hp toptools
deployment guide
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1 Overview

This deployment guide is designed to demonstrate step by step the processes for installation of toptools components. Each chapter is devoted to a specific HP Toptools component. This guide is meant to present installation procedures and is not a comprehensive toptools manual. Additional information on the various uses, features, functions and procedures can be found in the individual toptools component manuals, online help, training, and on the HP Toptools website http://www.HP.com/toptools

1.1 hp toptools

HP Toptools is a comprehensive hardware management solution for HP devices such as HP desktops, notebooks, servers and printers. It’s web interface makes management across various device types easy and intuitive. HP Toptools uses instrumentation standards such as SNMP, WBEM / WMI, DMI, embedded web agents, and http. It also integrates with HP Web JetAdmin for the management of HP printers and Servicecontrol Manager and EMS for managing HP-UX systems. It can also manage devices from other vendors providing the manufacturer’s management agents are installed on the devices.

HP Toptools enables efficient and automatic asset and inventory management, event management, remote action and control of hardware, and performance monitoring of networked devices.

It should be noted however, that while HP Toptools lets you manage devices over a network, it is a device management application, and is not intended to function as an open management platform whereas 3rd party applications are integrated. Rather HP Toptools includes with the software integration solutions that support enterprise management platforms such as HP OpenView.

1.2 Components

The HP Toptools solution relies on three key components:

A management console
An HP Toptools device manager
Manageable devices

1.2.1 Manageable devices

Devices such as HP desktops, workstations, notebooks, servers, network attached storage, hubs and switches, printers, and HP-UX systems are instrumented to provide robust manageability. Agent software or firmware provides the interface to the instrumentation embedded in HP hardware. Once an agent or firmware is installed on a system the device becomes manageable.
Agent installation provides information such as the configuration of a device, its health, performance, OS, hardware inventory, and security settings. Through toptools management functions such as BIOS and firmware flashing, remote configuration and control, and security configuration are available from a web browser.

The level of manageability available for a specific device will depend on the device itself and its supported features, and the operating system/firmware running on the device.

Management agents monitor devices for specific parameters such as unused disk space, memory configuration, resource utilization, temperature, and fan operation. Additionally, through interrogation of the agents, HP Toptools provides OS version information, remote diagnostic capabilities, BIOS flashing capabilities, firmware updates, and distribution of HP drivers.

HP Toptools manages devices based on industry standards including DMI, SNMP, WBEM / WMI, web enabled devices (port 80 and 280), HTTP, and JetDirect cards.

1.2.2 The hp toptools device manager

The role of the HP Toptools device manager is to collect DMI, SNMP, WMI and WBEM data provided by agents running on managed devices and store the data in a database. device manager makes the device information available in a web site.

HP Toptools uses modules known as plug-in’s. These plug-in’s provide the linkage between device agents and the device manager. Additionally this architecture allows for extensibility of HP Toptools as HP develops new hardware solutions. During installation, you will be prompted for the plug-ins and integrations you wish to enable. Your choice should reflect the devices and systems in your environment that you wish to manage with this installation. These device should also be made ready to be managed by having the appropriate agents installed.

1.2.3 The management console

As an HP Toptools administrator, operator or user, you can access the toptools device manager using Internet Explorer or Netscape Navigator from any workstation on the network, provided that you have the proper authorization under a windows based domain or the local security settings of the system where toptools is installed. Communication between the console web browser and the toptools device manager uses the HTTP or HTTPS protocols, which simplifies remote connections through firewalls with technologies such as VPN or RAS. Multiple console can access the toptools device manager simultaneously.
2  Planning Installation

2.1  Overview
This section includes flow charts to guide you through the planning process for a successful installation of the HP Toptools solution with specific focus on the HP Toptools device manager.

Key areas for planning:

Resource Allocation (both human and hardware)
Testing
Down time (possible reboots)
Installation of the device manager and deployment of agents
Maintenance (application of Service Packs)
Training

2.2  Planning flowchart
Configure Discovery

Select Yes, when prompted for Discovery advanced configuration

Configure network addresses you want HP Toptools to discover

If no entry, default is to discover entire IP class address

Mark all discovery options

Enables a discovery that displays agents that may have been previously installed/configured on networked devices

Set discovery schedule with minimal impact on users.

Continue Device Manager installation
Discovery configured → Configure Security → NT Authentication Basic or NT Challenge/Response → Is IIS installed on a FAT partition?

Yes → Convert to NTFS → Secure Socket Layer support?

No → Go to agent installation

Yes → Use Socket Layer for additional security
3 Requirements and suggestions

3.1 Overview
This section will cover hardware, operating system and network requirements for the HP Toptools device manager server. Suggestions will be provided for different configurations based primarily on a best performance criteria. There are two schools of thought on whether the agents or the device manager should be installed first. The first scenario involves installing the agents on the devices to be managed and then installing the device manager. The second scenario involves the HP Toptools device manager to be setup first. Using this method, you can have the HP Toptools device manager help you in the deployment of agents. Chapter 5, 6 and 7 will cover the different agent deployment scenarios. For help on how to installed the required components, please refer to the appendices section.

3.2 Requirement for the hp toptools device manager server

3.2.1 Hardware requirements

Minimum requirements

- Dedicated Pentium 266 MHz or greater machine
- 128 MB RAM
- 2 GB NTFS hard drive
- Network enabled

Suggested system for managing large environment

If your environment contains more than 2000 nodes and/or you will be managing a variety of hardware types, increase the system capability to:

- Dedicated Pentium II or III 400MHz or greater machine
- 256 to 512 MB RAM
- 2 GB NTFS hard drive
- Fast Network (100 Mb/s)

3.2.2 Operating system requirements

Requirements

- Clean Microsoft Windows NT 4.0 / 2000 Workstation / Professional or Windows NT / 2000 Server installed on hardware
- SNMP services installed, tested and running
- On Windows 2000, IIS must be installed
- TCP/IP installed and configured
- Proper Windows 2000 or NT software in hand during installation
Other suggestions

- HP Toptools generates 2 connections per console and the limit on Workstation / Professional is 10 connections. If more than 5 people will be accessing the HP Toptools device manager server at one time, use a server version of Windows NT / 2000 over Windows Workstation / Professional and set licensing accordingly.

- For an easier and faster installation (fewer reboots and dependencies on service packs), consider Windows 2000 over NT as most of the components required by HP Toptools are readily available in Windows 2000.

- An NTFS partition is highly recommended but not required for your web server. NTFS will provide file system security. If installed on a FAT partition, anyone can access the HP Toptools server. Also, user role checking will not work on a FAT partition. All users would be considered toptools Administrators in this situation.

- On a Windows NT system, after setup of SNMP services it will be necessary to reapply your service pack. Currently SP3 is not year Y2K compliant. Use SP 6A, which is on the Toptools CD, or SP4 or SP5. To minimize reboots and potential problems, answer “no” when prompted to reboot after SNMP service setup. Apply the service pack, and then reboot. Always test SNMP services by stopping them, restarting them, and verifying the event log for any anomalies.

- Do not setup the HP Toptools device manager on a backup domain controller or any other critical system that requires peek performance during the time manageability is performed. Best practices suggest installing the toptools device manager on a dedicated system or on a system without scheduling conflict (ex: backup server operated during the night, toptools during the day)

- Always backup previous HP Toptools database information before updating to a new version of HP Toptools. This can be accomplished by saving a backup copy of all the *.mdb files under the \hptt subdirectory and recopying them after the upgrade. This can only be accomplished for upgrades of HP Toptools 5.0 and later. Data from HP Toptools 4.5 or earlier cannot be used with HP Toptools 5.0 or later.

3.2.3 Network and domain requirements

- A fixed IP address for the HP Toptools device manager
- An existing domain admin account on the master domain
- Properly configured domain resolution model
- Internet access (firewall configuration)
4  Installation of the hp toptools device manager

4.1  Overview
This section focuses on the requirements and the installation process of the HP Toptools device manager.

When installing the HP Toptools device manager there are two possible methods that can be used, an interactive install over the internet or installation from a CD. To obtain the HP Toptools device manager go to the HP Toptools web site at [http://www.hp.com/toptools](http://www.hp.com/toptools), here you can initiate the install or order the CD (shipping and handling charges of $14.95).

If you select download, an install wizard is copied to your system and the interactive install begins. Note, you will have to maintain a connection to the internet until install is completed. In the event of an error all temporary files are removed and you must start the process again from the beginning.

The suggested approach is to order the HP Toptools from the web site at a cost of $14.95. This CD includes the latest HP Toptools software and the HP Toptools enterprise solutions

- Notes -
There are special directions to work around the need for a constant connection if the “Download HP Toptools” option is your preference. On the HP Toptools web site (http://www.hp.com/toptools) select Documentation and then open the document titled How to install system software packages with HP Toptools without direct Internet access.

If you upgrade from an earlier version of HP Toptools, backup all database files to ensure recovery in a case of a problem (make copies of *.mdb files).

If you are using HP Toptools 4.5 or earlier software and you install toptools 5.6 you will lose configuration and discovery data. You will need to rediscover your network.

On the proposed management system, start the installation by inserting the CD or start the interactive internet install from the HP Toptools website.

Step 1. The welcome dialog
During the installation, you will see both a primary screen and a “status” screen. The “Installation Status” screen will accompany each setup screen through the installation and provide an update of the install process. The contents of this screen will vary depending on what components may already be installed on your system. In the case where a critical component is missing, the wizard will install the components or instruct you on how to install them yourself. You may also refer to the procedure in the appendices.

![hp toptools Deployment Guide Version 5.6](image-url)
Step 2. System inspection
After you click Next, the HP Toptools installation wizard will inspect the target system; examining the system configuration, checking for the presence of required software, gathering network information and looking for any previous versions of toptools software.

- Note -

The HP Toptools installation wizard will not allow installation to proceed under the following conditions:

- Target OS is Win9x or pre-WinNT 4.0
- Current user does not have local administrative rights
- IP protocol is not installed or No IP information is available *
- Inadequate disk space on all found drives for a bare toptools install

* The system can be properly configured for IP using DHCP, but may not have obtained IP information from the DHCP server at the time of installation. Since IP information is required, this will halt the installation. Although it is not recommended to install toptools onto a system using DHCP, if the HP Toptools installation wizard detects the system is configured to use DHCP, a warning dialog will be displayed. You must install HP Toptools onto a system with a static IP address, or configure the DHCP server to reserve an IP address for this system as the trap destination for managed devices will be registered to this IP address.

Step 3. Required system configuration

If any of the above conditions are true, the HP Toptools installation wizard will inform you in the following dialog box. (The HP Toptools installation wizard will use the same dialog box to inform you of recommendations.) To allow the HP Toptools installation wizard to continue click on the Finish button.

Possible recommendations you will see are:

- CPU is not at least 266 MHz
- An IP ping of the default gateway and/or local system failed
- Target system has less than 128 MB of RAM
- Target system has a pagefile smaller than 150 MB
Step 4. Continue install wizard internet connection
If the HP Toptools installation wizard finds it can continue with installation, it will attempt to make a connection to the HP Toptools website. If a failure occurs, you will be prompted by a dialog explaining that the failure may be due to improperly configured network settings (if the IP pings performed during system inspection failed), or improperly or non-configured proxy settings. The dialog will contain two (2) buttons. One will launch the Network Settings applet, while the other will launch the Internet Connection Wizard. There will also be a Skip, Next and Cancel button. Next will tell the Wizard to reattempt the internet connection. If the connection fails, this dialog will be shown again. Skip will tell the Wizard to ignore the failed internet connection. Cancel will exit the HP Toptools installation wizard.

- Note -
If the internet connection step is skipped, the databases (MEDS, ALERTS and RMDB) will be populated with the data on the installation CD. It is recommended to create and maintain a live connection to the internet in order to allow the HP Toptools installation wizard to check the HP Toptools website for patches and/or updates, and to obtain the latest data for the databases.

Step 5. Upgrade previous toptools installation
The HP Toptools installation wizard will not upgrade a version of toptools earlier than 5.0. You will be prompted to allow the HP Toptools installation wizard to uninstall any pre-5.0 toptools release. If the you decline the uninstall, the HP Toptools installation wizard will exit.

The HP Toptools installation wizard will upgrade a toptools 5.0 installation.

Step 6. Component selection
The component selection dialog allows you to choose an installation location if this is the first time toptools is being installed. If a previous version was found during system inspection, toptools will install in this location and will not allow you to change location.

Any toptools components already installed on the target system will be shown selected in the component selection dialog. When Next is pressed, those components checked will be installed, and those unchecked will be uninstalled. Any installed toptools components with versions newer than those on the toptools media will not be touched.
The toptools device manager is not a selectable component. It is always selected for install and is only unselected when uninstalling all of toptools. The toptools device manager will not be installed each time the HP Toptools installation wizard is run, it will automatically be deselected if the same or newer version is found installed.

It is suggested that you install toptools on an NTFS partition in order to benefit from the user model and provide better security. Choose the destination accordingly in this section. Once you have chosen destination and components click **Next** to continue.

**Step 7. Integration selection**
The integration selection dialog allows you to select integration or linkage, modules to configure with toptools. Select the desired integration and click **Next** to continue.

**- Note -**
The “workgroup node manager” entry will only be displayed if hp workgroup node manager was found installed on the target system. Be aware the “workgroup node manager” is part of the Openview Professional Suite, a discontinued product. For information on how to integrate HP Toptools with Openview Network Node Manager, refer to the HP Toptools web page at www.hp.com/toptools

**Step 8. HP Web JetAdmin integration**
Because HP Web JetAdmin can run stand-alone, it may already be present on the HP Toptools system. If it is present and Web JetAdmin is selected for installation, the HP Toptools installation wizard will create a link to the installed Web JetAdmin if the version matches or is newer than that on the toptools media. If the version of Web JetAdmin installed is older than the version on the toptools media, then the component will be installed (upgraded) and then linked.

If Web JetAdmin is not installed on the HP Toptools system and it is selected for installation, you will be presented with a dialog asking if you would like to install the Web JetAdmin software, or if you would like to link to a Web JetAdmin installation which may be present on another system somewhere on the network. Select your preference, fill in the needed information for Web JetAdmin, and click **Next** to continue.
Step 9. ServiceControl Manager and other linkage modules
If SCM integration is selected, a dialog will be displayed requesting information for the module.

Step 10. Package download disk space
If the HP Toptools installation wizard is run as a web download, then after all component selections have been made, the wizard will check the HP Toptools system for the required disk space needed to download all required/selected software packages.

If more space is required than available package downloads, you are presented with a message box informing you how much additional space – in MB’s – is needed before the download can proceed. You will be asked to make space available or exit the install.

If the HP Toptools installation wizard is run from a CD, this step is skipped.
Step 11. HP Toptools accounts
The HP Toptools installation wizard will configure two (2) user accounts to be used with toptools: The “toptools service” account for the local service and the “toptools admin” domain account for WMI access and agent deployment. These accounts replaces the “toptools user” from previous toptools versions. They can also be existing accounts or renamed.

The “toptools service” user account

If this is a first time toptools install, you will be prompted with a dialog box asking for the password to use with the “toptools service” user account, this will be created on the local system. You may specify a different user account to use. If the account specified already exists, you will be prompted to supply the password for that account.

The “toptools admin” domain user account

You are prompted with a dialog asking for the password to be used with the default domain user account “toptools admin”.

If the HP Toptools system is a member of a domain, a drop down list-box is show with the available domains, defaulting to the HP Toptools domain. You can specify a different domain or user account, or create a new user account. If the “toptools admin” account specified does not exist, the HP Toptools installation wizard will create the account providing the user has domain admin rights. If you do not have domain admin rights, you will be informed that a domain admin will need to create the account specified before functionality requiring the “toptools admin” account may be used.

If the “toptools admin” account specified does exist, you will need to supply the correct password. If you do not supply the correct password, the HP Toptools installation wizard will continue to prompt you until the correct password is given.
If the target system is a member of a workgroup, the domain list-box will not be shown. The HP Toptools installation wizard will create the user account, and you will be instructed that the specified account (user name and password) will need to be present on each managed system where functionality such as WMI access and agent deployment is desired.

The toptools user groups

The HP Toptools installation wizard will create the “toptools”, “toptools operators” and “toptools admins” user groups on the HP Toptools system.

If the HP Toptools installation wizard is upgrading a toptools 5.0 installation and the system is a member of a domain, all members of the existing domain groups, “toptools”, “toptools operators” and “toptools admins” will be added to the local groups under the same name. If the target system is a member of a workgroup, the local groups defined from toptools 5.0 will remain and be used by HP Toptools.

The HP Toptools installation wizard will configure toptools directory security using the locally defined “toptools”, “toptools operators” and “toptools admins” user groups.

Step 12. The toptools program group

If this is a first time install, you will be asked to specify the name of the toptools program group in which the HP Toptools installation wizard will create its program icons. The default is “HP Toptools”. This program group will be created under an “hp management software” program group.

If toptools is already installed, this dialog is not shown. However, the existing “HP Toptools” group and icons will be moved under the new “hp management software” program group.
Step 13. The toptools license agreement
The HP Toptools license agreement and warranty disclaimer will be displayed there are toptools components selected for installation.

If you have read these agreements, and you choose to go Back and modify a selection, you will not be presented with the agreements again. You will not be presented with this dialog if you are only uninstalling software. Select Next to continue.

Step 14. Download software packages
If the HP Toptools installation wizard is run as a web download, then the download of all required/selected software takes place next. A dialog will inform you of the status of the download: If you opt to Cancel the download, a dialog that points you to the toptools website to order a CD is shown.

Step 15. Ready to install
After all software packages have been downloaded, the HP Toptools installation wizard displays a dialog box indicating the wizard is ready to begin installing software.
Step 16. AutoLogon feature
The AutoLogon feature allows you to supply your password for purposes of allowing the HP Toptools installation wizard to log you back into Windows NT automatically when there are required software components installed that force a reboot of the system. This feature is not presented on Windows 2000 systems because reboots are not required.

If you decide not to use the AutoLogon feature, you will be required to supply your password after each system reboot.

Step 17. Install software
The HP Toptools installation wizard will now install all required/selected software onto the target system. The HP Toptools installation wizard will reboot the system when necessary and pickup where it left off until all software is installed.

If a software component fails to install correctly, the HP Toptools installation wizard will present you with two or three choices. If the failed component was a required component or the HP Toptools device manager, you are asked to “retry” or “cancel”. If the failed component was any other component, you can “retry”, “cancel” or “skip”. “retry” will re-run the install of the failed component. (a repeated try of a component install will sometimes be successful.) “skip” will simply skip over the failed component and move onto the next component to be installed. “cancel” will exit the HP Toptools installation wizard.

Step 18. The toptools database updates
If the HP Toptools installation wizard was able to connect to the hp website at the beginning of the installation, then the latest data available will be downloaded and used to populate the toptools databases. If a connection to the hp website is not available, the data on the installation media will be used to populate the toptools databases.

Step 19. Check for patches
After all software has been installed, the HP Toptools installation wizard asks to check the HP Toptools website for any patches or updates that may be available for components installed on the system.

If the you answer “yes”, the HP Toptools installation wizard will present a dialog listing the patches available for download. Only patches available for components you selected for installation will be listed in this dialog. If a patch has already been applied, it will not be listed in this dialog again.

Any patches/updates you selected will be downloaded and installed before continuing onto advanced configuration.
If the HP Toptools installation wizard did not find a live connection to the hp website during system inspection, then this question will not be presented. You can still check for the latest patches/updates at a later time from the maintenance setup dialog.

**Step 20. Advanced configuration**

Following the check for patches is a question asking if you would like to perform advanced configuration for toptools. Advanced configuration consists of supplying read community names (passwords) for routers and other devices, specifying which subnets to discover, scheduling RMDB updates and inventory data collection, and selecting the types and schedule of discovery.

When specifying the subnets to discover, if the HP Toptools system subnet mask is configured as 255.0.0.0 or 255.255.0.0 a warning dialog will be presented explaining that using the subnet mask they have specified will cause discovery to take several hours or days to complete due to the large number of addresses to search.
Step 21. Installation complete
After advanced discovery, the installation complete dialog is displayed.
This dialog contains two checkboxes. The first checkbox is used to view the readme file. If there is no readme file, this checkbox will be hidden.

If the HP Toptools installation wizard requires the system to be rebooted before toptools will function correctly, the second checkbox will be used to tell the HP Toptools installation wizard not to reboot the system until the user does so. If the HP Toptools installation wizard does not require a reboot of the system, then the second checkbox will be used to tell the HP Toptools installation wizard to start the toptools services.

If a reboot is required and the user decides to read the readme file, a message will be presented to the user informing them the required reboot will not take place until after they have closed the browser window the readme file is in. This message will not be displayed if the user has told the HP Toptools installation wizard not to perform the required reboot until the user does so.

**Step 22. Maintenance/Uninstall**

The HP Toptools installation wizard offers – through InstallShield 6.2 – a maintenance mode, which allows the user to modify the current installation of toptools. This maintenance dialog is invoked through the Add/Remove Programs applet:

Selecting "modify" will display the component selection dialog discussed above, with those components currently installed pre-checked. Pressing Next from the component selection dialog will install those components selected that were not already installed, and will uninstall those deselected components that are currently installed.

Selecting "repair" will reinstall all toptools components (including the toptools device manager) marked as installed from the previous run of the HP Toptools installation wizard.

Selecting "remove" will uninstall all of toptools.

Selecting "check for updates" will display a dialog with available patches for installed toptools components, or a one sentence message box that says there are no patches available. If a connection to the HP Toptools website cannot be established, you will be presented with a dialog that explains the failure may be due to improperly configured network settings (if the IP pings performed during system inspection failed), or improperly or non-configured proxy settings. The dialog will contain two buttons. One will launch the Network Settings applet, while the other will launch the Internet Connection Wizard. You can click Next to allow the wizard to attempt the connection again, or Cancel to exit the maintenance dialog.
5 Installing hp toptools agents on desktops, notebooks, and PC Companions

5.1 Overview
This chapter discusses the installation procedures for HP desktop and notebook devices, including HP Vectra, HP e-PC, and HP Kayak PCs; HP Omnibook mobile computers; and HP Jornada PC Companions. If discovery is initiated after the HP Toptools Device Manager has been installed, the All Devices group can be used to determine which devices on the network require agent installation.

In the above example, discovery has been run and many PCs have been discovered, both with and without agents. The systems with an entry in the DMI column already have agents loaded on them, as do the systems with three slashes (///) in the WBEM column. In this example, agents are still required on 6 systems: ovwpc540, ovwpc543, ovwpc554, ovwpc561, ovwpc566, and ovwpc586. Systems with Windows 2000 or Windows XP that do not have agents installed will have two slashes (//) in the WBEM column. This is useful for determining which version of the HP Toptools agent needs to be deployed to device.

Please refer to Appendix C – HP Toptools Desktop Agents Matrices for the proper agents to install for each type of HP desktop device.

- Note -

Only HP Toptools 4.5 and higher agents are Y2K compliant

5.2 Installation of hp toptools for desktops and hp toptools for omnibook Agents
As of HP Toptools 5.0, there are multiple agents for HP Vectra and Kayak PCs, as well as for HP Omnibook mobile PCs. For systems running Windows NT, Windows 9X, or Windows ME, HP Toptools utilizes a DMI based agent. For systems with Windows 2000 or Windows XP, HP Toptools utilizes a WMI based agent that provides HP extensions to the WMI core in Windows 2000. Always obtain the latest drivers from the HP Toptools web site at http://www.hp.com/toptools.

- Note -

Stop monitoring services, such as virus scanning, during the installation process.

Do not use accented characters, symbols, or spaces in any fields or for directory names for the HP Toptools installation.
SNMP Services

Installation of SNMP services is not required for HP desktop and mobile computers as these systems are managed using DMI or WMI. However, if installed, SNMP services provides a quicker and more efficient device discovery and identification of MAC addresses.

Complete instructions for installing SNMP services on Windows NT and Windows 2000 systems are in Appendix A – Installing SNMP services. Note that any Service Packs need to be re-applied after SNMP services are installed on Windows NT systems.

Installation Methods

There are several deployment options for HP Toptools for Desktops and HP Toptools for notebook agents. These include:

- Manual deployment
- Use of the Toptools Device Manager for agent deployment to machines running Windows NT or 2000
- Upgrade agents on W9X, Windows NT or 2000 machines
- Use of a software distribution tool such as HP Openview DTA or Microsoft SMS
- Create a package and distribute agents in mass

5.2.2 Windows 2000 Manual Deployment

HP Toptools utilizes the WMI protocol to manage Windows 2000 and Windows XP systems, whether they are desktops or mobile computers.

Requirements

The system requirements for the WMI agent are as follows:
- HP Vectra PC, HP Kayak PC, or HP Omnibook mobile computer.
- Windows 2000
- 16 Mb free disk space on your PC
- 800 x 600, 256 color display or better, using small fonts
- IP or IPX protocol installed and configured
- Local administrator privileges

Agent Installation

The WMI agent are located on the HP Toptools CD or from the HP Toptools web site at http://www.hp.com/toptools. The HP Toptools 5.5 version of the WMI agent is named TTWP55<nn>.exe.
Welcome Screen
The Welcome Screen shows the version of the HP Toptools agent. Click Next to continue.

License Agreement
The next screen is the license agreement. Read the license agreement, select "I accept the terms in the license agreement," and click on Next to continue.
User Information
This screen allows for the entry of user information. Enter the system location and the user phone number, and click on Next to continue.

Location:

User Phone:

Asset Information
The following screen allows for the entry of the system's asset information. Once it is entered, click on Next to continue.
Component Selection

The component selection allows you to select the type of agent installation. The complete installation the default value. The one option if custom installation is selected is the installation of the local agent user interface. If the agent has already been installed, this screen will allow the agent to be modified, repaired, or removed.

**Setup Type**

Choose the setup type that best suits your needs.

- **Complete**
  All program features will be installed. (Requires the most disk space.)

- **Custom**
  Choose which program features you want installed and where they will be installed. Recommended for advanced users.
Installation Confirmation
Once the installation type is selected, the installation confirmation screen is displayed. This is the last opportunity to change any options before the installation starts. Click on Install to finish the installation.
5.2.3 Windows NT, 9X, ME hp toptools for desktops Manual Deployment

Requirements
These are the system requirements for the DMI based HP Toptools for Desktops agent.
- HP Vectra or Kayak PC
- One of the following:
  - Microsoft Windows NT 4.0 SP4, SP5 or SP6A
  - Windows 95 with OSR 2.1 build 1214 or higher
  - Windows 98 through Second Edition
  - Windows ME
  - Windows XP
- 16 MB free disk space
- IP or IPX protocol stack installed and configured
- Local administrator privileges

Agent Installation
The DMI agent are located on the HP Toptools CD or from the HP Toptools web site at http://www.hp.com/toptools. The HP Toptools 5.6 version of the DMI agent is named TTDD56<nn>.exe.
Welcome Screen
Click on Next to continue.

Temporary Files Directory
The installation wizard needs to de-compress the installation files. Select a directory for these files, which can be manually deleted after a successful installation. Click on Next to continue.
After the files have been de-compressed into the temporary directory, the Welcome screen is once again displayed. Click on Next to continue.

License Agreement
The next screen is the license agreement. Read the license agreement, select “I accept the terms in the license agreement,” and click on Next to continue.
Installation Notes
This screen displays the installation notes found in the readme file. This file contains the latest software information and release notes. Review the notes and click on Next to continue.

Agent Installation Folder
This screen shows the directory that the HP Toptools for Desktop DMI agent will be installed in. The default directory is C:\DMI. Once the directory is confirmed, click on Next to continue.
Installation Type
This screen allows for the selection of different installation types. The default is for a complete installation. If a custom installation is selected, there are further options to install the local user interface, the HP Soft Power Down utility, or the SMSWin utility. The HP Soft Power Down utility powers off a Windows NT system after it reaches the “Safe to Shutdown” screen. The SMSWin utility allows Microsoft SMS to collect additional HP specific information during inventory data collection. Once any options are selected, click on Next to install the HP Toptools for Desktops DMI agent.

**Installation Type**
Type: HP Soft Power Down
Status: Unselected

**Installation Type**
Type: SMSWin
Status: Unselected
Installation Completion
The installation complete screen is displayed after the agent has been fully installed. The HP Toptools info wizard allows the entry of user and asset information. Click on Finish to continue.
The HP Toptools Info Wizard allows the entry of the optional asset and user information. Click on Next to continue.

Asset Location and User Information
This screen allows the entry of the system name, system location, user name, and user phone number. Once this information is entered, click on Next to continue.
**Asset Information**

This screen allows for the entry of asset information. The default PC asset number is the system serial number. The Monitor serial number can be automatically retrieved only on Plug and Play operating systems with the default plug and play display driver. The Monitor serial number can also be manually entered at this point, as can the monitor asset number.

**Leasing Information**

The last information entry screen allows the entry of Software image, leasing contract, and leasing expiration information. Resource monitoring can also be started locally from this screen. Once the information is entered, click on Next to continue.
Information Validation Screen
This is the last screen of the HP Toptools Info Wizard. Clicking on Finish will add the previously entered data to the HP Toptools for Desktops agent. There is also an option to start the local user interface for the agent to verify the information.

hp toptools Local Interface
This is the first screen of the local HP Toptools Interface. Both the automatically retrieved and the manually entered system information is shown on this screen. This confirms that the installation of the HP Toptools for Desktops DMI agent was successful!
5.2.4 Windows NT, 9X, ME hp toptools for hp omnibooks Manual Installation

Requirements
- HP Omnibook mobile computer.
- Microsoft Windows NT 4.0 SP4 – SP6A; Windows 95 with OSR 2.1 build 1214 or higher; Windows 98 through Second Edition; or Windows ME.
- 16 MB free disk space
- IP or IPX protocol stack installed and configured.
- Administrator privileges on the local machine

Agent Installation
The HP Toptools for Notebooks agents are located on the HP Toptools CD. These agents are for the HP Omnibook mobile computers. The same software can be downloaded from [http://www.hp.com/toptools](http://www.hp.com/toptools).

- Note -
If you have HP Omnibooks that were purchased prior to January, 1998, you should check the Omnibook support web site at [http://www.hp.com/go/omnibooksupport](http://www.hp.com/go/omnibooksupport). The notebook matrix may be obtained from [http://www.hp.com/toptools/rvm/omnibook.html](http://www.hp.com/toptools/rvm/omnibook.html). Please note however, agents prior to version 4.1 are not Y2K compliant.

Setup
The DMI agents are located on the HP Toptools CD or from the HP Toptools web site at [http://www.hp.com/toptools](http://www.hp.com/toptools).

Unpacking the files.
Unzip the file agents and place them in a temp directory for installation. These files can be deleted after install is completed.
Follow the instructions on the standard screens as you advance through the installation. The next three screens provide licensing and product information, including the "Readme First" file.
Directory Selection
Accept the default directory for the agents or, you may designate a different directory.

License agreement
Please read the license agreement shown here. You MUST view and ACCEPT the license agreement to continue.

THE FOLLOWING TERMS GOVERN YOUR USE OF THE ENCLOSED SOFTWARE FILE(S) UNLESS YOU HAVE A SEPARATE WRITTEN AGREEMENT WITH HP. THE SOFTWARE IS OWNED AND COPYRIGHTED BY HP OR ITS THIRD PARTY SUPPLIERS. YOUR LICENSE CONFER N0 TITLE OR OWNERSHIP IN THE SOFTWARE AND SHOULD NOT BE CONSTRUED A SALE OF ANY RIGHT IN THE SOFTWARE. HP'S THIRD PARTY SUPPLIERS MAY PROTECT THEIR RIGHTS IN THE EVENT OF ANY VIOLATION. YOU MAY ONLY MAKE COPIES OR ADAPTATIONS OF THE SOFTWARE FOR ARCHIVAL PURPOSES OR WHEN COPYING OR ADAPTATION IS AN ESSENTIAL

Do you agree to all of the terms of the license agreement? If you agree, click the Yes button. If not, select No to end Setup.
Choose Destination Location

Setup will install HP TopTools for NoteBooks Agent in the following directory:
To install to this directory, click Next.

To install to a different directory, click Browse and select another directory.

You can choose not to install it by clicking Cancel.

Destination Directory:
d:\dmini

Next >  Cancel
Component Selection

Mark the desired components for the notebook. The HP Toptools Resources Monitor replaces the Crash Monitor offered in a previous version of HP Toptools for Notebooks Agents. Note, there are no check boxes here, highlight a component and click to mark/unmark.

Following is a brief description of each component:

- HP Toptools local graphical user interface – this is the application loaded on the local machine and provides local access to HP Toptools information for the specific device that it is loaded on.
- SmsWin – this should be marked if you have Microsoft SMS and want to export inventory data to Microsoft SMS and/or want to install the HP Toptools for SMS enterprise integration product.
- HP Toptools Resources Monitor - this provides resource monitoring. Note, most of the features here are accessible only from the HP Toptools device manager. Locally you will see DMI alerts.

![HP DMI setup / Select components](image-url)
Notebook Identification
The data in this screen is needed by HP Toptools to provide information about this device. You may enter it directly if you are installing the agents locally at the notebook. If you are installing the agents with a software distribution product like DTA or SMS, you will need to provide this information later, in one of two ways:

- You may enter the information at each PC locally, one at a time, using the local HP Toptools interface, or
- You may enter the information remotely using HP Toptools Device Manager.

Asset Information
The serial number is automatically coded on newer machines. For older machines, you will get a screen asking for the serial number as well as the asset number. If you are using an alternate scheme for asset numbers, you should change this entry.
Monitor Information
The serial number from the monitor is automatically updated under Windows 9X and Windows ME if the monitor and the BIOS support DDC calls; otherwise this information must be entered manually. Asset tag information should also be entered in this screen.

File Copy
After the Serial Number and Asset Number are entered, the setup wizard copies the required files to the destination directory. At this point the installation is complete.

Verify Installation
Open the local Toptools viewer to verify that the installation has succeeded. To access the local Toptools, select StartÆHP Toptools for Notebooks Æ HP Toptools. You should see a screen with basic information about your Omnibook. This verifies the successful installation of the HP Toptools of Notebooks DMI agent!
5.3 Automated Deployment of hp toptools agents from the hp toptools device manager

Many HP PCs, notebook computers, and workstations support the remote installation of agents. The system requirements are the same as for manual agent installation.

The HP Toptools Device Manager can be used to remotely install agents under following conditions:

- Only HP Vectra PCs, HP Kayak PCs, HP Visualize Workstations, and HP Omnibook mobile computers are supported for this feature.
- DMI column appearing in the Device Selector screen may have agents pushed to them.
- These machines must be part of the same Windows Domain as the Toptools Device Manager that the agents are being installed from.
- All machines can be updated using the Manage Drivers / Firmware option.
- The machines receiving the agents must have administrator passwords stored in the Toptools database or have no administrator password set.
- To register Administrator passwords with the Toptools Database use the "Set System Passwords" action on the HP Toptools server.

5.3.1 Obtaining the latest agents

Select “Settings” then “Drivers/Firmware”. If the driver database is not up to date, click on “Update Now” to connect to the HP FTP site and update the driver database.
5.3.2 Remote Agent Installation

Device Selector
Select the device or group of devices that an agent needs to be deployed to. Right-click on the devices to bring up the actions menu. Select the type of agent to deploy from the “Agent Deployment” sub-menu.

- Note -

HP Toptools agents will not install on unsupported systems. If you don’t know the system type of an individual system, the wrong agent will not be installed.

Upgrading existing HP Toptools agents remotely follows the same process as installing the HP Toptools agents, except that Manage Drivers/Firmware needs to be selected instead of Agent Deployment. The remaining steps are similar.
Agent Selection
Select the agent for deployment. Note that there are WMI agents for Windows 2000 and Windows XP systems and DMI agents for Windows NT, 9X, and ME systems. If there are any installation options, they can be selected by clicking on the Advanced Button. One of the options is to retrieve asset, user, and leasing information from an Asset File. Details on the asset file can be found in the following section, Setting up a data input Asset File. Once any options are configured, click on Next to continue.

Agent Download
If the selected agent has not been downloaded to the HP Toptools device manager, it will connect to the HP FTP site to get the files. Once the software has been successfully downloaded, click Next to continue.
You have selected the following updates to be performed, but the corresponding packages are not found on your Toptools server. Do you want to download them from the HP website?

By downloading, you agree to the terms and conditions of the HP Software Licensing Agreement.

The following software packages will be downloaded to your server from the location:

<table>
<thead>
<tr>
<th>HP Toptools Agent</th>
<th>Will be downloaded to your server from the location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0.DDM</td>
<td><a href="http://www.hp.com/pub/oss/TopTools/EM/03/509951.exe">http://www.hp.com/pub/oss/TopTools/EM/03/509951.exe</a></td>
</tr>
</tbody>
</table>

Installation Methods

The following screen lists the selected packages that can be installed locally and remotely. The HP Toptools Agent remotely deployable and is ready to be installed. Click on Next to continue.

Installation Scheduling

The agent installation can be initiated immediately, or can be scheduled up to 1 week in advance. Select the installation time and click on Next to continue.
Agent Installation Review
At this point the HP Toptools Device Manager is ready to start installing the agent. Click Finish to install the agents. Once the installation is complete, an alert will be created and sent to the HP Toptools alert log.

You have selected the following devices to be updated:

<table>
<thead>
<tr>
<th>Device</th>
<th>Software to be installed</th>
</tr>
</thead>
</table>

- No reboot -

- Perform update immediately -
5.4 Creating an Asset File

In the Agent Deployment Advanced Settings page, you can configure installation parameters, much as if you were installing the Agent interactively on an individual PC. Under the heading Advanced Settings, you can specify the installation path and which optional modules should be installed on all target PCs. Under the heading Asset File, you can specify a file name for a Comma-Separated Variables (.CSV) file that will supply attributes that vary from one PC to another, such as serial numbers, location, or the main user's phone number. This Asset File has similarities with the DMISETUP.INI file, which is used to do an unattended installation on one PC only. But the Asset File can be used for unattended agent deployment to multiple PCs, and its syntax is different.

The first line of the Asset File should contain a list of names of attributes for which you will be supplying values. This list should be a subset of the following exact labels:

- NetworkAddress
- SystemName
- SystemUserName
- SystemPhysicalLocation
- PCSerialNumber
- PCAssetNumber
- MonitorSerialNumber
- MonitorAssetNumber
- SystemUserPhone

The attributes should be separated by commas, with no spaces between attributes. You can choose the order of the attributes, this will determine the order in which you will supply the values of the attributes later. There is only one attribute that must have a value: Network Address. This attribute is used to match each PC with the list of selected PCs for this action. It must be an IP address. Other attributes can be omitted but the variable positions must be preserved with commas (Var1,Var2,,,Var5,...). Omitted variables will be given default values.

The second and subsequent lines of the Asset File should contain the values of these attributes for each computer that you selected. Thus, line two of the Asset File would contain the attribute values for the first PC that you selected from the Device listings, in the order specified on the first line. Line three of the Asset File would contain the attribute values for the second PC that you selected, and so on. Numerical values should be enclosed in double quotes. The following is an example of possible .CSV file:

```
NetworkAddress,SystemName,SystemUserName,PCSerialNumber,PCAssetNumber,MonitorSerialNumber,MonitorAssetNumber,SystemUserPhone
"62.160.61.144",Fred,X2345,A1,B2647,C1,"1"
"62.160.61.151",John,Y9876,A2,C8865,C2,"2"
```

Note that the first line may become very long and wrap in your text editor. This is not an issue. All the desired attribute names should be listed on this first line, separated by commas.

Also note that the attribute SystemName is not to be confused with NetworkAddress. Whereas NetworkAddress is the main identifier of each PC used by HP Toptools Device Manager, SystemName is simply one of the DMI attributes of the PC.
5.5 Installing 3rd Party DMI Instrumentation

To implement third party DMI instrumentations for various components OEM’d by HP you will find the software incorporated into the driver or you may download them from the one of the following websites:


Currently, HP has instrumentation packages for onboard 3Com NICs and HP 10/100 NICs for HP e-PCs, HP Vectra and HP Kayak PCs as well as packages for a Visualize workstation NIC.

5.5.1 Installing the Agents

The DMI instrumentation for 3COM network interface cards will be installed on top of the 3COM NIC driver and the HP Toptools agent. If that driver is not installed the DMI installation will fail.

5.5.2 Requirements

- 3COM Network Interface Card
- Windows 95 or NT 4.0
- HP Toptools for Desktops Agent 5.0 or higher.
- Logon ID with administrator privileges

5.5.3 Installation

- Run setup95.exe or setupnt.exe
- Reboot your machine
- Verify the installation
  1. Open the Task Manager
  2. Check to see that LAN_AC32.exe is in the processes list.

5.6 Installing hp toptools for jornada PC Companions

- Note -

Stop monitoring services such as virus scanning during the installation process.

Do not use accented characters, symbols, or spaces in any fields, or for any directory names, during HP Toptools installation.

HP Toptools for Jornada PC Companion’s agents are installed on a HP Kayak or Vectra PC or a HP Omnibook that has the HP Toptools for Desktops or Notebooks agent already installed. This install will add a screen to the local Toptools application for PC Companions. This information will also be available from the HP Toptools Device Manager.

- Note -

The Jornada PC Companion agents are installed on the Jornada’s host, not on the Jornada itself. The Jornada does not need to be connected during the installation, but must be docked and resynchronized at the end of the procedure.
Run Software Installation
You will need to download HP Toptools for Jornada PC Companions from http://www.hp.com/toptools. Go to the download area where you will find all the HP Toptools software listed. Once you have downloaded the appropriate file, PCCompanion.exe, execute it. This will extract all files and launch the installation.

Destination Location
This screen should indicate the correct installation directory. Clicking Next will install the files.

Re-dock your Jornada Companion.
You will need to resynchronize your Jornada PC Companion to update the Toptools database. Also note that you will be prompted for the serial and model numbers the first time you synchronize after the installation of the Toptools for Jornada PC Companion agents.
Open the local Toptools viewer and verify that the installation was successful.
This is the local Toptools screen for this particular Jornada PC Companion. The Toptools device manager collects this information from all the Jornada PC Companions on your network.

5.7 Windows Based Terminals
The process to setup Windows Based Terminals for manageability is accomplished through a firmware update. This is the same process as upgrading the HP Toptools agents on a PC, except that for a Windows Based Terminal, system firmware will be selected instead of an HP Toptools Agent. See the HP Toptools Remote agent installation section for details.
6 Installing hp netserver Agents

6.1 Overview

This section covers the installation of agents on servers. Enabling manageability on servers is a two-part process. Depending upon server configuration:

- you will need to install SNMP services, if not already present.
- an HP Toptools agent will then need to be installed on each Netserver that is to be managed by an HP Toptools device manager. The HP Netserver Agents can be found under the download section of the HP Toptools website at [www.hp.com/toptools](http://www.hp.com/toptools). You can run the setup program from any NT or Windows 2000 workstation on the network—it is not necessary to go directly to the individual servers, although you may do so if you choose. Different packages are available for installation on Netservers running Windows 2000, Windows NT, NetWare, Linux, and SCO. For Windows NT and Novell NetWare, the DMI software is also installed during the Netserver Agents installation. Installing the Netserver Agent also allows the optional installation of Instant Toptools.

**Warning**

Stop monitoring services such as virus scanning and backup during the installation process.

Do not use accented characters, symbols, or spaces in any fields, or for any directory names, during Toptools installation.

You must have administrator privileges for all domains of Windows NT servers you want to include under HP Toptools management.

6.2 Installing netserver Agents on Windows NT or Windows 2000 netservers

Execute the self-extracting file from any directory, and run setup.exe. You should get a window similar to the one shown below:
From here, select if you wish to install HP Netserver Agents and/or HP Instant Toptools.

You can list all NT servers by clicking the Show all NT Servers button. If you click the Manually Add NT Servers button you will be able to type in the names of specific servers. When you have a complete list, use the Add>> button to select the servers for the agent installation.

Some of the servers listed may not be HP Netservers. Do not select a non-HP server for installation of the NP Netserver Agents.

The following screen allows you to install specific agents to monitor specific components on your Netservers. The default is that all agents are enabled; you may disable agents for devices you do not want to monitor. Also note, the icon for detailed instructions.

Wait for the installation to complete and services to start as indicated in the following screens.
6.3 Installing netserver Agents on NetWare netservers

The self-extracting Netserver Agents installation files can be downloaded from www.hp.com/toptools to ensure that you have the latest agents.

Setup can be run from Windows 2000 or Windows NT systems. If you try to run setup from a Windows 95, 98 or ME client, you will receive the error message “netapi32.dll not found.”

The Netserver Agents are supported on the following NOS Versions:

- NetWare 4.2
- NetWare 5.1

Starting Installation

Execute the self-extracting file from any directory, and run setup.exe. You should get a window similar to the one shown below:
Here the Show all NW Servers on the network button has been clicked, and all the servers were listed on the left, then moved to the right with the Add>> button.

If this approach does not find all your NW servers, you can click the Manually Add NW Servers button to gain the ability to type the NW server names in the left hand text box.

Once all the servers on which you want to install Netserver Agents are listed in the right hand text box, click Install to Servers.

Verify that you have installed agents to all the NW servers. If the list is correct, click “Finish.”

Reboot your Netservers.
6.4 Installing netserver Agents on SCO UNIX netservers

The HP Netserver Agents (DMI software is not currently supported on SCO UNIX) must be installed via the Custom utility of SCO UNIX. In addition, you must create a tar format master diskette of the HP Netserver Agents for SCO UNIX server software using one of the following methods:

- If you downloaded the Netserver Agents installation software from the Internet, you will need to extract the files on a Windows/DOS client.
- Then run a special program (included and documented with the download) to create the tar format master diskette. Or,
- Reboot your Netserver using the HP Netserver Navigator CD-ROM. Use the "Create Disks for HP Netserver Agents Software" option from the "HP Management Solutions menu" of the Navigator Main Menu to create the tar format master diskette.

The following instructions are used to install the HP Netserver Agents for SCO UNIX on servers with SCO UNIX OpenServer Release 5.0.x.

– Warning –
At the publication of this document, use of HP Toptools is NOT supported with E Series Netservers running SCO UNIX. For the latest information, please refer to the system README file available from the HP Netserver Navigator CD-ROM main menu.

1. Enter system maintenance (single user) mode.
2. At the root prompt, type /etc/custom and press Enter.
3. The main Custom menu is displayed with a list of the software currently installed on your system. Select Install and press Enter.
4. Select the software to be installed:
   - Select the host machine on which you will install the software.
   - Select Floppy Disk Drive 0 as the media device.
   - Insert into drive A the tar format "HP Netserver Agents for SCO UNIX Server Disk" you created earlier from the HP Netserver Navigator CD-ROM and press Enter.
   - Select Full installation and press Enter.
5. You will see the message: Extracting files...
   When prompted for the Volume 2 diskette, remove the Volume 1 diskette and insert the Volume 2 diskette. Press Enter to continue with the installation process. You will see the message: Extracting files...
6. The system executes the installation script. As the script runs, you see the following messages displayed:

Executing HP Netserver Agents SCO UNIX Server Software init script
Installing HP Netserver ASR Driver...
Updating system configuration...
Checking previous release of HP Netserver SNMP Agent SCO UNIX Server Software...
Installing HP Netserver Agents SCO UNIX Server Software...

7. The installation script next invokes the mkdev snmp program to setup the Netserver Agents. As the script runs, you see a message similar to:

HP Netserver Agents Configuration
Do you wish to install or delete the SNMP Agent? (i/r/q) [q]:

mkdev snmp sets up the configuration information required by the SCO SNMP agent in the following files:

/etc/snmp.conf; /etc/snmpd.comm, and /etc/snmpd.trap.

To determine what to do, refer to the "Configuring and Using SNMP" section of the SCO System Administrator’s Guide for more details about these files. Once the SNMP agent has been configured, the installation script registers the HP Netserver Agent-supported SCO SNMP smux peers in etc/snmpd.peers.

8. Select Quit to exit the Custom utility.
9. Reboot your server by entering the following command at the prompt: init 6 the system reboots and loads the server software.
6.5 Installing netserver Agents on Linux netservers

The Linux version of the SNMP Agents were developed based on the extensibility of the UCD SNMP agent package (see http://net-snmp.sourceforge.net.)

The versions of Linux supported are:

- Red Hat 7.0
- Red Hat 6.2
- SuSE 7.0
- Debian 2.2

Please consult the agent Readme file to find out about supported Kernels.

The Netserver Agents for Linux can be installed only on a specific set of HP Netservers, listed below:

e 60, e 800, lpr, lx 8500, lc 2000/r, lh 3000/r, lh 6000/r lt 6000r lp 1000r, lp 2000r

Installation

Before starting the installation of the Netserver Agents on your HP Netserver, verify that all requirements are satisfied.

The Curl and UCD SNMP packages you will find in the distribution CD together with the Netserver Agents packages.

For information about how to upgrade the kernel, go to the link below:
http://www.redhat.com/support/docs/howto/kernel-upgrade/kernel-upgrade.html

For information about how to upgrade the RPM package, go to the link below:

Installation Details

1. For RPM based distributions only (e.g. Red Hat and SuSE), when updating the Netserver Agents package, remove the old package before proceeding with the installation:

   # rpm -e agents_lx

2. Before installing the Netserver Agents on a HP machine running Linux, verify if your platform satisfies the hardware and software requirements as listed in section 3.1. If all requirements are satisfied, just follow procedure listed below for each supported distribution. Note that letters xx and yy in package names specify respectively the patchlevel and release of the product. For instance, agents_lx-5.50.09-01_debian22.i386.deb refers to Netserver Agents version 5.50, patchlevel 09, release 01 for Debian 2.2.

3. Sometimes, when SNMP is being started, the following message is displayed:

   # Creating directory: /var/ucd-snmp

   Please, press Enter key to continue.
For Red Hat:

1. Download the zip file containing the appropriate Netserver Agents installation files for your version of Linux (the installation files are separated in directories named by distribution version).

2. Expand the zip file containing the Netserver Agents to a temporary location on your Linux system (for example /tmp)
   
   # unzip -o <name_of_the_package> -d /tmp
   
   E.g.,
   
   # unzip -o customer.zip -d /tmp

3. Install the UCD SNMP packages (see notes below) - notice the asterisk in the command below:
   
   # rpm -U /tmp/ucd-snmp-*zzz.i386.rpm

4. Copy the alternate configuration file for the SNMP service (see item 6 - Important Notes):
   
   # cp -f /tmp/snmpd.conf /etc/snmp/

5. Install the Curl package (see notes below):
   
   # rpm -U /tmp/curl-7.7.2-yy_zzz.i386.rpm

6. Install the Netserver core component (see notes below):
   
   # rpm -U /tmp/hpserver-core-5.02.xx-yy_zzz.i386.rpm

7. Install the Netserver Agents package (see notes below):
   
   # rpm -U /tmp/agents_lx-5.50.xx-yy_zzz.i386.rpm

8. Register the SNMP daemon for automatic execution:
   
   # /sbin/chkconfig snmpd on

9. Start the SNMP daemon:
   
   # /sbin/service snmpd start

10. No system reboot is necessary.

For SuSE:

1. Download the zip file containing the appropriate Netserver Agents installation files for your version of Linux (the installation files are separated in directories named by distribution version).

2. Expand the zip file containing the Netserver Agents to a temporary location on your Linux system (for example /tmp)
   
   # unzip -o <name_of_the_package> -d /tmp
   
   E.g.,
   
   # unzip -o customer.zip -d /tmp

3. Install the UCD SNMP packages (see notes below): NOTICE: In order to update the ucd-snmp packages you must use remove (-e) and install (-i) rpm options instead of update (-U). E.g., instead of 'rpm -U ucd-snmp*.rpm' use 'rpm -e ucd-snmp ucd-snmp-utils; rpm -i ucd-snmp*.rpm' (without the quotes.) If you are not sure about how to proceed, try the steps below:
   
   3.1. Discover all UCD-SNMP packages and its dependencies:
   
   # rpm -q --whatrequires ucd-snmp libsnmp.so.0

   3.2. Remove those packages (if there is no relevant packages, skip to the next step):
   
   # rpm -e <package names>

   3.3. Install the new packages
   
   # rpm -i /tmp/ucd-snmp-*zzz.i386.rpm
4. Copy the alternate configuration file for the SNMP service (see item 6 - Important Notes):
   
   # cp -f /tmp/snmpd.conf /etc/snmp/

5. Install the Curl package (see notes below):
   
   # rpm -U /tmp/curl-7.7.2-yy_zzz.i386.rpm

6. Install the Netserver core component (see notes below):
   
   # rpm -U /tmp/hpserver-core-5.02.xx-yy_zzz.i386.rpm

7. Install the Netserver Agents package (see notes below):
   
   # rpm -U /tmp/agents_lx-5.50.xx-yy_zzz.i386.rpm

8. Register the SNMP daemon for automatic execution:
   Edit /etc/rc.config and replace the string "no" for "yes" at the START_SNMPD field.

9. Start the SNMP daemon, if it is not already running:
   To verify its status, type:
   
   # /sbin/init.d/snmpd status
   
   To start it, type:
   
   # /sbin/init.d/snmpd start

10. No system reboot is necessary.

For Debian:

1. Download the zip file containing the appropriate Agents installation files for your version of Linux (the installation files are separated in directories named by distribution version).

2. Expand the zip file containing the Netserver Agents to a temporary location on your Linux system (for example /tmp)
   
   # unzip -o <name_of_the_package> -d /tmp
   
   E.g.,
   
   # unzip -o customer.zip -d /tmp

3. Install the UCD SNMP packages:
   
   # dpkg -i -G /tmp/libsnmp-base_4.2.1-4_all.deb
   
   # dpkg -i -G /tmp/libsnmp4.2_4.2.1-4_i386.deb
   
   # dpkg -i -G /tmp/snmp_4.2.1-4_i386.deb
   
   # dpkg -i -G /tmp/snmpd_4.2.1-4_i386.deb

3.1. Edit the file /etc/default/snmpd and change the value of TRAPDRUN to "no" (without the quotes).

3.2. Restart the SNMPD daemon:
   
   # /etc/init.d/snmpd restart

4. Copy the alternate configuration file for the SNMP service (see item 6 - Important Notes):
   
   # cp -f /tmp/snmpd.conf /etc/snmp/

5. Install the Curl package:
   
   # dpkg -i -G /tmp/libcurl_7.7.2-1_i386.deb

6. Install the Netserver core component:
   
   # dpkg -i -G /tmp/hpserver-core-5.02.xx-yy_debian22.i386.deb

7. Install the Netserver Agents package:

   7.1 Before installing agents-lx, if there are hard disk cage devices, look for special files /dev/sg*. If there are no such files, create them using the following commands.
After that, install Netserver Agents package:

```
# cd /dev
# ./MAKEDEV sg
# cd -
```

After that, install Netserver Agents package:

```
# dpkg -i -G /tmp/agents-lx-5.50.xx-yy_debian22.i386.deb
```

8. No system reboot is necessary.

### How to verify that the netserver Agents are Running

To make sure Netserver Agents are running on the machine verify if the following services are running: hpasrssvc, hpcagsvc, hpesysvc, hpevcsvc, hpevttrapd, hplersvc, hpnictrapd, hppfmsvc, hprccsvc, hpsdnsvc, hpsftsvc, hpswvsvc, hptatsvc, hpnictrapd and snmpd.

Notice that hpsftsvc service will only be running if the system has a hard disk cage installed. The command to verify the status of a service is:

For Red Hat:
```
# /sbin/service <service_name> status
```

The output should be similar to:
```
<service_name> (pid <process id>) is running...
```

For SuSE:
```
# /sbin/init.d/<service_name> status
```

The system replies with:
- No process, if the service is not running.
- OK, if the service is running.

For Debian
```
# ps axo command | grep <service_name>
```

The command will output:
- the service name, if it's running;
- nothing, otherwise.

### Uninstall

For distributions based on RPM

If you wish to remove the Netserver Agents from your system, execute the following steps, logged on as root:

```
# rpm -e agents_lx
# rpm -e hpserver-core
```

Notice that the hpserver-core package may be in use by other HP products and if so the last command will tell you and will not uninstall the package.

No reboot is necessary.

Notice that rpm displays a warning messages about missing files. You can safely disregard these messages.

The uninstall of the Netserver Agents does not remove the history data files from your computer, enabling the Agents to keep historic information after a package upgrade.
For Debian

If you wish to remove the Netserver Agents from your system, execute the following steps, logged as root:

```
# dpkg -P agents-lx
# dpkg -P hpserver-core
```

Notice that the hpserver-core package may be in use by other HP products and if so the last command will tell you and will not uninstall the package.

No reboot is necessary.

The uninstall of the Netserver Agents does not remove the history data files from your computer, enabling the Agents to keep historic information after a package upgrade.
7 Installing Agents on Hubs and Switches

7.1 Overview

This section will cover how to update agents on Hubs and Switches. The HP Download Manager described below makes it easy to update the agents on HP hubs and switches, provided that you have the most recent Toptools Hubs & Switches CD. You should obtain this CD, it will simplify the update process.

- Note -

If you are not sure that you have the latest CD, we recommend that you download a copy of the latest Toptools for Hubs & Switches CD from http://www.HP.com/toptools/download/hubsandswitch_agents.htm. This will ensure that you have the latest firmware agents. You can also order a CD from the same web site, although delivery can take up to two weeks.

Software Update Utility

HP Software Update Utility is used to update the firmware of newer HP Procurve networking devices. Older networking devices may be updated with the Download Manager. The Toptools Device Manager will select the appropriate utility for the selected device.

The Toptools agents for hubs and switches reside in firmware on the devices.

The Software Update Utility is launched from the Toptools Device Manager, as detailed below.

Starting the Software Update Utility

From the HP Toptools devices frame, select one or more networking devices to be updated. Right click on the device and select Update Firmware.

If this is the first time the Software Update Utility has been run after installation, the following message will appear: "Your system has not been initialized with the latest support information for this type of device. This information is required to continue. OK to download now?" Click on OK to obtain the list of available firmware updates for the selected device.
Multiple Devices requiring Software Update Utility and Download Manager

If multiple devices are selected that require both HP download manager and Software Update Utility, an information message will appear. Clicking on either the Download Manager or the Software Update Utility link will start that utility.

Update System Software

This screen will show the networking device and the firmware version. Selecting the “Get Latest Support Info” button will connect to the website to download the latest version of the firmware.

Download Software

If the firmware is not found on the Toptools server, it needs to be downloaded from the Web. Select “Download Now” to get the software package.
Licensing Agreement
At this point the licensing agreement screen is displayed. Accept the agreement and click on OK to continue.
Review Software Selection
After the software has been downloaded a software selection review screen is presented. Click on Next to continue.

Schedule Installation
The installation can be started immediately, or it can be scheduled to happen at some point in the future.
Installation Scheduled

At this point the installation is scheduled. To view the results of the installation, review the alert log.

Verify Installation

Open the alert log after the installation has been performed to view the results.
7.2 The hp download manager

The Toptools agents for hubs and switches reside in firmware on the devices. The Download Manager is launched from the Toptools as described below. It will determine if the firmware on each hub or switch is current, and will allow you to download the current version if an older one is found. The entire operation is automatic and is executed for all hubs or for all switches at the same time (but not a mix of hubs and switches at the same time).

- Note -

HP Download manager is still used for networking devices that are not supported under the Software Update Utility. The Toptools device manager will select the correct utility for the selected devices. The HP Download Manager is used to “download” firmware to hubs and switches on the network. The word “download” in this case does not refer to downloading files from the Internet.

In order for the Download Manager to perform its task, it must have knowledge of the most current firmware. It will look for this information on the CD-ROM drive, where it expects to find the most recent Toptools Hubs & Switches CD.

You must have populated this directory with the appropriate firmware, which you can download from the HP web site. The simplest procedure is to download a copy of the entire Toptools Hubs & Switches CD (about 28 Mbytes).

Obtain the latest firmware agents from the hp web site (Skip this step if you are using a CD).

For the purposes of this chapter, we will assume that you are going to download the latest Toptools for Hubs & Switches CD. The URL is http://www.HP.com/rnd/products/netman/toptools_jump.htm.

- Note -

As an alternative to downloading a copy of the CD, you can download individual firmware files. You would do this, for example, if you only had one or two hub models to consider.

Highlight all the hp hubs (or all the hp switches).

In this example there is only one hub, 15.60.97.101.
Right-click on one of the highlighted hubs or switches. A pop-up menu will appear.

Select Update Firmware to launch the HP Download Manager.

Select the devices that need to be updated.
When the Download Control dialog box appears, it lists the devices you selected (in the example here, there is only one) along with the version numbers of the firmware currently loaded on each. Compare this version number with the version available for downloading. If the versions are the same, you need not proceed further. If the "Download Version" is older than the "Current Version" you probably have an
outdated CD in your drive. Do not proceed. If the "Download Version" is newer than the "Current Version" you can highlight the item(s) and proceed. When there are several hubs present, the Download Control dialog box will list them like this:

<table>
<thead>
<tr>
<th>Hub</th>
<th>Product Number</th>
<th>Current Version</th>
<th>Download Version</th>
<th>Community Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.5.8.29</td>
<td>HPJ2414A</td>
<td>A.01.01</td>
<td>A.01.05</td>
<td>public</td>
</tr>
<tr>
<td>10.5.8.30</td>
<td>HPJ2414B</td>
<td>B.01.02</td>
<td>B.01.02</td>
<td>public</td>
</tr>
<tr>
<td>10.5.8.31</td>
<td>HPJ2414B</td>
<td>B.01.02</td>
<td>B.01.02</td>
<td>public</td>
</tr>
</tbody>
</table>

Here, only 10.5.8.29 needs to be updated.

Select all the devices that need to be updated.

If you have to change the community names of the devices in order to download the file to all of them at the same time, click the Community Name button. This opens the Change SET_COMMUNITY_NAME dialog box. Enter the new community name in the "SET_COMMUNITY_NAME" field and click the OK button. Note, however, that if you selected more than one device, the community name you enter must be valid for all of them.

**Download package**

Click the Download button and, when prompted, enter the drive letter designation of the computer's CD drive; if the firmware files have already been copied to the correct directory on your hard drive, you will not be prompted.

This screen asks for the HP Toptools CD, note that it is really referencing the Toptools for Hubs and Switches CD. If this screen appears, the newly downloaded firmware was placed in the wrong directory. The Download Manager gives you an estimate of the length of time it will take to download the firmware for all the devices on the list. If you want to schedule the operation for another time, perhaps at night, click the Schedule button, set the time, and click OK. **Note:** Make sure you leave the CD in the drive.
If the system asks to replace a map file that is already there, do so.

As the Download Manager works, it displays a dialog box that shows the progress of the operation. If it encounters a problem, it will complete the downloading of the file in progress and then stop. If you want to stop the downloading at any time, you can click the Stop button.
The log file contains the following information:

- **Log file for the download on:** Tuesday, May 25, 1999 at 17:41

- **Download started 17:41**
- **Doing Flash burn.**
- **SUCCESS 15.60.97.101 A.01.01 A.01.01**
- **Download ended 17:42**
Appendices
8 Installing SNMP Services

8.1 Windows NT

8.1.1 SNMP Services
Installing SNMP services (and, for Windows NT, reapplying the appropriate Service Pack and setting the Paging File size) is **required** for:

- The Toptools Device Manager
- All Netservers
- Any network workstation where you want to run Toptools Auto alert

It is **recommended** that you install SNMP services on all desktops, notebooks, and palmtops as well. Doing so will help with device identification during the discovery process.

The procedure described below is the same for all Windows NT devices.

**Select Properties to open the Network dialog box.**

**Select the Services tab.**
If SNMP is already installed, it will be on the Network Services list in this dialog box, and you are finished. If SNMP is not installed proceed with Step 3.

**Click the Add button in the Services tab panel to add the SNMP service**

![Select Network Service dialog box](image)

Highlight the SNMP Service option and click OK.

**Setup will look for the SNMP service files on your hard drive.**

![Windows NT Setup dialog box](image)

If you know that the SNMP files are not in this directory, insert the Windows NT CD and type in the correct path. Otherwise, accept the given path. In either case, click Continue. In the event that the files are not found, you will be given another chance to enter the correct path.
Enter contact names, trap destinations, and community names.

This screen allows you to configure contact names, trap destination addresses, and community names (security tab) for this device. Entry here is optional. Security will default to the community name “public” unless otherwise stated.

Do not reboot at this time.

If you are running any operating system other than Windows NT, answer Yes. You are finished. If you are running Windows NT, respond to this screen by selecting No. You must next reapply Service Pack 4, 5, or 6A and you will reboot after you do that.
8.1.2 Windows NT Service Pack Installation/reinstallation

After installing any services on Windows NT it is important to reinstall your Service Pack. HP Toptools supports SP4, SP5 and SP6A.

Find the Windows NT service pack.
You may find that the NT service pack has been already copied to your hard drive (c:\winnt\i386). On the Toptools CD, the Service Pack files can be found in the directory \Nt4sp.

Run the Update program.

In this example the service pack is being installed from a local directory. Run Update.exe to apply the service pack.

You may have to tell the installation program to look on the Toptools CD.
Tell the program to install the Service Pack.

If this is the first installation of the Service Pack, create an uninstall directory.
If the service pack was previously installed, an Uninstall directory should already exist and you do not need to recreate one.

Continue through the next screens.

Reboot.

You are finished and should reboot at this time.
8.2 Windows 2000

8.2.1 Installing SNMP and IIS Services

Install SNMP
Open the Windows Components Wizard. Select Management and Monitoring Tools, and then press the “Details” button. You do not have to check the Management and Monitoring Tools button.

![Windows Components Wizard](image1)

SNMP Protocol
In the Details information, select Simple Network Management Protocol and mark the check box.

![Management and Monitoring Tools](image2)
Select IIS
Open the Windows Components Wizard and select the Internet Information Services. Click the details button to select components of IIS.

Select IIS Options
In the Internet Information Services components, ensure that “World Wide Web Server” is selected. The rest of the options are not required by HP Toptools 5.0, but may be useful for other applications.
File Copy
Click OK on all of the dialogue boxes until Windows starts copying files. Windows may require that the Windows 2000 CD-ROM be inserted in the CD-ROM drive.

SNMP Installation Complete
At this point, SNMP and IIS is installed. Note that no reboot is required.
Configure SNMP Services
Open the Computer Manager or go to Control Panel, Computer Management, Services. SNMP should be in the list of services. Right click on SNMP Service and select properties.

SNMP Service Properties
In the Agent Properties screen, the contact, location, and types of alerts can be configured.
In the Traps Properties page, the SNMP Community name and trap destinations are set.

Finally, in the Security Properties page, the accepted community names are set. Also, this page allows the computer to only accept SNMP packets from specified hosts for added security.

After all of the SNMP properties are set, click on OK to exit.

At this point SNMP and IIS are installed.
9  Installing toptools auto alert

HP Toptools Auto Alert allows your Netservers to proactively send alerts to the Toptools device manager or any other computer on the network where Auto Alert is installed. Auto Alert should be installed on each computer where you want to receive traps. You can download the latest HP Toptools Auto Alert from http://www.HP.com/toptools, go to download then to Management Console, the file is named ttaa41e.exe and is self extracting.

9.1  Installing SNMP Services and Setting the Paging File Size

9.1.1  Windows NT

Review SNMP Services

It is required that the SNMP Service is running on Netservers you want to manage. Since the SNMP service is likely to be installed already, look for it. Click on Network Neighborhood and select Properties.

The Network dialog box will appear. Select the Services tab.

![Network Dialog Box](image)

- Network Services:
  - Computer Browser
  - Microsoft TCP/IP Printing
  - NetBIOS Interface
  - Remote Access Service
  - RPC Configuration
  - Server
  - Workstation

- Description:
  Distributed protocol required for running the Computer Browser service.
If SNMP is already installed, it will be on the Network Services list in this dialog box. If SNMP is not installed, follow the procedures in Installing SNMP Services.

**Review Virtual Memory**

When the SNMP Service is installed, you will need to set the size of your paging file to both a minimum and a maximum of 200 MB. Open the System Properties dialog box by right clicking and selecting the Properties menu command. Then select the Performance tab.

![System Properties Dialog Box](image)

Click the Change button. The Virtual Memory dialog box will open.
Set both the Initial Size and the Maximum Size to 200 MB, and click OK. Then you must reboot.

9.1.2 Windows 2000

Review SNMP Services

Open Control Panel, Computer Management, and select Services and Applications.

Check for SNMP

Select Services and Applications, and then Services. Scroll down the list to check if SNMP is installed. In this example, SNMP is not installed.
Install SNMP
Please see Chapter 8 – Installing SNMP Services for Windows 2000 for instructions.

Virtual Memory
Open the Systems Properties page in the Control Panel. Select the Advanced Tab, and then Performance Options.

In the Performance Options dialogue box, select Change.
Change the Initial Size and the Maximum Size of the virtual memory, and press the Set button. Click on OK in all of the Windows to exit.

### 9.2 Installing toptools auto alert

Find the program.
Run the installation program.

Welcome

Welcome to the HP TopTools AutoAlert Setup program. This program will install HP TopTools AutoAlert on your computer.

It is strongly recommended that you exit all Windows programs before running this Setup program.

Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.

WARNING: This program is protected by copyright law and international treaties.

Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.

Software License Agreement

Please read the following License Agreement. Press the PAGE DOWN key to see the rest of the agreement.

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Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install HP TopTools AutoAlert, you must accept this agreement.

Yes  No  Back
Configure the Toptools Management Server

When prompted to enter the name of your management server, enter the name of the HP Toptools
Integrated device manager. If you don’t have HP Toptools device manager, you may skip this screen by
selecting Next.

Set the File Destination

Setup will install HP TopTools Alert in the following folder.
To install to this folder, click Next.
To install to a different folder, click Browse and select another
folder.
You can choose not to install HP TopTools Alert by clicking
Cancel to exit Setup.
Set the Program Folder

Select Program Folder

Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing Folders list. Click Next to continue.

Program Folders:
- HP TopTools Auto Alert

Existing Folders:

[Administrative Tools (Common)]
- Adobe Acrobat
- BitWare Plus
- DeLorme
- HP DeskJet 660C Series
- HP OpenView
- HP TopTools
- New Visio Drawing
- Norton AntiVirus

< Back  Next >  Cancel

Setup is Complete

Setup Complete.

Setup has finished installing HP TopTools Auto Alert on your computer.

Setup can launch the Read Me file and HP TopTools Auto Alert. Choose the options you want below.

- [Launch HP TopTools Auto Alert]
- [Open Readme file]

Click Finish to complete Setup.

< Back  Finish

You must check the “Launch HP Toptools Auto Alert” check box to launch the HP Toptools Auto Alert configuration application.
Configure Auto Alert – Server List

This will read the Toptools Netserver inventory list if you select Retrieve for Management Server.

Configure Auto Alert – Adding Managed Servers
You next identify each HP Netserver that you want monitored. You create a list by clicking on the **Configuration** tab, clicking the **Add Servers** button, and then selecting the HP Netservers on your network that you want to receive alerts from (see the figure below).

### Adding Servers Manually

If you prefer, you can enter information manually by clicking the **Add Servers Manually** button. You will then need to know the name of each server you wish to add to the list (using either the DNS name, IP or IPX address).

When done adding servers, click **OK**. Then, review the HP Netserver information you entered in the **Configuration** dialog box. The Alert Destination column should show "SET" for each server entered. If any information should be changed, select the item and click **Edit Server(s) Information**. Make the necessary changes.
Restart SNMP Services

Restart SNMP on Windows NT and SCO UNIX servers to initiate the Auto Alert messages. (It is not necessary to restart NetWare servers.)

Select Start -> Settings > Control Panel

Double click on Services.
Check that SNMP services are started.

Review the SNMP status of servers by clicking the **Server Status** tab. Check that they are properly initialized to use Auto Alert. If not, correct the problem at the HP Netserver. All servers must have an UP status to be properly configured for Auto Alert.

Your HP Toptools Auto Alert installation is complete.

After you have installed HP Toptools Auto Alert, it is auto-started every time you start the PC console and you may minimize it to the task bar. It is necessary for HP Toptools Auto Alert to always be running in order to receive alerts. To stop HP Toptools Auto Alert simply close the application. Remember that you will then have to launch the Toptools Auto Alert program from the program group in order to receive alerts.

---

### Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Status</th>
<th>Startup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug and Play</td>
<td>Started</td>
<td>Automatic</td>
</tr>
<tr>
<td>Remote Procedure Call</td>
<td>Started</td>
<td>Automatic</td>
</tr>
<tr>
<td>Service Control</td>
<td>Started</td>
<td>Automatic</td>
</tr>
<tr>
<td>SNMP</td>
<td>Started</td>
<td>Manual</td>
</tr>
<tr>
<td>SNMP Trap Service</td>
<td>Started</td>
<td>Manual</td>
</tr>
</tbody>
</table>

**Startup Parameters:**

---

![Services window](image)
10 Installing Desktop Agents in Batch Mode

If you want to install Toptools for Desktops Agent on client machines in batch mode, without user intervention, unzip the agent files but **do not** proceed to running setup.exe. Instead, use the following procedure.

10.1 Batch Installation

There are several options for installing Desktop Agents without user intervention. The Command-line options are for TTDD50<nn>.exe (DMI) and SETUP.INI (WMI). The WMI agent does not have some of the options in the DMISETUP.INI file.

- **-s**: Extract the files silently. Do not ask for a temporary installation directory. Note that this does not provide a totally non-interactive installation. To obtain it, combine this option with "-a" and "Inifile=" as described below.

- **-a**: Used to pass the rest of the command line to the Setup program once the package has been expanded.

Command-line options to the Setup program (these may be passed from TTDD50<nn>.exe to Setup.exe using the -a option described above):

- **-Abort**: Does nothing. Useful when just expanding the files without performing an installation.

- **Inifile=**<full path to the INI file enclosed in double quotes>: This option allows you to specify the name and location of the .INI file used to specify setup options. The following options are possible:
  
  - specify a full qualified path, for example: setup Inifile="C:\mySetup\silentsetup.ini"
  - specify only the name of the .INI file, in which case the file is searched in the same directory as the setup program. Example: setup Inifile="my Silent Setup.ini"

You can supply an initialization file with custom installation parameters (such as whether installation should be interactive or batch). By default, the file names are DMISETUP.INI or SETUP.INI and use the syntax described above. You can use the command-line parameter "Inifile=" described above to use another file name.

A standard initialization file called SILENT.INI in the subdirectory "disk1" is created when you expand the files. You can use SILENT.INI for a standard unattended installation. To do so, on your PC, issue a command such as: **TTDD50<nn>.exe -s -a Inifile="silent.ini**" where nn is the build number of the Toptools Agent.

10.2 Setting up the DMISETUP.INI or SETUP.INI Configuration File

Use the DMISETUP.INI or SETUP.INI configuration file to set up the batch installation. You can find these files in the same subdirectory as the executable program, along with a readme file with the latest information on the parameters. This file has three sections:

- **[SetupInstall]** to set the installation parameters.
- **[Action]** to describe the actions allowed during the batch installation setup.
- **[GeneralInfo]** contains default values used by the batch installation process for some DMI attributes.

10.2.1 The Installation Section [SetupInstall]

This section contains 6 items:

- **InteractiveInstall**: The possible values you can set for this item are 1 or 0. If you set this item to 0, the Toptools SETUP.EXE program runs in batch mode (without user intervention). The batch process will copy all the installation files into a single directory structure. If you don't use batch mode setup, but run the Toptools SETUP.EXE program manually, the parameters from section [Action] and section [GeneralInfo] will not be used. Example setting for this item: InteractiveInstall=1.
**InstallToptoolsUI:** Possible values are 1 or 0. The local user interface of the Toptools for Desktops Agent will be installed if `InstallToptoolsUS=1`.

**InstallSMSWin:** Possible values are 0 and 1. If it is 1 (default), the SMSWin program will be installed.

**InstallResMon:** Possible values are 0 and 1. The System Resource Monitoring module is always installed. If the value of this parameter is 1, it will be activated. The default is 0.

**InstallSoftPowerDown:** Possible values are 0 and 1. The value 1 (default) is valid for Windows NT only, and the HP SoftPowerDown utility will be installed. Please note that SoftPowerDown 6.0 will not be installed if the system is running a version older than 2.2 of the HP Lock Utility for Windows NT.

**InstallDir:** This is the installation directory (full path). It is a character string, and its maximum size is 64 characters. Example setting for this item: `InstallDir=C:\DMI`.

### 10.2.2 The Action Section [Action]

This section describes the actions allowed during the Toptools installation procedure. It contains 1 item:

- **Insert:** The possible values you can set for this item are 1 or 0. If you set this item to 1, the Toptools SETUP.EXE program will overwrite the installation directory if it already exists.

### 10.2.3 The General Information Section [GeneralInfo]

This section contains default values used by the batch installation process for some DMI attributes. You can change the values for all of these attributes, except PCSerialNumber, after the installation process. The installation process automatically updates PCSerialNumber if the system supports it. The installation process automatically updates MonitorSerialNumber if the monitor, BIOS and operating system support DDC calls. (This does not work for Windows NT, as NT does not support DDC calls.)

- **SystemName:** The name of the PC. It is a character string that cannot exceed 64 characters. **This attribute is not available for the WMI agent.**
- **SystemUserName:** The name of the primary user of the PC. It is a character string that cannot exceed 64 characters. **This attribute is not available for the WMI agent.**
- **SystemUserPhone:** This is the user's phone number. It is a character string, and has a maximum size of 64 characters. Example setting for this item: `SystemUserPhone=phone number`.
- **SystemPhysicalLocation:** This is a short description of the location of the HP Vectra PC. It is a character string, and has a maximum size of 64 characters. Example setting for this item: `SystemPhysicalLocation=location`.
- **PCSerialNumber:** This is the PC's serial number. You can find it on the back of the HP Vectra PC. It is a character string, and has a maximum size of 64 characters. Example setting for this item: `PCSerialNumber=serial number`.
- **PCAssetNumber:** If your company uses asset numbering, this is the asset number of the HP Vectra PC. It is a character string, and has a maximum size of 64 characters. Example setting for this item: `PCAssetNumber=asset number`.
- **MonitorSerialNumber:** This is the monitor serial number. You can find it on the back of the monitor. It is a character string, and has a maximum size of 64 characters. Example setting for this item: `MonitorSerialNumber=monitor serial number`.
- **MonitorAssetNumber:** If your company uses asset numbering, this is the asset number of the monitor. It is a character string, and has a maximum size of 64 characters. Example setting for this item: `MonitorAssetNumber=monitor asset number`.

### 10.3 Running SETUP.EXE

Once the DMIsSetup.INI or SETUP.INI file is configured, the files would be distributed to the target PCs. On each of the Target PCs, execute Setup.exe with the desired command line options.
11 toptools agent Utilities

11.1 Asset Configurator

The HP Toptools Asset Configurator is a software utility that can be used to assign different values to the asset management attributes of each managed PC. It is intended to be used before Toptools. Once the Asset Configurator has run, Toptools can be used to provide reports containing the values of the asset attributes for all the managed PCs.

The Asset Configurator software is supplied on the HP support website at http://www.HP.com/go/vectrasupport. It supports Windows 9x, NT4 SP3 or higher, and Windows 2000. It can be run on the managed PCs either before or after Toptools for Desktops 5.0 DMI or WMI Agent is installed.

The Asset Configurator is run on each PC using a command line such as:

```
ASSETCFG.EXE <Path to CSV file> <Path to log file>
```

where:
- Path to CSV file is the complete path to a file in Comma Separated Variable (.CSV) format, containing the list of target PCs, one line per PC, and one column per attribute. Thus a single CSV file can be used to run on all managed PCs. The syntax of the CSV file is described below.
- Path to log file specifies the file name for the log file produced by the program.

The asset attributes that the Asset Configurator can set are:
- System Name
- System Physical Location
- System User Name (except on Windows 2000)
- System User Phone
- PC Asset Number
- Software Image Identifier
- Leasing Contract Number
- Lease Expiration Date
- Monitor Serial Number
- Monitor Asset Number
- HP Support URL

The exact syntax of each line in the CSV file is as follows:

```
<Key>,<System Name>,...,<HP Support URL>
```

where Key is either the IP address or hostname of the PC.

11.2 hp Windows BIOS Configurator

This tool will be available on the HP website at http://www.HP.com/go/vectrasupport in the near future.

The HP Windows BIOS Configurator is a stand-alone utility which allows you to set certain BIOS-level attributes on each managed PC. It can be useful to ensure, for instance, that all managed PCs have the same BIOS settings. This program does not require that HP Toptools for Desktops Agent is installed on the target PCs. In fact, it uses the same technologies as the Toptools Agent. It runs on the client PC as a command line program using a parameter file.
11.2.1 Prerequisites
The utility is supported under Windows 95, 98, NT4 (SP3 or higher) and Windows 2000. It is only supported on the following HP PC models:

- HP Vectra VE 5/xxx Series 3
- HP Vectra VE 5/xxx Series 4
- HP Vectra VL 6/xxx Series 6
- HP Vectra VL 6/xxx Series 7
- HP Vectra VL 6/xxx Series 8
- HP Vectra VLI Series 8
- HP Vectra VL600
- HP Vectra VL400
e-Vectra
- HP Vectra VE C/xxx Series 7
- HP Vectra VE 6/xxx Series 8
- HP Vectra VEi Series 7
- HP Vectra VEi Series 8
- HP NetVectra 5/xxx
- HP Kayak XA
- HP Kayak XA series 05xx
- HP Kayak XA-s series 02xx
- HP Kayak XM600
- HP Kayak XU
- HP Kayak XU series 03xx
- HP Kayak XU series 04xx
- HP Kayak XU800
- HP Kayak XW series A2, U2, W2
- HP Kayak XW series U3, W3
- HP Kayak XW series 04xx
- HP Brio BA210
- HP Brio BA410

The syntax of the command line is as follows:

WBIOSCFG.EXE /PARAMFILE=<Path to INI file> /LOGFILE=<path to log file>

The format of the INI file is as follows:

[Bios Settings]
Start from HDD enabled = <A boolean value YES or NO>
Start from Floppy enabled = <A boolean value YES or NO>
Start from CD enabled = <A boolean value YES or NO>
Start from Network enabled = <A boolean value YES or NO>
RPO on RWU enabled = <A boolean value YES or NO>
Floppy disk drive enabled = <A boolean value YES or NO>
Write on floppy enabled = <A boolean value YES or NO>
Serial port A enabled = <A boolean value YES or NO>
Serial port B enabled = <A boolean value YES or NO>
Parallel port enabled = <A boolean value YES or NO>
USB controller 1 enabled = <A boolean value YES or NO>
USB controller 2 enabled = <A boolean value YES or NO>
PnP OS = <A boolean value YES or NO>
Identification string = <A string value>
Admin Password = <One word>
User Password = <One word>
New Admin Password = <One word>
New User Password = <One word>

Note: if you use the same asset file on each PC, you will get homogeneous BIOS settings across your installed base of PCs.