

***MarkVision™  
Professional  
for  
UNIX® Systems***



***Install Guide for System Administrators***

**For use with:**

**HP-UX Systems**

**IBM AIX/6000 Systems**

**RedHat Linux; SuSE Linux Systems**

**Sun Solaris SPARC Systems**

## **Edition: December 2001**

The following paragraph does not apply to any country where such provisions are inconsistent with local law: LEXMARK INTERNATIONAL, INC. PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This publication could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in later editions. Improvements or changes in the products or the programs described in this publication may be made at any time.

References in this publication to products, programs, or services do not imply that the manufacturer intends to make these available in all countries in which it operates. Any reference to a product, program, or service is not intended to state or imply that only that product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any existing intellectual property right may be used instead. Evaluation and verification of operation in conjunction with other products, programs, or services, except those expressly designated by the manufacturer, are the user's responsibility.

© Copyright Lexmark International, Inc. 1995, 2001.  
All rights reserved.

© Copyright Carnegie Mellon University, 1988, 1989.  
All rights reserved.

Permission to use, copy, modify, and distribute CMU SNMP software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of CMU not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

CMU DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL CMU BE LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

### **UNITED STATES GOVERNMENT RESTRICTED RIGHTS**

This software and documentation are provided with RESTRICTED RIGHTS. Use, duplication or disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 and in applicable FAR provisions: Lexmark International, Inc., Lexington, KY 40550.

# Contents

---

<b>Preface</b> .....	<b>v</b>
<b>Chapter 1: Getting started with MarkVision Professional</b> .	<b>1</b>
What's on the CD .....	1
UNIX versions supported .....	2
MarkVision Professional for UNIX Systems .....	3
MarkVision Professional Web Client .....	3
Supported web browsers .....	4
MarkVision Professional components .....	5
MarkVision Professional UNIX Client .....	5
MarkVision Professional Server .....	6
Using MarkVision Professional with CDE, KDE, and GNOME .....	7
<b>Chapter 2: Installing MarkVision Professional</b> .....	<b>8</b>
Before you install .....	8
Where to install MarkVision Professional components .....	10
Upgrading from a previous version .....	11
HP-UX .....	12
IBM AIX .....	16
RedHat Linux; SuSE Linux .....	18
Sun Solaris SPARC .....	21

Workstations without a CD-ROM drive .....	25
NFS mounting the MarkVision Professional UNIX Client .....	28
Removing MarkVision Professional packages .....	30
Installing MarkVision Professional into CDE .....	32
Installing MarkVision Professional into KDE .....	33
Installing MarkVision Professional into GNOME .....	34
Finding space to install MarkVision Professional .....	35
<b>Chapter 3: Configuring MarkVision Professional .....</b>	<b>36</b>
Before you start .....	36
Overview .....	37
Alert-driven architecture .....	38
Bidirectional communication .....	38
Setting up MarkVision Professional Server .....	39
Starting MarkVision .....	42
From the command line .....	43
From a web browser .....	44
Starting and stopping MarkVision Professional Server .....	44
Starting and stopping MarkVision Professional Web Service ...	44
<b>Index .....</b>	<b>45</b>

# Preface

---

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

This book tells you how to install, set up, and troubleshoot *MarkVision Professional for UNIX® Systems* and *MarkVision Professional Web Client*. It contains:

- Introductory information including versions of UNIX operating systems and types of network print servers supported by MarkVision Professional.
- Information about software contained in the MarkVision Professional packages, including the MarkVision Professional Client and the MarkVision Professional Server.
- Step-by-step instructions for installing MarkVision Professional.
- An overview of some of the features in MarkVision Professional.
- Step-by-step configuration instructions.

# Terms used in this book

In this book, the term:

- *Internal print server* refers to the card installed inside the printer that attaches the printer to the network.
- *External print server* refers to a hardware device external to the printer that attaches the printer to the network.
- *MarkVision Professional Client* refers to a MarkVision Professional Client that connects to a MarkVision Professional Server.
- *MarkVision Professional Server* refers to a server that collects data from attached network printers and provides this data to MarkVision Professional Clients.

# Trademarks

Lexmark and MarkVision Professional are trademarks of Lexmark International, Inc., registered in the United States and/or other countries.

IBM is a registered trademark of International Business Machines Corporation in the United States and other countries.

Java, Java-based trademarks, Solaris, SPARC, and Sun are trademarks of Sun Microsystems, Inc., in the United States and/or other countries, used under license.

UNIX<sup>®</sup> is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Ltd.

All other trademarks are the property of their respective owners.

# For more information...

For more information on MarkVision Professional consult the Readme.txt file located in:

```
/usr/mv_pro/docs or /usr/ibmmvp/docs
```

After installing MarkVision Professional Server, consult the online documentation located at the following URL. This URL will be located on the server where MarkVision Professional Server is installed. For example, assuming `hostname` is the hostname of the UNIX server where MarkVision Professional server is installed, use the following URL:

```
http://<hostname>:9180
```



# *Getting started with MarkVision Professional*

## *Chapter 1*

---

### **What's on the CD**

The packages you received with this book include:

- MarkVision Professional Server
- MarkVision Professional Client

## UNIX versions supported

MarkVision Professional supports the operating systems and versions listed in the following table. **Specific supported operating systems versions appear in the file `mvp-supported-platforms.txt`.** This file is located on the CD, and can also be found in `/usr/mv_pro/docs` or `/usr/ibmmvp/docs` after installation. Make sure you're running on one of these systems before you install MarkVision Professional.

Operating system	Hardware	Go to page...
IBM AIX	IBM RISC System/6000	16
HP-UX	Hewlett-Packard 9000/700 and 9000/800	12
RedHat Linux; SuSE Linux	Intel	18
Sun Solaris SPARC	Sun SPARC and UltraSPARC	21

**Note:** For operating systems without a CD-ROM drive, see "Workstations without a CD-ROM drive" on page 25.

# MarkVision Professional for UNIX Systems

*MarkVision Professional for UNIX Systems* lets you monitor and control network printers from local UNIX workstations. The MarkVision Professional Server collects data from the various network printers and distributes it to the MarkVision Professional Client. This lets you monitor the network printers. Similarly, the MarkVision Professional Server relays commands from the clients to the printers, allowing you to control the network printers remotely.

## MarkVision Professional Web Client

*MarkVision Professional Web Client* allows you to monitor and control network printers from any workstation on an intranet. There are some special conveniences associated with this product:

- A supported web browser using the downloaded Java plug-in is all that is needed to run the MarkVision Professional Web Client. No special software installations are required for client workstations.
- The MarkVision Professional Client can also be downloaded and run as an application from a workstation.

The MarkVision Professional Web Client runs as a Java applet in your web browser or as an independent application. Once the MarkVision Professional Server is installed, a MarkVision Professional Web Client starts when you connect to `http://<hostname>:9180/markvision` URL on the server with your browser.

For example, to start a MarkVision Professional Web Client on a web server, included with MarkVision Professional server named *arrow*, point your browser to the following URL:

```
http://arrow:9180/markvision
```

The web server makes the data available to the web browsers on your intranet. This lets you monitor network printers. Similarly, commands from clients are relayed through the web server and the MarkVision Professional Server to the network printers, letting you control network printers.

See “MarkVision Professional components” on page 5 for details on installing MarkVision Professional Server and MarkVision Professional Web Client components.

See the following table for supported web browsers.

## ***Supported web browsers***

<b>Operating system</b>	<b>Supported web browser</b>
Solaris	Netscape Navigator 4.x
Windows 95, 98, 2000 and Windows NT	Netscape Navigator 4.x Microsoft Internet Explorer 4.x, 5.x

# MarkVision Professional components

There are separate, installable components associated with MarkVision Professional. The following sections describe how and where to install them.

Component	Where to install it
MarkVision Professional Client	<ul style="list-style-type: none"><li>On any host with a supported Java runtime environment. (version 1.3.1 or higher)</li></ul>
MarkVision Professional Server	<ul style="list-style-type: none"><li>On any host with a supported Java runtime environment. (version 1.3.1 or higher)</li></ul>

## *MarkVision Professional UNIX Client*

The MarkVision Professional Client works with the MarkVision Professional Server to let you access MarkVision Professional features on a UNIX workstation.

You can view the MarkVision Professional UNIX Client using the X Window System interface.

For more information about MarkVision Professional, refer to the man page. For example, type the following on the command line and then press Enter:

```
man ibmmvp
```

## Where to install it

You may install the MarkVision Professional UNIX Client:

- Locally on each client workstation
- Centrally so that client workstations can NFS mount the MarkVision UNIX Client for their platform. See “NFS mounting the MarkVision Professional UNIX Client” on page 28.

If you choose, you can install the MarkVision Professional UNIX Client on the same workstation with the MarkVision Professional Server and other components, although this is not necessary.

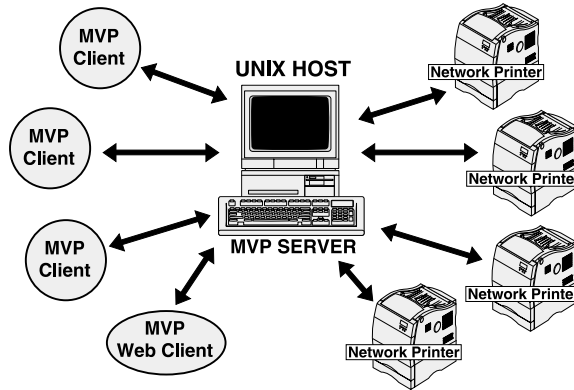
## ***MarkVision Professional Server***

The MarkVision Professional Server collects data from network-attached printers and provides information to MarkVision Professional Web Clients or MarkVision Professional Clients over the network. You must install *at least one* MarkVision Professional Server to use MarkVision Professional Clients.

MarkVision Professional for UNIX Systems includes the MarkVision Professional Server component.

Network print servers have a limited number of connections. Each MarkVision Professional Server reserves one of these connections on each print server it monitors. This arrangement allows MarkVision

Professional Clients to monitor and manage these print servers and print clients through the MarkVision Professional Server. The following figure shows the connection diagram.



## Using MarkVision Professional with CDE, KDE, and GNOME

MarkVision Professional can be integrated into the Common Desktop Environment (CDE), the K Desktop Environment (KDE), and the GNU Network Object Model Environment (GNOME). Integrating MarkVision Professional into CDE, KDE, and GNOME installs icons and actions. See “Installing MarkVision Professional into CDE” on page 32, “Installing MarkVision Professional into KDE” on page 33, and “Installing MarkVision Professional into GNOME” on page 34.

# Installing MarkVision Professional

## Chapter 2

### Before you install

Do the following before you install the various MarkVision Professional packages:

- 1** Read Chapter 1: “Getting started with MarkVision Professional” beginning on page 1 for an overview of MarkVision Professional.
- 2** If you’re upgrading from a previous version read “Upgrading from a previous version” on page 11.
- 3** Make sure you’re logged on with root user authority.
- 4** The MarkVision Professional Server must be run as a standard system daemon.

For security reasons, this daemon must be run as a normal user with no special privileges. Therefore, it is recommended to use an existing user ID for this daemon to run as.

The default user ID will be **nobody**.

During the installation of MarkVision Professional Server, you will be asked if you want to change the MarkVision Server user. If you don’t want to use the default user **nobody**, create the user (e.g. **markvision**, **mvp**, etc.) before installing MarkVision Professional Server.



## **5 Decide where to install the MarkVision Professional Server.**

Generally, install the MarkVision Professional Server on only one host computer in each network domain or subnet. When installing, make a note of the IP address or hostname.

If you want, you may install any of the other packages on the same workstation that is running the MarkVision Professional Server, although this is not necessary.

## **6 Decide where to install the MarkVision Professional UNIX Client.**

The MarkVision Professional UNIX Client can be installed in various arrangements. You can install the MarkVision Professional UNIX Client on:

- Each workstation you want to run MarkVision Professional.
- One host computer and other workstations can NFS mount the MarkVision Professional UNIX Client files.

## ***Where to install MarkVision Professional components***

### **MarkVision Professional Client**

You can install the MarkVision Professional Client on each workstation you want to run MarkVision Professional. You can also install MarkVision Professional Client on one host computer. Other workstations (using the same operating system) can then NFS mount the MarkVision Professional Client file or get it from the Web site, if you have installed the MVweb package.

### **MarkVision Professional Server**

Install at least one MarkVision Professional Server on the intranet.

## Upgrading from a previous version

If you have a previous version of MarkVision Professional Client or MarkVision Professional Server, you may upgrade. Before removing your existing version of MarkVision Professional, make sure the MarkVision Professional Server is not running on that workstation. See “Starting and stopping MarkVision Professional Server” on page 44.

If you are upgrading from an earlier release of *MarkVision Professional for UNIX Systems*, make sure you upgrade your MarkVision Professional Clients and MarkVision Professional Servers together.

**Note:** Whenever upgrading to a newer package, you should remove the currently installed package. Due to many changes since the last release, you should also remove the saved configuration files. These files are stored in `/var/spool/markvision`. Remove all files and directories in the `/var/spool/markvision` directory except for the `vir_queues` directory and the `vir_devices` directory. These two directories are for *Enhanced Printer Drivers*. Removing these directories will break any existing print queue created with Enhanced Printer Drivers (MVprint/IBMMVprint).

## HP-UX

- 1** Read “Before you install” on page 8.
- 2** Make sure you have enough disk space in `/opt/ibm` to install MarkVision Professional. See “Finding space to install MarkVision Professional” on page 35 if you need more space.
- 3** **Mount the CD.** For example, if the path to the CD-ROM drive is `/dev/c0t5d0`, the command is:

```
pfs_mount /dev/rdisk/c0t5d0 /cdrom
```

**Note:** The `pfs_mountd` and `pfsd` daemons must be running before using the `pfs_mount` command.

- 4** **Check the Readme file in the root directory of the CD.** This Readme file may contain last-minute information about installing MarkVision Professional that was not available when this guide was published.

- 5** Start the *System Administration Manager* by typing:

```
/usr/sbin/sam &
```

- 6** On the *Sam areas* screen, click *Software Management*.

- 7** Click *Install Software to Local Host*.

First, the *SD Install - Software Selection* screen appears, and then the *Specify Source* dialog box appears.

If these dialog boxes do not appear, on the *Actions* menu click *Change Source* to open the source dialog box.

- 8** Make sure that the hostname of the computer you are installing on appears in the *Source Host Name* text box. If it doesn't, type the hostname or select it from the list.
- 9** In the *Source Depot Path* field, type the following to specify the full path to the HP-UX package file:

```
/cdrom/packages/markvision-pro-hpux1x.pkg
```

- 10** Make sure the *Change Software View* is set to *All Bundles*.

If it is not:

- a** Click the *Change Software View* button.
  - b** On the *Software View* screen, click *All Bundles*.
  - c** Click *OK*.
- 11** On the *Specify Source* screen, click *OK*.

**12** Select the bundles you want to install. There are two ways to mark the packages.

- To install all the MarkVision Professional packages at once:
  - a** Click the *IbmMarkVisionPro* bundle.
  - b** On the *Actions* menu, click *Mark for Install*. This marks all the MarkVision Professional packages for install.
  - c** Skip to the next step.
- To install individual packages:
  - a** Double-click the *IbmMarkVisionPro* bundle. This displays the server and client packages.
  - b** Double-click each package bundle to view their contents.
  - c** For each package that you want to install, click the package.
  - d** On the *Actions* menu, click *Mark for Install*. This puts a *yes* beside the packages you want to install.

**13** On the *Actions* menu, click *Install (analysis)*.

**14** When the *OK* button is available, click it. A confirmation message appears.

**15** Click *Yes* to start the installation.

**Note:** If the HOME variable was not set for root when you started SAM, an error message appears. Ignore the message and click *OK*.

**16** During installation, select *Logfile* to view the installation log.

**Important:** Make sure that there are no errors or warnings during installation.

**Note:** If there is not enough disk space in /opt/ibm to install, see “Finding space to install MarkVision Professional” on page 35.

**17** When installation is finished, select *Done*. This returns you to the *SD Install-Software Selection* screen.

**18** Click *File*, and then *Exit* to return to the *Software Management* screen.

**19** Type the following on the command line and answer any questions that appear:

```
/opt/ibm/setup.mvjserver
```

This file will set up the MarkVision server user for use with the MarkVision Professional Server.

If you want other host computers to NFS mount the MarkVision Professional UNIX Client, see “NFS mounting the MarkVision Professional UNIX Client” on page 28. Otherwise, go to Chapter 3.

## IBM AIX

- 1** Read “Before you install” on page 8.
- 2** Make sure you have enough disk space in `/usr/lpp` to install MarkVision Professional. See “Finding space to install MarkVision Professional” on page 35 if you need more space.
- 3** Mount the CD. For example, if the path to the CD-ROM drive is `/dev/cd0`, the command is:

```
mount -o ro -v cdrfs /dev/cd0 /cdrom
```

**Note:** Make sure that the `/cdrom` directory exists.

- 4** Type the following on the command line and press Enter:

```
smit install_latest
```

- 5** When prompted to enter the input device/directory for software, type the following:

```
/cdrom/packages/markvision-pro-aix4.pkg
```

- 6** If you want, select which packages to install. All packages are installed by default.
  - a** On the *SOFTWARE to install* option, choose *List*.
  - b** Select the packages you want to install.
  - c** Choose *Do*.



- 7** Specify any other install options, such as COMMIT.
- 8** Choose *Do* to begin installing MarkVision Professional. You receive a message when the installation is finished.
- 9** Type the following on the command line and answer any questions that appear:

```
/usr/lpp/ibm_markvision_pro/setup.mvjserver
```

This file will set up the MarkVision server user for use with the MarkVision Professional Server.

If you want other workstations to NFS mount the MarkVision Professional UNIX Client, see “NFS mounting the MarkVision Professional UNIX Client” on page 28. Otherwise, go to Chapter 3.

# RedHat Linux; SuSE Linux

## 1 Mount the CD.

During a default install of your Linux OS, the CD-ROM, regardless of type, is symlinked as `/dev/cdrom`.

Using that default, the command is:

```
mount -t iso9660 -r /dev/cdrom /mnt/cdrom
```

**Note:** If you do not have `/dev/cdrom`, see the *CDROM-HOW TO* documentation which ships with the Linux OS, to setup the linux kernel and CD-ROM device.

## 2 Change your default directory to the CD-ROM root:

```
cd /mnt/cdrom/
```

## 3 Check the `Readme.txt` file for last-minute information about installing MarkVision Professional.

There are two ways to install.

### 1 Command-line install method:

- **Change your default directory to the package directory:**

```
cd /mnt/cdrom/packages/  
markvision-pro-linux-glibc2-x86
```

- **To install all MarkVision Professional components, issue the command:**

```
rpm -irh *.rpm
```

- **To selectively install individual MarkVision Professional components, specify the filename of the MarkVision Professional component which you want to install. For example, to install just the MarkVision Professional Server, issue the command:**

```
rpm -irh markvision-pro-IBMMVJserver-4.6-  
1.i386.rpm
```

## 2 Glint (Graphical Linux Installation Kit) install method:

- Invoke the `glint` command and look under the `utilities/printing` folder.
- Click the **Configure** button and enter the path:

```
/mnt/cdrom/packages/  
markvision-pro-linux-glibc2-x86
```

- Click the **Available** button and highlight each component to be installed, and click the **Install** button.

## 3 Type the following on the command line and answer any questions that appear:

```
/usr/local/ibm/setup.mvjserver
```

This file will set up the MarkVision server user for use with the MarkVision Professional Server.

## Uninstall

There are two methods for uninstall:

### 1 Command line uninstall.

- List the components with the command:

```
rpm -qa |grep markvision
```

- For each MarkVision Professional component you want to uninstall, issue the command:

```
rpm -e markvision-pro-IBMMV(component name)-4.6
```

- To uninstall all MarkVision Professional components, use the command:

```
rpm -qa |grep markvision | sed -e 's/-[0-9]$//'  
' |xargs rpm -e
```

## **2** Glint (Graphical Linux Installation Tool) uninstall method.

- Invoke the `glint` command and look under the `utilities/printing` folder.
- For each component to be uninstalled, highlight the component and click the Uninstall button.

## Sun Solaris SPARC

- 1** Read “Before you install” on page 8.
- 2** Check to see if you are running Volume Manager. To find out if Volume Manager is running, type the following on the command line and press Enter:

```
ps -ef | grep vold
```

If you get a response that indicates the vold process is running, Volume Manager is running. See “Installing MarkVision Professional on Solaris SPARC systems with Volume Manager running” on page 22 to continue installing.

If there is no response, Volume Manager is not running. See “Installing MarkVision Professional on Solaris SPARC systems without Volume Manager running” on page 23 to continue installing.

## Installing MarkVision Professional on Solaris SPARC systems with Volume Manager running

If you are running Volume Manager, the CD is automatically mounted.

- 1 Check the Readme file in the root directory of the CD.** This Readme file may contain last-minute information about installing MarkVision Professional that was not available when this guide was published.

- 2 Start the package installation program.**

```
pkgadd -d /cdrom/cdrom0/packages/  
markvision-pro-solaris2_sparc.pkg
```

- 3 When a list of available packages appears:**

- If you want to install all the packages type the following and press Enter:

```
all
```

- If you want to install individual packages, type each package number separated by a comma and press Enter. For example:

```
1, 2, 3
```

- 4 Follow the prompts and answer any questions that appear on the screen:**

- To accept the defaults, press Enter.
- To answer yes/no questions, type *y*, *n*, or *?* and press Enter.
- When a message appears telling you the installation was successful, type *q* to quit.

**Note:** You must install *all* the packages in the same location.

- 5** Type the following on the command line and answer any questions that appear:

```
/opt/ibm/setup.mvjserver
```

If you want other workstations to NFS mount the MarkVision Professional UNIX Client, see “NFS mounting the MarkVision Professional UNIX Client” on page 28. Otherwise, go on Chapter 3.

## Installing MarkVision Professional on Solaris SPARC systems without Volume Manager running

- 1** Make sure that the `/cdrom` directory exists.
- 2** Mount the CD. For example, if the path to the CD-ROM drive is `/dev/dsk/c0t6d0s2`, the command is:

```
mount -F hsfs -o ro /dev/dsk/c0t6d0s2 /cdrom
```

- 3** Check the Readme file in the root directory of the CD. This Readme file may contain last-minute information about installing MarkVision Professional that was not available when this guide was published.
- 4** Start the package installation program.

```
pkgadd -d /cdrom/packages/  
markvision-pro-solaris2_sparc.pkg
```

- 5** When a list of available packages appears:
  - If you want to install all the packages type the following and press Enter:  
all
  - If you want to install individual packages, type each package number separated by a comma and press Enter. For example:  
1, 2, 3

- 6** Follow the prompts and answer any questions that appear on the screen:
- To accept the defaults, press Enter.
  - To answer yes/no questions, type *y*, *n*, or *?* and press Enter.
  - When a message appears telling you the installation was successful, type *q* to quit.

**Note:** You must install *all* the packages in the same location.

- 7** Type the following on the command line and answer any questions that appear:

```
/opt/ibm/setup.mvjserver
```

If you want other workstations to NFS mount the MarkVision Professional UNIX Client, see “NFS mounting the MarkVision Professional UNIX Client” on page 28. Otherwise, go on to Chapter 3.



## Workstations without a CD-ROM drive

There are two ways to install MarkVision Professional on a workstation without a CD-ROM drive:

- Using NFS
- Using FTP

### Using NFS

#### **1** On the workstation *with* the CD-ROM drive:

##### **a** Mount the CD.

For help, see “Installing MarkVision Professional” on page 8. Find the operating system and workstation that you’re using and follow the instructions in that section for mounting the CD.

##### **b** Export the CD filesystem. If you need help, refer to your operating system documentation.

#### **2** On the workstation *without* the CD-ROM drive, mount the CD filesystem on `/cdrom`.

For help, see “Installing MarkVision Professional” on page 8. Find the section that pertains to your workstation and operating system. Follow those instructions to install MarkVision Professional. Ignore the part that tells you how to mount the CD.

## Using FTP

**1** On the workstation *with* the CD-ROM drive, mount the CD.

For help, see “Installing MarkVision Professional” on page 8. Find the operating system and workstation that you’re using and follow the instructions in that section for mounting the CD.

**2** On the workstation *without* the CD-ROM drive:

**a** Change directory to `/tmp`.

**b** Make sure you have enough disk space available. Type the following on the command line:

```
df -k.
```

**c** Type the following, substituting the directory name of your operating system for `os_type`. For example, substitute `os_type` with `solaris2-sparc` on Solaris SPARC systems.

```
ftp hostname  
bin  
cd /cdrom/packages  
get markvision-pro-os_type.pkg  
quit
```

**Note:** On Solaris systems running Volume Manager, substitute `/cdrom/cdrom0` for `/cdrom`. The ‘0’ in `cdrom0` is a zero.

- 3** Go to “Installing MarkVision Professional” on page 8. Follow the instructions that pertain to your workstation and operating system to install. Ignore the part that tells you how to mount the CD.

When you normally type this filename:

```
/cdrom/packages/markvision-pro-os_type.pkg
```

Replace it with:

```
/tmp/markvision-pro-os_type.pkg
```

## ***NFS mounting the MarkVision Professional UNIX Client***

You can install MarkVision Professional on one host computer and export the filesystem to other host computers for mounting. Using NFS eliminates the need to perform individual installations at each workstation and conserves disk space.

You might want to install both the MarkVision Professional UNIX Client and MarkVision Professional Server packages on one host computer. Then you can designate that host computer as an NFS server, as well as the MarkVision Professional Server. Client workstations can mount the MarkVision Professional directory on the server and run the MarkVision Professional UNIX Client on their local workstation.

**Important:** The NFS server and client workstations must use the same operating system.

### **To NFS mount the MarkVision Professional UNIX Client:**

- 1** Configure the server.
  - a** Make sure you're logged on with root user authority.
  - b** Install the MarkVision Professional UNIX Client. Follow the directions for the operating system you're using. See "Installing MarkVision Professional" on page 8.
  - c** Export the directory where you installed the MarkVision Professional UNIX Client (for example, `/opt/ibm/` or `/usr/local/ibm`). If you need help, refer to your operating system documentation.

## 2 Configure MarkVision Professional on the local workstation.

- a Make sure you're logged on with root user authority.
- b NFS mount the MarkVision Professional directory from the server. Refer to your operating system documentation for mounting instructions.
- c Run the install script in the mounted MarkVision Professional directory. The script creates symbolic links to this directory in: `/usr/ibmmvp`. The following example uses `/mnt` as the mount point.

```
cd /mnt/ibm
./IBMMVJclient.link
```

### To uninstall and unmount the MarkVision Professional UNIX Client:

- 1 Run the uninstall script, which removes the symbolic links to the mounted directory from `/usr/ibmmvp`.

```
./IBMMVJclient.unlink
```

- 2 Unmount the MarkVision Professional directory. Refer to your operating system documentation for unmounting instructions.

## Removing MarkVision Professional packages

With root authority, you can remove MarkVision Professional using the utilities in this table.

Depending on the utility on your system, either mark the MarkVision Professional packages for removal after you start the program or provide the names of the MarkVision Professional packages you want to remove on the command line. See your operating system documentation for more information

Operating system	Package removal tool
HP-UX	sam
IBM AIX	smit
RedHat Linux; SuSE Linux	<code>rpm -e markvision-pro- IBMMV(component name) - 7.3</code>
Sun Solaris SPARC	pkgrm

## Removing remaining directories

Package removal utilities usually do not remove directories shared by more than one package. The following two software packages from IBM share the same directory structure (`install-directory>markvision`):

- *Enhanced Printer Drivers*
- *MarkVision Professional*

After removing all the above mentioned MarkVision packages (if one or more are installed), some directories may need to be removed manually.

To see if any directories remain after removing all the MarkVision Professional packages, check the directory where you installed MarkVision Professional. By default MarkVision Professional installs in either `/opt/ibm` or `/usr/local/ibm`.

## Installing MarkVision Professional into CDE

You can integrate MarkVision Professional into the Common Desktop Environment (CDE). Integrating installs CDE icons, actions, and online Help. For more information, see the `mark2cde` man page.

To integrate MarkVision Professional into the CDE:

- 1** Make sure you have root user authority.
- 2** Type the following on the command line:

```
/usr/bin/mark2cde
```

**Note:** On some CDE systems, the MarkVision Professional CDE icons may not appear after installing the MarkVision Professional CDE snap-in. The icons appear after logging out and logging back in again.

If you encounter problems while running `mark2cde` manually, try running it again using the Korn shell (`ksh`) rather than the Bourne shell (`sh`).

## Removing the MarkVision Professional CDE

When removing the MarkVision Professional Client package, you must manually remove the CDE snap-in.

To uninstall the CDE snap-in, as root, type the following on the command line:

```
# /usr/bin/mark2cde -d
```



## ***Installing MarkVision Professional into KDE***

You can integrate MarkVision Professional into the K Desktop Environment (KDE). Integrating installs KDE icons, actions, and online Help. For more information, see the `mark2kde` man page.

To integrate MarkVision Professional into the KDE:

- 1 Make sure you have root user authority.**
- 2 Type the following on the command line:**

```
/usr/bin/mark2kde
```

**Note:** You must restart KDE after installing the KDE snap-in to see the icons.

If you encounter problems while running `mark2kde` manually, try running it again using the Korn shell (`ksh`) rather than the Bourne shell (`sh`).

### **Removing the MarkVision Professional KDE**

When removing the MarkVision Professional Client package, you must manually remove the KDE snap-in.

To uninstall the KDE snap-in, as root, type the following on the command line:

```
# /usr/bin/mark2kde -d
```

## ***Installing MarkVision Professional into GNOME***

You can integrate MarkVision Professional into the GNU Network Object Model Environment (GNOME). Integrating installs GNOME icons, actions, and online Help. For more information, see the `mark2gnome` man page.

To integrate MarkVision Professional into the GNOME:

- 1** Make sure you have root user authority.
- 2** Type the following on the command line:

```
/usr/bin/mark2gnome
```

**Note:** On some GNOME systems, the MarkVision Professional GNOME icons may not appear after installing the MarkVision Professional GNOME snap-in. The icons appear after logging out and logging back in again.

If you encounter problems while running `mark2gnome` manually, try running it again using the Korn shell (`ksh`) rather than the Bourne shell (`sh`).

### **Removing the MarkVision Professional GNOME**

When removing the MarkVision Professional Client package, you must manually remove the GNOME snap-in.

To uninstall the GNOME snap-in, as root, type the following on the command line:

```
# /usr/bin/mark2gnome -d
```

## ***Finding space to install MarkVision Professional***

Some operating systems require you to install MarkVision Professional in a particular directory. If the filesystem containing that directory is full, you can create a symbolic link that points to a directory in another filesystem. The symbolic link appears to be a real directory, but the files are actually installed in the location the link points to.

For example, to appear to install MarkVision Professional in `/opt/ibm` but actually install MarkVision Professional in `/disk2/ibm`, do the following:

- 1 Create a directory in the location where you want the packages to actually be installed.** For example, to install in the `/disk2` filesystem:

```
mkdir /disk2/ibm
```

- 2 Create a symbolic link pointing to the directory you created.** For example:

```
ln -s /disk2/ibm /opt/ibm
```

# Configuring MarkVision Professional

## Chapter 3

### Before you start

Follow these steps to configure MarkVision Professional and to gain a basic understanding of how to use MarkVision Professional.

For instructions about installing MarkVision Professional on your operating system, see the appropriate section in Chapter 2 “Installing MarkVision Professional” beginning on page 8.

Before you begin this section, check the Readme files that were installed with MarkVision Professional. These files, located in the path `/usr/mv_pro/docs`, may contain information that was not available when this guide was published.

# Overview

MarkVision Professional is the new and improved version of MarkVision which provides users with unmatched tools for managing network attached printers and print servers. A new task based user interface is provided for quick access to frequently performed tasks. The user interface offers more customization and new usability features have been added where possible.

MarkVision Professional provides real-time status for printers attached to the network. The status reported includes all messages appearing on the operator panel display (if you are operating the remote operator panel), as well as information about options installed on the printer and printer default settings.

Administrators can mount the MarkVision Professional Client on one host computer and export the filesystem to other workstations for mounting. NFS mounting the MarkVision Professional Client eliminates the need to perform individual installations at each client workstation and conserves disk space.

MarkVision Professional is a client/server application, which can be run as an application or through a web browser. The product consists of two components:

- MarkVision Professional Server
- MarkVision Professional Client

The above two components can be installed on the same computer or on separate computers. At least one computer on your network must have the MarkVision Professional Server package installed, which can be used to provide services for the MarkVision Professional Client application, and Web based applet.

The MarkVision Professional User's Guide is available online from the Help menu under the User Guide menu item. For details please refer to the User's Guide.

The online help is also available by pointing your browser to :

```
http://<markvision-professional-server-host>:9180/  
markvision
```

## ***Alert-driven architecture***

The MarkVision Professional alert-driven architecture lets you actively monitor the status of many printers on a real-time basis. If an error occurs on a printer attached to your network, MarkVision Professional immediately provides a visual alert.

## ***Bidirectional communication***

Our printer is capable of intelligent, dynamic communication with the network. It can receive information such as print jobs, but can also send back information about the work it's doing and what it needs to complete the task.

This intelligent bidirectional communication, the Network Printing Alliance (NPA) Protocol 1.0 (IEEE 1284.1) standard, is part of the printer design. MarkVision Professional takes advantage of this advanced communication capability.

## Setting up MarkVision Professional Server

Once the MarkVision Professional package is installed on a system, a setup script must be run to complete the installation process. This setup script is installed at :

```
<install-dir>/setup.mvjserver
```

On a Solaris system if you have installed in the default directory of /opt/ibm, the full path to the script will be:

```
/opt/ibm/setup.mvjserver
```

The MarkVision Professional Server must be run as a standard system daemon. It collects information about network attached devices, such as printers and print servers. For security reasons, this daemon must be run as a normal user with no special privileges. Therefore, it is recommended to use an existing user ID or create a special user ID for this daemon to run as.

The default user ID will be user **nobody**. Most modern Unix systems ship with this user ID preinstalled. If you want to change it and use a different user ID (e.g. **markvision**), create the user ID before running the setup script.

The setup script will check if the MarkVision Professional Server is currently running, and if so will exit, prompting the user to stop the MarkVision Professional Server using the appropriate command. If the MarkVision Professional Server is not running, it will prompt for the user ID and will verify that is a valid user ID. Once the user ID is verified, the MarkVision Professional Server will be started.

The following shell scripts are used during the setup and startup process of MarkVision server and have important dependencies :

- /usr/mv\_pro/bin/findJava
- /usr/mv\_pro/bin/MvService
- /usr/mv\_pro/bin/MvWebService

## findJava

This script is used by multiple scripts to locate the appropriate version of Java Virtual Machine on the system. This script will attempt to find the path to the “java” binary in standard system locations. If the JVM is not found in standard system locations, it will try to search the PATH environment variable for JVM. If the search for the appropriate JVM fails it will exit with an error message informing the user that a suitable JVM is not found. It will also indicate the appropriate JVM version(s) required to run the MarkVision Professional Server software.

If you believe a suitable JVM is, in fact, on the system, make sure it is in your PATH and run the `/usr/mv_pro/bin/findJava` again. This script creates a symbolic link from `/usr/mvp_java` to the Java home directory (JAVAHOME).

For example, if the full path to the appropriate “java” binary is :

```
/usr/local/java/bin/java
```

The Java Home directory will be “`/usr/local/java`”.

Therefore, the link can be created as follows:

```
# /bin/ln -s /usr/local/java /usr/mvp_java
```



## MvService

The `/usr/mv_pro/bin/MvService` command is used to start and stop the MarkVision Professional Server as a Unix daemon. For details about this command please refer to the man page on `MvService`.

```
$ man MvService
```

## MvWebService

The `/usr/mv_pro/bin/MvWebService` command is used to start and stop the Tomcat Web server. Tomcat is the official reference implementation of the [Java Servlet 2.2](#) and [JavaServer Pages 1.1](#) technologies. Developed under the Apache license in an open and participatory environment, it is intended to be a collaboration of the best-of-breed developers from around the world. For more details on the tomcat web server please visit the official Tomcat web site at:

```
http://jakarta.apache.org/tomcat/index.html
```

The `MvWebService` process is used to provide the following services over http:

- Serve MarkVision Professional Web Client.
- Provide access to MarkVision Messenger.
- Provide MarkVision Professional documentation in HTML and PDF format

To access the above features, point your browser to port 9180 of the machine where you installed MarkVision Professional Server with the following URL:

```
http://<markvision-server-host>:9180/markvision
```

or

```
http://<markvision-server-host>:9180/messenger
```

# Starting MarkVision

You can use the MarkVision Professional UNIX Client with a graphical interface or directly from the command line.

The MarkVision Professional Web Client lets you run a MarkVision Professional Client as a Java applet in your web browser.

## From the command line

If your workstation supports it, you can use MarkVision Professional with the X Window System. To use MarkVision Professional with X, you must set the display variable.

### 1 Set the DISPLAY environment variable:

- **Korn (ksh) and Bourne (sh) shell users type the following:**

```
DISPLAY=hostname:0.0
export DISPLAY
```

where hostname is the name of your workstation

- **C shell users type the following:**

```
setenv DISPLAY disphost:0.0
```

### 2 If you are running the MarkVision Professional UNIX Client on a different host computer than your X server, make sure the remote host has permission to access your display. For example, if the MarkVision Professional UNIX Client is running on the host flora, type the following on the command line:

```
xhost + flora
```

### 3 Type the following on the command line and press Enter:

```
ibmmvp
```

## ***From a web browser***

The MarkVision Professional Web Client runs as a Java applet in your web browser. Once the MarkVision Professional Web Server is configured on a web server, a MarkVision Professional Web Client starts when you connect to `/markvision` on that server with your browser.

For example, to start a MarkVision Professional Web Client on a web server whose IP address is 190.168.112.21, point your browser to the following URL:

```
http://190.168.112.21:9180/markvision
```

## ***Starting and stopping MarkVision Professional Server***

To start the MarkVision Professional Server type:

```
/usr/mv_pro/bin/MvService start
```

To stop the MarkVision Professional Server type:

```
/usr/mv_pro/bin/MvService stop
```

## ***Starting and stopping MarkVision Professional Web Service***

To start the MarkVision Professional Web Service type:

```
/usr/mv_pro/bin/MvWebService start
```

To stop the MarkVision Professional Web Service type:

```
/usr/mv_pro/bin/MvWebService stop
```

# Index

---

## A

AIX  
    SMIT 30  
alert-driven architecture 38

## B

bidirectional communication 38

## C

Common Desktop Environment (CDE)  
    integrating MarkVision into 7

## D

DISPLAY environment variable 43  
    example setting 43

## E

exporting MarkVision to other  
    workstations using NFS 28

## F

FTP 26

## G

GNU Object Model Environment  
(GNOME)  
    integrating MarkVision into 7

## H

HP-UX  
    installing MarkVision 12  
    removing packages 30

## I

IBM AIX  
    installing MarkVision 16  
IBMMVJclient.link 29  
IBMMVJclient.unlink 29  
IEEE 1284.1 (NPA) 38  
installing MarkVision Professional 8  
    on workstations without a CD-ROM

using FTP 25  
using NFS 25

## J

Java applet  
starting MarkVision as 44

## K

K Desktop Environment (KDE)  
integrating MarkVision into 7

## L

Linux  
RedHat, SuSE 18

## M

man pages 5  
mark2cde 32  
MarkVision Professional Server  
starting and stopping 44  
MarkVision Professional Web Client 3  
MarkVision Professional Web Service  
starting and stopping 44  
Microsoft Internet Explorer 3.01, 4.x 4  
mount CD-ROM 16, 18, 23

## N

Netscape Navigator 4  
Network Printing Alliance Protocol (NPA)

IEEE 1284.1 38  
NFS mounting the MarkVision Professional  
UNIX Client 28

## P

pkgadd 22, 23  
pkgrm 30

## R

Readme files 36

## S

sam 13, 30  
SMIT 16, 30  
starting and stopping the MarkVision  
Professional Server 44  
starting and stopping the MarkVision  
Professional Web Service 44  
supported  
UNIX versions 2  
web browsers  
Windows 95/NT 4

## T

trademarks vii

## U

upgrading  
from a previous version 11

## W

- web browser 3
- web server 4