminate the current discovery operation.

**Note:** This changes the MVP community name, not the print server community name. To change the print server name, refer to your print server documentation. Additionally, the MVP task TCP/IP may be used.

## Using the Folders tab

This area displays folders that have been configured using the Folder Configuration task and/or the MarkVision Setup wizard. Discovered devices are saved here.

## Accessibility

MVP offers alternative keyboard navigation in accordance with industry standards. The user interface and task-oriented dialogs allow navigation exclusively through keyboard commands.

- Use the Alt key to activate mnemonic (underlined character) options in the Task bar menus.
- Use accelerator key combinations to invoke menu items without navigating the menus.
- Navigate between sections of a dialog box using either the F6 function key or the Tab key.
- Use the Delete key to remove selected device(s) from the server list of managed devices.

## Multi-select

When you are presented with a list of items, such as printers, you can select more than one using the Control or Shift key. This lets you edit an attribute for all the selected devices at one time.

# Configuring MarkVision Professional

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## Discovering devices

### *Adding or removing devices*

MVP lets you search a network for printers and print servers. You can schedule and configure discoveries to suit your needs. Once devices are discovered, their locations are stored on the MarkVision Server and they populate the All Devices folder.

To discover devices, use the Device Discovery Profiles task or the Add Devices task from the All Tasks list, or use Quick Find from the MarkVision Professional Home screen. Discovery profiles define the range of devices that you want to discover, and the configuration of the discovery operation. You can create multiple device profiles, for different sets of devices. Each profile can be saved and reused for future discoveries.

### *Creating discovery profiles*

- 1 From the MarkVision Professional Home screen, select **Device Discovery Profiles**, from the All Tasks list.
- 2 Click **New**, and then type a name for the profile.
- 3 Click **Add** to add devices to the Include list.
- 4 Select the type of address, and then enter the range from which the devices will be included. Specify one or more of the following:

TCP/IP address, subnet, or hostname	Type the IP addresses in the dot notation form of x.x.x.x (for example, 192.168.12.34).
TCP/IP address range	Type the TCP/IP address range, beginning with the From box and ending with the To box.
IPX	Type the eight-digit hexadecimal network number on which the print server resides (for example, 000C2194). If the print server resides on the same network as the MarkVision Server, type <b>00000000</b> (zeros) for the network number. <b>Note:</b> If you do not know the network number of your print server, you can find it on the print server setup page, under the NetWare settings.

- 5 Click **OK** to return the Manage Discovery Profiles screen.  
The address or address range is now listed under the Include tab.
- 6 Click **Apply**.

### *Discovering devices*

- 1 From the MarkVision Professional Home screen, select **Device Discovery Profiles** from the All Tasks list.
- 2 Select a profile from the Device Discovery Profiles dialog.
- 3 Click **Start**.

MVP communicates with the devices included in the selected profile.

#### Notes:

- To stop a discovery at any time, click **Stop**.
- The Stop button enables you to cancel the Discovery operation that was last started.
- Performing a discovery with the Full Discovery profile, or any profile that includes all of the devices on a network, requires a large amount of CPU usage. This could dramatically slow the MarkVision Server.

### ***Including and excluding devices***

When creating a discovery profile, you can include or exclude devices in a device range.

- 1 From the MarkVision Professional Home screen, select **Device Discovery Profiles** from the All Tasks list.
- 2 Select the **Include** or **Exclude** tab.
- 3 Click **Add** or **Load**.
- 4 Type the address or address range in the text box, and then click **OK**.
- 5 Click **Apply**, and then click **Close**.

### ***Configuring advanced device discovery***

Click the **Advanced** tab from the Device Discovery Profiles main window to configure advanced device discovery features. The following are features that may be customized for an advanced device discovery profile:

- **Query each address**—MVP sends an individual query to each address specified in the device discovery.
- **Search for other vendor devices**—MVP discovers non-Lexmark devices on the network.
- **SLP Multicast**—MVP sends a single Service Location Protocol (SLP) request over the network. An SLP Multicast only generates a brief spike in network traffic.
- **Maximum number of seconds to wait for a device to respond**—Specifies the maximum amount of time to wait for a device response during device discovery. Adjust this value if devices are not responding or network traffic is heavy.
- **Maximum number of seconds to wait for responses to an SLP Multicast**—Specifies the maximum amount of time to wait for a print server response during an SLP Multicast. Adjust this value if print servers are not responding or network traffic is heavy. Only supported print servers are discovered during an SLP Multicast.
- **Number of retries to perform when a device does not respond**—Specifies the number of attempted retries before an address is ignored. Setting this value beyond 1 does not normally provide greater accuracy. Setting this value to zero (0) disables retries, which may substantially increase speed with little impact on accuracy.

**Note:** Each Discovery Profile can have its own advanced settings.

### ***Importing and exporting discovery profiles***

Users may export discovery profiles on the MarkVision Server to XML files. These XML files may be imported to the same MVP server or other MVP servers.

- 1 From the MarkVision Professional Home screen, select **Device Discovery Profiles**.
- 2 Click **Import** or **Export**.
- 3 Browse to the discovery profile .xml file.
- 4 Click **Export** or **Import**.

### ***Scheduling device discovery***

Schedule device discoveries on a regular basis to ensure that the MVP devices list is always current. If the device discoveries are network-intensive, schedule device discovery for times when network traffic is minimal.

**Note:** A device discovery profile must be defined before a task can be scheduled for a profile.

- 1 From the MarkVision Professional Home screen, select **Scheduling** from the All Tasks list.
- 2 Click **Add** to launch the Add Schedule Wizard.
- 3 Select **Device Discovery: Add Devices**.
- 4 Type a description of the event in the text box, and then click **Next**.
- 5 Choose a start date and time from the Start time area.
- 6 Select a frequency from the “Repeat this event area,” and then click **Next**.
- 7 Select a discovery profile, and then click **Finish**.

The task appears in the All Scheduled Events box.

## ***Naming devices***

If a custom name is not defined, MVP will name devices according to the first attribute listed under the Device Naming Rules tab from the Administrative Settings task of the All Tasks list.

To customize a device name:

- 1 From the MarkVision Professional Home screen, select **Names of Devices** from the All Tasks list.
- 2 Select the device.
- 3 Type a custom name.
- 4 Click **Apply**.

**Note:** You must have administrative access to name devices or to use the Administrative Settings task.

## ***Adding devices***

To discover individual or small groups of devices without creating a profile, use the Add Devices task.

- 1 Select **Add Devices** from the All Tasks menu.
- 2 Select device(s) from the list of devices on the dialog, or click **Add** to enter a new device address, and then click **OK**.
- 3 Select the **Advanced** tab to reset additional discovery settings.

**Note:** You can save any new groups of devices that you establish with the Add Devices task as a new discovery profile by clicking Save as Profile.

- 4 Click **Start** to begin the discovery.

**Note:** You can also select the Exclude tab to select devices from an existing profile that you do not want to include in the discovery.

- 5 Click **Stop** to terminate the current discovery operation.

## ***Viewing device discovery results***

After you have performed a device discovery, you can view the discovery results.

- 1 From the MarkVision Professional Home screen, select **Device Discovery Results**.

The discovery results contain a series of log entries detailing the discovery.

- 2 To export the results, click **Export**.

- 3 Browse to the location that you want to save the results, and then click **Save**.

## ***Removing devices from the server***

To disassociate devices with a network, remove them from the server's list of managed devices. You may change any associated discovery profiles to ensure the devices are not discovered the next time the profile executes. There are multiple methods for removing devices from the server:

- Select the Remove Selected Devices from the server icon.
- Execute the Delete key shortcut to remove selected device(s).
- Use the Remove Devices (Advanced) task to remove all devices or devices associated with a particular discovery profile.

To remove devices using the Remove Devices (Advanced) task:

- 1 From the MarkVision Professional Home screen, select the **Remove Devices (Advanced)** task from the All Tasks list.
- 2 Specify whether to remove all devices or devices associated with a discovery profile.
- 3 To remove devices associated with a discovery profile, select the profile from the drop-down list.
- 4 Click **Remove** to remove all specified devices from the MarkVision Server.

## **Organizing devices with filters and folders**

### ***Creating folders***

Create folders to organize and group devices. When possible create folders based on static conditions or options to save network resources on larger printer networks.

#### **Notes:**

- The All Devices default root folder cannot be deleted. Any user-created folders are listed below the All Devices folder.
- When organizing a large number of printers based on frequently changing criteria (such as paper jams), we recommend that you use filters rather than folders. Continuously updating and repopulating folders can dramatically slow your system.
- The MarkVision Setup wizard (invoked from the MarkVision Setup task) creates a number of default standard folders built with commonly-used filter conditions.

- 1 From the MarkVision Professional Home screen, select **Folder Configuration** from the All Tasks list.
- 2 Select **All Devices** to create a folder under the root folder, or select a different parent folder.
- 3 Click **New** from the Folder window.
- 4 Type a name for the new folder in the Name box.
- 5 Add devices to the folder.

### **Adding devices manually**

Use manual selection to add a small number of devices.

- a Select the **Manual Selection** tab.
- b Select the device(s) by clicking the check box to the left.
- c Click **Apply** to add the device(s) to the folder.

## Adding devices with filters

Use filters to manage a large number of devices. A filter limits the number of devices visible in a folder to only those with specified characteristics. Select multiple filter characteristics for an increasingly narrow selection.

- a To add devices through the use of filters, select the **Filter** tab.
- b Configure a filter.

6 Click **Apply**.

## Using filters

### Filter overview

Limit the number of devices visible in a list or folder to only those with specified characteristics with the Filter task. Filters can have multiple criteria, allowing for specific device selection. After a folder is created a filter may be applied to it, or a saved filter may be loaded for use. A folder with no filter contains all the devices of its parent folder. Folders are hierarchical by nature. A folder may contain at most all of the devices in its parent folder. Filters applied to the folder will limit the number of devices further.

Click **New** to add additional filter criteria; click the red **X** to remove filter criteria.

There are two types of filters:

- **Basic**—Choose one or more common device characteristics as filter criteria.
- **Advanced**—Create multiple filter criteria which may require specification in the Value box.

The following are Advance filter criteria:

- **All conditions must be met**—Every device must meet every criterion displayed by the filter.
- **At least one condition must be met**—Devices must meet only one condition displayed by the filter.
- **Device Type**—Specify which devices to include in the filter. Choose **Printer**, **Print Server**, or **Any**.

### Basic filter example

John is in charge of maintaining the printers in his company. He would like to know which ones need attention now or in the near future. John creates the following filter:

- 1 John selects **Printer** from the Device Type list, because he is only interested in printers.
- 2 From the Select Filter Type list, he selects **Status**.
- 3 He then selects the **All Errors** and **All Warnings** check boxes.
- 4 John clicks the name and changes the default name to "My Errors and Warnings."
- 5 John clicks **Apply** to create and save the filter.

After John applies the filter to a folder, that folder contains only printers displaying an error or warning state. He can then select another MVP task such as **Status of Printer** from the All Tasks list to view the new folder see which printers are currently exhibiting errors or warnings.

## Advanced filter example

Mary would like to create and save a filter that only displays monochrome printers with a firmware code level of 1.10.17. To accomplish this, she creates the following Advanced filter:

- 1 Mary selects **Printer** from the Device Type list, since she is only interested in finding printers.
- 2 She then selects the following filter criteria:

Parameter	Operation	Value
Color	Equal To	Monochrome

- 3 She clicks **New** to create another filter criterion, and then selects the following from the Parameter and Operation list boxes. She must manually type in the firmware code (1.10.17).

Parameter	Operation	Value
Printer Firmware Code	Equal To	1.10.17

- 4 Since Mary's printers need to meet both conditions, she selects "**All conditions must be met**" from the dialog.
- 5 Mary clicks **Save Filter As** to save the filter.

After Mary applies the filter to a folder, the folder contains only monochrome printers with a firmware code equal to 1.10.17.

## Advanced filter example - color specific

MVP 11.1 allows improved device filtering through cartridge capacity filtering and remaining supply percentage filtering.

In previous versions of MVP, an advanced filter made up of the following conditions would not return narrow results:

Parameter	Operation	Value
Toner/Ink Levels: Name = Black Toner	Toner/Ink Percentage Levels: Less Than or Equal To	50

Instead, the filter would include not only devices whose black cartridge had 50 percent capacity or less remaining, but also devices which had a full black cartridge and a yellow cartridge with less than 50 percent left. MVP 11.1 includes color-specific cartridge percentage and capacity filters to prevent this difficulty.

For example, John would like to create a filter that displays only printers whose black cartridge has 50 percent remaining print capacity or less.

- 1 John selects **Printer** from the Device Type list.
- 2 Next, John selects the following filter criteria:

Parameter	Operation	Value
Cartridge Levels, Black Percentage	Less Than or Equal To	50

- 3 John clicks **Save Filter As** to save the filter.

After John applies the filter to a folder, the folder contains only printers containing a black cartridge with 50 percent or less remaining print capacity.

## Filter by conformance example

Jane would like to filter devices by conformance with specific created device policies. To create a Device Policy Conformance filter, Jane does the following:

- 1 Jane selects the parameter **Policy Conformance**.

The value will be one of the device policies on the MarkVision Server (unless no policies have been created yet).

- 2 Next, Jane selects either **Is in conformance with** or **Is not in conformance with** for the operation.

- 3 Finally, she types **Jane's Printer Policy**.

Parameter	Operation	Value
Policy Conformance	Is in conformance with	Jane's Printer Policy

Only printers that have all values specified in Jane's Printer Policy are visible if this filter is used.

## Creating accounts and groups

### *Creating user accounts and groups*

Create and manage user accounts and account groups with the User Accounts and Groups task.

Accounts and account groups:

- Define user access to the devices that MVP manages.
- Limit user access to specific tasks.
- Organize accounts into account groups.
- Distribute a range of privileges across a number of accounts.

**Note:** Adding accounts is not required, but creating an administrator account ensures the security of your devices.

### *Creating an administrator account*

To create an administrator account with full privileges you must also create at least one user account. MVP will prompt you to create a user account after an administrator account is completed.

- 1 From the MarkVision Professional Home screen, select **User Accounts and Groups** from the All Tasks list.
- 2 From the User Accounts tab, click **Add**.
- 3 Type an administrator account name and password.

Administrator accounts require an authentic user ID and password specific to MVP.

- 4 Confirm the password by typing it again.

The indicator light to the right of the text box turns green when the two passwords match.

- 5 Click **Finish**.

The Creating a User Account dialog appears.

**Warning:** At this time you *must* create at least one user account or the administrator account will be canceled.

## ***Creating user accounts***

- 1 From the MarkVision Professional Home screen, select **User Accounts and Groups** from the All Tasks list.
- 2 From the User Accounts tab, click **Add**.
- 3 Type an account name and password.

### **Notes:**

- User account passwords may be verified through the LDAP server if it is configured. Otherwise, they are authenticated locally.
- For user authentication with LDAP, account names should correspond to an existing account listed on the LDAP server unless it is an administrator account.

- 4 Confirm the password by typing it again.

The indicator light to the right of the text box turns green when the two passwords match.

- 5 Click **Next**.
- 6 Select the privileges that will be available to the account from the Available Privileges window.
- 7 Click the > button to add or the < button to remove the selected privileges, and then click **Next**.  
**Note:** Click the >> button to add all privileges or the << button to remove all privileges.
- 8 Select the device folders that will be available to the user.
- 9 Click **Next** or **Finish**.

## ***Creating a user group***

Assigning users to groups ensures that accounts are configured uniformly. Task privileges assigned to the groups will be available to all users in the group.

- 1 From the MarkVision Professional Home screen, select **User Accounts and Groups** from the All Tasks list.
- 2 From the User Groups section, click **Add**.
- 3 Enter a group name.
- 4 Select the user accounts that belong to this group, and then click **Next**.
- 5 Select the privileges that will be available to the user group from the Available Privileges window.
- 6 Click the > button to add or the < button to remove the selected privileges, and then click **Next**.
- 7 Select the device folders that will be available to the group.
- 8 Click **Finish**.

## ***Editing an existing user account or group***

To edit a user account or user group:

- 1 From the MarkVision Professional Home screen, select **User Accounts and Groups** from the All Tasks list.
- 2 From the User Accounts or User Groups area, select an account or group, and then click **Edit**.
- 3 From the User Accounts area type the account name and password, or from the User Groups area, select or deselect the check box next to the user name to add or remove the user from a group, and then click **Next**.
- 4 Click the > button to add or the < button to remove the selected privileges, and then click **Next**.

- 5 Select the device folders that will be available to the user or group.
- 6 Click **Finish**.

## ***Removing an existing user account or group***

To remove a user account or group:

- 1 From the MarkVision Professional Home screen, select **User Accounts and Groups** from the All Tasks list.
- 2 Select the account or group that you want to remove, and then click **Remove**.  
**Note:** If prompted, specify **Yes** to Remove the account or group.
- 3 If the Confirm Account and Group Deletion setting is enabled under Personal Settings task, type your user account and password into the confirmation prompt, and then click **OK**. If a password is not required, click **OK**.

**Note:** Removing groups may affect user access rights. You cannot recover a group once it has been removed.

## ***Assigning privileges***

An administrator account must exist before MVP user accounts can be created. The administrator is authorized to perform all MVP tasks on all devices. If no accounts are created, all MVP users have authorization to perform all tasks. For non-administrator accounts, user privileges and accessible devices are either defined by the parameters specified when the user account was created, or the group assigned to the user.

# Securing MarkVision Professional

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## Managing passwords

### *Password conformance*

Access to MVP network devices is tightly regulated through password protection. There are four tasks related to password conformance:

- **Enter Device Password**—Provides password-protected access to specific network devices
- **Device Password**—Set or change passwords on network devices
- **Manage Global Password List**—Manage passwords for numerous devices
- **Device Policies - Create/Manage**—Manage device passwords through device policies

### *Entering a password to access a secured device*

When a device managed by MVP is not supported by a specific task, it is displayed with a black line through the device. Password-protected network devices are displayed in red. Enter the device password to gain access the device.

- 1 From the MarkVision Professional Home screen, select **Enter Device Password** from the All Tasks list.
- 2 Select a device.
- 3 Type the device password.
- 4 Click **Apply**.

### *Creating or editing a device password*

- 1 From the MarkVision Professional Home screen, select **Device Password** from the All Tasks list.
- 2 Select a device.
- 3 Edit the Current Password box accordingly.
  - To create a new device password, delete any text from the Current Password text box, and then proceed to the next step.
  - To change an existing device password, type the device password.
- 4 Type the new password in the New Password box.
- 5 Confirm the password by typing it again.

The indicator light to the right of the text box turns green when the two passwords match.
- 6 Click **Apply**.

### *Removing a device password*

- 1 From the MarkVision Professional Home screen, select **Device Password** from the All Tasks list.
- 2 Select a device.
- 3 Type the device password.
- 4 Delete any text from the New Password and Confirm New Password text boxes.
- 5 Click **Apply**.

## ***Adding a device password to the global password list***

- 1 From the MarkVision Professional Home screen, select **Manage Global Password List** from the All Tasks list.
- 2 Click **Add**.
- 3 Type a new password.
- 4 Click **OK**.

## ***Editing a device password from the global password list***

- 1 From the MarkVision Professional Home screen, select **Manage Global Password List** from the All Tasks list.
- 2 Select a password to edit.
- 3 Click **Edit**.
- 4 Type a new password.
- 5 Confirm the changed password.
- 6 Click **OK**.

## ***Deleting a device password from the global password list***

- 1 From the MarkVision Professional Home screen, select **Manage Global Password List** from the All Tasks list.
- 2 Select the password(s) to delete.
- 3 Click **Remove**.
- 4 Click **Yes**.

**Note:** Click **Remove All** to delete all passwords from the list.

## ***Using a device policy to set device passwords***

- 1 From the MarkVision Professional Home screen, select **Device Policies - Create/Manage** from the All Tasks list.
- 2 Click **New**.
- 3 Select **For Any Print Server**, and then click **Continue**.
- 4 Enter a name for the policy.
- 5 Expand the **Security** folder.
- 6 Select the **Password** check box.
- 7 Enter the current password, followed by a colon and the new password.

**Notes:**

- To set a password for devices with no current password, enter a colon followed by the new password.
- To clear a current password, enter the current password followed by a colon.

8 Click **Apply**, and then click **Close**.

The new device policy can now be applied to devices using the **Device Policies - Apply** task.

**Note:** The password will not be changed for any device with a current password that does not match the current password entered.

## Securing communication

### *Using secure communication*

MVP allows secure communication between the MarkVision Server and network devices that support the same security protocol. Administrators can communicate with, configure, control, and retrieve information from secured devices on the network. Secure communication reduces the threat of compromised user credentials or device commands. The total security with which the devices and the server communicate is determined by the security level setting for the MarkVision Server in conjunction with the communication security setting applied to the device.

Communication security tasks are:

- **Administrative Settings**—Specifies the Server-to-Device Security level and establishes a MarkVision Server password.
- **Communication Password**—Synchronizes a device communication password and a server communication password to open a secure communication channel.

**Note:** Secure communication is limited to configuration commands between the host computer and the device.

- **Printer Lockdown**—Restricts printer access.

**Note:** You *must* set a communication password before a printer can be locked down.

### *Setting server communication security*

Setting server communication security involves:

- Establishing a communication security password for the server
- Setting the server communication security level

Set the server communication security password and server communication security level using the Administrative Settings task. The default server security level is **Low**.

### *Setting the server communication security password*

- 1 From the MarkVision Professional Home screen, select **MarkVision → Administrative Settings** from the menus area.
- 2 Select the **Communication Security** tab at the top of the dialog.
- 3 Click **Communication Password**.
- 4 When prompted, click **Yes** to continue.
- 5 Type the new password in the New Password box.

**Note:** If there is no password assigned, leave the Old Password box empty.

6 Confirm the password by typing it again.

The indicator light to the right of the text box turns green when the two passwords match.

7 Click **Apply**.

## ***Setting the server communication security level***

1 From the MarkVision Professional Home screen, select **Administrative Settings** from the All Tasks list.

2 Select the **Communication Security** tab at the top of the dialog box.

3 Move the **slider** to indicate the desired communication security level for the server.

Server communication security consists of four security levels:

Server security level	Effect
High	Allows only secure communication Devices that are not capable of secure communication will be discovered, but communication between the server and the device is not allowed after discovery. Devices that are not capable of secure communication can be identified by a red circle and slash over the device icon.
Medium	Allows both secure and insecure communication Communication is secure if the device is capable of secure communication. Devices that are not locked down and/or are incapable of secure communication will continue to communicate over insecure channels.
Low (Default)	Allows both secure and insecure communication Communication is secure only if the device is capable and locked down. All other communication is insecure.
Off	Secure features are not available. Devices that are locked down will not be discovered.

**Note:** The MarkVision Server security level is displayed in the bottom right corner of the MarkVision Professional Home screen.

4 Click **Apply**, and then click **OK**.

**Note:** This setting takes effect immediately, and does not require a service restart.

## ***Selecting server-to-client security***

The Communication Security tab on the Administrative Settings Dialog provides an administrator with the option to use SSL for communication between the MarkVision Server and MarkVision Client.

1 From the MarkVision Professional Home screen, select **Administrative Settings** from the All Task list.

2 Click the **Communication Security** tab at the top of the dialog.

3 Select the **Use SSL for Server-Client Communications** check box to enable SSL communication.

4 Click **Apply**, and then click **OK**.

**Note:** SSL will be used the next time a client connects to the MarkVision Server. The current session will not be affected.

## ***Synchronizing device communication passwords***

For MVP to manage devices securely, the passwords must match between the server and each managed device. Synchronizing a device password sets the communication password for the device to the same password that is used by the server.

**Note:** The password is set via an encrypted data channel.

- 1** From the MarkVision Professional Home screen, select **Communication Password** from the All Tasks list.
- 2** Select the appropriate devices.
- 3** Synchronize or remove the device password.
  - To synchronize the device communication password with the MarkVision Server:
    - a** Click **Synchronize with Server**.
    - b** Click **Yes**.
  - To synchronize the device communication password with a new server password:
    - a** Click **Synchronize with Server**.
    - b** From the “Confirm Synchronize with Server” dialog, click the **check box** to confirm synchronization.
    - c** Click **Yes**.
    - d** Type the old server communication password.
    - e** Type a new server communication password.
    - f** Type the new password again to confirm it.
    - g** Click **OK**, and then click **Yes**.
  - To remove the device communication password:
    - a** Click **Remove Password**.
    - b** Make sure the device is not locked down.

**Note:** Devices that are not capable of secure communication are displayed with a black line through them in the results area.

## ***Securing printer communication through lockdown***

The Printer Lockdown task lets a user force one or more supported devices to communicate exclusively over a secure channel. This enables a firewall on the device, turning off most network ports such as HTTP, SNMP, and FTP. Only secure ports will remain open.

- 1** From the MarkVision Professional Home screen, select **Printer Lockdown** from the All Tasks list.
- 2** Select devices using the Quick Find or Folders tabs.

Use **Ctrl + click** to select multiple devices.

**Note:** Devices that are not capable of secure communication are displayed with a black line through them in the results area.

- 3** Select the **Lockdown** check box to lock down the device.

To remove lockdown from a device, clear the **Lockdown** check box.

## ***Viewing encrypted hard disk drives***

Some supported devices contain encrypted hard disk drives to protect information stored on the devices. MVP allows information retrieval from hard disk drives without interfering with device security. If the device has an encrypted hard disk drive and is communicating over a secure channel, an administrator can use the Storage Devices task to view the drive. As a precaution, if the hard disk drive is encrypted and the device is not communicating securely, the task will not display the hard disk drive information. Although MVP is able to view encrypted hard disk drives, MVP will not allow a user to change the encryption for the device.

## **Authenticating user access**

MarkVision Professional offers three security options to authenticate user access:

- LDAP Server authentication
- active session expiration
- account password expiration

### ***Using LDAP to authenticate user access***

MVP administrators can use the company LDAP server to authenticate user IDs and passwords. This eliminates the need for users to maintain separate MVP logon IDs and passwords.

When enabling LDAP server authentication, administrators have three modes of LDAP authentication. The following authentication mechanisms bind to the LDAP server in increasing order of security:

- **Anonymous**—Binds with no credential supplied
- **Simple**—Binds with credential in cleartext

**Note:** Set up a MarkVision Server account on the LDAP server. When using simple LDAP authentication to utilize SSL, select the **SSL** check box and then select the appropriate SSL certificate from the store to complete the setup.

- **Secure**—Binds using an encrypted channel to pass a security credential

**Note:** When using (Kerberos) LDAP authentication, an associated MarkVision Server account may be necessary depending on the Kerberos configuration. For information on MarkVision Server accounts for Kerberos, see the Kerberos documentation.

### **Creating an user account with LDAP authentication**

**1** From the MarkVision Professional Home screen, select **User Accounts and Groups** from the All Tasks list.

**2** Click **Add**.

**3** Type the existing network log on for the user ID in the Account Name box.

**Note:** This ID must match the user ID which exists in the LDAP database.

**4** Leave the password field blank.

**Note:** No password entry is required or permitted because LDAP will be used for authentication when the user logs on.

**5** You may associate the user with a group, and then click **Next** to associate privileges and folder access with the account.

**6** Click **Finish**.

**7** Have the user access MVP and enter their user ID and password that they use for the company local network

MarkVision Server accesses the company LDAP server directory service and authenticates the user login through either a simple bind protected by SSL, or a secure bind using Kerberos.

## ***Enabling LDAP server authentication***

Make sure that the administrator password is defined before proceeding with LDAP Server authentication setup. LDAP Server authentication is only accessible through the Master Administrator account. LDAP authentication works for all user accounts with the exception of the Master Administrator account. The Master Administrator account needs a unique MVP password.

- 1** Log on as the administrator.
- 2** From the MarkVision Professional Home screen, select **User Accounts and Groups** from the All Tasks list.
- 3** Select the **Administrator** account, and then click **Edit**.
- 4** Click the **Authenticate with an LDAP Server** check box.
- 5** Select an authentication mechanism from the drop-down list.
- 6** Click **Next**.
- 7** Enter the LDAP Server information.
  - a** If Anonymous or Simple is selected as the authentication mechanism, enter the LDAP Server Address, Port Number, Search Base, and User Attributes in the LDAP Settings area.
  - b** If Secure is selected as the authentication mechanism, enter the KDC IP/HostName and Realm (Domain Name) of the LDAP server in the Kerberos Settings area.
- 8** If the LDAP Server configuration requires authentication by the MarkVision Server, enter the MarkVision Server LDAP account information.
  - a** If Anonymous is selected as the authentication mechanism proceed to step 10 on page 46.
  - b** If Simple is selected as the authentication mechanism, type a pre-established LDAP server Distinguished Name and Password in the MarkVision server LDAP Account area.
  - c** If Secure is selected as the authentication mechanism, type a pre-established LDAP server User Name and Password in the MarkVision Server Account area.
- 9** If Secure is selected as the authentication mechanism, click **Finish**. If Anonymous or Simple is selected, proceed to step 10 on page 46.
- 10** If Anonymous or Simple is selected as the authentication mechanism, and you want to use SSL, click the **Use SSL** check box, enter the Certificate Store password, and then click **Next**. If you do not want to use SSL, click **Finish**.
- 11** Select the appropriate certificate for use with the SSL protocol.

Without the proper certificate, the SSL protocol will not work. The LDAP server should have a facility for issuing a certificate request.
- 12** Click **Import**, and then click **Finish**.

## ***Configuring active session expiration***

If active session expiration has been enabled, and a MarkVision Client session remains idle for a specified period of time, a dialog appears prompting the user to re-enter their password to regain access to the application. Active session expiration helps to prevent unauthorized users from accessing a MarkVision Client that is left unattended.

- 1** From the MarkVision Professional Home screen, select **Administrative Settings** from the All Tasks list.
- 2** From the Intervals tab of the dialog, specify the active session expiration interval in minutes.

To remove active session expiration, select **Never** from the “Active session expiration interval (minutes)” area.
- 3** Click **OK**.

## ***Configuring account password expiration***

To reduce the likelihood of compromised passwords, administrators can set a password expiration interval for user accounts. After a specified amount of time, a user account password will become invalid, forcing users to change their MVP passwords. Account password expiration applies to all users with the exception of the administrator, unless LDAP Server authentication has been enabled. If LDAP Server authentication is enabled, account password expiration will not be enabled, and password security will depend on the existing password security and network protocols.

**Note:** To eliminate the need for the administrator to change each user account password for every expiration interval, make the Change Password task available to all users.

- 1 From the MarkVision Professional Home screen, select **Administrative Settings** from the All Tasks list.
- 2 From the Intervals section of the dialog, specify the account password expiration interval in days.  
To remove the password expiration interval, select **Never**.
- 3 Click **Apply**, and then click **OK**.

## ***Changing an account password***

- 1 From the MarkVision Professional Home screen, select **Change Password** from the All Tasks list.
- 2 Type your current password.
- 3 Type a new password.
- 4 Confirm the password by typing it again.  
The indicator light to the right of the text box turns green when the two passwords match.
- 5 Click **OK**.

# Managing devices

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## Finding and organizing devices

### *Finding devices*

There are numerous ways to find devices managed by MVP. You can search for one device using specific criteria, or multiple devices using a variety of methods to find devices managed by MVP. After MVP recognizes a device using one of those methods, that device can later be found by other device attributes, such as a serial number or property tag.

Here are some suggested methods for finding one or more printers in MVP:

- Search by printer features when managing a small number of printers:
  - 1 From the MarkVision Professional Home screen, select the **Feature Overview (Printers)** or **Feature Overview (Print Servers)** from the All Tasks list.
  - 2 Choose the **Folders** tab, and view the folder that contains the printers you want to choose from.
  - 3 Select one or more devices.
  - 4 You can then scan the various features columns.
  - 5 Click any tab to sort the printers according to the criteria you want.
- Use Quick Find when managing a large number of printers:
  - 1 From the MarkVision Professional Home screen, select the **Quick Find** tab.
  - 2 Select **Other** from the “Select a field to search” list.
  - 3 Click **Find Parameters**.
  - 4 Configure the filter to find the feature.
  - 5 Click **OK**, and then click **Find**.

Devices on the MarkVision Server appear.

### *Creating folders and filters*

MarkVision gives you several ways to see all the printers available to you at a glance.

- Use the Folder Configuration task to create custom folders to organize your printers. If the printers are on a small network, only one folder may be needed. However, if the printers are distributed across a large network, they can be organized in multiple folders.

For example, if the printers are concentrated on a small network within a single building, create folders for each floor or type of printer. For larger printer networks, create a folder hierarchy that includes subfolders identifying printers by geographical location or subnet.

- Apply filter criteria to the folders to automatically populate folder contents or to find a specific printer.

For example, create a folder named Color, and then select the appropriate filter criteria to show only color printers. MVP applies the filter and adds only color printers to that folder. The same printer can appear in more than one folder. For example, a color printer with a duplex unit would appear in both the Color folder and the Duplex folder.

### *Using filters to automatically populate folders*

- 1 From the MarkVision Professional Home screen, select **Folder Configuration** from the All Tasks list.
- 2 Select a parent folder.

- 3 Skip to step 4 on page 49 to configure a filter for an existing folder that will not be renamed. To create a new folder or rename an existing folder:
  - Click **New** to create a new folder within the parent folder.
  - Type a new name in the Name box to rename an existing folder.
- 4 Select the **Filter** tab, and then select filter criteria, or select the **Manual Selection** tab, and then select devices to add to the folder.
- 5 Click **Apply**.

## ***Creating maps***

Create a graphic of the distribution of selected printers on a map background. The type of map you create depends on the structure of your organization. You can create an original image or develop a graphic using a scanned image such as an area map or building plan. Save the image in JPEG or GIF format.

If your organization has one location with just a few printers, your map could be a simple line drawing or a scanned plan of your building with icons marking the printer locations. If you are responsible for many printers in various geographies, you might create maps that correspond with the hierarchy of the printer folders. For example, you could create a folder for the state where a group of printers are located. Within that folder, create a subfolder for the city. Additional subfolders could contain printers grouped by the building or floor number. Create a corresponding map for each folder.

- 1 From the MarkVision Professional Home screen, select **Map** from the All Tasks list.
- 2 Select a folder.
- 3 Click the **Map** icon in the lower part of the window.
- 4 Select a map background from the list, or click **Browse** to find a graphic.
- 5 Arrange the device icons on the map image, and then click **Apply**.

**Note:** A yellow border around a device icon indicates that the device is in a warning state. A red border indicates an error state.

## ***Viewing a print server embedded Web page***

- 1 From the MarkVision Professional Home screen, select **Web Page (Print Server)** from the All Tasks list.
- 2 Select the appropriate print server, and then click **Launch**.

If the selected printer supports an embedded Web page, it appears in a separate browser window.

**Note:** Not all print servers have Web pages.

## **Creating custom views and tables**

### ***Creating a custom view***

- 1 From the MarkVision Professional Home screen, select **Custom Views - Create/Manage** from the All Tasks list.
- 2 Click **New**.
- 3 Give the custom view a name.
- 4 Add printer attributes to this view by clicking the **New Component icon** next to the Name field.  
As you select the attributes, blocks indicating the size of the data appear in the window below.

5 Arrange the blocks so that each one can be easily viewed.

6 Click **Apply**.

Once created, custom views are available from the All Tasks list. Custom views are listed by their custom name. Select a custom view by clicking **View**, and then select **Custom Views** from the menu bar.

### ***Editing a custom view***

1 From the MarkVision Professional Home screen, select **Custom Views - Create/Manage** from the All Tasks list.

2 Select a custom view.

3 Change the custom view.

4 Click **Apply**.

### ***Creating a custom table***

The Custom Tables task provides an easy interface with which to view reports of device information. After it has been configured, a custom table can be exported to a *comma-separated variable* (.csv) file, which can be opened by spreadsheet or word processing software.

1 From the MarkVision Professional Home screen, select **Custom Tables - Create/Manage** from the All Tasks list.

2 Click **New**.

To edit an existing custom table, click the table name.

3 Name the table.

4 From the Available Columns box, select the items to be included in the table.

5 Click > to move the selected items into the Columns In Use box.

6 Arrange the columns using the up and down arrows.

For example, to make Duplex Option the first table column, move it to the first position in the Columns In Use box.

7 Choose how to sort the rows of the table.

For example, if you choose Color from the "Sort Custom Table By" list, and then click Ascending, the table lists color printers first.

8 Click **Apply**.

**Note:** Select the check box next to Frequent Task to associate a unique icon with the custom table. The icon appears as a frequent task icon in the menus area of the MarkVision Professional Home screen.

### ***Viewing and editing a custom table***

1 From the MarkVision Professional Home screen, select the previously named custom table from the All Tasks list.

2 The custom table appears:

- To print the custom table, click **Print**.
- To export the custom table, click **Export**.

- 3 To customize a custom table while viewing it:
  - a Reorganize columns by dragging them.
  - b Click a column heading to sort by that column.
  - c Right-click the table to save the changes or reset to the default column and sort order.

**Note:** These changes do not change the table settings as defined in the Custom Tables task; they are unique to each user account. To change the default column and sort order, use the Custom Tables task.

## Managing destinations

### *Adding or editing destinations*

- 1 From the MarkVision Professional Home screen, select one of the three destination management tasks from the All Tasks list.

Task Name	Fields
Fax Destinations	Fax Name, Fax number, Shortcut (If applicable)
E-mail Destinations	Name, E-mail address, Format, Content, Color, Resolution, Shortcut (If applicable)
FTP Destinations	Name, Server, Login, Password, Password confirmation, Path and filename, Format, Content, Color, Resolution, Shortcut (If applicable)

- 2 Select the devices that have destination types that you want to manage.

A table will appear on the right side of the screen displaying the existing destinations. If the selected devices have no current destinations, the table will be empty.

- 3 Select a destination.
- 4 Click **Add** or **Edit**.
- 5 Type the information in the dialog, and then click **OK**.
- 6 Click **Apply**.

The new or edited destinations are updated for the selected devices.

**Note:** MVP does not support Add or Edit for profile destinations. You can only remove profile destinations in MVP.

### *Editing destinations for device policies*

- 1 From the MarkVision Professional Home screen, select the **Device Policies - Create / Manage** from the All Tasks list.
- 2 Either create a new print server policy or edit an existing policy.

**Note:** When policies containing destinations are applied to devices that already contain destinations, the existing device destinations are deleted.

- 3 Expand the MFP folder.
- 4 Expand the Destinations folder.

**Note:** Add at least one destination to remove the warning icon, or the information will not be saved.

- 5 Expand the list folder view, and then open the **Destinations** folder.

The Destinations Management dialog box opens beneath the selected destination.

- 6 Click the check box next to the destination type that you want to edit, and then click **Edit**.
- 7 Edit the destination list accordingly.
- 8 Click **Hide** to close the Destination Management dialog box.

## ***Removing destinations***

- 1 From the MarkVision Professional Home screen, select one of the four destination management tasks from the All Tasks list.
- 2 Select the devices with destination types you want to manage.  
A table appears on the right side of the screen displaying the existing destinations. The table is empty if the selected devices have no destinations.
- 3 Select the destination(s) to remove.
- 4 Click **Remove** to remove the selected destinations, or select **Remove All** to remove all destinations.

## **Using device policies**

### ***Using device policies***

#### **Reasons to create a device policy**

- To enforce a standard configuration across a set of devices.  
For example, Power Saver is set to Off and Printer Timeout set to 20 for all printers.
- To use multiple configurations for a device.  
For example, create one device policy one policy to set Toner Saver on with a low resolution for draft printing. Create another device policy where Toner Saver is set to off with high resolution for final document printing.

#### **Tasks associated with device policies**

- **Device Policies - Create/Manage**—Create, edit, or remove a policy.
- **Device Policies - Apply**—Apply a policy to one or more specified devices.
- **Device Policies - Check Conformance**—Determine if selected devices are conforming to device policies.
- **Scheduling**—Specify days and times to automatically apply a policy or perform a conformance check.

### ***Creating a device policy***

- 1 From the MarkVision Professional Home screen, select **Device Policies – Create/Manage** from the All Tasks list.
- 2 Click **New** to create a new device policy, or click **Copy** to copy the settings of an existing device policy.
- 3 If you selected New, select one of the following options:
  - An empty printer policy
  - An empty print server policy
  - A policy derived from the actual settings of a known device
- 4 Type a policy name.
- 5 Select or change settings, and then click **OK**.
- 6 Click **Apply** to save the policy.

## ***Applying a device policy***

A device policy must be created before it can be applied.

- 1 From the MarkVision Professional Home screen, select **Device Policies – Apply** from the All Tasks menu.
- 2 From the device list, select the devices to update.
- 3 Select a device policy from the Device Policies list, and then click **Apply Policy**.

## ***Checking device policy conformance***

The Device Policies - Check Conformance task displays selected device setting in comparison with its applied device policy.

- 1 Select **Device Policies - Check Conformance** from the All Tasks list.
- 2 Select the device you want to check for policy conformance.
- 3 Compare the present device settings with the policy settings.

## ***Scheduling device policies***

Schedule policy applications to multiple devices to provide updates such as daily default resets or device conformance.

- 1 From the MarkVision Professional Home screen, select **Scheduling** from the All Tasks list.
- 2 Click **Add**.
- 3 Select **Device Policy: Check Conformance** or **Device Policy: Apply**, and then click **Next**.
- 4 Schedule a date and time for the update, and then click **Next**.
- 5 Select a device policy from the Device policy box, and then click **Next**.  
**Note:** You may select "Apply policy automatically if devices are out of conformance."
- 6 Select discovered devices from the device folders window, or use the Quick Find feature to locate new devices and place them in the selected devices window using the > buttons.
- 7 Click **Finish**.

## **Using Confidential Print Job Lockout**

- 1 From the MarkVision Professional Home screen, select **Device Policies – Create/Manage** from the All Tasks list.
- 2 Click **New**.
- 3 Select **For Any Printer**, and then click **Continue**.
- 4 Expand the **General Settings** folder.
- 5 Select the **Confidential Print Job Lockout** check box.
- 6 Select the number of attempts the user will have to enter the correct PIN number before the print job is deleted.
- 7 Click **Apply**.

## Using Confidential Print Job Expiration

To set Confidential Print Job Expiration with the Device Policy tasks:

- 1 From the MarkVision Professional Home screen, select **Device Policies — Create / Manage** from the All Tasks list.
- 2 Click **New**.
- 3 Select **For Any Printer**, and then click **Continue**.
- 4 Expand the **General Settings** folder.
- 5 Select the **Confidential Print Job Expiration** check box.
- 6 Select the period of time that the confidential print job will remain in the printer queue before being deleted.
- 7 Click **Apply**.

## Downloading generic files

Download miscellaneous files from the MarkVision Server to one or more devices on a network. Instantly distribute various files types including universal configuration files (UCF), to any devices that MVP manages. Use the Schedule task to automate file downloads at predetermined times.

- 1 From the MarkVision Professional Home screen, select **Generic File Download** from the All Tasks list.
- 2 Select the file(s) to download from the list of available files on the MarkVision Server.  
To add files (if necessary) from another location, click **Load**, and then browse for the file(s).
- 3 Click the > button to move the files to the file table.
- 4 Choose a file location from the Target Location drop-down list.  
Click **Remove** to remove the selected file(s) from the list.
- 5 Specify the directory name in the Remote Directory column.
- 6 Click **Next**, and then select the device(s).
- 7 Click **Finish** to download the selected file(s).

## Managing resources

Use the Resource Management task to upload resources files such as fonts and overlays to the MarkVision Server. Distribute these files to network devices equipped with hard disks or Flash SIMMs. Resource Management is capable of handling complex formatting for fonts and overlays.

The following fonts and types are supported: PCL Bitmap (SFP), True Type (TTF), Type 1 (PFB). The following overlays are supported: PCLXL, PS, and PCL5.

### *Uploading resource files to MarkVision Server*

- 1 From the MarkVision Professional Home screen, select **Resource Management** from the All Tasks list.
- 2 From the Resources folder, select the folder of the font or overlay type.
- 3 Click **Upload** to browse for the resource file(s).

**Note:** To upload multiple files simultaneously, use **Ctrl + click** to select multiple files.

- 4 Click **Load** to load the file into the Resource management dialog.
- 5 Click **OK**.

### ***Removing resource files from the MarkVision Server***

- 1 From the MarkVision Professional Home screen, select **Resource Management** from the All Tasks list.
- 2 On the left side of the dialog, select the folder that contains the file(s) that you want to remove.
- 3 Select files for removal from the Resource Management table.  
You can select multiple devices using **Ctrl + click**.
- 4 Click **Remove**.
- 5 Click **Select All**, and then click **Remove** to remove all files listed in the table.

### ***Downloading resource files to selected devices***

- 1 From the MarkVision Professional Home screen, select **Resource Management** from the All Tasks list.
- 2 Select the folder that contains the file(s) to distribute to selected devices.
- 3 Select the file(s) to distribute to the devices.  
Select multiple files by using **Ctrl + click**.
- 4 Click **Send to Printer**.  
The Send to Printer Wizard opens.
- 5 Select the device(s) with hard disks or existing device folders.  
If necessary, use a filter to find supported devices.
- 6 Use the > button to transfer the printers with a hard disk to the Selected Printers window.  
**Note:** Only printers with a hard disk may be selected.
- 7 Click **Next**.
- 8 Select the device(s) with flash memory or existing device folders.  
If necessary, use a filter to find supported devices.
- 9 Use the > button to transfer printers with flash memory to the Selected Printers window.  
**Note:** Only printers with flash SIMM memory may be selected.
- 10 Click **Finish** to begin the download.

## ***Installing and removing plug-ins***

Download and install new MVP plug-ins on a MarkVision Server for added device or functional support. The plug-ins may contain downloadable client components. Relevant client information downloads to your workstation when you log into the MarkVision Server.

- 1 From the MarkVision Professional Home screen, select **Software Update (Manage Plug-Ins / Solutions)** from the All Tasks list.

A dialog appears, listing installed plug-ins and solutions.

**Note:** Select a plug-in, and then click **Remove** to uninstall it. The plug-in is removed from the server and the client. The uninstall script on the server and the client determines if a restart is necessary.

- 2 If no plug-ins are listed, download updates from the Lexmark Web site at **www.lexmark.com**.

- 3 Click **Install New**.

A dialog appears.

- 4 Select and install a plug-in from the directory.

- 5 The MVP message window (located at the bottom of the MarkVision Professional Home screen) announces the plug-in(s) installation status:

- If the selected plug-in has previously been installed, you will be informed that the plug-in is already installed.
- If the selected plug-in is down-level from the one that is currently installed, the current plug-in will need to be uninstalled before the down-level version can be installed.
- If an earlier version of the selected plug-in is already installed, you may upgrade the existing plug-in.

After a plug-in has been installed on the server, the MVP Client receives information on the plug-in versions that have been installed and details on which plug-ins contain downloadable client components. If new client components are available, the client determines if the server and itself are compatible and then automatically downloads the client component of any plug-ins that it does not already have.

**Note:** If the client and server are not compatible because the client contains a component that the server does not have, a warning message is issued and any incompatible client components are removed.

## **Managing bookmarks**

### ***Using bookmarks***

The Bookmark Management task lets the user create and save printer bookmarks in the permanent memory of a printer. A printer bookmark is a link to a document that is stored on a Web server or the Internet. When a bookmark is called from the BOOKMARKS menu on a the operator panel of a supported printer, the document the bookmark points to is printed. Bookmarks also store important information about how document(s) are to be printed.

Existing bookmarks may also be loaded into the Bookmark Management task to be organized in folders and then distributed to supported printers across the network. Multiple bookmarks can then be saved as a configuration file allowing the distribution of bookmark sets to devices with a single action.

Use the Bookmark Management task to:

- Protect a bookmark, folder, or bookmark with a Personal Identification Number (PIN)
- Load bookmarks from a printer using an IP address or host name
- Set or change bookmark properties including: name, URL, and available print settings such as duplex, orientation, and copies

## ***Creating bookmark folders***

The BOOKMARKS default root folder stores all bookmarks and bookmark folders.

- 1 From the MarkVision Professional Home screen, select **Bookmark Management** from the All Tasks list.
- 2 Click the **Add a folder** icon at the top of the Bookmark Management dialog.
- 3 Type a folder name up to 25 characters in length.

### **Notes:**

- To enable optional access protection for the bookmark folder, assign a four-digit numeric PIN number to the folder. After a PIN is established, PIN entry is required to access the folder contents.
- The root BOOKMARKS folder cannot be PIN protected.

- 4 Click **OK**.

## ***Creating a new bookmark***

- 1 From the MarkVision Professional Home screen, select **Bookmark Management** from the All Tasks list.
- 2 Select a folder location for the bookmark.
- 3 Click the **Add a bookmark** icon located at the top of the Bookmark Management window.  
The Bookmark Properties dialog opens.
- 4 Under the Bookmarks tab, enter the bookmark name and the URL location for the corresponding document.  
You may assign a four-digit numerical PIN to the bookmark. PIN entry will be required to print the bookmark.
- 5 Verify that the settings listed under the remaining tabs are appropriate for the document.
- 6 Click **OK** to create the bookmark.
- 7 Click **Cancel** to stop the bookmark creation.

## ***Loading existing bookmarks***

Bookmarks may be loaded from either an existing file or printer memory. Once the Load Bookmark dialog has been opened, the option to either Browse for a specific file or select a specific printer is provided.

- 1 From the MarkVision Professional Home screen, select **Bookmark Management** from the All Tasks list.
- 2 Select a folder location for the bookmark.
- 3 Click **Load**.

The Load Bookmark dialog opens.

- If loading a bookmark from a file, select the **From File** radio button, then enter the file path in the space provided, or click **Browse** to find the file location.
- If loading a bookmark from a printer, select the **From Printer** radio button, then select either the **Quick Find** or **Folders** tab to locate the printer.

- 4 Click **OK** to load the bookmark.

Click **Cancel** to stop loading the bookmark.

## ***Saving bookmarks***

Once a bookmark or set of bookmarks has been created or loaded, it can be saved to a file that can be stored on a computer or a printer hard disk drive for future use.

- 1 From the MarkVision Professional Home screen, select **Bookmark Management** from the All Tasks list.  
Select the folder or bookmark that you want to save. Selecting a folder for this operation will save all folder contents.
- 2 Click **Save**.
  - If saving the bookmark(s) to a file, select the **To File** radio button, and then enter the file path in the space provided or click **Browse** to find the file location.
  - If saving the bookmark(s) to a printer, select the **To Printer** radio button, and then select either the **Quick Find** or **Folders** tab to locate the appropriate printer.
- 3 Use the > button to add the correct printer(s) to the Selected Printers window.
- 4 Click **OK**.

## ***Deleting bookmarks***

The Bookmark Management task is only an interface through which bookmarks may be manipulated for other devices and locations. As a result, deleting a folder or bookmark through this process only removes the selected item(s) from the interface, not from the saved location of the file.

- 1 From the MarkVision Professional Home screen, select **Bookmark Management** from the All Tasks list.
- 2 Load the folder or bookmark set that contains the bookmark(s) that you want to delete.
- 3 Select the folder or bookmark that you want to delete.  
**Note:** Selecting a folder for this operation will delete all folder contents.
- 4 Click the **Delete Folder/Bookmark** icon at the top of the Bookmark Management dialog.  
The Confirm Removal dialog opens.
- 5 Click **Yes** to delete the selected items.
- 6 Click **Save** confirm the bookmark deletion.

## ***Changing bookmark folder properties***

Edit characteristics for a bookmark or folder such as, folder name or the folder PIN number, bookmark name, URL, and PIN access number. Change the Page Layout, Paper, and HTML/PDF print attributes for bookmark documents.

- 1 From the MarkVision Professional Home screen, select **Bookmark Management** from the All Tasks list.
- 2 Load the folder or bookmark set that contains the bookmark(s) for edit.
- 3 Select the folder or bookmark.  
If the correct bookmark is not already listed, reload it.
- 4 Click the **Modify properties of selected item** icon at the top of the Bookmark Management dialog box.

5 Edit the appropriate fields.

6 Click **OK**.

**Note:** The Bookmark Management task is only an interface through which bookmarks may be manipulated for other devices and locations. As a result, any changes to the properties of a folder or bookmark will not be permanent until the file is saved.

## Installing CA Certificates for multiple devices

1 From the MarkVision Professional Home screen, select **Install CA Certificate** from the All Tasks list.

2 Select the device(s).

3 **Browse** to the CA Certificate location.

4 Click **Apply**.

**Note:** If more than one device is selected for this task, the CA Certificate is applied to all selected devices and overwrites any existing certificates.

## Wireless

### *Supporting wireless print servers*

MVP offers support for several wireless devices. MVP offers a WLAN task and a WLAN device policy option to:

- Setup and edit wireless settings for supported print servers attached to the network, and then transfer the settings to the supported devices.
- Support wireless configurations for both Ad Hoc and Infrastructure Basic Service Set (BSS) modes, as well as WEP and WPA-PSK security modes.

#### **Notes:**

- See the Release notes for a complete list of the printers and print servers supported by MVP.
- For security modes that utilize CA certificates as part of an authentication mechanism, an additional task called Install CA Certificate is available to install CA Certificates on devices.

### *Creating a WLAN device policy*

1 From the MarkVision Professional Home screen, select **Device Policies — Create/Manage** from the All Tasks list.

2 Click **New**.

3 Select **For Any Print Server**, and then click **Continue**.

4 From the Print Server Policy area, expand the **WLAN** folder.

5 Enter the SSID, BSS Type, Channel, and Wireless Security Mode for the device.

For more information on your wireless settings, see your wireless network documentation.

6 Enter the appropriate authentication or encryption information for the wireless security mode that you selected by expanding the WEP or WPA folders under WLAN.

7 Click **Apply**.

## ***Configuring wireless settings for multiple devices***

The WLAN task provides the ability to configure the wireless settings on multiple devices simultaneously. If multiple devices are selected for use with this task, make sure that only the values that are shared by all of the selected devices are changed. Some settings are specific to one device and changing them can disrupt wireless communication for that device.

- 1 From the MarkVision Professional Home screen, select **WLAN** from the All Tasks list.
- 2 Select the device(s).
- 3 Enter the SSID, BSS Type, Channel, and Wireless Security Mode for the device.  
For more information on the wireless settings, see your wireless network documentation.
- 4 Enter the appropriate authentication or encryption information for the wireless security mode that you selected. Some wireless security modes require certificates to work properly.
- 5 To install the appropriate certificates, go to the print server embedded Web page or use the Install CA Certificate task.  
For information on accessing the print server embedded Web page, see your print server documentation.
- 6 Click **Apply**.

## **Managing print queues**

### ***Managing queues***

Create and remove Windows print objects (queues) on host computers that utilize Windows-based platforms. Queue management utilizes two tasks to manage print objects:

- **Create Windows Print Objects**—Create Windows print queues on multiple host computers simultaneously.  
**Note:** In order to create print objects on remote host computers (computers on which an instance of the MarkVision Server is not running), the MarkVision Server must first be configured to perform the necessary network operations.
- **Remove Windows Print Objects**—Remove print queues from host devices.

### ***Configuring the MarkVision Server for Windows***

To create print objects on remote host computers, the MarkVision Server service for Windows must be configured to run in the context of a valid administrative user ID and password. This allows the MarkVision Server service to perform network operations such as listing the existing print objects and drivers that reside on other computers.

**Note:** This step only needs to be performed once on each MarkVision server.

- 1 In Windows XP and earlier, click **Start**.
- 2 Open the Control Panel.
- 3 Double-click **Administrative Tools**.
- 4 Double-click **Services**.
- 5 From Services, right-click **MarkVision Server**, and then select **Properties**.
- 6 Click the **Log On** tab.
- 7 Click **This account**.
- 8 Type the user ID and password for an administrative account.

## Creating print queues

To create print queues on selected computers:

- 1 From the MarkVision Professional Home screen, select **Create Windows Print Objects** from the All Tasks list.
- 2 Click > to move the printers to the Selected Printers window, and then click **Next**.
- 3 In the Domains and Workgroups list, select the domain of the computers you want to create print queues on.
- 4 In the Server(s) list, select the host servers that you want to create print queues on.

Click > to transfer the computers to the Selected Servers window.

**Note:** Each domain can list several computers. To create print queues on host computers under different domains, repeat step 3 on page 61 and step 4 on page 61. Select different domains with each pass until all of the desired host computers are present in the Selected Computers window.

- 5 Type a network administrator user ID and password.

### Notes:

- For each selected computer, you *must* supply a network administrator user ID and password. This allows MVP to create the print queues on host computer(s).
- If you are using the Windows XP operating system, and the network administrator account does not include a password, see “Windows XP administrator accounts without passwords” on page 62.

- 6 In the queue management wizard, select the printers that you want to create queues for. Locate the printers using the **Folders** tab or **Quick Find**.

- 7 Select the type of print object that you want to create on the host computer.

**Note:** MVP will attempt to locate and match the type of print object that is selected with the appropriate device and drivers by name comparison.

- 8 Click **Next**.

- 9 Verify that the print queue information is correct for each host computer in the queue creation table. If the default settings are incorrect, select the table entry, and then modify each of the fields in the dialog box below the table.

- 10 Click **Select** to open the Print Driver dialog.

- 11 Select a driver source.

- 12 Select a driver from the list, and then click **OK**.

If the driver is not included in the list:

- a Make sure the MarkVision Server radio button is selected as the driver source.
- b Click **Add**, browse to the driver, and then click **OK**.
- c Select the driver from the list, and then click **OK**.

- 13 To remove a print object from the list to be created, select the table entry that contains the print object you want to remove, and then click **Remove**.

- 14 Click **Apply** to save any changes, and then click **Finish**.

## Removing print queues

- 1 From the MarkVision Professional Home screen, select **Remove Windows Print Objects** from the All Tasks list.
- 2 Select the domain of the host server.

- 3 Select the host server that contains the print queue.  
Use the > button to add the server to the Selected Servers box.
- 4 Enter a network administrator user ID and password.
- 5 Click **Next**.
- 6 Select the print queue or queues to remove from the list of print objects present on the system.
- 7 Click **Finish**.

## ***Windows XP administrator accounts without passwords***

In most cases, when selecting a server using either the Create Windows Print Objects task or the Remove Windows Print Objects task, an administrator account user name and password for that specific computer must be entered. If the administrative account that is used to complete this process does not include a password, or if use of an administrative account without a password is preferred, the following procedure must be completed on the target computer.

- 1 Open the Control Panel.
- 2 Double-click **Administrative Tools**.
- 3 Double-click **Local Security Policy**.
- 4 Select **Security Options**.
- 5 In the Policy column, double-click **Accounts: Limit local account use of blank passwords to console logon only**.
- 6 Change the value to Disabled, and then click **OK**.

## **Moving the MarkVision Server**

As newer hardware becomes available, it may become necessary to move the MarkVision Professional Server to another machine, or import settings from one instance of the MarkVision Server to another server. Since MVP is extremely customizable, you may not want to repeat the process of creating folders, filters, and rediscovering devices. MVP provides the option of either moving an entire MarkVision Server or exporting specific settings for folder configuration and MarkVision Messenger actions to a file to be imported on another server.

### ***Moving the MarkVision Server***

Create a backup of MVP customized data and then integrate the data onto a new machine:

- 1 From the original machine, stop the MarkVision Server.
- 2 Back up the directories in which the customized data files are stored.
  - In Windows, the default directories are:
    - C:\Program Files\Lexmark\MarkVision Server\granite\data**
    - C:\Program Files\Lexmark\MarkVision Server\granite\plugins**
    - C:\Program Files\Lexmark\MarkVision Server\mvp-tomcat\webapps\ROOT\~plugins**
  - For Mac and UNIX, the default directories are:
    - /var/spool/markvision/data**
    - /var/spool/markvision/plugins**
    - /usr/mv\_pro/mvweb/www/webapps/ROOT/~plugins**
- 3 Install the MarkVision Server on the new machine.

- 4 Stop the MarkVision Server.
- 5 Replace the **data**, **plugins** and **~plugins** directories saved in step 2 on page 62 into the same locations on the new machine.
- 6 Restart the MarkVision Server.

**Note:** The listed files do not contain settings for window and frame sizes or positional information.

## ***Starting and stopping MarkVision Server for Windows***

### **Windows 2000**

- 1 Go to **Control Panel → Administrative Tools → Services → MarkVision Server**.
- 2 Click **Start/Stop**.

**Note:** You can use the same process to start or stop the MarkVision Web service.

### **Windows NT**

- 1 Go to **Control Panel → Services → MarkVision Server**.
- 2 Click **Start/Stop**.

**Note:** You can use the same process to start or stop the MarkVision Web service.

### **Windows XP and Windows 2003 Server**

- 1 Go to **Control Panel → Performance and Maintenance → Administrative Tools → Services → MarkVision Server**.
- 2 Click **Start/Stop**.

**Note:** You can use the same process to start or stop the MarkVision Web service.

## ***Starting and stopping the MarkVision Server for Mac***

- Go to **Finder → Utilities → MarkVision Pro Server Control.app**.
- Click **Start/Stop Server**.

**Note:** You can use the same process to start or stop the MarkVision Web service.

## ***Starting and stopping MarkVision Server for UNIX***

- To start the MarkVision Server type: `/usr/mv_pro/bin/MvService start`.
- To stop the MarkVision Server type: `/usr/mv_pro/bin/MvService stop`.

## ***Starting and stopping MarkVision Web service for UNIX***

- To start the MarkVision Web service type: `/usr/mv_pro/bin/MvWebService start`.
- To stop the MarkVision Web service type: `/usr/mv_pro/bin/MvWebService stop`.

## **Formatting storage devices**

You can use the Storage Devices task to format a device hard disk or flash memory.

- 1 From the MarkVision Professional Home screen, select **Storage Devices** from the All Tasks list.
- 2 Select the device(s).
- 3 Click the **Format** icon for either the hard disk or the flash memory.

**Warning:** This action erases all files on the selected storage device.

## Upgrading print server firmware

Occasionally, the flash memory for print servers must be updated. For example, Customer Support may recommend a firmware upgrade to solve a network printer problem. Use MVP to flash multiple supported print servers simultaneously.

- 1 Download the latest flash files from the Lexmark Web site: **www.lexmark.com**  
All supported firmware (flash) files are available free of charge.
- 2 From the MarkVision Professional Home screen, select the **Firmware Download (Print Server)** task from the All Tasks list.
- 3 Select the print servers you want to update.  
**Note:** MVP will associate firmware files by their extension to specific model types.
- 4 Click **New File** to add new files to the MVP list of downloadable firmware files (for example, files that you have downloaded).
- 5 Click **Start** to begin the upgrade process.

**Warning:** The print server may be damaged if it is turned off or reset during a firmware flash. Use the Scheduling task to perform flash operations at night, on holidays, or at other times when printer traffic is very light.

## Scheduling tasks

Schedule tasks such as Device Discovery or Generic File Download on a specific day at a specific time. Each task can have multiple schedules.

**Note:** Some scheduled events require additional setup before you enter the Scheduling task. For example, before scheduling a device discovery, you must configure a discovery profile using the Device Discovery task.

- 1 For example, from the MarkVision Professional Home screen, select **Scheduling** from the All Tasks list.
- 2 Click **Add**.
- 3 Select an event type to schedule, and then type a description.
- 4 Click **Next**.
- 5 Select a date and time, and then click **Next**.

**Note:** Other tabs will allow you to enter parameters specific to this scheduled event such as database type and policy name.

- 6 Click **Finish**.

The scheduled event appears in the calendar window of the Scheduling task.

## Checking printer status

MVP provides a number of tasks that present a read-only view of printer information in the View and Features menus. In particular, you may wish to select one of the following from the View menu:

- Status of Printer
- Supplies
- MFP Status
- Picture of Printer

- Page Counts
- Operator Panel LCD
- Map
- Custom Tables
- Custom Views

## Changing printer settings

MarkVision provides a large number of tasks to configure specific types of settings on devices. These are generally available under the Settings menu, organized by category (for example, Network or Printer). You may also select these tasks from the All Tasks list.

- 1 Change printer settings by selecting the item you want to change.
- 2 Select one or more printers, and then do any of the following:
  - Change the settings appropriately.
  - Create a device policy to coordinate multiple settings and save them as a unit.
  - Apply the policy to one or more devices at a time, or save it for future use.

## Monitoring printer supplies

There are several methods you can use to monitor printer supplies.

- Create a folder to monitor supplies:
  - 1 Select **Folder Configuration** from the All Tasks list.
  - 2 Create a folder with a filter based on the status criteria you are interested in.  
For example, create a folder named All Status Errors and Warnings, and configure the filter to display only those devices containing status errors or warnings. The folder content dynamically changes as devices communicate filter related criteria.
- Perform a Quick Find to monitor supplies:
  - 1 Click the **Quick Find** tab.
  - 2 From the Select a Field to Search box, select **Other**.
  - 3 Configure the search parameters.
  - 4 Click **Find**.  
The search results are displayed.
  - 5 Click **Stop** to terminate the current discovery operation.
- Check the status of supplies for selected printers:
  - 1 Select **Status of Printer** from the All Tasks list.
  - 2 Open a folder, and then select printers.

**Note:** The MVP Map task displays an icon for each device. These icons give you an indication of device status. A yellow border around a device icon indicates a warning state. A red border indicates an error state.

## Setting color print permissions

MVP allows an administrator to restrict color printing for specific users for supported color printers on a network. Closely monitor and save color printing resources by restricting color printing access. MVP print permissions technology consists of two related tasks that control user access to color printing:

- **Users Table**—Displays and controls access to color printing by User ID.
- **Hosts Table**—Controls print permissions on a specific host computer allowing you to override user-level permissions on a specific host computer.

Specify color permissions (whether a user may print with color) for a user by adding their ID to the Users Table. For example, if a user with access to the Users Table task has set their color permissions to On, the color permission for their host computer can be disabled by setting the Color permission to Off, and the Override permission to On in the Hosts Table. If color printing is disallowed, jobs will still print, but in monochrome

The following tables illustrate some print permission settings scenarios:

### User table settings example

User ID	Color	Result
Mary	On	Mary can print color on any selected printer.
Bob	Off	Bob cannot print color on any selected printer.

### Hosts table settings example

Computer (host) name	Color	Override	Result
MARYSPC	On	On	A user logged on to Mary's computer can print color on any selected printer, regardless of the user print permissions.
BOBSPC	Off	On	A user logged on to Bob's computer cannot print color on any selected printer regardless of the user print permissions.
MARYSPC	Off	Off	A user logged on to Mary's computer will not be able to print color jobs unless their User ID is granted color printing permissions in the User Table.

# Working with embedded solutions

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## Managing Embedded Solutions

*Embedded Solutions Framework* (eSF) is a Java-based framework for running applications inside a printer or multifunction printer (MFP). Embedded solutions are Java-based applications. When installed on a *Lexmark Embedded Solutions Framework* (LeSF) enabled MFP, these applications provide powerful business solutions which may communicate with servers as necessary. MVP provides an interface to discover and configure the solutions and the settings. MVP also supports configuration of most solutions that implement a solution descriptor file.

## Installing Embedded Solutions

MVP will test files selected for installation to determine if they are not solutions (e.g. firmware update files). MVP will display a warning that the file may not be a solution and advise the user that any files sent to the device will be processed. MVP 11.1 will allow the user to either cancel the installation and choose another file, or send the file to the device(s) anyway.

### ***Step 1: Installing the solution descriptor***

- 1 From the MarkVision Professional Home screen, select **Software Update (Manage Plugins / Solutions)** from the All Tasks list.
- 2 Click **Install New**.
- 3 At the Install Plug-In dialog, select the value **Solution files (\*.xml)** from the "Files of type" drop-down list.
- 4 Select a solution descriptor from the Open dialog.
- 5 Click **Open**.

#### **Notes:**

- The installed solution descriptor appears in the Plug-ins/Solutions on Server box. The solution descriptor details appear in the Details box.
- If the descriptor file is not valid, MVP 11.1 will display an error message.

- 6 Click **Close**.

### ***Step 2: Installing an Embedded Solution***

After the solution descriptor file is installed in MVP, install the associated embedded solution file on the selected device(s):

- 1 From the MarkVision Professional Home screen, select **Embedded Solution - Solution Management** from the All Tasks list.
- 2 Find and select the device(s) on which the solution will be installed.

MVP displays the embedded solutions available for deployment on selected device(s) in the configurable area of the screen. When solutions which are configurable via MVP are selected, the Solution Specific Actions window displays Import and Export buttons. If a selected solution is not configurable, the Solution Specific Actions window displays a message referring the user to further information.

- 3 Click **Install**.

4 Browse to the appropriate folder, and then select the solution file.

**Note:** Embedded Solutions flash files typically have an .fls extension.

5 Select the solution file, and then click **Add**.

**Note:** Installing the “Lexmark Embedded Scan to Network 1.2.0.0” upgrade will overwrite “Lexmark Embedded Scan to Network 1.0” on that device.

## Configuring the Embedded Solutions Framework

The Framework Management task allows the configuration of the Embedded Solutions Framework on enabled devices:

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Framework Management** from the All Tasks menu.
- 2 Select a device.
- 3 Enter the appropriate information.

### *Configuration settings*

Configure framework settings:

- **HTTPS Proxy Server**—Configure the proxy server IP for embedded solutions using third party software.
- **HTTPS Proxy Port**—Configure the proxy port.
- **No Proxy For**—Configure a list of host names for which a proxy server is not required.

**Note:** When multiple devices are selected, the configuration changes are applied to all selected devices.

### *Network License settings*

Configure network licensing for embedded solutions on the devices:

- **Server**—Configure the IP address of the license server.  
**Note:** Specify up to three license servers.
- **Port**—Configure the socket port information for the license server.  
**Note:** Each license server should have a corresponding license port.
- **Heartbeat Period**—Specify in number of minutes the time required to communicate with the server.
- **Number of Retries**—Specify the maximum number of attempts.

**Note:** The server information is optional and is only used for more than one server.

4 Click **Apply** to save, or click **Undo** to clear the information.

## Configuring solutions

Before applying a solution to a device, MVP checks the device settings. If the device does not have any embedded solutions installed, the following message appears in the message area: **There are no configurable settings available.**

When multiple devices are selected, MVP searches for all known embedded solutions. If a device does not have a selected solution, MVP will not attempt to apply the configuration settings, instead, the following message appears in the message area: **Selected solution not installed on <devicename>; no configuration attempted.**

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Framework Management** from the All Tasks list.
- 2 Select the device(s).  
All installed embedded solutions appear.
- 3 Select a solution.  
**Note:** The “Solution-specific actions” block will be populated with buttons appropriate to the selected solution (s) on the selected device(s). If no configuration options are available for a single solution the following message appears: **This solution is not configurable using MarkVision Professional.** In this case either a solution descriptor or a custom plug-in for this solution may be available from the Lexmark Web site.
- 4 Click **Configure**.  
The Configure dialog appears.
- 5 Change the settings as desired, and then click **OK** to apply the settings to the selected device(s) or click **Cancel** to exit the dialog.

## Uninstalling Embedded Solutions

### *Step 1: Uninstalling the solution descriptor*

The Configure button is available only for solutions whose descriptor files have been installed in the MarkVision server. If an Embedded solution is no longer necessary, uninstall the solution descriptor, and then uninstall the associated solution file. After a solution descriptor is removed, the associated solution cannot be managed on any devices through MVP.

To uninstall a solution descriptor file:

- 1 From the MarkVision Professional Home screen, select **Software Update (Manage Plugins / Solutions)** from the All Tasks list.
- 2 Select the solution descriptor file to be removed from the Plug-ins / Solutions list
- 3 Click **Remove**.

### *Step 2: Uninstalling an Embedded Solution*

If an Embedded Solution is no longer necessary, uninstall it from the device(s):

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Solutions Management** from the All Tasks list.
- 2 Select the device on which the solution is installed.
- 3 Select a solution to uninstall.
- 4 Click **Uninstall**.
- 5 Select **Yes**.

## Starting a solution

Start or stop an embedded solution to refresh the values of the solution:

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Solutions Management** from the All Tasks menu.
- 2 Select the device(s).
- 3 Select one or more solutions from the list.
- 4 Click **Start**.
- 5 Select **Yes** from the confirmation message.

## Stopping a solution

Start or stop an embedded solution to refresh the values of the solution:

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Solutions Management** from the All Tasks menu.
- 2 Select the device(s).
- 3 Select one or more solutions from the list.
- 4 Click **Stop**.
- 5 Select **Yes** from the confirmation message.

## Importing and exporting solutions

The settings of some Embedded Solutions can be exported to a file or imported to a device. The Import and Export buttons are solution specific, and appear only when they are supported. If Import is supported by a solution, the solution settings can be imported into a device. Export allows the settings for a device to be saved to a file for import into the same solution on another device.

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Solutions Management** from the All Tasks list.
- 2 Select the device(s).
- 3 Select the appropriate solution.
- 4 Click **Import** or **Export**.
  - a If you clicked Import, browse and select the appropriate .xml file from the Choose file dialog, and then click **Add**.
  - b If you clicked Export, name the file, and then select **Save**.

## Installing or upgrading a license

MVP enables license installation for an embedded solution for single or multiple devices. Licensing is restricted to devices that support the Embedded Solutions Framework, or have the embedded solution installed.

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Solutions Management** from the All Tasks list.
- 2 Select the device(s).  
All installed solutions appear.
- 3 Select the solution that requires a license.
- 4 Click **Update License**.
- 5 Select **Use a local license file** from the Update License dialog.
- 6 Browse for the appropriate file, and then click **Add**.  
**Note:** Licensing is solution-specific; some solutions may not require licenses.
- 7 Click **Update License** to update or **Cancel**. A status message appears.

## Revoking a license

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Solutions Management** from the All Tasks list.
- 2 Select the device(s).  
All installed solutions appear.
- 3 Select the solution that requires its license to be revoked.  
**Note:** This action requires a license revocation file.
- 4 Click **Update License**.
- 5 Select **Use a local license file**.
- 6 Browse for the license revocation file, and then click **Add**.
- 7 Click **Update License** to revoke license or **Cancel** to quit. A status message appears.

# Managing embedded solutions

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## Viewing installed solutions

To view all the solutions installed on a device:

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Solutions Management** from the All Tasks list.
- 2 Select the device(s).

If one device is selected, all solutions installed on that device are listed. If multiple devices or no devices are selected, the list of solutions that MVP can manage, including those whose solution descriptors have been installed in MVP, are listed.

## Creating an embedded solution device policy

Create a device policy that is specific to an embedded solution.

- 1 From the MarkVision Professional Home screen, select **Device Policy - Create / Manage** from the All Tasks list.
- 2 Select the device(s).
- 3 Click **New**.
- 4 Select **For Any Printer** from the New Policy dialog, and then click **Continue**.
- 5 Type a policy name in the Name box.  
**Note:** You may add comments in the Comment box.
- 6 Edit the settings for the embedded solutions that are available on the selected device from the Embedded Solution folder.
- 7 Click **Apply**.

## Obtaining host IDs

Obtain a host ID from the device(s), then and place them in a specified file for licensing purposes. The content and format of host IDs are determined by eSF-enabled devices. The Get Host ID task is restricted to devices that support any version of the Embedded Solution Framework.

- 1 From the MarkVision Professional Home screen, select **Embedded Solutions - Get Host ID** from the All Tasks list.
- 2 Select the device(s).
- 3 Click **Browse** from the Save Host IDs to File box.
- 4 Select a file in the Save Host ID dialog, and then click **Open**.  
**Note:** If an existing file is selected, specify whether to overwrite the file.
- 5 Click **Apply**.

**Note:** The Host ID file can be viewed with Notepad.

## Filtering for devices that support embedded solutions

- 1 From the MarkVision Professional Home screen, select **Filters** from the All Tasks list.
- 2 Click **New**.
- 3 Type a name in the Name box.
- 4 Click **Basic**.
- 5 Select a type from the Device Type list.
- 6 Select **Embedded Solutions** from the Select Filter Type list.
- 7 Select **Yes** to filter for devices with embedded solutions.
- 8 Click **Apply**, and then click **Close**.

## Using the Advanced filter to find devices that support embedded solutions

Create an advanced filter to discover devices with a specific embedded solution installed. An Advanced filter can be configured to identify devices that support the Embedded Solution Framework with the following parameters: name, state, version, or license.

- 1 From the MarkVision Professional Home screen, select **Filters** from the All Tasks list.
- 2 Click **New**.
- 3 Type a name in the Name box.
- 4 Click **Advanced**.
- 5 Select a device type from the Device Type list.
- 6 Select a parameter type for an embedded solution from the Parameter list.
- 7 Select an operation type from the Operation list.
- 8 Select values for the parameter from the Possible Values list.  
**Note:** The values of the parameter change depending on the selected parameter.
- 9 Click **Apply**, and then **Click** close.

## Using custom tables with embedded solutions

To view the version of an Embedded Solutions Framework installed on a device:

- 1 From the MarkVision Professional Home screen, select **Custom Tables - Create / Manage** from the All Tasks list.
- 2 Click **New**.
- 3 Type a name in the Name box.
- 4 Select **Embedded Solutions Framework Version** from the Available Columns box and any other options.
- 5 Use the arrows to move items to the Columns in Use table.

**6** Click **Apply**, and then click **Close**.

**7** MVP adds the custom table name to the All Tasks list.

To view the version of embedded solutions on a device:

**1** From the MarkVision Professional Home screen, select the custom table name (created above) from the All Tasks list.

**2** Select the device(s).

**3** MVP populates the table with data from the selected device(s).

## Viewing embedded solutions features

To view the details of an embedded solution such as configuration, licensing, and general information:

**1** From the MarkVision Professional Home screen, select **Embedded Solutions - Features** from the All Tasks list.

**2** Select the device.

The features appear in tabular format. Additional tables will appear for every installed solution descriptor. For selected devices which do not have a particular solution installed, the columns for that solution will be empty.

# Using MarkVision Messenger

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## What can MarkVision Messenger do?

Use MarkVision Messenger to create actions that perform printer administration tasks in response to printer events. Use the following examples for ideas about how you can use MarkVision Messenger to:

- Keep a log of all printer paper jams
- Delay event notifications
- Monitor specific paper trays
- E-mail or page someone when a specific event occurs
- Order supplies

## How are actions and events related?

Device status events are conditions signaled by messages such as Paper Tray Missing or Toner Low. Folder events are signaled when devices enter and/or exit a particular folder.

Actions are associations that specify event-driven commands. Actions can be configured to occur automatically, conditionally, or repeatedly.

MarkVision Messenger allows administrators to create actions that specify commands that are executed when specified events such as Paper Low or Paper Tray Missing occur across a set of devices. You can specify which commands MarkVision Messenger executes when device status events occur.

## Understanding events

### *Device Status Alert event type*

A Device Status Alert is a notification that something has changed at a printer. For example, when a paper tray is removed from a printer, the printer tells MarkVision Messenger that the tray is missing. This event is represented in MarkVision Messenger by **name = Paper Tray Missing** and **state = ACTIVE**. When the tray is replaced, the printer conveys the event to MarkVision Messenger. This event is represented in MarkVision Messenger by **name = Paper Tray Missing** and **state = CLEARED**. You can configure the action to respond to an event when the state is ACTIVE, when the state is CLEARED, or both. If the action responds to Device Status Alerts, you will be prompted to choose the specific device status alerts that will trigger the action.

### *Printer folder alerts event type*

A folder alert is generated when printers enter and/or exit a specified folder. For example, you can create a folder in MVP that contains printers with a Toner Level less than 10%, and create an action in MarkVision Messenger to notify you when printers enter this folder. Each MarkVision Messenger action that responds to printer folder alerts must be associated with a specific folder. When creating Folder Alerts, you will be prompted to choose a folder.

### *Selecting devices to monitor*

When choosing devices for an action to monitor, there are three choices:

- **All Devices on the MarkVision Server**—Monitors all devices on the MarkVision Server
- **Devices in a Specified Folder**—Monitors only a specific folder
- **Selected Devices**—Monitors a small number of specific devices

## ***Delaying event notifications***

You can set up an action to delay execution of its command until an event has been active for a specified amount of time.

For example, when an action is created that sends an e-mail notification for a Load Paper or Envelope condition, an e-mail is sent. The e-mail recipient receives the message and checks the printer, only to find that someone else has loaded the paper. By using the Delay Time option, you can create a filter that will only send a notification if the Load Paper or Envelope condition has been active for a specified amount of time. Likewise, if the action is triggered by a Folder Alert, you can delay its execution by using the “with a delay of” option.

If you want to create an action that uses the Delay Time option:

- 1 From the MarkVision Messenger Home screen, click **Create New**.
- 2 Type the action and command information in the setup screens.
- 3 Type the filter information.

If the action is triggered a Device Status Alerts:

- a From the Filter Type screen, choose **Trigger on Active**.
- b From Delay Time, specify how long the action waits to execute the command.

If the action is triggered by Folder Alerts:

- a From the Filter Type screen, select **Simple Filter**.
- b From the “with a delay of” menu, specify how long the action waits to execute the command.
- c Click **OK**, and then complete the remaining steps.

## **Creating an action in MarkVision Messenger**

MarkVision Messenger can be configured to send SMTP e-mails when an action is triggered, execute command lines on a remote host or the MarkVision Server, or send status alerts to a Tivoli event server. You must setup the SMTP mail server and Tivoli event adapter before MarkVision Messenger can be configured to send SMTP e-mails or Tivoli status alerts.

### ***Sending an SMTP e-mail***

When an action is triggered, MarkVision Messenger sends an e-mail to specified addresses. The e-mails are highly customizable from within MarkVision Messenger. For example, an action triggered by a Folder Alert event, can send an e-mail to an administrator when monitored printers enter a Low Toner folder. Configure the e-mail message to list attributes such as: the printer model, IP address, and the time when it entered the Low Toner folder.

### ***Setting up an SMTP mail server***

- 1 From the MarkVision Messenger Home screen, click **SMTP Setup**.
- 2 Enter the mail server information in the SMTP Mail Server box.
- 3 Enter the e-mail information in the From box.
- 4 Click **Done** to return to the MarkVision Messenger Home screen.

### ***Executing a command line on a remote host server***

When the action is triggered, it executes a command line on a remote host server. In order to execute command lines on a remote host server, the *Remote Execution* (REXEC) client must connect to a REXEC server on the remote host server. You can specify whether to perform commands conditionally or repeatedly, and how to execute them.

The action can execute its command:

- Only after a specified delay period:

For example, if the action sends an e-mail message when a printer goes offline, you can delay the execution of the command for a specified amount of time. Then, if the printer returns online during the delay period, the e-mail will not be sent.

- After additional conditions have been met:

For example, if the action is triggered by a Paper Tray Missing event, but you only want to execute the command when the event occurs for Tray 3, you can write a custom filter to specify that the action only respond when Tray 3 is removed from monitored printers.

## **Send device status alerts to a Tivoli event server**

MarkVision Messenger contains a custom event adapter that integrates with Tivoli's event management console. This event adapter lets administrators use the Tivoli event console to monitor printer events across a range of devices in real time. In order for Tivoli to display printer events, you must first setup the Tivoli event adapter by creating an action in MarkVision Messenger.

### ***Setting up the Tivoli event adapter***

The Tivoli event adapter lets administrators monitor printer events across a range of devices in real time. In order to send device status alerts to Tivoli, create an action in MarkVision Messenger.

- 1 From the MarkVision Messenger Home screen, click **Create New**.
- 2 Type a name and description for the adapter, and then click the **right arrow**.
- 3 Select Device Status Alerts as the alert type, and then click the **right arrow**.
- 4 Select the type of event that will trigger the action from the Event list, and then use the arrow buttons to move the event to the Selected Events box.
- 5 Click the **right arrow**.
- 6 Choose the method of device selection, and then click the **right arrow**.
- 7 Select **Send Device Status Alerts to a Tivoli Event Server** from the dialog, and then click the **right arrow**.
- 8 Type the Tivoli configuration settings, and then click the **right arrow**.
- 9 Specify the filter settings, and then click the **right arrow**.
- 10 A summary of the action is displayed. If you are satisfied with the action, click **Yes**, and then click the **right arrow** to enable the Tivoli event adapter.

**Note:** After a Tivoli event adapter is created in MarkVision Messenger, configure the Tivoli server for MarkVision Messenger alerts. Refer to the Tivoli documentation for information about configuring the Tivoli server.

### ***Triggering a command line with an action***

When triggered, an action executes a command line. For example, to keep a log of offline devices, configure an action to respond to the "Offline" Device Status Alert. Each time a monitored device goes offline, the specified information is written to a text file. Like the example above, the information MarkVision Messenger writes to this text file is highly customizable. For example, you can specify that the text file lists the device model, page count, and the time at which it went offline.

## ***Previewing the steps***

An action causes a command to execute when an event occurs. MarkVision Messenger prompts for several types of information during action creation.

- 1 From the MarkVision Messenger Home screen, click **Create New**.
- 2 Complete the following steps in the Configure Action dialog:
  - Name and describe the action.
  - Set user access.
  - Select the type of events that will trigger the action.
  - Select the events or folders that will trigger the action.
  - Select which devices to monitor.
  - Select the type of command to execute.
  - Compose the command and any parameters for the event(s).
  - Select or create a filter for the events.
  - Review the action information.

**Note:** To stop previewing the choices, select **Do not display this screen again**.

- 3 Click the **right arrow** to continue.

## ***Step 1: Naming the action***

When an action is named, the name appears in the Action list on the MarkVision Messenger Home screen.

- 1 From the Description Information screen, type a unique name for the action in the Name box.
- 2 Enter a more detailed description about the action and what it does in the Description field.
- 3 Enter additional information associated with the action in the Notes field.
- 4 Click the **right arrow** at the bottom of the screen to continue.

### **Notes:**

- The Name box is limited to 80 characters.
- The Description and Notes boxes are limited to 255 characters and are optional fields.

## ***Step 2: Setting user access***

This screen only appears if user accounts have been created in MVP

- 1 Select **Public** to make the action available to all users.
- 2 Select **Private** to associate the action only with your account.

**Note:** A private action does not require a special access password from within MarkVision Messenger. However, since it is associated with the user name used to create it, the action is only accessible to that specific user.

- 3 Click the **right arrow** to continue.

## ***Step 3: Selecting the event type***

Specify which type of event the action will monitor:

- 1 From the Event Type dialog, choose **Device Status Alerts** or **Device Folder Alerts**.
- 2 Click the **right arrow** at the bottom of the screen to continue.

## ***Step 4: Selecting the events that trigger the action***

Depending on the selected event type, specify which folders or Device Status Alerts the action will monitor. If the action is triggered by a Device Status Alert, add or remove events from the Selected Events list. If the action is triggered by a Printer Folder Alert, select a folder and then continue to the next step.

### **If the action is triggered by a Device Status Alert**

From the Events dialog, add an event to the Selected Events list:

- 1 From the Events dialog, choose whether to sort the events by Type or Severity.
- 2 Select a category from the Categories list.
- 3 Select the event and then use the arrows to add or delete events to the Selected Events list:
  - Click the **left arrow** to delete the events from the list.
  - Click the **right arrow** to add events to the list.
  - Click the **right arrow set** to add all events to the list.
  - Click the **left arrow set** to delete all events from the list.
- 4 Click the **right arrow** at the bottom of the screen to continue.

### **If the action is triggered by a Printer Folder Alert**

- 1 Select a folder.
- 2 Click the **right arrow** at the bottom of the screen to continue.

## ***Step 5: Choosing a method of device selection***

Specify which devices to monitor. MarkVision Messenger provides a list of all available devices capable of producing the selected events.

- 1 From the Event Sources dialog, select one of the following settings:
  - Monitor All Devices on the MarkVision Server
  - Monitor Devices in a Specified Folder
  - Monitor Selected Devices
- 2 If Monitor Selected Devices is specified, select devices to monitor:
  - Click **Select All** to select all devices currently in the Selected Devices list.
  - Click **Deselect All** to remove all devices selections from the Selected Devices list.
- 3 Click the **right arrow** at the bottom of the screen to continue.

## ***Step 6: Selecting a command***

- 1 Specify in MarkVision Messenger which type of command the action will execute.

From the Command Type dialog, make one of the following choices:

- Send SMTP E-mail
- Execute a command line on a remote host

**Note:** This option requires the presence of a REXEC server on the remote host.

- Execute a command line on the MarkVision Server  
**Note:** You must be logged in as the MarkVision administrator to select this option.
- Send Device Status Alerts to a Tivoli Event Server  
**Note:** This option is only available if the Device Status Alert option is selected.

2 Click the **right arrow** at the bottom of the screen to continue.

## ***Step 7: Composing a command***

Follow the appropriate instructions below according to the command type you selected in the previous step.

### **Composing an SMTP e-mail**

- 1 If the SMTP mail server information is not set up, MarkVision Messenger will prompt for the mail server and mail path information. Type the requested information, and then click the **right arrow** to continue.
- 2 Type the recipient's e-mail address in the To box. Separate multiple e-mail addresses with commas.
- 3 Type optional e-mail addresses in the Cc box. Separate multiple e-mail addresses with commas.
- 4 Type the purpose of the e-mail in the Subject box.
- 5 Type an e-mail message in the Body box.
- 6 Add keyword(s) to any text box by:
  - Selecting a keyword from the Keywords list, and then clicking **right arrow** next to the appropriate text box.
  - Typing the parameters directly into the text box
- 7 Click the **right arrow** at the bottom of the screen to continue.

### **Executing a command line on a remote host**

- 1 Type the remote host information in the Hostname, Username, and Password boxes.
- 2 Type the name of an executable command in the Command Path box.
- 3 Add keyword(s) to the Command Line Parameters box by:
  - Selecting a keyword from the Keywords list, and then clicking **right arrow** beside the command line box.
  - Typing the parameters directly into the text box.
- 4 Click the **right arrow** at the bottom of the screen to continue.

### **Executing a command line on the MarkVision Server**

- 1 Type the name of an executable command in the Command Path field.
- 2 Add keyword(s) to the Command Line Parameters field by:
  - Selecting a keyword from the Keywords list, and then clicking the **right arrow** beside the command line box.
  - Typing the keyword directly into the text box.
- 3 Click the **right arrow** at the bottom of the screen to continue.

### **Sending Device Status Alerts to a Tivoli server**

If you have not previously entered the Tivoli configuration settings:

- 1 Type the Tivoli server location.
- 2 Type the server port.

- 3 Type the path of your event buffer file.
- 4 Click the **right arrow** at the bottom of the screen to continue.

**Note:** If you have already entered Tivoli server settings, you will be directed to the next step.

## ***Step 8: Selecting a filter***

- 1 Select a filter.

If the action is triggered by a Device Status Alert:

- Choose **Trigger on Active** to set the command to execute only when a condition becomes active.  
**Note:** The execution of the command can be delayed until the condition has been active for a specified amount of time.
- Choose **Trigger on Either Active or Clear** to set the command to execute each time a condition becomes active or clear.
- Choose **Custom** to customize and define when the command executes, and then upload an existing script file or write a new one.

If the action triggered by a Printer Folder Alert:

- Choose **Simple Filter** to set the action to execute when a device is added to the folder, removed from the folder, or both.  
**Note:** The execution of the command can be delayed until the condition has been active for a specified amount of time.
- Choose **Custom** to define when the command executes, and then upload an existing script file or write a new one.  
**Note:** If you selected Custom, click **Next**, to set up a custom filter.

- 2 Click the **right arrow** at the bottom of the screen to continue.

## ***Step 9: Verifying action information***

Verify all action information.

- 1 Review the summary in the text box.

**Note:** Information cannot be altered from the text box. To make changes, click the **left arrow**, and change the information from the appropriate dialog.

- 2 Click **Yes** to enable the action or **No** to disable the action.

**Note:** To cancel the creation of an action, click the **up arrow** to return to the MarkVision Messenger Home screen without creating an action.

## **Managing actions**

### ***Enabling an action***

- 1 From the MarkVision Messenger Home screen, select an action to enable by selecting the check box to the left of the action name.
- 2 Click **Enable Selected**.

**Note:** The status of the selected action changes to Enabled.

## ***Disabling an action***

- 1 From the MarkVision Messenger Home screen, select an action to disable by deselecting the check box to the left of the action name.
- 2 Click **Disable Selected**.

**Note:** The status of the selected action changes to Disabled.

## ***Modifying an action***

- 1 From the MarkVision Messenger Home screen, click **Modify** next to an action to select it for changes.
- 2 Select the portion of the action you want to modify.
- 3 Follow the instructions on the screen.

**Notes:**

- Each choice defaults to the current setting for the selected action.
- You cannot modify an action that is enabled by another user.
- You cannot modify an action that another user has selected.

## ***Deleting an action***

- 1 From the MarkVision Messenger Home screen, select an action to delete by selecting the check box to the left of the action name.
- 2 Click **Delete Selected**.

The selected action is removed from the actions list.

**Notes:**

- You cannot delete an action that is enabled by another user.
- You cannot delete an action that another user has selected.

## ***Viewing action information***

To display a detailed summary of an action:

- 1 From the MarkVision Messenger Home screen, click the name of the action.
- 2 Click **Done** to return.

**Note:** You can only view information for one action at a time.

## ***Setting or changing user data***

- 1 From the MarkVision Messenger Home screen, click **Set User Data**.  
A list of all available devices and current user data is displayed.
- 2 Enter the device information in the Data field.
- 3 Select the device(s) to associate with this data by:
  - Selecting the check boxes to the left of the device names
  - Clicking **Select All** to select all devices

- Clicking **Deselect All** to remove all device selections

4 Click **Apply** to save the changes and refresh the data, or click **Done** to cancel the changes and return to the MarkVision Messenger Home screen.

**Notes:**

- User-defined data is user-specific and cannot be viewed or altered by another user.
- The Data field is limited to 80 characters.

## ***Frequently created actions***

### **Creating an action to generate reports**

Action-generated reports are helpful for tracking information. For example, as an account administrator, you can set up an action to generate a report containing billing and delivery information for all ordered supplies.

To create an action to generate event-specific reports:

- 1 From the MarkVision Messenger Home screen, click **Create New**.
- 2 Type the action information in the setup screens that follow, and then click **Next**.
- 3 From the Events screen, select **Supplies Alerts** from the Categories list.
- 4 Select events to monitor, and then click > to add them to the Selected Events list.
- 5 Click **Next** to continue.
- 6 Select the device(s) to monitor, and then click **Next**.
- 7 Type the command information and keywords in the appropriate boxes.
- 8 Click **Next**, and then complete the remaining steps.

### **Keeping a log of paper jams**

You can create an action to keep a log of device events. For example, you may want to keep a log to determine the average time it takes to clear paper jams.

To set up an action to log paper jams:

- 1 From the MarkVision Messenger Home screen, click **Create New**.
- 2 Type the action information in the setup dialogs that follow, and then click the **right arrow**.
- 3 From the Event Type dialog, select **Printer Device Status Alerts**, and then click the **right arrow**.
- 4 From the Events dialog, choose **Supplies Alert** from the Categories list.
- 5 Select **Paper Jam** as the event, and then click the **right arrow** to add it to the Selected Events list.
- 6 Click the **right arrow** to continue.
- 7 Select the device(s) to monitor, and then click the **right arrow**.
- 8 Select **Execute a Command Line on the MarkVision Server**, and then click the **right arrow**.

**Note:** Because command lines are run on the MarkVision Server, only the MarkVision administrator may select this option.

- 9 Type the name of an executable command in the Command Path box.

**Note:** Make sure the command accepts the inserted keywords and writes them to the end of a log file.

**10** Select the keywords to appear in the log file, and then click **right arrow** to add them to the Command Line Parameters field.

**Note:** Make sure the keywords are inserted in the correct order.

**11** Click the **right arrow** to continue.

**12** From the Select a filter dialog, select **Trigger on Either Active or Clear**.

**Note:** This creates two lines in the log file: the times that paper jams occur and the times they are cleared.

**13** Click the **right arrow**, and then complete the remaining steps.

## Monitoring device paper trays

You can use a filter to narrow the events that trigger an action. For example, if Tray 2 is configured on all the devices for company letterhead, and you want to monitor for Load Paper or Envelope events on Tray 2, a custom filter is necessary. To write a custom filter to monitor specific paper trays:

**1** From the MarkVision Messenger Home screen, click **Create New**.

**2** Type the action information in the setup dialogs that follow, and then click the **right arrow**.

**3** From the Event Type dialog, choose **Printer Device Status Alerts**, and then click the **right arrow**.

**4** From the Filter Type dialog, choose **Custom**, and then click the **right arrow**.

**5** In the text box, enter a script that only executes the command when the parameter is Tray 2.

```
IfThen (EventDataIs("location", "Tray2"))  
Distribute
```

**6** Click the **right arrow**, and then complete the remaining steps.

## Ordering supplies

If you have an automated ordering system on your network, set up an action to order supplies for all devices attached to the server. The action invokes the automated ordering system to order toner for the printer.

**1** From the MarkVision Messenger Home screen, click **Create New**.

**2** Enter the action information in the setup screens that follow, and then click the **right arrow**.

**3** From the Event Type screen, choose **Printer Device Status Alerts**, and then click the **right arrow**.

**4** From the Events screen, choose **Supplies Alerts** from the Categories: list.

**5** Select **Supply Low** and **Supply Empty**, and then click the **right arrow** to add them to the Selected Events list.

**6** Click **Next** to continue.

**7** Select the device(s) to monitor, and then click the **right arrow**.

**8** Select **Execute a Command Line on the MarkVision Server**, and then click the **right arrow**.

**9** Enter the path to the automated ordering system program in the Command Path field.

**10** Select the keywords to pass to the automated ordering system, and then click the **right arrow** to add them to the Command Line Parameters field.

**Note:** Make sure you insert the keywords in the correct order.

**11** Click the **right arrow** to continue.

**12** From the Filter Type screen, choose **Trigger on Active**.

13 Under the Delay Time option, type **10**, and then select **Day(s)** from the list box.

14 Click the **right arrow**, and then complete the remaining steps.

## Using filters with actions

### *Using simple filters*

The following are examples of uses for the simple filter:

- Configure an action that executes a command when a device meets filter requirements. For example, create a folder that contains only printers with a page count greater than 10,000. When the page count of a monitored printer exceeds 10,000, it is added to the folder.
- Monitor only printers with an installed flash device. For example, if a folder contains only printers with an installed flash device, and a flash device is removed from a monitored printer, it is removed from that folder. The filter automatically updates the folder when the printer fails to meet the filter requirements.

Use the “with a delay of” option to delay the execution of an action for a specified amount of time after a device is added or removed from a folder.

### *Using the “Trigger on Active” filter*

Choose the “Trigger on Active” filter to set an action to only execute a command when a condition becomes Active. For example, if you are monitoring the Paper Tray Missing event and someone removes a tray from a monitored printer, the printer generates a Paper Tray Missing event with a state of Active. The Active state satisfies the condition of the filter and the specified action is executed. When the paper tray is replaced, the printer generates another Paper Tray Missing event with a state of Clear. The Clear state does not satisfy the condition of the filter and the action is not executed.

### *Using the “Trigger on Either Active or Clear” filter*

Choose the “Trigger on Either Active or Clear” filter to set an action to execute each time a condition becomes Active or Clear. For example, use the filter to keep a log of all printer paper jams to determine the average time it takes to clear a jam. When a paper jam occurs, the printer generates an event with a state of Active. This satisfies the condition of the filter and executes the action. When the paper jam is cleared, the printer generates another event with a state of Clear. This event also satisfies the condition of the filter and executes the action. There are now two lines on the log file, one with the time at which the paper jam occurred and another with the time it was cleared.

### *Using custom filters*

Use a custom filter to define how an action executes. Upload a script file or write a new one. MarkVision Messenger provides a very simple scripting language to define filters. The following is a complete list of the statements and conditions available for use in a custom filter:

#### **Statements:**

- **While** (*Condition*)
- **WaitUntil** (*Condition*)
- **IfThen** (*Condition*)
- { *StatementList* }
- **Distribute**

#### **Conditions:**

- **And** (*Condition\_1...Condition\_n*)
- **Or** (*Condition\_1...Condition\_n*)
- **EventDataIs** (*key, value*)

- **SourceDataIs** (*key, value*)
- **TimeIsAfter**

### Scripting example - “Trigger on Active” filter

The following is an example of the script representation of the built-in “Trigger on Active filter”:

```
IfThen (EventDataIs("state", "ACTIVE"))
Distribute
```

The effect of the **EventDataIs** condition is to ask the event for the value of the event: state keyword. This keyword can be inserted into command lines and e-mail messages. The **IfThen** statement executes the next statement if the condition **EventDataIs ("state", "ACTIVE")** is true. An **EventDataIs** condition is true if the value of the keyword (state) matches the given value (ACTIVE). The next statement, **Distribute**, causes the command to execute.

### Scripting example - “Trigger on Active” filter with a 30 second delay

The following is an example of script used when the “Trigger on Active filter” action is delayed by 30 seconds:

```
{
WaitUntil (TimeIsAfter(30))
IfThen(EventDataIs("state", "ACTIVE"))
Distribute
}
```

The braces ({} ) are used to group statements into a list. They were not needed in the previous example because the **IfThen** and following statements were treated as a single statement.

The **waitUntil** statement causes the script to pause execution until the condition is true. The **TimeIsAfter** condition checks for true only after the specified number of seconds has passed. If the event is still active after 30 seconds, the **Distribute** statement executes the command.

### Scripting example - “Trigger on Either Active or Clear” filter

The following is a script representation of the built-in “Trigger on Either Active or Clear” filter for these circumstances: the Paper Tray Missing event is selected for Tray 3, there is a 20-minute delay before the command is executed, and the command repeats every 20 minutes if the condition remains Active.

```
While (And(EventDataIs("state", "ACTIVE"), EventDataIs("location", "Tray 3")))
{
WaitUntil (TimeIsAfter(1200))
IfThen(EventDataIs("state", "ACTIVE"))
Distribute
}
```

In this example, **And** was used to build a compound condition. The **While** loop is only entered or repeated if the event is active for Tray 3. The code within the loop is the same as the code for the “Trigger on Active” filter, except the **TimeIsAfter** condition is set to wait 1200 seconds (20 minutes).

# Troubleshooting

---

## Problems with user accounts and account groups

### *Did a message appear indicating an error reading accounts or passwords during log on?*

These are possible solutions. Try one or more of the following:

#### **Make sure the MarkVision Server is running**

From the Services control panel, verify that the MarkVision Server is running on the Web server.

If the service is not running:

- 1 Restart the service.
- 2 Ask the user to log on again.

If the service is running:

- 1 Log on to MarkVision using the administrator user name and password.
- 2 Use the User Accounts and Groups task to reconfigure or add the user account.
- 3 Ask the user to log on again.

#### **Enter a valid user name or password**

If MarkVision Server is running on the Web server, reset the user password:

- 1 Click **User Accounts and Groups** from the All Tasks menu.
- 2 Select the appropriate account, and then click **Edit**.
- 3 Change the password information as necessary.
- 4 Click **Finish**.
- 5 Ask the user to log on again.

#### **Log on to the correct MarkVision Server**

- 1 Close MVP, and then start it again.
- 2 Select the correct MarkVision Server from the Select MarkVision Server list, or Browse to find the correct MarkVision Server..
- 3 Click **Connect**.
- 4 Type your Account Name and Password.
- 5 Click **Login**.

#### **The file containing your account information is corrupt**

Contact your system administrator.

## Is there a problem verifying account information with the LDAP server?

If LDAP authentication is enabled, verify that all LDAP settings are correct in MVP and on the LDAP server. User account names should be consistent with the account listings in LDAP server directory service.

### ***User has forgotten their password***

Reset the user password:

- 1 Make sure the MarkVision Server is running on the Web server.
- 2 From the MarkVision Professional Home screen, click **User Accounts and Groups** from the All Tasks list.
- 3 Select the appropriate account, and then click **Edit**.
- 4 Change the password information as necessary.
- 5 Click **Finish**.
- 6 Ask the user to log on again.

## Problems with network devices

### ***MarkVision is unable to discover a network device or “Device not responding” appears***

#### **Check the printer connections**

- The power cord is plugged into the printer and a properly grounded electrical outlet.
- Make sure the printer is turned on.
- Make sure other electrical equipment plugged into the outlet is working.
- Make sure the LAN cable is plugged into both the print server and into the LAN.
- Make sure the LAN cable is working properly.
- Turn the printer and the print server off, and then turn them on again.

#### **Make sure the internal print server is properly installed and enabled.**

- Print a setup page for the printer. The print server should appear in the list of attachments on the setup page.
- Make sure the TCP/IP on the print server is activated. The protocol must be active for the print server and MVP to work. From the printer control panel, make sure the protocol is active.
- See your print server documentation for instructions.

#### **Make sure the external print server is working**

- Make sure the print server lights are on.
- Print a setup page from the print server.
- Refer to the print server documentation for instructions.

#### **Is the SNMP community in MVP the same as the one set in the print server?**

- Check the SNMP community name set in MVP.
  - 1 From the MarkVision Professional Home screen, select **Administrative Settings** from the All Tasks list.
  - 2 Click **Quick Find**.
  - 3 Verify the community name.

This is the MVP community name, not the print server community name.

- Check the SNMP community name set in the print server. For more information, refer to the print server documentation.

## **Is the print server communicating on the network?**

- 1 PING the print server.
- 2 If the PING works, check the IP address, netmask, and gateway of the print server to make sure they are correct.
- 3 Turn the printer off, and then PING again to check for duplicate IP addresses.  
If the PING does not work, check the setup page you printed to be sure IP is enabled.
- 4 If TCP/IP is enabled, check the IP address, netmask, and gateway to be sure they are correct.
- 5 Make sure bridges and routers are functioning correctly.
- 6 Make sure all the physical connections among the print server, the printer, and the network are working.

## **Is the printer enabled for NPA?**

Turn the printer and the print server off, and then turn them on again. Turn the printer on first so the print server can determine whether the printer is enabled for *Network Protocol Alliance* NPA.

## ***Printer information is incorrect***

If MVP displays printer or print server information that appears to be incorrect, refresh the printer and print server. Occasionally, the printer may lose contact with MVP because something happens to the printer. For example, if the printer is turned off, the information in MVP is not updated until the printer is turned back on.

## ***Printer icons do not appear***

These are possible solutions. Try one or more of the following or contact your system administrator:

### **Make sure the MarkVision Server is running on the Web server**

From the Services control panel, verify that the MarkVision Server is running on the Web server. If it is not running, stop and restart service.

### **Do the devices need to be rediscovered?**

If the service is running, ask the user to repopulate the folder with printers.

- 1 Make sure the MarkVision Server is running.
- 2 Remove the devices for which icons did not appear.
- 3 Rediscover the devices

## ***Printers are missing from folders***

Run another device discovery.

## **Problems with MarkVision Messenger**

### ***Why can't I access MarkVision Messenger?***

#### **Make sure the MarkVision Web Server service is running**

Stop and restart the MarkVision Web Server service to verify that it is running correctly.

## **Re-enter the MarkVision Messenger URL**

If the MarkVision Web Server is not the default Web server, did you add HTTP port 9180 in the address?

## **Check firewall rules**

HTTP port 80 and/or HTTP 9180 might not be available.

## ***MarkVision Messenger is not sending e-mail notifications***

These are possible solutions. Try one or more of the following:

### **Make sure the e-mail address is correct**

- Verify the e-mail address in the To box of the 'Compose SMTP E-mail' dialog.
- Verify the SMTP mail server and mail path.

### **Make sure the MarkVision Web Server service is running correctly**

- Review the system log.
- Verify that the mail server is running.
- Restart the MarkVision Web Server service to verify that it is running correctly.

## ***MarkVision Messenger does not work with Apache installed***

### **Allow Apache to listen on a different port**

MarkVision Messenger works on ports 8007 and 8009 by default. If Apache is installed and listens on either of these ports, MarkVision Messenger will not function properly. When installing Apache, check for port availability, and then assign the appropriate port to MarkVision Messenger.

## **Problems with actions**

### ***Cannot create a new action***

#### **The MarkVision Web Server service is not running correctly**

- Restart the service.
- Ask the user to log in again and attempt to create an action.

### ***An action is unavailable***

#### **Cannot enable, disable, modify, or delete an action**

Another user may have the action selected. Try again later, or contact the user who has the action selected.

### ***Action does not work or produces unexpected results***

If an action does not work, try one or more of the following solutions:

- Make sure that the command line does not contain an error.
- Make sure that the correct device is selected and operating properly.
- Make sure that the correct event is selected. Click the action name to review a detailed summary and verify its accuracy.
- Restart the MarkVision Web Server service to verify that it is running correctly.
- Review the system log.

## ***Action list is empty***

These are possible solutions. Try one or more of the following:

### **Make sure the actions are public**

The actions may be listed as private by other users.

### **Create an action**

Create an action.

### **Make sure the MarkVision Web Server service is running correctly**

Restart the MarkVision Web Server service to verify that it is running correctly.

## ***No private actions listed***

### **Are any actions associated with the user name?**

Private actions are associated with individual user names. Only those actions associated with the user name are viewable.

### **Make sure the MarkVision Web Server is running**

Stop and restart the MarkVision Web Server service to verify that it is running correctly.

## **Miscellaneous problems**

### ***The client and server cannot communicate***

If there is a firewall installed on the network, and the MarkVision Client and the MarkVision Server exist on opposite sides of the firewall, the client will not be able to communicate with the server. MVP will stop responding after the initial request. For the best results, only use an instance of the client that exists inside the firewall.

### ***No folders appear***

If MVP does not display folders, and during log on a message indicates an error reading folders:

### **Make sure the MarkVision Server is running on the Web server**

From the services control panel, verify that the MarkVision Server is running on the Web server. If it is not running, restart the service. If the service is running, ask the user to recreate their folders.

### **The file that stores your folders has been corrupted.**

Contact the system administrator.

### ***Out of available memory***

If the MarkVision Professional Web Client performs poorly, crashes, or gives a memory error, you may need to change the Java plug-in settings. The Java plug-in uses 16 MB of RAM regardless of how much physical or virtual memory is available. Improve performance by increasing the memory available to MVP.

To change the Java plug-in settings:

- 1 From Windows, access the Java plug-in settings from the Control Panel.
- 2 From the Java tab, click **View** under Java applet runtime settings.
- 3 In the Java Runtime Parameters box, type: **-ms16M -mx64M**.

**Notes:**

- **-ms16M** reserves 16 MB of memory when the application starts.
- **-mx64M** reserves a maximum of 64 MB available RAM.
- If the system has more memory, you can specify a larger amount.
- For additional Java troubleshooting, refer to the MVP README file.

***Cannot enter characters in printers in a different language***

In some situations, a user may need to enter information in a printer in a different language than the MVP client is currently using. MVP has some limitations configuring or entering specific characters for devices in a language that MVP does not support. You must enter the characters manually, without using MVP.

# Frequently asked questions

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## How can I speed up device discovery?

### Will limiting the scope of my discovery speed up the process?

The time it MVP takes to discover devices depends on the scope of the discovery. A device discovery spanning multiple subnets (133.122.0.0) requires more time than a device discovery spanning a single subnet (133.122.123.0).

### What is the best time to discover devices?

From the Scheduling task, the MarkVision Server allows you to perform network discoveries once, daily, weekly, or monthly. Device discoveries can be scheduled to occur at times when network traffic is not busy. Schedule a recurring device discovery to ensure that the list of devices is current.

### Why is my first discovery after a restart slower than later discoveries?

The MarkVision Server is building its memory cache of device information along with the first discovery. The information will already be in cache for the next discovery.

## How do the MarkVision Web Client and Client Application differ?

### MarkVision Web Client vs. MarkVision Client Application

The standalone application can be installed locally on a user's workstation. MarkVision Client files are then copied onto the user computer during the installation process. The browser-based client is a version of the client that can be accessed through a supported Web browser. They are essentially the same program. All folders, filters, devices managed by the MarkVision Server are available to users of the application and the client if the user has access.

### What plug-ins are necessary?

The MarkVision Web Client requires the installation of the Java browser plug-in. Since the MarkVision Web Client runs through a Web browser, it can access the MarkVision Server from any computer on the network.

## Why are some devices unavailable?

### Why are some devices crossed out?

Devices that are crossed out do not support the selected task. For example, not all printers can report their toner levels. When this occurs, the name of the device incapable of the selected task has a line through it.

If a selected device does not support the current task MVP responds in the following way:

- For a single device selection, the message **Device Incapable of Task** is displayed.

When multiple devices are selected, and one or more of them do not support the current task, either of the following occurs:

- For read-only tasks (such as status and toner levels), MVP displays the **Device Incapable of Task** message in place of the task information for that device. All supported devices have their appropriate information displayed.
- For multi-device configuration tasks, MVP warns you that some of the devices will not be affected by the task because they do not support the function or feature that is being configured.

### Why are some devices displayed in red?

Devices that are displayed in red text are password protected. In order to gain access to a password protected device, use the Enter Device Password task to access the device for the duration of the session. Access the Enter Device Password task from the MarkVision Professional Home screen All Tasks list.

An administrator has the option to add a device password to the Manage Global Password list. If a user has access to the Manage Global Passwords list task, they will in turn have access to every device that MVP manages that has a password included in the list. Because the Manage Global Passwords list task provides access to valuable device passwords, access to the task should be limited to administrative personnel.

### **Are sensitive files displayed when viewing encrypted hard disk drives?**

If you use the Storage Devices task to securely view an encrypted hard disk drive, the only information that is available is file name, file type, file size, and the date that a file was saved on the hard disk. The contents of any files saved on the hard disk will not be displayed.

## **Where is the README file?**

### **Where is the README file for Windows and Mac operating systems?**

For Mac operating systems, access the README file at `usr\docs\readme`.

For Windows operating systems:

- 1 In Windows XP and earlier, click **Start**.
- 2 Click **Programs** or **All Programs** → **Lexmark** → **MarkVision Professional** → **MarkVision Professional** → **MarkVision Professional Read Me**.

### **Where is the README file on the MarkVision Web Server?**

You can link to the README file at: `http://<your server>/markvision`, where <your server> is the IP address or hostname of the machine that is running the MarkVision Server.

If MarkVision Professional is not the default Web server, change the URL to: `http:<your server>//:9180/markvision`.

## **How do I create and apply a filter to a folder?**

### **Create a filter using the Filters task.**

Create a Basic or Advanced filter, and then apply it to a folder.

- 1 From the MarkVision Professional Home screen, select **Filters** from the All Tasks list.  
Filter Creation dialog appears.
- 2 Click **New**.
- 3 From the **Filters** dialog, name the filter.
- 4 Select either **Basic** or **Advanced**.

### ***Basic filter***

Select the filter conditions. If you select more than one condition, you can specify whether a device must meet any or all conditions in order to be included in the folder.

- **All**—device must meet all conditions
- **Any**—device must meet at least one condition to be included in the folder

### ***Advanced filter: Example 1***

Create conditions by selecting a parameter and a logical operation, and then selecting or typing in a value.

For example, to filter out all color printers:

- a From the parameter box, select **Color**.
- b From the operation box, select **Equal To**.
- c From the value box, select **Monochrome**.

As in the Basic filter configuration, if All is selected, a device must meet all conditions. If Any is selected, a device must meet at least one condition to be included in the folder. If only one condition is specified, the Any and All radio buttons are unavailable.

### ***Advanced filter: Example 2***

To filter in all printers with Job Timeouts greater than or equal to 90 seconds:

- a From the parameter box, select **Job Timeout**.
- b From the operation box, select **Greater Than Or Equal To**.
- c Type **90** in the value box.

#### **How do I apply a filter to a folder?**

After a filter is created, apply it to a folder using the Folder Configuration task.

- 1** From the MarkVision Professional Home screen, select **Folder Configuration** from the All Tasks list.

The folder configuration window appears.

- 2** Select a folder.

If a filter has previously been applied to the folder, the filter settings appear.

- 3** Click **Apply**.

#### **Notes:**

- Manual selection overrides filters. For example, if the filter Color Equal To Monochrome is applied, and you have already manually selected various color printers, those manually selected printers remain in the folder.
- If you want to apply a previously created filter, click **Load Filter**, and then choose the filter.

## **What is MarkVision Messenger?**

### **What does MarkVision Messenger do?**

MarkVision Messenger is a browser-based tool that automates responses to printer problems or events. MarkVision Messenger allows the creation of actions that automate many printer administration tasks. Use the wizard-based interface to create actions that track paper jams or send e-mails when specified device conditions occur.

## How do I access MarkVision Messenger?

Access MarkVision Messenger from MarkVision Professional or a Web browser.

- To access MarkVision Messenger from MarkVision Professional, select **MarkVision Messenger Launch** from the All Tasks list of the Markvision Professional Home screen.
- To access MarkVision Messenger from a Web browser:
  - 1 Open a Web browser.
  - 2 Type **http://<your server>/messenger** where **<your server>** is the IP address or hostname of the machine that is running the MarkVision Server.

**Note:** If MarkVision Professional is not the default Web server, the MarkVision Messenger address is: **http://<your server>:9180/messenger**. The **messenger** portion of the URL is case-sensitive and must be lowercase.

## Is there support for IPX or Tivoli?

### Which platforms support IPX?

IPX management support is only available for a MarkVision Server running on a Windows 2003 Server, Windows XP, Windows 2000, or Windows NT workstation. UNIX Clients can connect to a Windows-based MarkVision Server to manage printers with the IPX protocol. IPX protocol support must be installed on the Windows 2003 Server, Windows XP, Windows 2000, or Windows NT workstation. If IPX protocol support is not installed, the IPX option is disabled. The NetWare protocol for the supported print server must be active to be discovered.

**Note:** Not all devices are available through IPX support.

### How can I install IPX?

The easiest way to configure the print server for NetWare jobs in non-NDPS and non-NEPS environments is to use the Network Printer Utility for NetWare (Interwin). The Network Printer Utility (Interwin) automatically creates all the necessary NetWare objects (print queue objects, print server objects, and printer objects).

### Where can I find additional support for Tivoli?

If you use Tivoli with MarkVision Professional, the new Tivoli Plus module is available for download at the following URL: [www.lexmark.com](http://www.lexmark.com).

## How do I get to the server after installation?

### How do I access the MarkVision Server from the MarkVision Client Application?

MarkVision Client Application is installed locally and can be launched like other programs installed on the machine. For example, in Windows environments, double-click the MVP icon on the desktop. This version of the client does not use a Web browser.

After starting MVP:

- 1 Type the hostname or IP address of the machine running the MarkVision Server, or click **Browse** to locate your server.
- 2 Click **Connect**.
- 3 If user accounts are enabled, enter the name of a user account and the associated user password.
- 4 Click **Login**.

## How do I access the MarkVision Server with the MarkVision Web Server?

Since the MarkVision Web Client is browser-based, open a browser and point it to the MVP URL. If MVP is the default Web server, the URL is: **http://<your server>**, where <your server> is the IP address or hostname of the machine that is running the MarkVision Server. If MarkVision Professional is not your default Web server, the URL is: **http://<your server>:9180**.

The MarkVision Web Client launches a browser window from which MarkVision Professional runs as a Java applet. In order to run the Web Client, you *must* enable your browser to support Sun's Java Runtime Environment, by installing the Java plug-in. In Windows environments, the plug-in is provided and you are automatically prompted to install it the first time you run the MarkVision Web Client.

## How do I discover devices?

Device discovery is managed through the use of discovery profiles. During MVP setup, a default device discovery profile is typically established. Create a device discovery if a discovery profile was not created during the initial setup.

### Can I use the Manage Discovery Profiles task?

After a discovery profile is created, use the Manage Discovery Profiles task to discover devices. Use the Discovery Profiles task to discover new devices.

- 1 From the MarkVision Professional Home screen, select the **Device Discovery Profiles** task from the All Tasks list.
- 2 Select the profile from the Discovery Profiles window.
- 3 Click **Start**.
- 4 MVP communicates with the devices included in the selected profile.

**Note:** Click **Stop Discovery**, to stop a discovery at any time.

**Note:** Performing a discovery with the Full Discovery profile, or any profile that includes all of the devices on a network, requires a large amount of CPU usage. Running a full discovery can dramatically slow down the MarkVision Server.

### Can I use the Quick Find task to discover devices?

Use the Quick Find task to discover devices and filter a device search for previously discovered devices.

#### Notes:

- While searching by TCP/IP address, discover multiple devices using a wildcard variable. Use a zero (0) or asterisk (\*) as a wildcard character when performing a Quick Find based on a network subnet. For example, in order to find all the printers on the 122 subnet, type in the address value 138.188.122.0. This would find devices with IP addresses of 138.188.122.2, 138.188.122.3, 138.188.122.4, and so on.
- If you enter a TCP/IP address, MVP first checks the list of devices already discovered. If the address is not in the list, MVP initiates a device discovery to find it.
- IPX discoveries can only be performed using the Device Discovery task.

### Can I add devices without creating a profile?

It is possible to discover devices without creating a profile. Use the Add Devices task to discover small groups of devices.

To use the Add Devices task:

- 1 Select **Add Devices** from the All Tasks menu
- 2 Select a specific device or devices from the list of existing devices on the screen, and then click **OK**.  
**Note:** Select the **Exclude** tab to select devices from an existing profile that you do not want to include in the discovery.
- 3 Select the **Advanced** tab to reset additional discovery settings.
- 4 Click **Start** to begin the discovery.
- 5 Click **Stop** to terminate the current discovery operation.

**Note:** Click **Save as Profile** to save the discovered devices as a discovery profile.

## How do I create actions?

### Creating an action using MarkVision Messenger

The following steps provide an example of how to create an action in MarkVision Messenger. This sample action sends an e-mail message to a specified address whenever a printer monitored by the MarkVision Server enters a Paper Jam state.

- 1 From the MarkVision Messenger Home screen, click **Create New**.
- 2 Provide action information:
  - Type the name of the action (required)
  - Type a description of the action (optional)
  - Type notes about the action (optional)
- 3 Click the **right arrow** icon.
- 4 Choose whether to make the action private or public, and then click the **right arrow** icon.
- 5 Select **Device Status Alerts**, and then click the **right arrow**.
- 6 Choose the event that will trigger the action.  
Select **Paper Jam** from the Events list, and then click the **right arrow** to add Paper Jam to the Selected Events box.
- 7 Click the **right arrow**. Select a method of device selection.
- 8 Click **Monitor All Devices on the MarkVision Server**, and then click the **right arrow**.
- 9 Select the type of command the action will execute. Click **Send SMTP E-mail**, and then click the **right arrow**.
- 10 If you have not entered settings for your SMTP server, type the SMTP mail server information (for example, **mailserver.mycompany.com**).
- 11 In the From box, type an e-mail address.
- 12 Click the **right arrow**.
- 13 Compose an e-mail message.
  - In the To box, type the e-mail address of the message recipient.
  - To carbon copy (Cc) someone, type their e-mail address in the Cc box.

- For this example, type **Paper Jam** in the Subject box.
- In the Body box, type: **There is a paper jam at: \$ {source.ipAddress}, model: \$ {source.model}**, and then click the **right arrow**.

**Note:** Both **source.ipAddress** and **source.model** are keywords. You can select them from the Keywords list, and then move them to the Body box by clicking the **right arrow**. The **source.ipAddress** keyword contains the TCP/IP network address (if applicable) of the print server to which the printer is attached. The **source.model** keyword contains the model name of the printer. Many keywords are available in MarkVision Messenger. Find a description of each in the Keyword Detail box, under the Keywords list.

**14** Select filter type for the action:

- **Trigger on Active**—Sends an e-mail whenever a printer enters a Paper Jam state
- **Trigger on Either Active or Clear**—Sends an e-mail whenever a printer enters or exits a Paper Jam state
- **Custom**—Create a custom filter script

**15** Click **Trigger on Active**, and then click the **Next arrow** icon.

A summary of the action appears.

**16** Click **Yes** to enable the action.

### What are the results of this action?

If a printer monitored by MarkVision Professional enters a Paper Jam state, an e-mail will be sent to the specified e-mail address. The subject will be "Paper Jam," and the body will be similar to: "There is a paper jam at: 123.123.123.123, model: generic printer." In this example, 123.123.123.123 is the TCP/IP network address of the print server to which the printer is attached, and generic printer is the model name of the printer.

## How do I change the MarkVision Web Server port?

### Changing from HTTP port 9180 to HTTP port 80

The port upon which the MarkVision Web Server responds to Web requests is configurable. It may become necessary to change the port setting to simplify the Web Client URL by changing from HTTP port 9180 to HTTP port 80. Since HTTP port 80 is the standard port for Web browsers, setting the HTTP port to 80 eliminates the need to specify 9180 in the MarkVision URL.

Change the MarkVision Web Server port by editing the **server.xml** file, located at:

- For Windows: **C:\Program Files\Lexmark\MarkVision Server\mvp-tomcat\conf\**
- For Mac, Linux, and UNIX: **/usr/mv\_pro/mvweb/www/conf**

Within the **server.xml** file, locate the following tag section:

```
<!-- changed to 9180 for non-default web server -->
<http10webconnector
port="9180"
secure="false"
maxThreads="100"
maxSpareThreads="50"
minSpareThreads="10" />
```

Copy the section and paste it below the original. Under this heading, change the **port=** value to 80 and save the changes. Stop and restart the Web server service to make the changes operational. This will allow the MarkVision Web Server to accept requests from both ports.

Additionally, you can change the server port in Linux and UNIX by running the `setup.mvjserver` script and then follow the instructions.

### What port should I use?

The MarkVision Web Server can only be set to listen to HTTP port 80 provided no other Web server is currently using the port. Do not remove the prior section containing 9180 as some functions of MVP may require this port.

## How do I increase the JVM maximum heap memory?

### How do I increase the JVM maximum heap memory for systems managing a large number of devices and running the Job Statistics: Trend Analysis task?

The default maximum memory of the JVM running MVP 11.1 server is 512 MB. However, systems managing a large number of devices and running the Job Statistics: Trend Analysis task might need an additional allocation of maximum JVM heap memory.

### How do I allocate the maximum JVM heap memory for my operating system?

For Windows operating systems:

- 1 Stop the MarkVision Server.
- 2 Open the registry editor by typing '`regedit`' in the command line.
- 3 Navigate to:  
`'HKEY_LOCAL_MACHINE --> SOFTWARE --> LEXMARK --> MarkVision Server --> Granite --> 1.0'`
- 4 Modify the key '`Jvm_Options`' with value '`-ms256M -mx1024M`'.
- 5 Close the registry editor, and then restart the MarkVision Server.

For UNIX, Linux, or Mac operating systems:

- 1 Stop the MarkVision Server.
- 2 Open the shell script '`/usr/mv_pro/bin/MvService.sh`', and then navigate to the function '`setJavaVars()`'.
- 3 Inside this function find the line the following line:  
`JVM_ARGS="-ms256M -mx512M"`
- 4 Modify the line to say: `JVM_ARGS="-ms256M -mx1024M"`.
- 5 Save the shell script, and then restart the MarkVision Server.

# Uninstalling MarkVision Professional

---

## Uninstalling for Windows and Mac OS X

### *Uninstalling from Windows*

- 1 In Windows XP and earlier, click **Start**.
- 2 Click **Programs** or **All Programs** → **Lexmark** → **Lexmark Software Uninstall**.
- 3 Follow the instructions on the screen.

### **Default program file locations**

- **MarkVision Application**—C:\Program Files\Lexmark\MarkVision Professional
- **MarkVision Server**—C:\Program Files\Lexmark\MarkVision Server\Granite

### *Uninstalling from Mac OS X*

- 1 Launch Finder.
- 2 Click **Application** → **Utilities** → **MarkVision Pro Uninstall.app**.
- 3 Click the lock image to gain administrator access.
- 4 Click the **Uninstall** button.

### **Default program file locations**

- **MarkVision Application**—/Application/Markvision Pro Client.app
- **MarkVision Server**
  - /usr/local/lexmark
  - /Applications/Utilities/MarkVision Pro Server Control.app
- **MarkVision Uninstall**—/Applications/Utilities/MarkVision Pro Uninstall.app

## Uninstalling for UNIX and Linux

### *Uninstalling MarkVision Professional*

A system administrator can remove the MarkVision Professional package using the utilities in the table below.

Depending on your operating system, mark the package for removal after you start the program. You can also type the package names you want to remove on the command line. For more information, see the documentation that came with your operating system.

### **Package removal utilities**

With root authority, you can remove MVP using these utilities:

<b>Operating system</b>	<b>Utility</b>
HP-UX	sam
IBM AIX	smit
Sun Solaris SPARC	pkgrm

- If you are running Sun Solaris, HP-UX, or an IBM AIX system, remove the menu links by running the following utility:

```
/usr/mv_pro/bin/mark2cde -d
```

- If you are using Sun Solaris, run the uninstall script to remove symbolic links created during installation.
  - /opt/lexmark/MVJclient.unlink
  - /opt/lexmark/MVJserver.unlink

## ***Removing shared directories***

Package removal utilities usually do not remove directories shared by more than one package. After you remove all of the MVP packages, some directories may need to be removed manually.

To see if any directories remain after removing all the packages, check the directory where you installed MVP. By default it is installed in the following locations:

### **Solaris**

- /opt/lexmark/mv\_pro
- /var/spool/markvision

### **HP-UX**

- /opt/lexmark/mv\_pro
- /var/spool/markvision

### **Linux**

- /usr/local/lexmark/markvision
- /var/spool/markvision

### **IBM AIX**

- /usr/lpp/markvision\_pro
- /var/spool/markvision

**Note:** Other software may be located in the /opt/lexmark, /usr/local/lexmark, /usr/spool/lp/markvision, or /var/spool/markvision directories. If there is additional software residing in these locations, do not delete the directory.

# Notices

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### Software source code

This product includes software, JmDNS 0.2, developed and distributed by Arthur van Hoff and Ric Blair and distributed according to the GNU Lesser General Public License, v2.1 (<http://www.gnu.org/copyleft/lesser.txt>). The sourcecode is available locally at:

- Windows: <install dir>\MarkVision Server\granite\src\jmdns\_src.zip
- Linux/Mac: /usr/mv\_pro/src/jmdns\_src.zip
- Novell: SYS:\LEXMARK\MVPS\SRC\JMDNS\_SRC.ZIP

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