

***Xerox CentreWare™ for
HP OpenView***



XEROX®

***Xerox CentreWare™
for
HP OpenView NNM
Users Guide***

Version 3.0

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Changes are periodically made to this document. Changes, technical inaccuracies and typographical errors will be corrected in subsequent editions. Technical updates will be included in subsequent editions.

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Introduction

This User guide describes the installation and features of Xerox CentreWare™ for HP OpenView Network Node Manager. As an enterprise network management application, OpenView provides the ability to view and centrally manage network resources. With the addition of the CentreWare™ snap-in for OpenView NNM, this application can additionally provide the status of Xerox devices on the network.

When successfully installed, you will be able to view all of the discovered Xerox network devices under one map in OpenView NNM.

In addition, CentreWare™ for HP OpenView NNM enables OpenView NNM to:

- Discover Xerox networked devices with HP OpenView.
- Provide special status and notifications to HP OpenView NNM users about Xerox devices. Device status will be enhanced by a rich MIB data set available via web server in certain Xerox networked devices.
- Display standard OpenView NNM color coding for the Xerox Printer Agent icon.
- Automatically notify the user about Xerox device events and problems through the use of SNMP event traps.
- Install and compile the Xerox MIB structure.
- Automate trap registration for supported Xerox devices.
- Launch CentreWare™ Internet Services using a standard web browser.

NOTE: This assumes all Xerox networked devices will include an Embedded Web Server.

How to use this Document

This document assumes that you have a working knowledge and familiarity with HP OpenView NNM. Only procedures that result from installation of the CentreWare™ for HP OpenView NNM snap-in are described in this document.

You may print all or part of this document at any time from your Adobe Acrobat reader by clicking the **File** menu and then selecting **Print**. You may then select a single page, a range of pages, or the entire document for printing.

For initial installation

Read and follow this section:

[CentreWare™ for HP OpenView NNM Software Installation](#)

For day-to-day tasks

Read and follow these sections:

[Using CentreWare™ for HP OpenView NNM Troubleshooting](#)

Key Benefits and Features

Feature	Benefits
Device Discovery	Provides the automatic identification of Xerox devices on your network and presents them with recognizable icons.
Color-Coded Device Status	Automatically changes the color in the device icon to reflect the device status in the Xerox Printers map.
Access to embedded web server (CentreWare™ Internet Services)	If your device contains an embedded web server (CentreWare™ Internet Services), you can easily access it by selecting Server Home Page under the OpenView Tools menu Web Browser selection.
Custom Domain for Xerox Devices	Managing the Xerox devices on your network is made much easier by displaying all the discovered Xerox devices in a single domain.
SNMP Trap Support	Provides option for registering with Xerox networked devices for SNMP Traps automatically, without having to configure each device individually.
Access to Xerox CentreWare™ Web Server	If you've configured access to a Xerox CentreWare™ Web server using the Tools->Xerox CWW Server-> Server Configuration , you can easily launch the server homepage by using the Tools->Xerox CWW Server-> CentreWare Web Launch .

System Requirements

This solution modifies existing HP OpenView NNM files and adds a few files to your hard disk. The total hardware requirements are as follows:

2000/XP/2003 Hardware Requirements

- Pentium PC
- Minimum 512 Megabytes RAM
- 50 Megabytes Hard Disk Space

Solaris Hardware Requirements

- Sun SPARCstation
- 512 MB RAM minimum
- 100 MB free disk space

HP-UX Hardware Requirements

- HP 9000 or PA RISC based HP machine
- 512 MB RAM minimum
- 100 MB free disk space

Software Requirements

2000/XP/2003

The following software must be installed on your PC before installing CentreWare™ for HP OpenView NNM.

- Windows 2000/XP/2003 with latest service pack
- HP OpenView NNM Version 7.0 or later
- Microsoft Internet Explorer 6.0 or later – OR – Netscape Navigator version 6.0 or later.

Solaris

- Solaris (version 6 - 9) with semaphores enabled, and which includes either:
 - The Common Desktop Environment (CDE)
 - X Windows and OSF/Motif
 - HP OpenView NNM Version 7.0 or later
 - Netscape Navigator version 6.0 or later
 - Common Desktop Environment (CDE) Help library files:
/usr/dt/lib/libDTHelp.so.1 /usr/dt/lib/libDtSvc.so.1
- GCC libraries: libgcc-3.2-solX-sparc-local.gz or later

HP-UX

- HP-UX 11.0, 11i or higher
- CDE common Desktop environment (CDE)
- XWindows and OSF Motif (HP VUE)
- HP OpenView NNM Version 7.0 or later
- Netscape Navigator version 6.0 or later
- Common Desktop Environment (CDE) Help library files: /usr/dt/lib/libDTHelp.1 /usr/dt/lib/libDtSvc.1

Before You Start CentreWare™ for HP OpenView NNM

**Before You Start
CentreWare™ for HP
OpenView NNM**

Connect your device to an active network with appropriate cabling. Ensure the device has a valid, unique IP address.

CentreWare™ for HP OpenView NNM Software Installation

Web Installation

The latest version of CentreWare™ for HP OpenView NNM is available from the Xerox Website at:

<http://www.xerox.com>

Perform the following steps to install CentreWare™ for HP OpenView NNM:

2000/XP/2003

1. After downloading the file to a temporary folder, double click on the icon to extract the files.
2. Double click the file
CWare4HPOV<x.x.x>Win.exe
3. The software will begin the installation process. After a few moments, the Install Shield Wizard will load.
4. This software will be installed in the same folder that contains the HP OpenView software. The un-installer will be created in the folder shown in the destination panel. To change the folder, click on the **Browser** button and select the desired folder, then click **Next**.
5. Select **Next** again to begin. The necessary files in your HP OpenView environment will be modified and copied to the selected folder along with any additional files required.
6. The installation process will take some time to complete. Follow the instructions on your screen.
7. When the install is complete, start HP OpenView NNM.

Solaris-HPUX

1. Ensure you are logged in as the root user.
2. After downloading the file to a temporary folder. Browse to folder in File Manager.
3. Double click the file
Solaris: **CWare4HPOV<x.x.x>Sol. bin**
HPUX: **CWare4HPOV<x.x.x>HPUX.bin**

*NOTE** Make sure that you change the file attribute to executable, before running it.*

Before You Start CentreWare™ for HP OpenView NNM

- 4.** The software will begin the installation process. After a few moments, the Install Shield Wizard will start.
- 5.** Select **Next** again to begin. The necessary files in your HP OpenView environment will be modified and copied to the selected folder along with any additional files required.
- 6.** The installation process will take some time to complete. Follow the instructions on your screen.
- 7.** When the install is complete, start HP OpenView NNM.

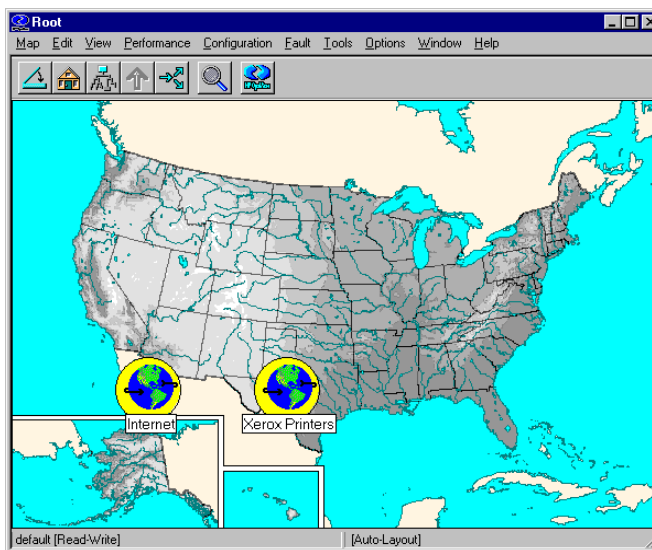
Using CentreWare™ for HP OpenView NNM

This section describes the features of HP OpenView NNM made available by the installation of CentreWare™ for HP OpenView NNM. Only those features of OpenView that are directly related to the CentreWare™ functionality will be described. For additional information on HP OpenView NNM, go to the OpenView Home page at:

<http://www.hp.com>

The HP OpenView NNM Interface

An example of the HP OpenView User Interface is shown in the figure below. Note that the standard features of the application are accessed via the Menu bar at the top of the display, and the Tool bar situated below it.



On this display, there are two domains displayed on the "map" that is the work space for the OpenView NNM application. Of these two domains, only the Xerox Printers domain is generated by CentreWare™ for HP OpenView NNM.

Xerox Printers Map



The CentreWare™ generated **Xerox Printers** domain represents all the Xerox devices that were discovered on the network. Double clicking this icon will cause these devices to be displayed in a map view that shows each Xerox device.

2000/XP/2003

If this icon is right-clicked, a secondary dialog is displayed by selecting **Xerox Device Display** from the resulting menu. The dialog is shown below. It is used to provide statistics, including the number of devices found under the Xerox Printers icon, and their status.

A screenshot of a Windows-style dialog box titled 'Display Zone'. It contains a table with two columns: 'Name' and 'Value'. The table lists four categories: 'Number of Nodes' (24), 'Normal Nodes' (8), 'Nodes with Warning' (12), and 'Critical Nodes' (4). An 'OK' button is located at the bottom center of the dialog box.

Name	Value
Number of Nodes	24
Normal Nodes	8
Nodes with Warning	12
Critical Nodes	4

Device Discovery

HP OpenView NNM provides the discovery of Xerox devices. CentreWare™ for HP OpenView NNM additionally enables the identification of these device types as Xerox devices and the assignment of a unique Xerox icon to them.

Xerox Device Icons

CentreWare™ for HP OpenView NNM uses two icons to represent individual Xerox devices. The icons for these devices are:



Xerox Printer - This icon represents those devices that are printers only. An example might be one of the Xerox N-Series printers.



Xerox Multifunctional Device - This icon represents devices that have more than just printing capability. The features of these devices may include copying, network scanning, and faxing. An example of this type of device is the Xerox Document Centre products.

Xerox Agent Icon



When double-clicked, the **Xerox Printer** icon or **Xerox Multifunctional device** icon will display another icon called the **Xerox Printer Agent** icon. Like the other icons in HP OpenView NNM, this icon will change color when the status of the device changes. The function of this icon is to monitor alarms from the Xerox devices and report them to HP OpenView NNM.

This icon is created when CentreWare™ for HP OpenView NNM is installed. It is the only icon whose color is controlled by the CentreWare™ snap-in.

Device Status

The Xerox Printer Agent icon will be color-coded to represent the current status of the devices in the **Xerox Printers** map. The color-coded status for the **Xerox Printers** map is provided via the CentreWare™ Snap-in.

The Agent icon in the IP map will not affect the status or coloring of the IP map. Therefore the IP map will maintain device status as if CentreWare™ for HP OpenView NNM was not installed.

The color of the icon is determined by the return code from the device. Under the control of HP OpenView NNM, the color will also propagate to the top of the **Xerox Printers** map, providing top level indication of problems that exist at lower levels in the map structure.

This propagation is controlled by HP OpenView NNM, not CentreWare™ for HP OpenView NNM.

The relation between the color-code and the device status is presented in the following table.

Xerox Printer Agent	Color
Critical	Red
Warning	Light Blue
Other or no alert	Green

NOTE: The default propagation rule set used by HP NNM will not propagate the most critical error to the actual printer icon in the Xerox Printers map.

Status Propagation Modification

To set the status propagation at the HP NNM GUI, select the **map->properties->[status propagation]**. Change the setting from "Default" to "Propagate Most Critical."

Device Specific Alarms

To view alarms for a specific device:

Select the device and open it to see the Xerox Agent icon.

Select the **Xerox Agent icon**.

Select the pull down menu.

Fault->Alarms.

Menu Items for Xerox Devices

There are a series of OpenView NNM menu items that are created when CentreWare™ for HP OpenView NNM is installed. These menu items reside on the **Tools** menu on the OpenView Menu bar.

Web Browser Menu Item

Many Xerox devices contain embedded web server. HP OpenView NNM automatically detects whether a device contains one and launches CentreWare™ Internet Services through the **Server Home Page** menu selection.

Internet Services provides a variety of features for configuring and monitoring your device.

Consult the manuals and CDs delivered with your device for details on Xerox CentreWare™ Internet Services. The Web Browser menu item is used to launch CentreWare™ Internet Services for the selected device. To use this feature perform the following steps:

1. Right click a Xerox device.
2. Select **Server Home Page**.
3. The web browser for the workstation will be launched, and CentreWare™ Internet Services for the device will be displayed.

NOTE** If the *Server Home Page* is not available, complete the following steps.

1. Right click the Xerox device.
2. Select **Object Properties**.
3. In Attributes, edit General Attributes.
4. Click on the **Edit Attributes** button.
5. Click on **isHTTPSupported**
The value should change to **True**.
6. Click **OK**.
7. Click **OK**.
8. Right click on Xerox device.
9. Select **Server Home Page**.

Xerox Trap Registration / UnRegistration Menu Items

The Xerox Trap Registration and Xerox Trap UnRegistration menu item will allow the user to select and enable/disable the type of trap configuration desired for the managing workstation. Traps are used to provide an alert, the instant an error at the device occurs, rather than waiting for the next status poll. They also provide more detailed troubleshooting information when a device is experiencing a problem.

There are two possible selections for Trap Registration. With **Single Selection**, the user selects a specific Xerox device. Only the device selected will be registered. Any alerts for that device will be seen in the managing workstation's **Alarms Browser**.

With **Register All Devices**, the managing workstation is registered at all discovered Xerox networked devices to receive traps. As with Single Selection, any alerts for the devices are seen in the managing workstation's **Alarms Browser**.

There are two possible selections for Trap UnRegistration. With **UnRegister Device**, the user selects a specific Xerox device. Only the device selected will be unregistered. Even if, traps from the device are disabled, status will still be maintained by polling.

With the **UnRegister All Devices**, the managing workstation is removed from all discovered Xerox networked devices trap send list. As with **UnRegister Device**, even if, traps from the devices are disabled, status will still be maintained by polling.

Single Trap Selection Menu

This trap configuration registers the selected device. Only one device can be selected at a time.

To use the **Single Selection** configuration, perform the following steps:

1. Select a Xerox device.
2. Select the **Tools -> Xerox Trap Registration -> Single Selection**.
3. The Xerox device will be configured to recognize the managing workstation.
4. The SNMP information for registered device will be captured and displayed in the Alarms Browser for the managing workstation.

Register All Devices Menu

Using **Register All Devices**, all discovered Xerox devices are registered.

To use **Register All Devices**, perform the following steps:

1. Select a Xerox device.
2. Select the **Tools -> Xerox Trap Registration -> Register All Devices**.
3. The managing workstation will be registered at all discovered and managed Xerox networked devices.
4. The SNMP information for registered devices will be captured and displayed in the Alarms Browser for the managing workstation.

UnRegister Device Selection Menu

This trap configuration unregisters the selected device. Only one device can be selected at a time.

To use the **UnRegister Device** configuration, perform the following steps:

1. Select a Xerox device.
2. Select the **Tools -> Xerox Trap UnRegistration -> UnRegister Device** menu.
3. The managing workstation will be removed from the selected Xerox device.
4. Traps will no longer be sent from the device. Status will be maintained by polling.

UnRegister All Devices Menu

Using **UnRegister All Devices**, all discovered Xerox devices are unregistered.

To use **UnRegister All Devices**, perform the following steps:

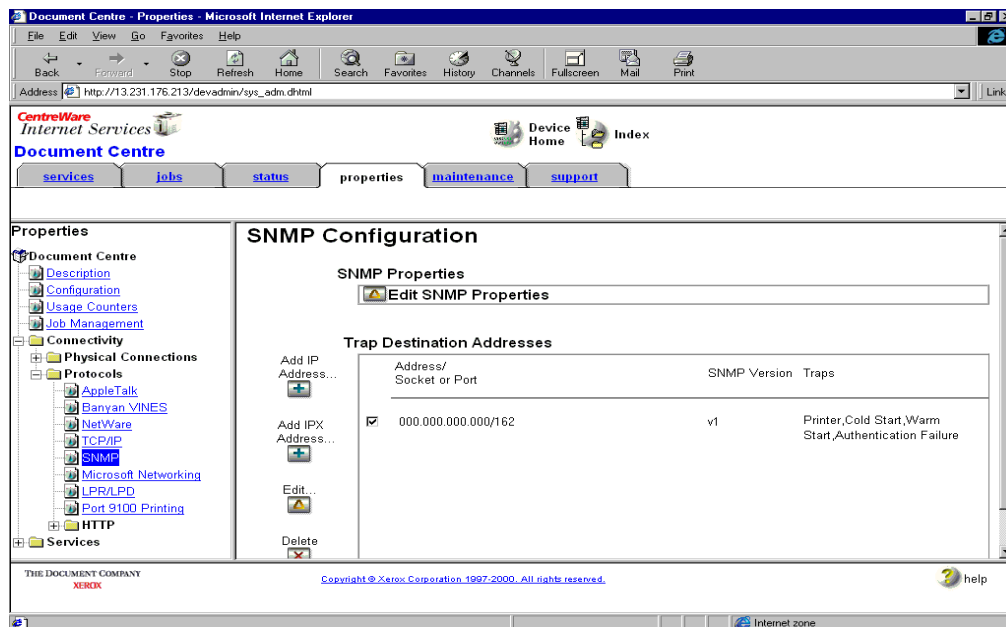
1. Select a Xerox device.
2. Select the **Tools -> Xerox Trap UnRegistration -> UnRegister All Devices** menu.
3. The managing workstation will be removed from all discovered and managed Xerox networked devices.
4. Traps will no longer be sent from the devices. Status will be maintained by polling.

Confirming SNMP Trap Registration at the Device

To confirm SNMP Trap Registration on a specific Xerox device, perform the following steps:

1. Right click the Xerox device.
2. Select **Server Home Page**.
3. The web browser for the workstation will be launched, and CentreWare™ Internet Services for the device will be displayed.
4. Select the **Properties** tab.
5. Select **Connectivity**, **Protocols** and **SNMP**.
6. The screen below is displayed.

NOTE: The procedure and screen may vary between Xerox devices. If the device supports traps, locate the SNMP configuration page for your device.

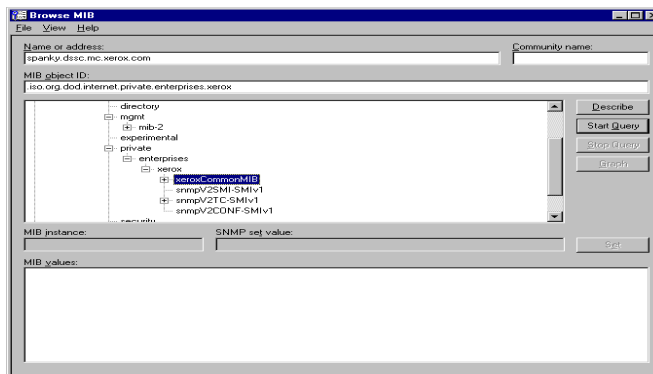


NOTE*** If the Server Home Page is not available, refer to the “Web Browser Menu Item” section.

SNMP MIB Browser Menu Item

The **Tools -> SNMP MIB Browser** selection will display a MIB browser that allows the user to search for, select, view, and set values for MIB OIDs.

The MIB Browser is a standard feature of the HP OpenView application, and is not installed with CentreWare™ for HP OpenView NNM. However, when CentreWare™ for HP OpenView NNM is installed, the OIDs for Xerox networked devices are installed, and can be viewed with the SNMP MIB Browser.



Using this browser, the user can access any MIB OID in the configuration. The browser will then allow the user to view the contents of the OID for evaluation and troubleshooting.

Xerox Usage Counter Menu Items

2000/XP/2003

The Xerox Usage Counter menu items allows user to configure the schedule for collecting Usage counters for the discovered Xerox devices. It also allows user to view and export the collected Usage data.

NOTE: This utility is supported on windows platforms only.

There are three selections for Usage Counter.

Configure Usage Utility, Enables configuration of Usage data collection time. This selection automates the daily Usage data collection at the user's scheduled time.

View Reports, Enables viewing single device or all devices report in html format in Internet Explorer.

Export Data, Enables export of the single device or all devices report in .csv format in...
<NNMDIR>\XUsageCount\ folder.

A maximum of 10 backup files are created in the...
<NNMDIR>\XUsageCount\ folder, for every Single and All Devices export.

The export file naming convention used by the application is...

For All Devices..... Xrx_UsageCount_All.csv

For Single Device.....Xrx_UsageCount_<IPAddr>.csv.

The backup files are named as...

For All Devices..... Xrx_UsageCount_All_<n>.csv

For Single Device.. Xrx_UsageCount_<IPAddr>_<n>.csv.

Where <n> ranges from 1 --- 10.

Once the limit of 10 is reached, the user is prompted with the appropriate message and all the previous 10 exported files are backed-up in the
<NNMDIR>\XUsageCount\BackUp folder.

NOTE** The **Configure Usage Utility** needs to complete before data viewing/exporting can be initiated.

Usage Counter application for any device that supports Embedded Fax and Server Fax service options, will store the counters based on the options that are enabled when the device is polled to fetch usage Counters.

For example, if the device has Server Fax option enabled, when Usage Counter application polls it, counters pertaining to Server Fax option will be stored.

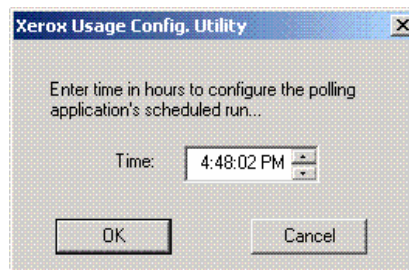
Now, if user disables Server Fax option & enables the Embedded Fax option for the device, then in the next poll, Usage Counter application will now store the counters for Embedded Fax option and the field values for the counters pertaining to Server Fax option will be stored and viewed in reports as 0.

With Delete Usage Counter Data option selection, the user can delete 1) Data between a selected date range for the chosen device or all devices and 2) All data for the chosen device or all devices.

Configure Usage Utility Menu Item

To perform the usage configuration, perform the following steps:

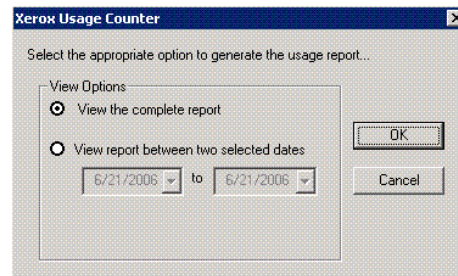
- 1 Select a Xerox device.
- 2 Select the **Tools** -> **Xerox Usage Counter** -> **Configure Usage Utility** menu.
- 3 Enter the time in the dialog box (As shown in the screen below).
- 4 Press OK to register your changes.



View Report Menu Item

To use the View Report option, perform the following steps:

- 1 Select a Xerox device.
- 2 Select the **Tools -> Xerox Usage Counter -> View Reports** menu.
- 3 Select either **Single Selection** or **All Devices** option.
- 4 Select the desired options in the dialog box (As shown in the screen below).



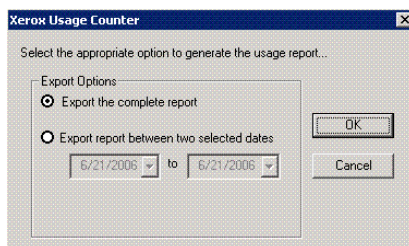
- 5 Press OK to view the report in Internet explorer (As shown in the screen below).

Usage Description	Usage Values
	Wed Jun 21 06:38:36 2006
C13 - Total Printed Images	488804
C13(po) - Total Printed Images Since Power On	11722
C2 - Total Marked Print Images	436688
C5 - Total Print Sheets	330806
C8 - Total Duplex Print Sheets	105882
C11 - Total Large Print Sheets	2114
C56 - Total Successful Images Received From Server FAX	0
C43 - Total Successful Network Scanning Image Transfers	10688
C45 - Total Successful Image Transfers to Email	0
C44 - Total Successful Internet Fax Image Transfers to Network	0

Export Report Menu Item

To use the Export Report option, perform the following steps:

- 1 Select a Xerox device.
- 2 Select the **Tools ->Xerox Usage Counter -> Export Reports** menu.
- 3 Select either **Single Selection** or **All Devices** option.
- 4 Select the desired options in the dialog box (As shown in the screen below).



- 5 Press OK to Export the report to <NNMDIR>\XusageCount\ Folder (As shown in the screen below).

Address <E:\Program Files\HP OpenView\Xerox\UsageCount.html>

Xerox Usage Counters Report

Usage Counters for 13.252.31.32

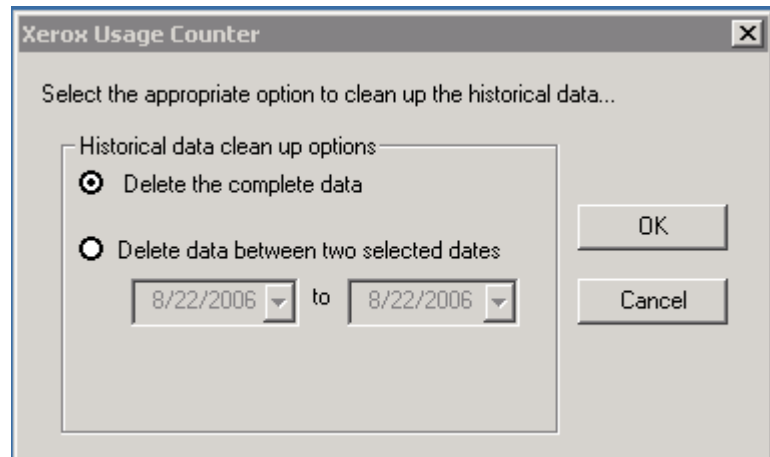
Xerox WorkCentre Pro Multifunction System, ESS 0.R01 02.366.01, IOT 23.35.0, UI 0.2.92.12, Finisher 9.15.0, Scanner 15.7.0

Usage Description	Usage Values
	Wed Jun 21 06:38:36 2006
C13 - Total Printed Images	488804
C13(po) - Total Printed Images Since Power On	11722
C2 - Total Marked Print Images	436688
C5 - Total Print Sheets	330806
C8 - Total Duplex Print Sheets	105982
C11 - Total Large Print Sheets	2111
C56 - Total Successful Images Received From Server FAX	0
C43 - Total Successful Network Scanning Image Transfers	10688
C45 - Total Successful Image Transfers to Email	0
C44 - Total Successful Internet Fax Image Transfers to Network	0

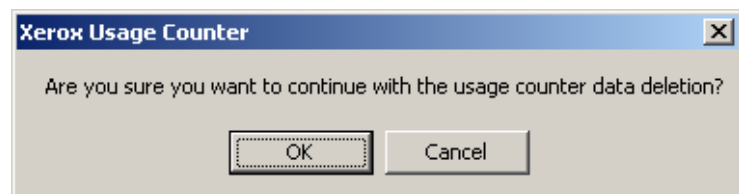
Delete Usage Counter Data Menu Item

To use the Delete Usage Counter Data option, perform the following steps:

- 1** Select a Xerox device.
- 2** Select **Tools -> Xerox Usage Counter -> Delete Usage Counter Data** menu.
- 3** Select either **Single Selection** or **All Devices** option.
- 4** Select the desired options in the dialog box (As shown in the screen below).



- 5** Press OK to delete the historical Usage Counter Data.
- 6** Select OK in the dialog box (As shown in the screen below) to continue with the deletion.



Trapd.conf file entries

The trapd.conf contains definitions for the handling of SNMP traps (generated by SNMP agents) and events (generated by applications registered with pmd). It includes information on how to format log entries (logged to trapd.log) and what action to take, if any, upon receiving an event.

For Xerox CentreWare™ for HP Openview plugin to handle events received from the Xerox, Tektronix and other supported devices, the plugin creates three enterprises and one event entry corresponding to each enterprise namely.

Enterprise Identifier

Xerox .1.3.6.1.4.1.253.8.62
Tektronix .1.3.6.1.4.1.128.2.1
printerV1Alert .1.3.6.1.2.1.43.18.2

Events Identifier

Xerox_trap .1.3.6.1.4.1.253.8.62.*
Tek_trap .1.3.6.1.4.1.128.2.1.*
V1Alerts .1.3.6.1.2.1.43.18.2.*

The Category definition for CentreWare™ for NNM entries is set as 0(IGNORE), because the status Alarm Log is populated via plugin application Xrx_TrapAction.

Events

The Event definitions identify and provide triggers for the events defined in the Trapd.conf file. The event definitions added by Xerox CentreWare™ for NNM are

```
EVENT V1Alerts .1.3.6.1.2.1.43.18.2.* "IGNORE" Normal  
FORMAT  
EXEC Xrx_TrapAction $A $S $G  
SDESC
```

This event informs the Alarm Browser that a V1 trap event from the device has been received and it needs to be logged in the Alarm Browser using Xrx_TrapAction application in the action block.

```
EDESC
```

EVENT Tek_Trap .1.3.6.1.4.1.128.2.1.* "IGNORE" Normal
FORMAT

EXEC Xrx_TrapAction \$A \$S \$G

SDESC

This event informs the Alarm Browser that a trap event from the Tektronix Device has been received and it needs to be logged in the Alarm Browser using Xrx_TrapAction application in the action block.

EDESC

EVENT Xerox_Trap .1.3.6.1.4.1.253.8.62.* "IGNORE"

Normal

FORMAT

EXEC Xrx_TrapAction \$A \$S \$G

SDESC

This event informs the Alarm Browser that a trap event from the Xerox Device has been received and it needs to be logged in the Alarm Browser using Xrx_TrapAction application in the action block.

EDESC

Parameters

NOTE: Xrx_TrapAction takes three parameters

\$A (IP Address)

\$S (Specific trap)

\$G (Generic Trap)

\$A, \$S, \$G are NNM defined operators that take the appropriate value from the SNMP PDU received by NNM. FORMAT Tag in the above entries is used for displaying the event in trapd.log and xnmevents. It is left blank because the status Alarm Log is populated via plugin application Xrx_TrapAction.

The description within SDESC tags is displayed in the description field of the Event configuration window.

MIBs Loaded During Installation

In the following table is a list of the MIBs loaded during installation of CentreWare™ for HP OpenView NNM, accompanied by a brief description of the MIB.

NOTE: All Xerox devices support a subset of the included MIB modules. IETF MIBs are supported by all Xerox devices.

MIB Name	Description
Xerox.mib	Xerox Common MIB module.

Troubleshooting

If you have problems after you have installed CentreWare™ for HP OpenView NNM, consult the table below.

Symptoms	Possible Causes	Solution
Installation gives a message box reading <i>"HP OpenView demand level is not set to All Levels. Please exit the setup, set the demand level to All Levels from the NNM GUI and then proceed with setup process."</i> and then exits. Windows only.	The Demand level of the NNM application is not set to the appropriate value.	<ol style="list-style-type: none"> 1. Before running the CentreWare™ install, open the NNM GUI. 2. From the menu bar, click Map->Properties. It will open a new window named "Map Properties". 3. Click on the "Applications" tab, select IP Map from the List Box and press the button labeled "Configure for this map". 4. Highlight the field named On-Demand. 5. Select "All Levels". 6. Click the "Verify" button, and upon verification, press the "OK" button. 7. On the "Map Properties" click the "OK" button. It performs some configuration. 8. After the NNM completes configuration, close the NNM window. 9. Begin the installation again.
A Xerox device is not discovered.	<p>The SNMP agent is not working properly in the node.</p> <p>There is a problem with the network connectivity.</p> <p>The Network in which the Device exists is unmanaged.</p>	<p>Ping the Xerox device.</p> <p>Ping the Xerox device.</p> <p>Contact the Network Administrator.</p>
A Xerox device is still not discovered.	The sysObjectId entry in the oid_to_sym , or oid_to_type is missing.	Make the sysObjectId entries in each file using the proper format.
Icon on the map is not the	The object's SysObjectId in	1. Verify the sysObjectId entries in the

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<p>proper Xerox device icon.</p>	<p>the file oid_to_sym is not properly entered.</p>	<p>oid_to_sym file in the proper format. 2. Run ovtopofix -a</p>
<p>Icon on the map is still not the proper Xerox device icon map after running ovtopofix -a.</p>	<p>Device attributes have not been polled.</p>	<p>Follow the process below: 1. Delete the device from Xerox Map and the IP Map 2. Ping the device IP address using HP OpenView Ping utility. 3. The printer should now have the correct attributes.</p>
<p>Trap Registration gives a message box reading... <i>"The preferred SNMP Address field for the selected device (objected = <ID>, SelectionName = <IP ADDRESS>) is either missing or not set. Desired operation cannot be performed."</i></p>	<p>The OpenView framework during device discovery fails to set the "Preferred SNMP Address" field value to the device's IP Address.</p>	<p>In the NNM GUI... 1. Select the Devices symbol in the Xerox Map, and right click using the mouse. 2. Select "Object Properties..." and click. It will pop the "Object Properties" dialog box. Under "Attributes" double click "General Attributes". It will pop "Attributes for object..." dialog box. 3. Select the "Preferred SNMP address" attribute. It will pop the "Set Attribute Value" dialog box. 4. Type in the IP Address of the device in the edit box and click the OK button.</p>
<p>Even after running the usage counter "Configure Usage Utility", "Data not found for selected device(s)." error message appears, when data view/export is initiated.</p>	<p>Windows Task scheduler service is either not installed or is not running. None of the devices discovered in the Xerox Map, have usage counters implemented.</p>	<p>Install the Task scheduler service via "Add or Remove Program" option in windows. If the service is already installed, set the service status to start. Let NNM discover the devices that have usage counters implemented or if the user has the ip address of the desired device/s, use seed file to speed up the discovery process. Refer to the NNM Manual Managing_Your_Network.pdf installed along with NNM for details on using seed file.</p>

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<p>The Usage counter application does not store counters for a device, that is discovered in Xerox map, is online and supports counters.</p>	<p>The OpenView framework during device discovery fails to set the 'Preferred SNMP Address' field value to the device's IP Address.</p>	<p>In the NNM GUI...</p> <ol style="list-style-type: none">1. Select the Device symbol in the Xerox Map, and right click using the mouse.2. Select "Object Properties..." and click. It will pop the "Object Properties" dialog box. Under "Attributes" double click "General Attributes." It will pop "Attributes for object ..." dialog box.3. Select the "Preferred SNMP Address" attribute. It will pop the "Set Attribute Value" dialog box.4. Type in the IP Address of the device in the edit box and click the OK button.
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NOTE: Most of the errors generated by the CentreWare™ for HP OpenView NNM are logged in a log file. For more information, look into the log file ("install directory"\XrxLog.txt).

Appendix A – Xerox Installer / Un-Installer

The installer is a simple Install-Shield application that will automate the addition of the files and perform the required configuration.

The installer will copy bitmap images and registration files into the HP OpenView installation directory. It will also edit several files to enable the identification of Xerox devices in HP OpenView.

In the information below, the installation directory is given as C:\OpenView. The installation directory drive is selectable and may be different for your installation.

2000/XP/2003 Installer

The modifications performed by the installer are as follows. The installer will:

1. Edit the file c:\OpenView\conf\oid_to_type.
2. Edit the file c:\OpenView\conf\oid_to_sym.
3. Add new .exes and .dlls under c:\OpenView\bin directory.
4. Add new file xrx_fields under c:\OpenView\fields\C for Xerox device specific database fields.
5. Add new bitmaps for Xerox devices to the C:\OpenView\bitmaps\C folder and register them.
6. Add the new files to the C:\OpenView\symbols\C folder to add new Xerox printer device symbol class definitions.
7. Modify trapd.conf file under C:\OpenView\conf\C, to enable CentreWare™ to log traps received from Xerox devices.
8. Create the domain Xerox Printers.
9. Copy the Xerox MIB files to C:\OpenView\snmp_mibs\vendor\Xerox and load them.

Solaris / HPUX Installer

The modifications performed by the installer are as follows. The installer will:

- 1.** Edit the file `/etc/opt/OV/share/conf/oid_to_type`.
- 2.** Edit the file `/etc/opt/OV/share/conf/oid_to_sym`.
- 3.** Add new binaries and shared libs under `/opt/OV/bin`.
- 4.** Add new file `Xrx_Fields.frf` under `/etc/opt/OV/share/fields/C` for Xerox device specific database fields.
- 5.** Add new bitmaps for Xerox devices to `/etc/opt/OV/share/bitmaps/C` and register them.
- 6.** Add new files to `/etc/opt/OV/share/symbols/C` for new Xerox printer device symbol class definitions.
- 7.** Modify `trapd.conf` file under `/etc/opt/OV/share/conf/C` to enable CentreWare™ to log traps received from Xerox devices.
- 8.** Create the domain Xerox Devices.
- 9.** Copy Xerox MIB files to `/var/opt/OV/share/snmp_mibs/Vendor/Xerox` and load them.

2000/XP/2003 Un-Installer

To run the un-installer, use **Add/Remove Programs** in the Windows Control Panel. The un-installer will remove all files copied by the Installer, undo any file changes, and run the custom executable **XPlugin_Uninstall.exe**. This will remove the Xerox printer icon, subclass definition, and the alarm object corresponding to CentreWare™ for HP OpenView.

It will additionally:

1. Remove the lines added to files during installation.
2. Delete all files copied.
3. Start services by executing ovstart.

Solaris / HPUX Un-Installer

In a terminal window run the following command:

```
/opt/Xerox/Cware4HPOV/_uninst/Cware4HPOVUninst<x.x.x>.bin.
```

NOTE: User may find multiple _uninst folders, followed with a numeric value, say _uninst1, _uninst2 and so on. Go to the latest one and then run the un-installer.

This will remove the Xerox printer icon, subclass definition, and the alarm object corresponding to CentreWare™ for HP OpenView.

It will additionally:

1. Remove the lines added to files during installation.
2. Delete all files copied.
3. Start services by executing ovstart.