



# Total Control Manager for Windows and UNIX

## Getting Started Guide

Part No. 1.024.1871-00  
Version Number 6.0





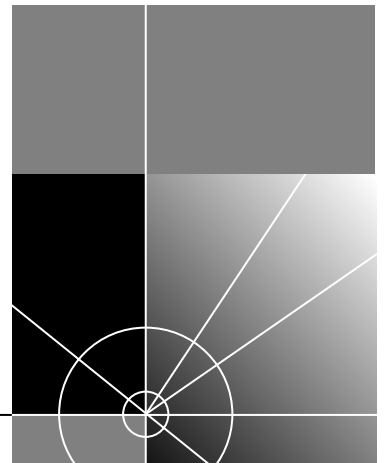
# Total Control Manager for Windows and UNIX Getting Started Guide

Version 6.0

<http://www.3com.com/>

Part No. 1.024.1871-00

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# ABOUT THIS GUIDE

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## Introduction

About This Guide provides an overview of this guide, describes guide conventions, tells you where to look for specific information and lists other documentation that may be useful.

This Getting Started Guide is designed to help you install, start, and use Total Control Manager® for both Windows® and UNIX®. This guide contains a short description of the application, but does not discuss all the features of Total Control Manager. For additional information, please refer to the online Help system, and the Total Control Manager Software References for Windows and UNIX.

This guide is intended for network administrators with some training or experience working in a data center using Total Control equipment. Prior experience with Total Control Manager is helpful, but not required. This guide is most useful if you are already familiar with networks and installing software on Windows or UNIX platforms.







*If the information in the release notes shipped with your product differs from the information in this guide, follow the instructions in the release notes.*

## Conventions

The following tables list conventions used throughout this guide.

### Notice Icons

| Icon  | Notice Type      | Description   |
|---|------------------|---|
|  | Information note | Information that contains important features or instructions.   |
|  | Caution          | Information to alert you to potential damage to a program, system, or device.   |
|  | Warning          | Information to alert you to potential personal injury or fatality. May also alert you to potential electrical hazard. |
|  | ESD              | Information to alert you to take proper grounding precautions before handling a product.                              |

### Text Conventions

| Convention   | Description   |
|--|---|
| Text represented as a screen display                       | <i>This typeface</i> represents displays that appear on your terminal screen, for example:<br><br>Netlogin:   |
| Text represented as <b>commands</b>                        | <b>This typeface</b> represents commands you enter for example:<br><br><b>setenv TCMHOME directory</b><br><i>This guide always gives the full form of a command in uppercase and lowercase letters. However, you can abbreviate commands by entering only the uppercase letters and the appropriate value. Commands are not case-sensitive.</i> |
| Text represented as <b>menu</b> or <b>sub-menu names</b> . | <b>This typeface</b> represents all menu and sub-menu names within procedures, for example:<br><br>On the <b>File</b> menu, click <b>New</b> .  |

## Related Documentation

The Total Control Manager documentation set includes the following documents. To order additional copies of this documentation set, contact your sales representative.

- **The *Total Control Manager* online Help System**

This Help system describes how to use Total Control Manager. It also contains context-sensitive help for all of the system parameters.

Online Help is supplied with both Windows and UNIX versions of Total Control Manager.

- **The *Total Control Manager for Windows Software Reference***

This reference contains an overview of Total Control Manager for Windows and information about the optional features. This document also provides instructions for customizing cards and devices, monitoring and maintaining the system, and trouble clearing.

- **The *Total Control Manager for UNIX Software Reference***

This reference contains an overview of Total Control Manager for UNIX and information about the optional features. This document also provides instructions for customizing cards and devices, monitoring and maintaining the system, and trouble clearing.

**The Total Control  
Enterprise Network  
Hub Documentation  
Library CD-ROM**

Documentation specific to each of the devices managed by Total Control Manager is also available. The Total Control Enterprise Network Hub Documentation Library CD-ROM contains installation and reference documentation for the following:

- Chassis and Fan Tray
- Network Management Card (NMC)
- Quad Modem Card
- NETServer Card
- Security and Accounting Server
- HiPer DSP Card
- HiPer ARC
- E1 Card
- T1 Card
- EdgeServer
- X.25 Card



## Contacting 3Com

Call the appropriate toll free number listed below for technical support.



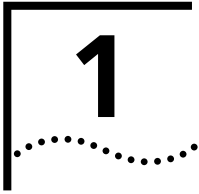
*For European countries that do not have a toll free number listed, call +31 30 602 9900.*

| Country        | Toll Free Number | Country   | Toll Free Number |
|----------------|------------------|---|------------------|
| <b>Austria</b> | 06 607468        | <b>Netherlands</b>                              | 0800 0227788     |
| <b>Belgium</b> | 0800 71429       | <b>Norway</b>                                   | 800 11376        |
| <b>Canada</b>  | 1800 2318770     | <b>Poland</b>                                   | 00800 3111206    |
| <b>Denmark</b> | 800 17309        | <b>Portugal</b>                                 | 0800 831416      |
| <b>Finland</b> | 0800 113153      | <b>South Africa</b>                             | 0800 995014      |
| <b>France</b>  | 0800 917959      | <b>Spain</b>                                    | 900 983125       |
| <b>Germany</b> | 0800 1821502     | <b>Sweden</b>                                   | 020 795482       |
| <b>Hungary</b> | 00800 12813      | <b>Switzerland</b>                              | 0800 553072      |
| <b>Ireland</b> | 1800 553117      | <b>UK</b>                                       | 0800 966197      |
| <b>Israel</b>  | 0800 9453794     | <b>United States</b>                            | 1800 2318770     |
| <b>Italy</b>   | 1678 79489       | <b>All Other Locations<br/>(Outside Europe)</b> | 1847 7976600     |

Refer to the Total Control Enterprise Network Hub Documentation CD-ROM for more information regarding product warranty.



*For information about Customer Service, including support, training, contracts, and documentation, visit our website at <http://totalservice.3com.com>*



# OVERVIEW

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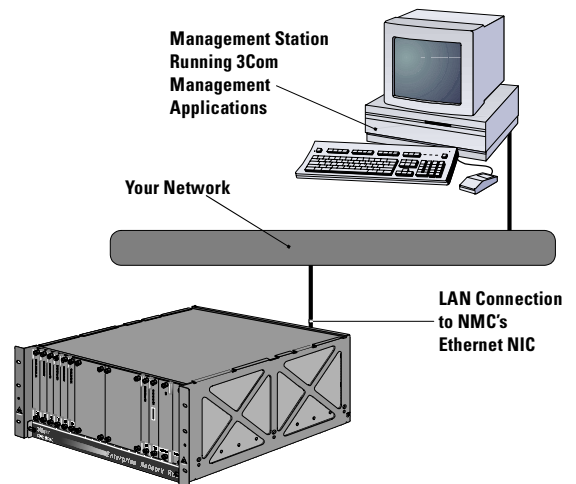
## About the Total Control Enterprise Network Hub

The Total Control Enterprise Network Hub is a data communications platform that supports a wide variety of data, voice, and video applications. It was designed to combine any or all of these applications within a single chassis. Application features are provided by Network Application Cards (NACs) which plug into the front of the chassis. Local and wide-area network (LAN and WAN) and Public Service Telephone Network (PSTN) interfaces are provided by Network Interface Cards (NICs) installed in the back of the chassis.

---

## About Total Control Manager

Total Control Manager is a software application that runs on a personal computer called a management station. This application remotely manages 3Com NACs and NICs through a Network Management Card (NMC) installed in an Enterprise Network Hub.



Two protocols govern these management functions: Simple Network Management Protocol (SNMP) between the NMC and the management station, and a proprietary 3Com protocol between the NMC and the managed cards.

**Simple Network Management Protocol**

Total Control Manager communicates with the NMC via SNMP rules. Since the other Network Application Cards (NAC) installed in the hub do not use SNMP agent software, the NMC acts as a proxy agent between these cards and the management station.

Standard SNMP traps can be enabled to send a trap message (or event notification) to one or more management stations. The management stations use these traps to create logs, trigger alarms, and initiate actions.

For more information about SNMP, refer to the *Total Control Manager for Windows Software Reference*.

**Command Communication**

The management station uses Management Information Bases (MIBs), defined for each card in the hub, to issue commands to the NMC. The NMC executes the commands and obtains the results using a proprietary 3Com protocol. The NMC uses SNMP to return these results to the management station.

The NMC communicates with each installed card using a 3Com proprietary Management Bus Protocol (MBP). The NMC provides configuration management for each NAC in the hub and can set each parameter for a NAC to a desired value. The NMC also automatically configures parameters to predetermined values when a NAC is installed in the hub. To help manage the configuration, the NMC can also query the current value of parameters for each NAC and download software for upgrades.

---

**Total Control Manager Features**

This software configures 3Com devices remotely from a management station on a LAN or WAN. Versions of the Total Control Manager are available for Windows and UNIX environments.

In addition to all the functionality that comes with Total Control Manager, 3Com offers optional functions for this software application:

- AutoResponse
- Cellular Modem Support
- x2 Support
- V.90 Modem Support

**Optional Features** Menus and menu options for managing optional features only display if the feature is enabled. Only enabled optional features can be managed with Total Control Manager.

**AutoResponse** AutoResponse defines a set of actions to be taken automatically when a specified event occurs in the hub. The software refers to this set of actions as an AutoResponse script. The event may be hub-wide, specific to a particular NAC in a given hub slot, or specific to a particular entity, for example a single modem channel.

In short, AutoResponse is a software application you can use to write a script (a list of actions or commands) that executes when a specific event occurs in the hub.

Total Control Manager provides a convenient graphical user interface (GUI) through which the Network Manager can configure these automatic responses. Because your AutoResponse scripts are saved on the NMC, Total Control Manager does not need to be running when an event occurs for the NMC to invoke the appropriate response script.

#### **What events can AutoResponse detect?**

AutoResponse recognizes three categories of events:

- Hub or NMC events
- Device or slot events
- Modem or channel events

AutoResponse events are SNMP traps and may require you to specify thresholds, also called descriptors. Thresholds for an event must be programmed through the Total Control Manager dialog box.

#### **Cellular Modem Support**

This feature supports cellular modem applications by providing direct configuration of new cellular objects added to the modem MIB. This direct configuration includes configuration objects for MNP10 and Enhanced Throughput Cellular (ETC).

For more information on how to install Cellular Modem Support, refer to the Total Control Manager for Windows online Help system.

#### **What Can Cellular Modem Support Do for Me?**

Modems with cellular support can negotiate for ETC and MNP10 cellular protocols. These protocols are designed to resolve a variety of link establishment and data transfer problems specific to cellular calls.

**x2 Support** This feature supports 3Com x2 technology by providing direct configuration of objects added to the modem MIB.

**V.90 Modem Support** 3Com V.90 technology support is an optional feature you can purchase for use with Total Control Manager. This feature supports 3Com V.90 technology by providing direct configuration of asymmetric modulation objects added to the modem MIBs.

#### **What Can V.90 Support Do for Me?**

V.90 technology allows downstream data transfer rates of up to 56 kbps over standard analog phone lines when one end of the connection is digital.

# 2

## INSTALLING TOTAL CONTROL MANAGER FOR WINDOWS

This chapter is designed to help you check network hardware and install Total Control Manager for Windows on the management station.

---

### Setting up the Hardware

Total Control Manager for Windows can manage complex or simple networks. The simplest network may consist of a management station connected to a Total Control Enterprise Network hub.

Total Control Manager for Windows features intelligent menus. The software displays menus and menu options for installed devices and does not display menus for devices that are not installed. Total Control Manager determines if a hub is connected to the management station before displaying the main menu bar.

Make sure the management station is on a network with at least one hub before running Total Control Manager for Windows.

---

### Before you Begin

Before using Total Control Manager for Windows to manage network devices:

- 1 Assemble and install the hardware devices to be managed. Typically this software manages an Enterprise Network Hub, but it can also manage other network devices like the Modem Pool/16.
- 2 Connect the personal computer, also called a management station, that will run the Total Control Manager software to the network that serves the devices you want to manage.
- 3 Assign Internet Protocol (IP) addresses to the devices to be managed and to the management station.
- 4 Uninstall any previous versions of the software.

### Uninstalling a Previous version of the Software



To remove a previous version of the Total Control Manager application:

*When you uninstall Total Control Manager, all active processes are terminated.*

- 1 Click the **Start** button, point to **Programs**, and then point to **USR Management Applications**. Click **Uninstall Total Control Manager**.
- 2 Follow the instructions in the wizard to remove Total Control Manager from your management station.

---

### Installing the Software



*If Total Control Manager for Windows was previously installed, or is currently installed, uninstall the older version before continuing with this procedure.*

To install Total Control Manager for Windows:

- 1 Start the management station, if necessary.
- 2 Insert the Total Control Manager software CD into your CD-ROM drive.
- 3 Click the **Start** button and then click **Run**.
- 4 Type **Drive:\Tcm\Setup**  
(where Drive is the letter assigned to the CD-ROM drive)
- 5 Click **OK** and follow the instructions on the screen.

After installing the software, click the Total Control Manager icon in the group and folder selected during installation to start the software.

---

### Starting the Software

To start Total Control Manager for Windows:

- 1 Double-click the Total Control Manager icon in the group and folder selected during installation.  
The Total Control Manager graphical user interface (GUI) appears.
- 2 Before Total Control Manager can establish a connection with the NMC and determine hub configuration using AutoDiscovery, you must identify the NMC with a host name or an IP address.

Default addresses are assigned to both the LAN (192.77.203.193) and WAN (192.77.203.65) ports on the NMC NIC. Although these defaults work for the initial connection, change these addresses during the first

session to match your networking scheme. See the *Total Control Manager Software References* or the Total Control Manager online Help for more information on how to change the NMC host names and IP addresses.

- 3 On the **Main Menu** bar, click **File**, and then click **New**.

The New Dialog box appears.

- 4 To identify the device, type a name in the **Device Name** box.
- 5 Specify the IP Address of the NMC for the hub you want to configure in the **Target Host** box.
- 6 Click **OK**.

Total Control Manager discovers the device.

The screenshot shows the 'New' dialog box with the following fields and values:

- Device ID: (empty)
- Device Name: USRDevice1
- Target Host: 0.0.0.0
- Device Type: WAN HUB (dropdown menu)
- AutoDiscovery... (button)
- SNMP Community Strings:
  - Read Only: public
  - Read+Write: private
- Notepad: (empty text area)
- Buttons: OK, Cancel, Option >>



# 3

## INSTALLING *TOTAL CONTROL MANAGER* FOR UNIX

Total Control Manager for UNIX is designed to operate as a standalone application on workstations running on HP OpenView Network Node Manager (HP-UX® or Solaris™) and SunNet Manager (Solaris only) operating environments. However, these platforms are not required for proper operation of Total Control Manager for UNIX. For instructions on installing Network Node Manager or SunNet Manager (SNM), refer to the installation guides for these products.

Total Control Manager for UNIX is available for the UNIX workstation configurations listed in the following tables.

For HP-UX:

| <b>Resource</b>         | <b>Requirement</b>                                 |
|-------------------------|--|
| Hardware Platform:      | HP 9000 and HP 712/100 or higher with CD-ROM drive |
| Operating System:       | HP-UX V10.20 or higher                             |
| Prerequisite Software:  | X-Windows - X11R5-SHLIBS, Motif 1.2                |
| System Memory:          | at least 64 MB                                     |
| Application Disk Space: | 100 MB minimum on one partition, not across many   |
| Monitor:                | Color  |
| Network Connection:     | Ethernet or Token Ring                             |
| Optional Software:      | Open View Windows Network Node Manager 5.x         |

For Sun Solaris:

| <b>Resource</b>    | <b>Requirement</b>                                  |
|--------------------|---|
| Hardware Platform: | Sun™ SPARCstation™ 5/85 or larger with CD-ROM drive |
| Operating System:  | Sun Solaris V2.5.1 or above                         |

| Resource                | Requirement  |
|-------------------------|--|
| Prerequisite Software:  | X-Windows - X11R5, Motif Runtime Kit (SUNWmfrun package)             |
| System Memory:          | at least 32 MB   |
| Application Disk Space: | 100 MB minimum on one partition, not across many                     |
| Monitor:                | Color  |
| Network Connection:     | Ethernet or Token Ring   |
| Optional Software       | SunNet Manager (SNM) 2.3, Open View Windows Network Node Manager 5.x |

## Before You Begin

Before installing Total Control Manager on your system:

- Install all the Total Control devices that will be managed through Total Control Manager. For more information on installing these devices, refer to the specific device's documentation.
- Uninstall any previous versions of the software. See the *Uninstalling Total Control Manager for UNIX* section later in this chapter.

## Determining your UNIX Shell

To determine which UNIX shell you are running, type:

```
echo $SHELL
```

This command returns one of the following responses:

- CSH = C Shell
- KSH = Korn Shell
- SH = Bourne Shell

---

## Installing Total Control Manager for UNIX on an HP Workstation

3Com supports installation of Total Control Manager for UNIX Version 6.0 on an HP workstation running HP-UX 10.20.

Total Control Manager for UNIX requires the X11R5-SHLIBS files set which is a standard part of HP-UX 10.20. This files set provides the shared libraries for Motif1.2 and X11R5.

### Required HP-UX Patches

For HP-UX 10.20 users, patch PHSS\_8711 needs to be installed on your machine to allow file selection within motif windows to work correctly.



*If Total Control Manager for UNIX was previously installed, or is currently installed, uninstall the older version before installing this new version. See the Uninstalling Total Control Manager for UNIX section later in this chapter.*

*The only way to retain old installations is to rename TCMHOME.*

### Installation from CD

To install Total Control Manager for UNIX on an HP Workstation:

- 1 Log in as root.
- 2 Insert the CD for HP-UX:
- 3 Copy the application files from the CD-ROM to the hard drive:

```
# mkdir -p /SD_CDROM/tcm  
# chmod 777 /SD_CDROM/tcm  
# /sbin/mount /dev/dsk/c0tXd0 /SD_CDROM/tcm
```



*X is the SCSI address for the CD-ROM drive. For example: If the CD-ROM has the SCSI address 2, the user should use:*

```
# /sbin/mount /dev/dsk/c0t2d0 /SD_CDROM/tcm
```

- 4 Then, install Total Control Manager for UNIX:

```
# cd /SD_CDROM/tcm
```

```
# ./Install
```



*The installation file defaults to `./TCMHP.TAR` on HP-UX.*

*The change-directory command in the examples above allows the user to invoke `INSTALL` with no arguments. The user could also invoke `./INSTALL TCMHP.TAR`.*

---

## Installing Total Control Manager for UNIX on a SUN Workstation

3Com supports Total Control Manager for UNIX Version 6.0 installation for Solaris 2.5.1. Use the following information if you are installing Total Control Manager for UNIX on a SUN workstation with Solaris 2.5.1.

Total Control Manager for UNIX requires the Motif 1.2.3 Runtime kit, a standard part of Solaris 2.4 and above. This kit, contained in the Solaris package **SUNWmfrun**, provides the Motif shared library file, `libXm.so.3`. For more information, refer to the Solaris documentation.

### Required Solaris 2.5.1 Patches

Solaris 2.5.1 users must install SUN patch 103461 on your machine to allow file selection within motif windows to work correctly.

### Required Solaris 2.5.1 Shared Libraries

SunNet Manager integration depends on the following shared libraries normally present in Solaris 2.5.1:

- `/usr/lib/ld.so.1`
- `/usr/lib/libnsl.so.1`
- `/usr/lib/libm.so.1`
- `/usr/lib/libw.so.1`
- `/usr/lib/libc.so.1`
- `/usr/lib/libdl.so.1`
- `/usr/lib/libintl.so.1`

### Installation from CD

To install Total Control Manager for UNIX on a SUN Workstation:



*If Total Control Manager for UNIX was previously installed, or is currently installed, uninstall the older version before installing this new version. See*

*the Uninstalling Total Control Manager for UNIX section later in this chapter.*

- 1 Log in as root.
- 2 Insert the CD for Solaris 2.5.1.
- 3 Follow the procedure below depending on whether you are running Volume Manager (vold) or not.

#### **For Solaris with Volume Manager**

- 1 Log in as root.
- 2 Insert CD for Solaris:
- 3 Wait for it to be mounted as /cdrom/cdrom0.
- 4 Install Total Control Manager for UNIX:

```
# cd /cdrom/cdrom0
# ./Install
```

#### **For Solaris without Volume Manager**

- 1 Log in as root.
- 2 Insert CD for Solaris:
- 3 Copy the application files to the hard drive and install:

```
# mkdir -p /cdrom/tcm
# mount -F hsfs -r /dev/sr0 /cdrom/tcm
# cd /cdrom/tcm
# ./Install
```



*Because the installation file defaults to `./TCMSOL.TAR` on Solaris, the change-directory command in the examples above allow you to `INSTALL` with no arguments.*

*You may also use `./INSTALL TCMSOL.TAR`.*

---

## **Making Features Accessible from the Command Line**

To make the features accessible at the command line, set the path as follows:

### **In C shell**

```
set path = ($path $TCMHOME/bin)
# rehash
```

### In Bourne shell

```
# PATH = $PATH:$TCMHOME/bin
```

---

### Integrating with SunNet Manager

3Com supports Total Control Manager SunNet Manager Integration (SNMI) only for SNM 2.3 on Solaris 2.5.1. SUN does not support SNM 2.2.2 on Solaris 2.5/2.5.1.

There are limitations in 3Com and Sun's support of SunNet Manager and Solaris combinations. See the SunNet Manager README for details.

### Required Patches

SNMI requires the following patches for proper integration with Total Control Manager for UNIX:

- 103518-01
- 104018-01

If these patches are not installed, SNM will abnormally abort. The system may require you to reboot the system or wait five minutes before restarting.

### Integrating with SunNet Manager During Installation

SNMI is designed be installed during the initial Total Control Manager for UNIX installation. The Total Control Manager for UNIX installation script starts the install file found in \$TCMHOME/snm. However, you can invoke the \$TCMHOME/snm/Install script at any time.

The install script \$TCMHOME/snm/Install copies and updates all the necessary SNM configuration files. The script then invokes snm console for all current snm users, loading all the 3Com database files needed.

To integrate Total Control Manager SunNet Manager as part of the install, the X-Window System must be running. You must set the environment variable DISPLAY, so SunNet Manager runs during the install. SunNet Manager consoles cannot be running on the local machine under any username.

To integrate Total Control Manager for UNIX with SNM:



Exit all applications, including SNM, before running the Total Control Manager Install program.

- 1 Log in as root.
- 2 Set the environment variable \$TCMHOME to the software directory.
- 3 Then install Total Control Manager for UNIX SNM configuration files:

```
cd $TCMHOME/snm
./Install
```

If you execute \$TCMHOME/Install before installing SNM, run \$TCMHOME/snm/Install after installing SNM. You will not harm the system by installing Total Control Manager before SNM.



*TCMHOME/snm/Install can be executed at any time after SNM is installed.*

### Changing Chassis Types

If 3Com devices were populated in SNM before Total Control Manager was installed, Total Control Manager integration will not change their component type from a non-3Com type, to a 3Com-chassis type. You cannot do this automatically in SNM. For best results, delete and rediscover the 3Com devices, or use the glyph menu option **Change type...** on each 3Com device.

For more information, see the *Mapping Glyphs* section later in this chapter.

### Defining Environment Variables

In most cases, the user does not need to define the environment variables.

- **SNMHOME** - SNM must be installed in the default directory (/opt/SUNWconn/snm). If a different directory was used, the variable SNMHOME must be set before executing \$TCMHOME/snm/Install. This variable is used only at installation or de-installation.
- **SNMDBDIR** - Total Control Manager installation updates all SNM run-time databases for all SNM users. Total Control Manager changes take effect the first time SNM is invoked after installing the software.

The **Database Location directory** specified during the SNM installation must contain the databases to update. If this directory changed since the SNM installation, send the variable SNMDBDIR to the new directory before executing \$TCMHOME/snm/Install.

- **SNMLOGDIR** - Traps generated by 3Com devices are added to the `snmp.traps` file. This file must be located in the **Log File location** directory specified during the SNM installation. If this directory changed since the SNM installation, the variable `SNMLOGDIR` must be set to the new directory before executing `$TCMHOME/snm/Install`.

The following directories are updated in the integration:

- `$SNMHOME/agents`
- `$SNMHOME/icons`
- `$SNMHOME/struct`
- `$SNMDBDIR`
- `$SNMLOGDIR`

Total Control Manager for UNIX does not integrate RFC 1406 mib with SNM because the `$SNMHOME/bin/mib2schema` failed to translate the RFC 1406 MIB file to the SNM schema file. However, the `RFC 1406.mib` file is included in `$TCMHOME/lib/mibs` for your use, if necessary.

**Mapping Glyphs** To map 3Com agents to all the 3Com elements (glyphs), Use this procedure for each SNM user.

- 1 Login as the SNM user.
- 2 Invoke SNM as the user and type:
 

```
snm &
```
- 3 Add all of the 3Com elements to the console.
- 4 Add elements using `snm_discover`.
  - a From the **Tool menu**, select **Discover** to discover an an entire hub.
  - b From the **Edit menu**, select **Create**. Then select **Component** and **usr-chassis** to discover each chassis.
- 5 Exit SNM console.
 

This includes all of the 3Com elements for all users.

#### To map all agents to elements

- 1 Login as root.
- 2 Select **Tool** and **Add USR agents to All**.



This maps all of the 3Com agents to all the 3Com elements for all users.



*SNM 2.3 does not allow global mapping of agents to elements based on an element type. Currently, mapping is set-based on element instances.*

### Removing SunNet Manager Integration

To remove SNMI:

- 1 Log in as root.
- 2 Set the environment variable \$TCMHOME to the software directory.
- 3 Then type:

```
cd $TCMHOME/snm  
./Remove
```



*While all 3Com files are removed from SunNet Manager, no changes are made to the runtime databases. One of the primary purposes of removal is to prepare for a new install. You cannot automatically change component types from 3Com-chassis back to something else within SNM.*

### Completely Erasing Total Control Manager

To erase Total Control Manager for UNIX from SunNet Manager, invoke **snm -i** on each runtime database and repopulate. You can also delete and rediscover all the 3Com devices from each runtime database.

---

### Integrating with HP OpenView 4.1

3Com supports Total Control Manager for UNIX installation for HP OpenView 4.1 on both HP-UX 10.20 and Solaris 2.5.1.

OpenView Integration was written to be installed during initial Total Control Manager for UNIX installation. The installation script starts the Install file found in \$TCMHOME/ovw. However, you can invoke the **\$TCMHOME/ovw/Install** script at any time. You do not need to invoke No ovw/Remove before re-invoking ovw/Install.

The Total Control Manager for UNIX install script installs OpenView integration files to the appropriate Solaris (or HP-UX) / OpenView Network Node Manager subdirectories.

### Specifying OVHOME

Specify the home path for OpenView by setting the environment variable **OVHOME**. This variable is used only for installing or uninstalling.



*If OVHOME is not defined, Total Control Manager looks for OpenView in /usr/OV and /opt/OV.*

*If these directories do not exist, OpenView integration fails but Total Control Manager installation proceeds.*

For OpenView 4.x installation cases, the file \$OVHOME/bin/ov.envvars.sh is sourced to obtain specific directory paths in the manner expected by HP.

### Integrating HP Openview

Install HP Openview Network Node Manager before OpenView integration. Total Control Manager for UNIX warns you if it does not find the OpenView software. Then Total Control Manager proceeds with other installations. You may then install OpenView and retry integration by invoking the following command:

```
$TCMHOME/ovw/Install
```

### Changing Chassis Types

If 3Com devices were populated in OpenView before Total Control Manager was installed, Total Control Manager integration will not change the component type from a non-3Com type to a 3Com chassis type. You cannot do this automatically in HP OpenView. For best results, delete and rediscover the 3Com devices.

You can also use OpenView's **ovtopofix -r -o <object id>** command. 3Com object IDs 1.3.6.1.4.1.429.2.1 thru 1.3.6.1.4.1.429.2.9 must each be individually specified.

If 3Com devices were populated in OpenView before Total Control Manager was installed, sometimes the network map will correctly display the 3Com bitmaps after Total Control Manager integration. This occurs even if the 3Com menu options are not enabled and the **isUSREntNetHub** capability is not set to **True**. For best results, delete and rediscover the 3Com devices.

### Setting Traps

Total Control Manager handles 3Com OpenView trap setup automatically at install time by invoking:

```
/usr/OV/bin/xnmevents -load $TCMHOME/ovw/usrtrapd.conf
```

To enable the new trap types to be viewable, use the following commands:

```
ovstop
ovstart
```

These commands restart all background processes. The `xnmevents` invocation at Total Control Manager install time will output a message to this effect.

If the user needs to re-integrate 3Com trap definitions, enter this command manually to re-invoke 3Com trap integration. Restart the Openview background processes to be able to view the traps in OpenView. Use the following commands:

```
ovstop
ovstart
```



*If HP OpenView or SunNet Manager are not installed in the standard place, you may need to define `OVHOME` or `SNMHOME` in a similar way.*

## Configuration

You should not have to configure your management station after installing Total Control Manager for UNIX.

Total Control Manager adds the following files to locations as setup in **`$OVHOME/bin/ov.envvars.sh`** (assuming OV version 4.1 or higher)

### Files added to OVW Directories

| Category                 | File location   |
|--------------------------|---|
| Field definitions        | <code>\$OV_FIELDS/C/usr_fields</code>                 |
| Application registration | <code>\$OV_REGISTRATION/C/USRobotics</code>           |
| USR-specific symbols     | <code>\$OV_SYMBOLS/C/Connector/USR*</code> (various)  |
| USR icon bitmaps         | <code>\$OV_BITMAPS/C/connector/usr.*</code> (various) |
| USR MIB                  | <code>\$OV_SNMP_MIBS/Vendor/USRobotics/usr-mib</code> |
| OID-to-symbol mappings   | appended to <code>\$OV_CONF/C/oid_to_sym</code>       |

## Using the Community String Feature

Total Control Manager provides the HP Openview Community String feature. To use this feature on some operating systems, set the `OVSNMP_CONF_FILE` according to the following rule: The database's name to be opened is **`{OVSNMP_CONF_FILE}_db`**.



Set this database before launching Total Control Manager, or the **Error Querying OpenView Database: CANNOT OPEN DATABASE** message may be generated.

Put these environment variables in the `.profile` (Bourne shell) or `.cshrc` (C shell) file of the login user's home directory to automatically set the variable.

For example, if the database to open is `/etc/opt/OV/share/conf/ovsnmp.conf_db`, set `OVSNMP_CONF_FILE` as follows:

#### In C shell

```
# setenv OVSNMP_CONF_FILE /etc/opt/OV/share/conf/ovsnmp.conf
```

#### In Bourne shell

```
# export OVSNMP_CONF_FILE=/etc/opt/OV/share/conf/ovsnmp.conf
```

### Removing OpenView Integration

To remove OpenView integration:

- 1 Login as root.
- 2 Then type the following

```
cd $TCMHOME/ovw
./Remove
```



*While all USR files are removed from HP OpenView, no changes are made to the runtime databases, since one of the primary purposes of removal is to prepare for a new install (and since there is no automatic way within OpenView to change component types from Enterprise Network Hub back to something else).*

### Completely Erasing Total Control Manager

To erase Total Control Manager from HP OpenView, replace the current maps with new ones. You can also delete and rediscover all the 3Com devices from each map.

---

## Uninstalling Total Control Manager for UNIX



To remove a previous version of the *Total Control Manager* application:

*Uninstalling the software using the following procedure does not remove directories created by the user. Information contained in directories such as config, data, and log subdirectories of \$TCMHOME, will be retained.*



*When uninstalling Total Control Manager, all active processes are terminated.*

- 1 Log in as root.
- 2 Set the following environment variable:

```
setenv TCMHOME /path
```

where /path points to the directory where *Total Control Manager* is installed.

- 3 Type the following command:

```
cd $TCMHOME  
./Remove
```

- 4 Follow the onscreen directions to uninstall Total Control Manager.



**WARNING:** *To completely remove Total Control Manager, use Remove -completely (or Remove -c). If you are removing the software to upgrade it, specifying -completely is not appropriate unless you want to destroy the software's previous user customization and log files.*

---

## For more information

The Total Control Manager subsystems are documented in the following files in the \$TCMHOME/DOC directory:

- SelectCG
- arsp
- cdma
- cmd+test
- config
- fenable
- inventory
- nvram

- performance
- resp
- sdl
- sr
- tone
- trap+auth
- vfpd

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