

HP Insight Integration with Microsoft Systems Management Server 2.0 User Guide



August 2004 (First Edition)
Part Number 374136-001
Product Version 7.1

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About This Guide

This guide is designed to be used as step-by-step instructions for installation and as a reference for operations, troubleshooting, and future upgrades of the HP Insight Integration for Systems Management Server 2.0.

Audience Assumptions

This guide is intended for use by system integrators and network administrators who are familiar with HP branded server and client system products, Insight Management Agents, Insight Manager, and Microsoft SMS 2.0.

Related Documents

For more information on topics discussed in this guide, refer to one of these sources:

- HP Systems Insight Manager user documentation from the HP Management CD
- Insight Management Agents for Microsoft Windows user documentation from the HP Management CD
- *Microsoft Systems Management Server 2.0 for Windows Administrator's Guide*
- *Microsoft SQL Server for Windows System Administrator's Guide*
- Microsoft Windows Administrator's Guide

Where to Go for Additional Help

In addition to this guide, the following information sources are available:

- Microsoft SMS user documentation
- HP Service advisories and bulletins
- HP Systems Insight Manager software

Telephone Numbers

For the name of the nearest HP authorized reseller:

- In the United States, call 1-800-345-1518.

- In Canada, call 1-800-263-5868.

For HP technical support:

- In the United States and Canada, call 1-800-HP-INVENT (1-800-474-6836).
- Outside the United States and Canada, refer to <http://www.hp.com>.

Why Use the HP Insight Integration for SMS

Microsoft SMS 2.0 is a scalable software solution that maximizes network resources by centrally managing the maintenance of hardware and software inventories and by distributing, installing, and metering software packages.

SMS is designed to work with many different hardware platforms, and as a result, provides relatively generic hardware inventory data. To obtain additional in-depth asset information and to facilitate software distribution for HP server hardware, the Insight Integration for SMS delivers the following features:

- **Insight Inventory Collector**—A command line utility that extends the SMS database with HP specific information
- **HP Software Distribution Files**—Text files that facilitate the distribution of the following software products:
 - HP Insight Management Agents for ProLiant Servers
 - HP ProLiant Support Pack software for Microsoft® Windows® 2000 and 2003
 - HP Insight Inventory Collector

Using these integration solutions, the SMS administrator can collect the inventory data and distribute software packages to any ProLiant server configured as an SMS client.

SMS Site Hierarchy

Using the Insight integration solution requires an understanding of the SMS site hierarchy. This hierarchy can include several site categories:

Table 1-1: SMS Site Categories

Category	Description
Central site	Single SMS site that stores system-wide information in a Microsoft SQL Server database. Manages all other SMS sites.
Primary site	Stores sub-system information in an SMS database. Can manage additional primary or secondary sites. Created by running the SMS setup application.
Secondary site	Stores information in the SMS database of the associated primary site. Manages no additional sites. Created by the associated primary site.
SMS site server	The machine at a particular site that is responsible for managing that site and for channeling all SMS information to and from the site.

NOTE: An SMS site can include one or more domains and can be a parent, a child, or both.

- A parent site contains information on all associated child sites and can manage certain operations at these child sites.
- A child site receives information from and reports information to a parent.

The central site is a parent site.

A primary site is a child site (with the central site or another primary site as parent) and can be a parent site (with secondary sites or other primary sites as child sites).

A secondary site is a child site.

SMS sites are arranged in a hierarchical structure:

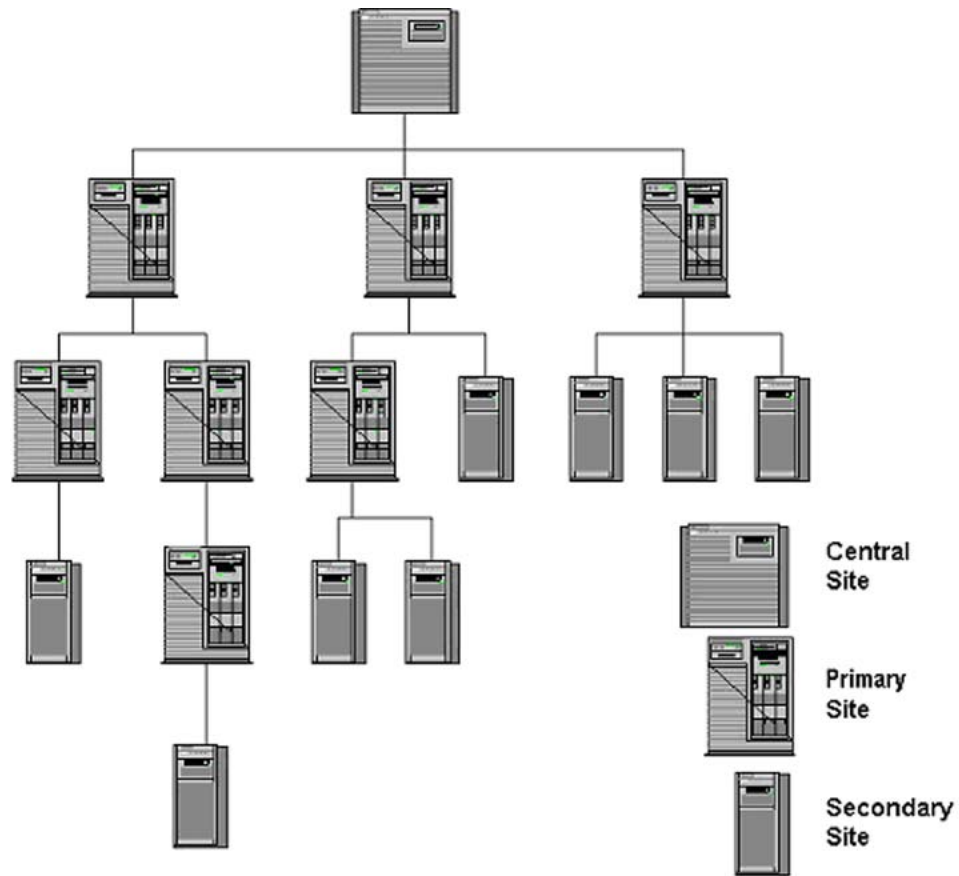


Figure 1-1: Sample SMS site hierarchy

Insight Inventory Collector: Features

Introduction

The Insight Inventory Collector (also known as *Collect.exe*) is a command line utility that uses Insight Management Agents to obtain HP specific hardware information from SMS 2.0 client sites, and adds this information to the site server's SMS database. The information can be viewed or queried and will automatically update the inventory information in the central site's SQL Server database.

Collect runs on each specified client creating a series of intermediate Management Information Format (*.MIF*) text files that contain inventory information on the particular client. The client SMS inventory agent reads these files and outputs a single *.MIF* file to the site server so that the appropriate database can be updated.

Each HP specific *.MIF* file includes one or more tables listing specific inventory information.

NOTE: Version 7.1 of the HP Insight Integration for SMS is delivered with two *Collect.exe* executable files. These enable existing users of *Collect.exe* to either retain their current Compaq systems data format, or to implement the new HP branded data. All future versions of the Insight Inventory Collector will be delivered using only the HP format.

- **HPSMS71\collect\HP\collect.exe**—Presents HP server hardware and operating system inventory data using an HP branded format
- **HPSMS71\collect\CPQ\collect.exe**—Presents HP server hardware and operating system inventory data using a Compaq branded format

NOTE: While the *.MIF* files have retained their original Compaq titles, the contents and output have been modified to represent the new HP standard.

IMPORTANT: The *.MIF* files created by the Insight Inventory Collector will not populate the SMS database automatically. The SMS Hardware Inventory service must be configured and active on each managed system in order to retrieve the *.MIF* files and populate the SMS database. Please refer to the SMS User Guide or application help for full details on configuring and using the hardware inventory feature of SMS.

.MIF File Contents

By default, the *.MIF* files are named *Compaq0.MIF – Compaq10.MIF*. Each file contains one or more inventory tables.

Table 2-1 contains the contents of the *.MIF* files.

Table 2-1: Contents of .MIF files

Filename	Inventory Table
<i>COMPAQ0.MIF</i>	CPU attributes
	EISA/PCI slots
	System attributes
	Memory module attributes
	Portable batteries
	Portable docking station
	Portable PC card slots
<i>COMPAQ1.MIF</i>	IDE devices
<i>COMPAQ2.MIF</i>	Video monitor
<i>COMPAQ3.MIF</i>	Health subsystem
<i>COMPAQ4.MIF</i>	Drive array controller
	Drive array logical drive
	Drive array physical drive
<i>COMPAQ5.MIF</i>	UPS attributes
<i>COMPAQ6.MIF</i>	Storage system attributes
<i>COMPAQ7.MIF</i>	SCSI devices
<i>COMPAQ8.MIF</i>	Software version information
<i>COMPAQ9.MIF</i>	Remote insight board information
<i>COMPAQ10.MIF</i>	Fibre channel array controller
	Fibre Channel array logical drive
	Fibre channel array physical drive
	Fibre channel host controller
	Cluster node information
	Cluster interconnect information

NOTE: Table entries depend on the hardware installed on the particular client. For example, if the client is a server, the table for Portable Batteries will be omitted.

. of Individual Inventory Tables

Table 2-2 contains the contents of each inventory table.

Table 2-2: Inventory Table Contents

Filename	Inventory Table	Type	Description
COMPAQ0.MIF	CPU attributes	CPU number	Position of particular processor (1–4)
		CPU type	Class of Intel® processor, for example: 80486 or Pentium®
		CPU speed	CPU speed in MHz as determined by the HP Management Agents
		L2 cache	Level 2 cache capacity
		L3 cache	Level 3 cache capacity
COMPAQ0.MIF	EISA/PCI slots	Slot number	Slot where the particular board is installed
		Board EISA/PCI ID	Board ID; typically three characters to denote the vendor followed by an alphanumeric ID
		Board name	Vendor's name for the board; formatted per EISA/PCI specifications
		Board revision	Revision level of the board

continued

Table 2-2: Inventory Table Contents *continued*

Filename	Inventory Table	Type	Description	
COMPAQ0.MIF	System attributes	Product name	Full name of the system, for example HP ProLiant 7000	
		Flash ROM	Flash ROM installed (YES/NO)	
		System partition	HP Utilities partition present (PRESENT/NONE)	
		System ROM revision	Revision level of the ROM installed on the system board	
		Serial number	Serial number of HP system	
		Part number	Part number of HP system	
		Asset tag	User-selected string; defaults to Serial Number	
		Total system memory	Memory installed on a Deskpro	
		Hood removal	Date Deskpro's hood removed	
		Hot plug PCI	Hot Plug PCI bus support (YES/NO)	
		Ownership tag	ASCII character string describing system's user-specified ownership tag	
		ROM family	Family type of system ROM	
		COMPAQ0.MIF	Memory module attributes	Board/Module number
Module size	Module size in MB			
Module type	Module type, for example: SIMM			
Module speed	Module memory speed, for example: 80ns			
Memory error checking type	Error checking method used, for example; EDO type			
Technology type	Module memory technology, for example: FPM			
Serial number	Module serial number			
Part number	Module part number			
Manufacturer	Module manufacturer			
Manufacture date	Date of manufacture of module			
Portable batteries	Index			Index of the particular battery
	Manufacturer			Battery manufacturer
	Date			Battery manufacture date
	Serial number		Battery serial number	
	Asset tag		Asset tag of battery	
	Chemistry		Battery chemistry, for example: lithium	

continued

Table 2-2: Inventory Table Contents *continued*

Filename	Inventory Table	Type	Description
COMPAQ0.MIF	Portable docking station	Dock status	Dock status (DOCKED/UNLOCKED)
		Model name	Model name of attached docking station
		Serial number	Serial number of docking station
		Asset tag	Asset tag of docking station
		ROM revision	Revision date of the docking station ROM
COMPAQ0.MIF	PC card slots	Index	Index of the particular slot
		Slot location	Physical slot location
		Card presence	Card installed (YES/NO)
		Card status	Operational status of the installed card
		Manufacturer name	Card manufacturer
		Device name	Card name
COMPAQ1.MIF	IDE devices	Controller/Drive	Slot number and ID for the IDE controller
		Name	Name of the IDE device, for example: HP 2105
		Type	Type of IDE device, for example: disk
		Firmware revision	Revision level of IDE device firmware
		Disk size	Size of the IDE disk
		Serial number	Serial number of the IDE device
COMPAQ2.MIF	Video monitor	Description	Type of monitor
		Name	Model name
		Serial number	Serial number of monitor
		Horizontal pixels	Maximum horizontal pixel resolution
		Vertical pixels	Maximum vertical pixel resolution
		Frequency range	Horizontal and vertical frequency range supported by the monitor
		Fault management support	Presence of fault management support (YES/NO)
		Manufacturer ID	Manufacturer of the monitor
EDID version	EDID version used by the monitor		

continued

Table 2-2: Inventory Table Contents *continued*

Filename	Inventory Table	Type	Description
COMPAQ3.MIF	Health subsystem	ASR status	Status of Automatic Server Recovery-2 (ENABLED/DISABLED)
		ASR reboot to	How the system will reboot following an ASR-2 event (OPERATING SYSTEM/HP UTILITIES)
		Pager status	Status of ASR-2 paging (ENABLED/DISABLED)
		Pager number	Number called by server when initiating a paging event
COMPAQ4.MIF	Drive array controller	Model	Drive array model, for example; SMART array
		FW revision	Revision level of drive array controller firmware
		Slot	Slot number of drive array controller
	Drive array logical drive	Index	Index of the particular logical drive
		Controller slot	Slot of drive array controller with which logical drive associated
		Drive size	Size of the logical drive
		Fault tolerance	Type of fault tolerance used by the logical drive, for example: RAID 5
		Physical drives	List of physical drives included in the logical drive
COMPAQ4.MIF	Drive array physical drive	Slot/Bay/Port	Slot number of the controller; port used by the physical drive; drive bay containing the drive
		Model	Model of physical drive, for example: HP M2694ES-512
		Firmware revision	Revision level of drive firmware
		Drive size	Size of physical drive
		Hot pluggable	Specifies if drive is hot-pluggable (YES/NO)
		Serial number	Serial number of the drive
COMPAQ5.MIF	UPS attributes	Model	UPS model name
		Serial number	UPS serial number
		Auto shutdown delay	Time in minutes UPS waits before shutting down after power loss

continued

Table 2-2: Inventory Table Contents *continued*

Filename	Inventory Table	Type	Description
COMPAQ6.MIF	Storage system attributes	Index	Index of the particular storage system
		Model	Storage system model, for example: ProLiant 1-5E
		Controller slot	Slot number of storage system controller
		SCSI bus index	SCSI index of storage system
		FW revision	Revision level of storage system firmware
		Vendor	Storage system vendor
COMPAQ7.MIF	SCSI devices	Controller Slot/SCSI ID	Slot number and SCSI ID of the SCSI controller
		Name	HP name for the SCSI device, for example: HP 2105
		Type	Type of SCSI device, for example: disk
		Firmware revision	Revision level of SCSI device firmware
		Bus width	SCSI bus width, for example: 8 bits
		Disk size	SCSI disk size
		Hot pluggable	Specifies if device is hot-pluggable (YES/NO)
COMPAQ8.MIF	Software version information	Name	Name of the .EXE, .SYS, or utility program that runs the particular HP software product
		Description	Text description of the software, for example: HP Insight Management Service
		Version	Software version
COMPAQ9.MIF	Remote insight board information	Serial number	Serial number of the Remote Insight Board
		Firmware revision	Firmware revision of the Remote Insight Board
		Video status	Status of the video (ENABLED/DISABLED)
		Keyboard status	Status of the keyboard (ENABLED/DISABLED)
		Alert status	Status of the alerts (ENABLED/DISABLED)
		Battery status	Status of the battery (ENABLED/DISABLED)

continues

Table 2-2: Inventory Table Contents *continued*

Filename	Inventory Table	Type	Description
COMPAQ10.MIF	Fibre channel array controller	Model	Fibre Channel Array Controller model
		Firmware revision	Firmware revision of Fibre Channel Array Controller
		Serial number	Serial number of Fibre Channel Array Controller
		Storage Box I/O slot	Physical slot within storage box where Fibre Channel Array Controller installed
	Fibre channel array logical drive	Storage box index	Index of storage box where logical drive installed
		Logical drive index	Index of logical drive within a storage box
		Logical drive fault tolerance mode	Fault tolerance mode of the logical drive
		Logical drive size	Size in MB of the logical drive
		List of physical drives	List of physical drive IDs associated with the logical drive
		Accelerator status	Status of the accelerator (ENABLED/DISABLED)
COMPAQ10.MIF	Fibre channel array physical drive	Storage box index	Index of storage box where physical drive resides
		Physical drive index	Index of physical drive With Storage Box Index, this uniquely identifies a specific physical drive
		Drive model	Text description of the physical drive
		Drive size	Size in MB of the physical drive
		Firmware revision level	Firmware revision level of the physical drive
		Serial number	Serial number of the physical drive

continued

Table 2-2: Inventory Table Contents *continued*

Filename	Inventory Table	Type	Description
COMPAQ10.MIF	Fibre channel host controller	Host controller slot	Identifies physical slot where HP Fibre Channel Host Controller resides
		Model	Model name of controller card
		Worldwide name	User-specified string that can be used to further identify the controller card
	Cluster node information	Cluster name	Name of cluster to which this node belongs
		Cluster IP address	Static IP address of cluster
		Cluster node	Node name
	Cluster interconnect information	Interconnect physical ID	Physical device identification
		Interconnect transport	Network transport used by the interconnect, for example: TCP/IP
		Interconnect address	Address used by the interconnect

Command Line Options

Collect is a command line utility that enables the user to specify options for obtaining HP specific hardware information from SMS clients. These options enable the SMS administrator to specify:

- The names of the *.MIF* files to be created by the client
- The SMS directory where the client places the *.MIF* files

NOTE: If this directory is not specified, Collect outputs the inventory tables to the screen.

- The items to be inventoried

NOTE: If the items are not specified, Collect will perform a complete inventory.

- The Collect help screen

Table 2-3 lists the command line options.

Table 2-3: Command Line Options

Option	Name	Description	Tables Collected
/F	Output File	Specifies the name of the single <i>.MIF</i> file (<i>Output File.MIF</i>) created by the client. The default filename is <i>COMPAQ.MIF</i> . This output file includes all requested inventory tables. NOTE: Do not use this option with /M.	
/H	Server Health	Collects Server Health information.	Health Subsystem
/I	Drive Array	Collects Drive Array information.	All Drive Array tables
/M	Multiple	Creates multiple output files named <i>COMPAQ0.MIF – COMPAQ10.MIF</i> .	
/SC	SCSI	Collects SCSI information.	SCSI Devices
/SE	Standard Equipment	Collects standard equipment information.	System Attributes
/SMS20	SMS 2.0	Places the <i>.MIF</i> files in the SMS 2.0 NOIDMIF directory on the client machine. NOTE: Requires either /F or /M	
/SMS	SMS	Places the <i>.MIF</i> files in the SMS 1.2 NOIDMIF directory on the client machine. NOTE: Requires either /F or /M	
/SS	Storage System	Collects storage system information.	Storage System Attributes
/SW	Software Version	Collects software version information.	Software Version Information
/U	UPS	Collects UPS information.	UPS Attributes
/?	Help	Displays the Collect Help screen.	

The command line syntax is:

```
COLLECT [[/M /SMS20|/SMS] /F outfile [/H|/I|/SC|/SE|/SS|/SW|/U]
|[/?]]
```

The default command line is typically:

```
COLLECT /M /SMS20
```

This places the resulting *.MIF* files in the appropriate client directory so that SMS can update the database with HP specific inventory information.

Inventory Collection: Installation and Use

Installing the Insight Inventory Collector (Collect)

Version 7.1 of the HP Insight Integration for SMS is delivered with two *Collect.exe* executable files. These enable existing users of *Collect.exe* to retain their current Compaq systems data format, or implement the new HP branded data.

NOTE: All future versions of the Insight Inventory Collector will be delivered using only the HP data format.

- **HPSMS71\collect\HP\Collect.exe**—Presents HP server hardware and operating system inventory data using an HP branded format
- **HPSMS71\collect\CPQ\Collect.exe**—Presents HP server hardware and operating system inventory data using a Compaq branded format

When installed, to determine which version of *Collect.exe* had been implemented use the following command line option `collect /?`

- The Compaq version of *Collect.exe* will display “HP Inventory Collector Version 7.10C”
- The HP version of *Collect.exe* will display “HP Inventory Collector Version 7.10H”

Recommended Installation and Migration Procedure

HP recommends the following procedure to migrate to the new HP branded version of *Collect.exe* and enable support for future releases of the Insight Inventory Collector.

1. Run the new, HP branded version of Collect (7.10H) on the ProLiant systems managed by SMS.
2. Check the resulting HP branded tables in SMS against any current Compaq branded tables. The table content should be identical, with “Compaq” replaced by “HP.” Note that *Collect.exe* does not control the information displayed in the data sections of the tables, such as the specific name of a PCI board. All HP and Compaq branded data is based upon definitions supplied by the HP Insight Management Agents. The changes to the *Collect.exe* utility have only re-branded the table names and the names of the table rows.
3. Run the *removecpq.sql* script to remove all Compaq branded tables from the SMS database.
4. The SMS database should now contain only HP branded tables.

Using the REMOVECPQ.SQL Script

The *removecpq.sql* script removes all Compaq branded data in the SMS database after the HP branded version of *Collect.exe* has been run:

1. Open the *removecpq.sql* script with a text editor. The first line reads *USE <SMSdbName>*. Replace *<SMSdbName>* with the name of the database used for the SMS installation and then save the edited file.
2. Open the SQL Server Enterprise Manager application and connect the SMS SQL Server.
3. From the **Tools** menus, open the SQL Query tool.
4. Select **File>Open** and select the *removecpq.sql* script modified in step 1.
5. Execute the script. When finished, references to the Compaq tables should be removed from the database.

NOTE: You might see several error messages reported by the SQL Script tool. This is expected and should not normally be cause for concern. The SMS database might not contain all possible Compaq tables, and is dependent on the type of inventoried hardware.

6. Check the SMS database for any remaining Compaq tables. SMS occasionally creates redundant tables, denoted by a “1” at the end of the table name. Remove any redundant tables.

Using the Insight Inventory Collector (Collect)

IMPORTANT: To identify applicable pre-installation requirements, refer to Appendix B, “Pre-Installation Requirements.”

There are three options for installing and using Collect:

- Using an existing SMS login script to collect the inventory of a particular client
- Issuing SMS advertisements from the site server to schedule inventory collections from specified clients
- Running Collect manually to collect the inventory of a particular client

Each of these options is discussed in the following sections.

IMPORTANT: The .MIF files created by the Insight Inventory Collector will not populate the SMS database automatically. The SMS Hardware Inventory service must be configured and active on each managed system in order to retrieve the .MIF files and populate the SMS database. Please refer to the SMS User Guide or application help for full details on configuring and using the hardware inventory feature of SMS.

Using the SMS Login Script

The SMS administrator can add Collect to the login script of a particular client so that this client's inventory is collected automatically when the login script is run:

1. Copy *Collect.exe* to the site server directories that contain the login script. By default, the login script is named *SMSLS.BAT* and is contained in these directories:
 - %WINNT_ROOT%\SYSTEM32\REPL\EXPORT\SCRIPTS
 - %WINNT_ROOT%\SYSTEM32\REPL\IMPORT\SCRIPTS

NOTE: For information on obtaining *Collect.exe*, refer to Appendix A, "Obtaining HP Software."

2. Modify the login script in each directory. Add the lines shown underlined:

```

...
if not exist %SMS_LOCAL_DIR%\MS\SMS\CORE\BIN\SMSBOOT1.EXE goto USER
collect /m /sms20
goto END
...
:USER
if %SMS_LOCAL_DIR_USER%.==.goto SERVER
if not exist %SMS_LOCAL_DIR_USER%\MS\SMS\CORE\BIN\
SMSBOOT1.EXE goto SERVER
collect /m /sms20
%SMS_LOCAL_DIR_USER%\MS\SMS\CORE\BIN\SMSBOOT1.EXE -S %0 -N
-WINDR=%WINDIR%
goto END
...
:SERVER
collect /m /sms20
%0\..\SMSBOOT1.EXE -S %0 -N -WINDR=%WINDIR%
goto END ...

```

These modifications allow Collect to execute each time the login script runs.

Using Scheduled SMS Advertisements

The SMS administrator can schedule a repeating SMS advertisement from the SMS Administrator console to collect inventory information simultaneously from multiple target machines:

1. Create a directory on the site server to hold Collect.
2. Copy *Collect.exe* to the new directory.

NOTE: For information on obtaining *Collect.exe*, refer to Appendix A, "Obtaining HP Software."

3. Create a new SMS package to schedule Collect:
 - a. From the Collect Package Properties window, select the **Data Source** tab.

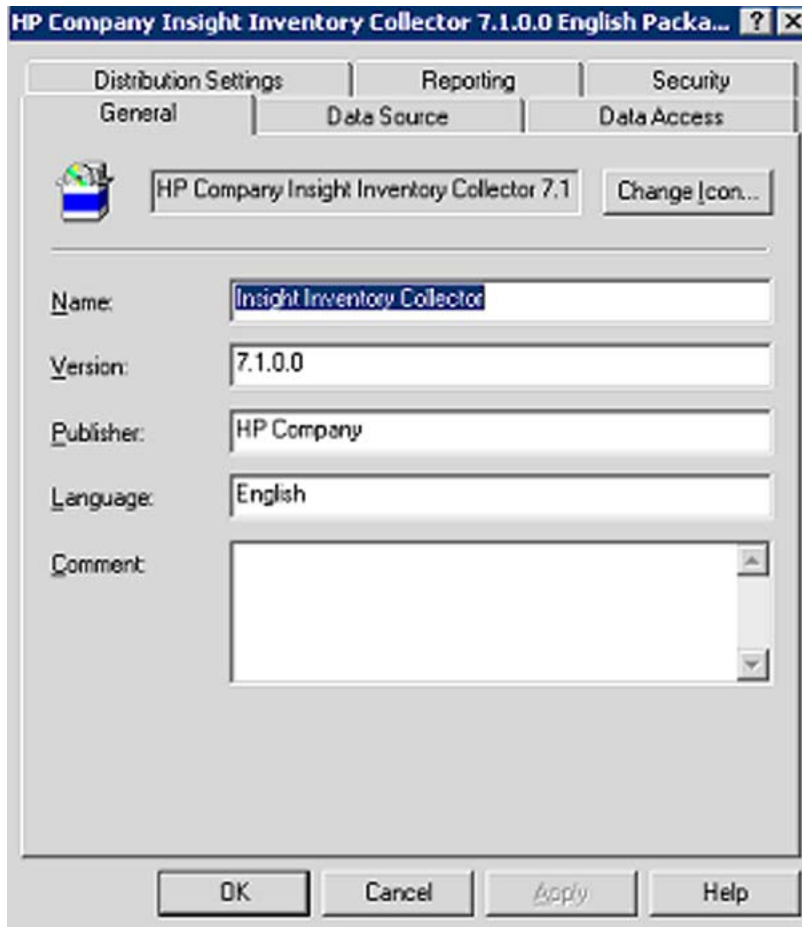


Figure 3-1: The Collect Package Properties window

- b. Select **This package contains source files** in the **Data Source** tab.

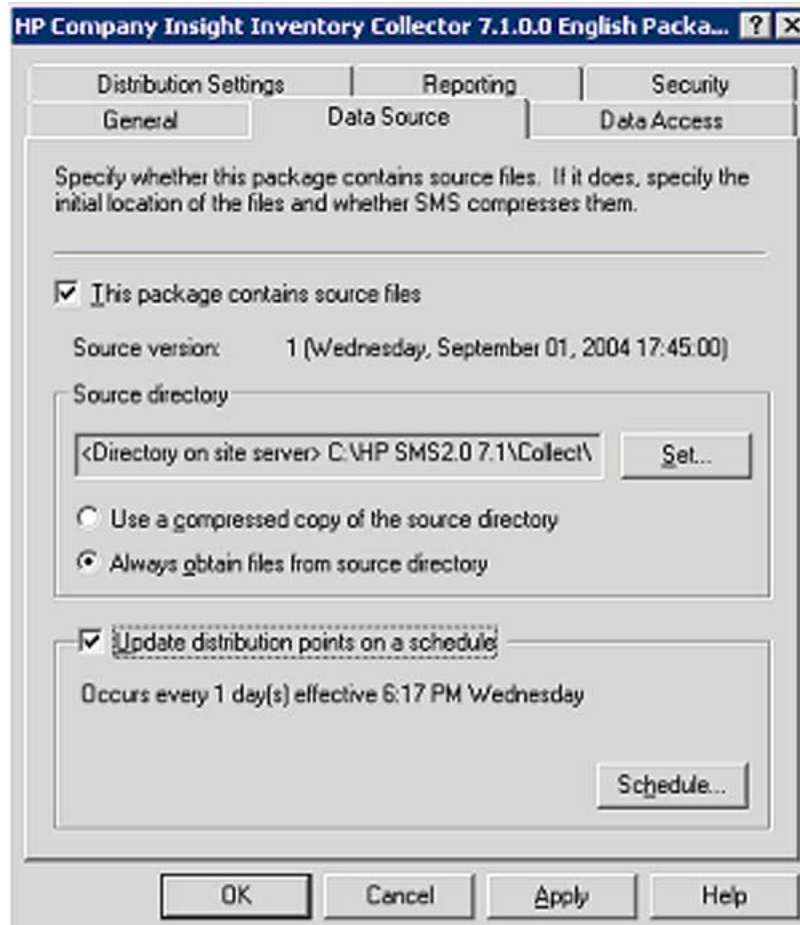


Figure 3-2: The contents of the Data Source tab

- c. Specify the name of the new directory as the source directory.
- d. Be sure that SMS always uses the most recently installed version of Collect by selecting the **Always obtain files from source directory** radio button and selecting the **Update distribution points on a schedule** checkbox.

IMPORTANT: It is the SMS administrator's responsibility to make sure that the version of Collect in the source directory is updated as required. All clients running the advertisement after the update will use the most recently installed version.

- e. If the SMS administrator never expects to update the current version of Collect, select **Use a compressed copy of the source directory**, if required.
- f. Click **OK**.

4. Specify the Collect command line:
 - a. From the SMS Administrator console, expand the package just created.

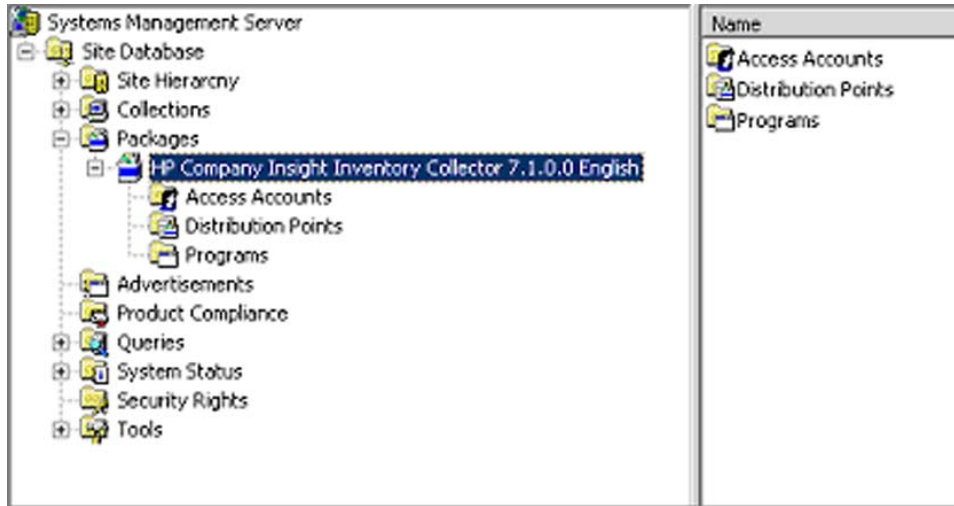


Figure 3-3: Expanding the new package

- b. Right-click **Programs** and select **New** from the resulting dropdown menu. Select **Program** to obtain the Run Collect Program Properties window.

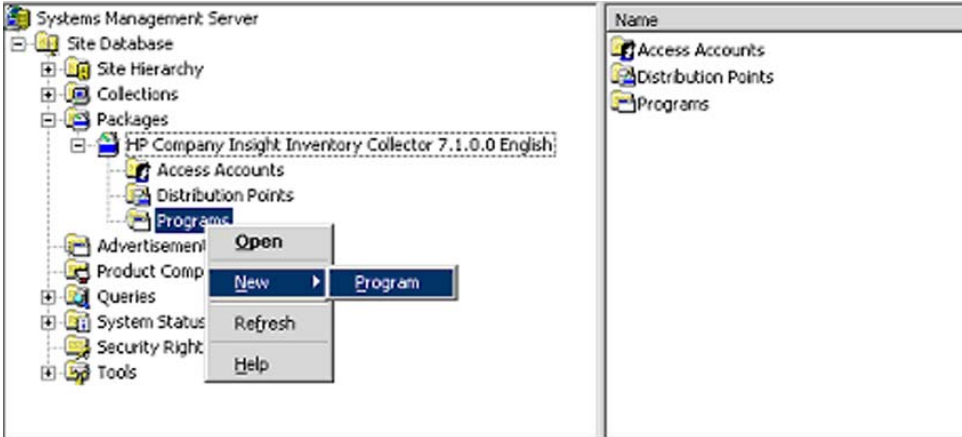


Figure 3-4: Obtaining the Collect Program Properties window

- c. In the **General** tab, specify a name for the command line, and then specify the command line.

NOTE: The default command line is: `COLLECT /M /SMS20`. For information on command line options, refer to Chapter 2, “Insight Inventory Collector: Features.”

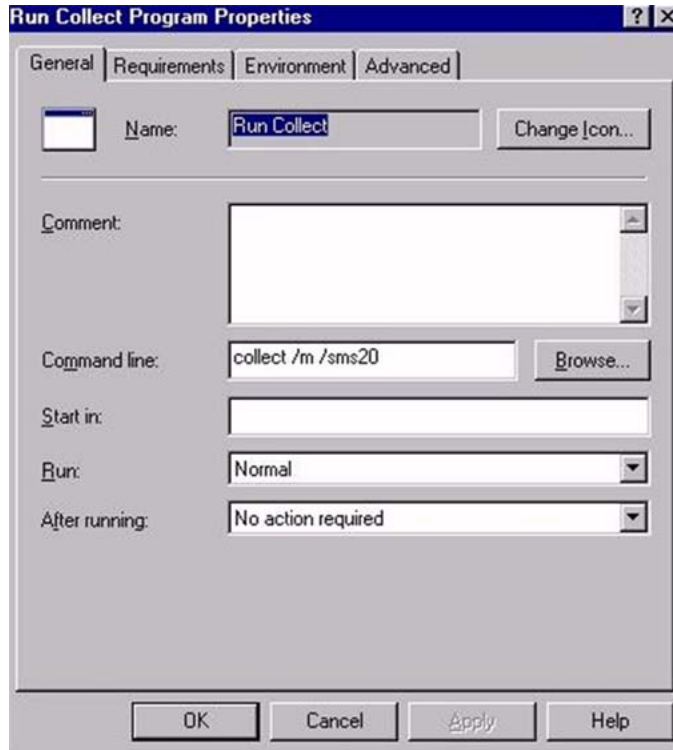


Figure 3-5: Specifying the Collect command line

- d. To enable Collect to run from the client whether or not a user is logged on, select the appropriate option from the Program Can Run dropdown menu in the **Environment** tab.

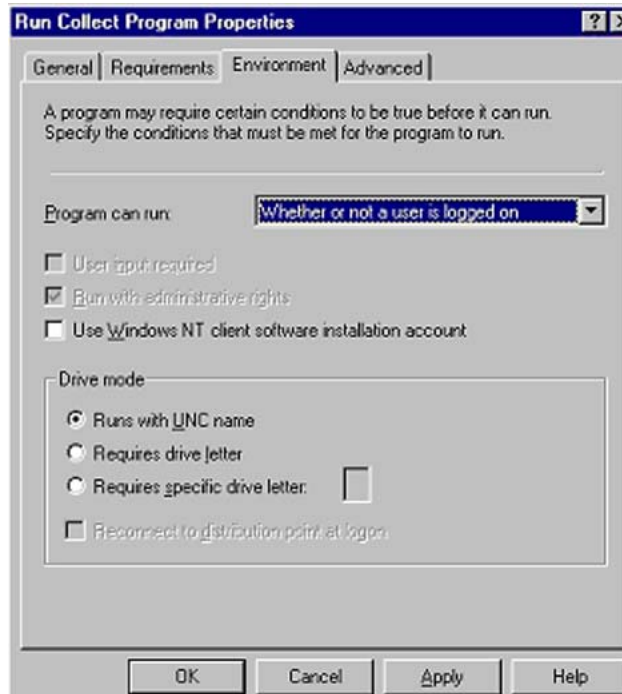


Figure 3-6: Selecting the “Whether or not a user is logged on” option

- e. In the **Requirements** tab, select the client platforms on which Collect will run when scheduled. Collect is supported on: all x86 NT 4.0 clients, all x86 Windows 2000 clients, and all x86 Windows Server 2003 clients.

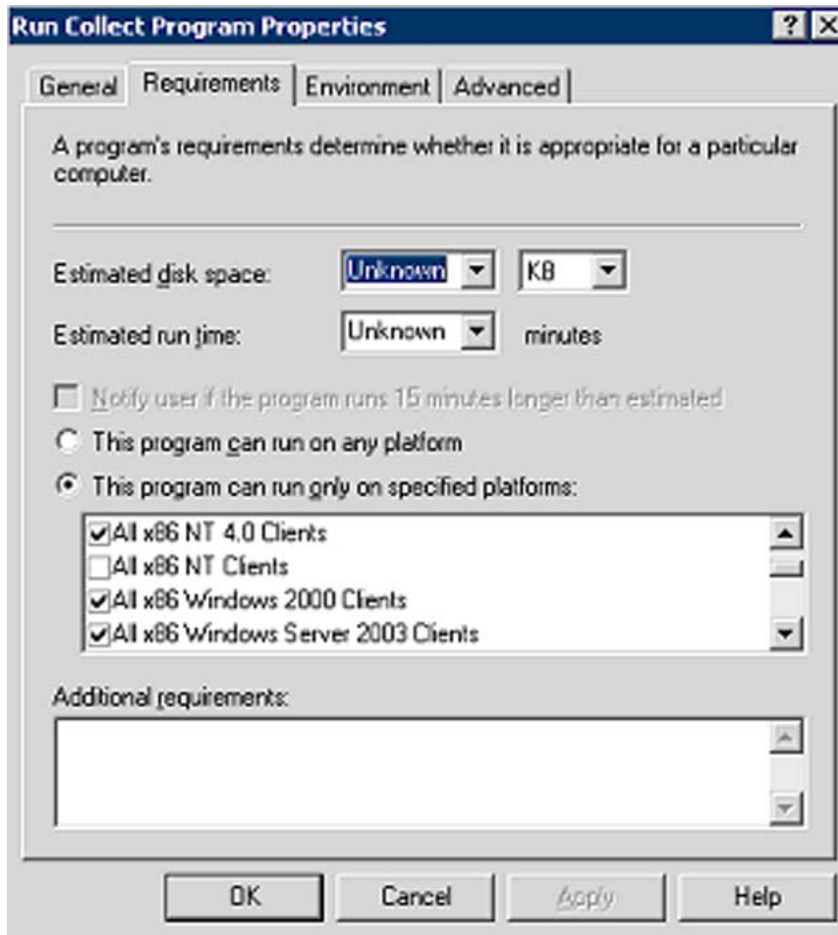


Figure 3-7: Selecting the client platforms on which Collect will run

- f. Create a new distribution point for the package.

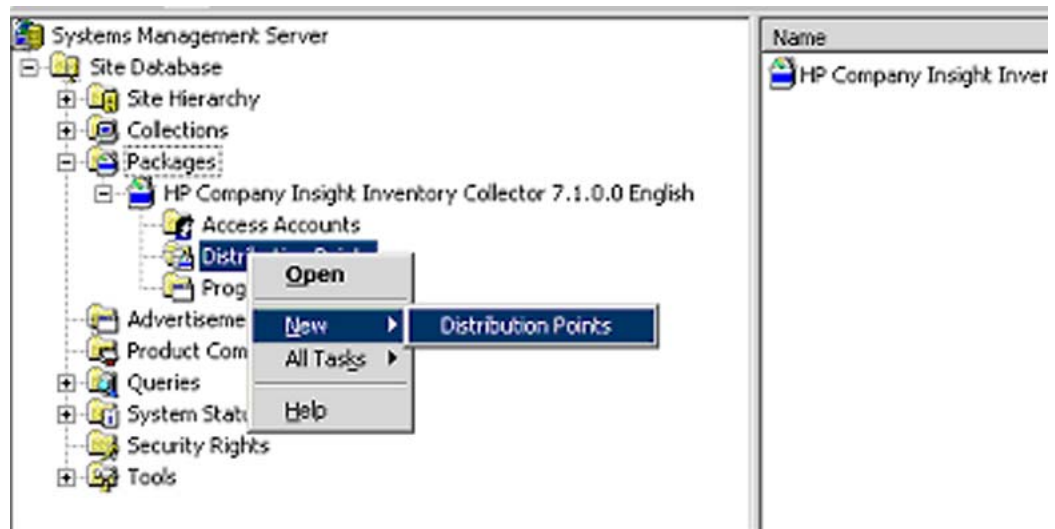


Figure 3-8: Creating a new distribution point

- g. Select the distribution point for the package.

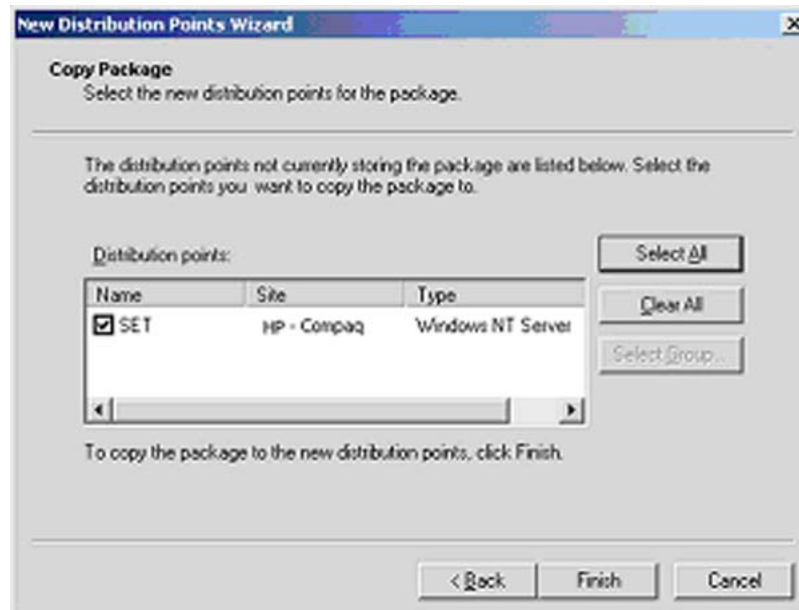


Figure 3-9: Selecting the distribution point

5. Create an advertisement to distribute Collect to the target machines:
 - a. From the SMS Administrator console, right-click the **Advertisements** icon.
 - b. Click **New**.
 - c. Click **Advertisement**.

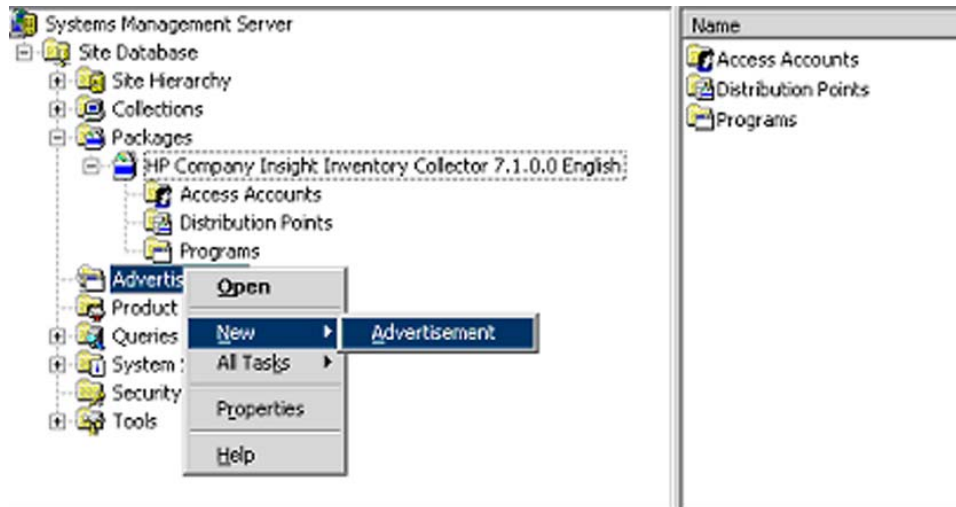


Figure 3-10: Obtaining the Advertisement Properties window

To schedule regular executions of Collect, create a mandatory schedule under the **Schedule** tab of the SMS Advertisement Properties window.

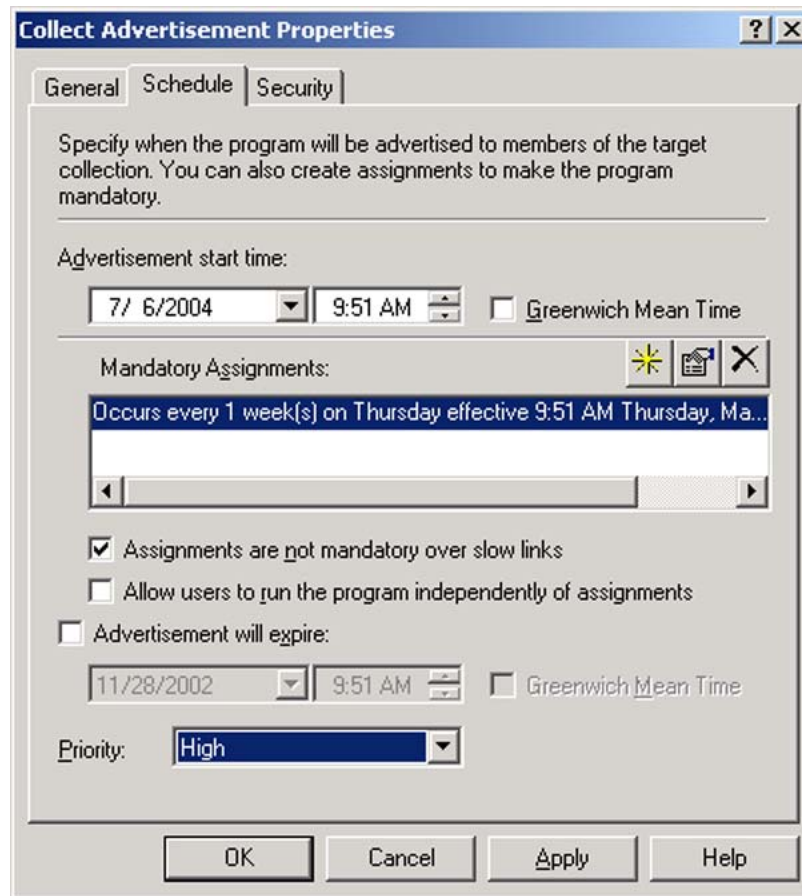


Figure 3-11: Creating a mandatory schedule

Running Collect Manually

At a smaller site, it might be more convenient to run Collect directly from a client machine. Use this procedure:

1. Create a directory on the local hard drive to hold Collect.
2. Copy *Collect.exe* to the new directory.

NOTE: For information on obtaining *Collect.exe*, refer to Appendix A.

3. Switch to the new directory.
4. Run Collect from the command line.

NOTE: The default command line is: `COLLECT /M /SMS20`. For information on command line options, refer to Chapter 2, "Insight Inventory Collector: Features."

- Log in to a domain managed by SMS so that the .MIF files created by Collect can be read by SMS at the next scheduled hardware inventory period.

Related Activities

After installing and executing Collect, the SMS administrator can perform other related operations:

- Viewing the .MIF files
- Querying SMS databases

Viewing the .MIF Files

The information contained in the .MIF files created by Collect can be viewed in the Resource Explorer window at the SMS Administrator console.

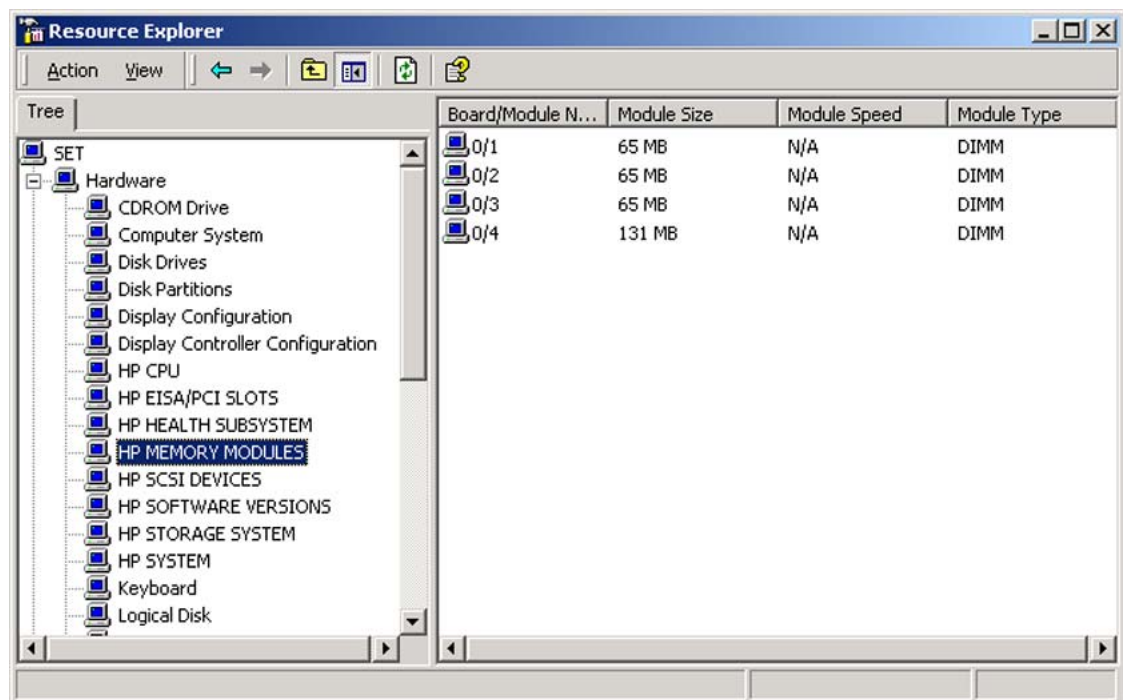


Figure 3-12: Sample Resource Explorer window

In the previous example, the following HP specific inventory information is displayed:

Table 3-1: Examples of Viewing .MIF Files

Hardware Component	.MIF File	Table
HP CPU	COMPAQ0.MIF	CPU Attributes
HP EISA/PCI SLOTS	COMPAQ0.MIF	EISA/PCI Slots
HP HEALTH SUBSYSTEM	COMPAQ3.MIF	Health Subsystem

HP MEMORY MODULES	COMPAQ0.MIF	Memory Module Attributes
HP SCSI DEVICES	COMPAQ7.MIF	SCSI Devices
HP SOFTWARE VERSIONS	COMPAQ8.MIF	Software Version Information
HP SYSTEM	COMPAQ0.MIF	System Attributes

For more information on the inventory information contained in .MIF files, refer to Chapter 2, “Insight Inventory Collector: Features.”

Querying SMS Databases

After the HP specific inventory information has been added to an SMS database, the SMS administrator can query this information in the same manner as generic inventory information.

HP Software Distribution Files: Features

Capabilities

Since the task of configuring software packages and advertisements can be manually intensive, Microsoft SMS 2.0 features a flexible software distribution that uses *.SMS* text files to facilitate the creation of software packages.

The Insight Integration for SMS 2.0 includes additional *.SMS* files to distribute the following HP specific software products:

- Insight Management Agents for ProLiant servers
- ProLiant Support Pack Software for Windows 2000 and 2003
- Insight Inventory Collector

Each *.SMS* file includes programs that provide the SMS administrator with options for distributing and installing the particular software product.

Distribution Programs

Table 4-1 lists distribution programs contained in the HP Software Distribution Files (*.SMS*).

Table 4-1: Distribution Options

Software Product	Program	Description
Insight Management Agents	Manual Install of Agents	Launches the Insight Management Agents setup program then waits for user input. Does not perform a reboot on completion.
	Silent Install of Agents	Performs an automated install or upgrade of the Insight Management Agents. Does not perform a reboot on completion. NOTE: A user does not need to be logged on to the target machine for the install program to function correctly.
ProLiant Support Pack Software	Manual Driver Install	Launches the ProLiant Support Pack setup program then waits for user input. Does not perform a reboot on completion.

	Automated Driver Install	Performs an automated install of a ProLiant Support Pack on a target server. Checks for new hardware, adds updates to the latest drivers and management agents. Does not perform a reboot on completion.
	Automated Driver Install and Reboot	Performs an automated install of a ProLiant Support Pack on a target server. Checks for new hardware, adds updates to the latest drivers and management agents. Performs a reboot on completion.
Insight Inventory Collector	AutoRun	Automatically runs the Inventory Collector and produces a full set of COMPAQx.MIF files for the target machine.

Software Distribution Files: Use

Distributing HP Software Products

The process for using Microsoft SMS 2.0 to distribute HP software products includes:

- Preparing the site server
- Creating a package for the software
- Creating queries to target the distribution to specific clients
- Creating the advertisement to distribute the software

IMPORTANT: To identify applicable pre-installation requirements, refer to Appendix B, “Pre-Installation Requirements.”

Preparing the Site Server

To prepare the site server for software distribution, it is recommended that a source directory be created on the SMS site server, into which the appropriate files are copied.

NOTE: Since SMS can obtain software product source files and .SMS files from any share available on the network, these steps are not strictly necessary. For information on where to obtain product source files and .SMS files, refer to Appendix A, “Obtaining HP Software.”

Use this procedure to prepare the site server:

1. Create a source directory on the SMS site server.
2. Copy the appropriate .SMS file to the source directory.
 - **collect.sms**—Definition file for the Inventory Collector
 - **winhpagnt70.sms**—Definition file for Insight Management Agents 7.0 for ProLiant servers running Windows 2000 or 2003
 - **winhpagnt71.sms**—Definition file for Insight Management Agents 7.1 for ProLiant servers running Windows 2000 or 2003
 - **winhppsp.sms**—Definition file for the ProLiant Support Pack v7.0 and 7.1 for Windows 200 and 2003

NOTE: The predefined .SMS files to deploy Insight Management Agents are designed for use with specific versions and component files delivered with ProLiant Support Packs. To deploy other versions of the Insight Management Agents, the *winhpagt7x.sms* files can be edited to reflect an alternative component file. See the ProLiant Support Pack release notes and index files to identify specific component names.

- Using the file *winhpagnt70.sms* as an example, edit the bolded items to reflect the desired replacement values and save as a .SMS file

```
[PACKAGE DEFINITION]
LANGUAGE=English
NAME=Insight Management Agents for Windows 2000/2003
VERSION=7.0
PUBLISHER=HP Company
PROGRAMS=ManualInstall, SilentInstall
```

```
[PDF]
Version=2.0
```

```
[MANUALINSTALL]
ADMINRIGHTSREQUIRED=True
SUPPORTEDCLIENTS=Win NT (i386)
USERINPUTREQUIRED=True
WIN NT (I386) MINVERSION1=5.00.0000.0
WIN NT (I386) MAXVERSION1=5.00.9999.9999
WIN NT (I386) MINVERSION2=5.20.0000.0
WIN NT (I386) MAXVERSION2=5.20.9999.9999
COMMANDLINE=cp003732.exe
NAME=Manual Install Insight Management Agents
CANRUNWHEN=UserLoggedIn
DRIVELETTERCONNECTION=True
EstimatedDiskSpace=10 MB
```

```
[SILENTINSTALL]
ADMINRIGHTSREQUIRED=True
SUPPORTEDCLIENTS=Win NT (i386)
USERINPUTREQUIRED=False
WIN NT (I386) MINVERSION1=5.00.0000.0
WIN NT (I386) MAXVERSION1=5.00.9999.9999
WIN NT (I386) MINVERSION2=5.20.0000.0
WIN NT (I386) MAXVERSION2=5.20.9999.9999
COMMANDLINE=Setupc cp003732.exe
NAME=Silent Install Insight Management Agents
CANRUNWHEN=AnyUserStatus
DRIVELETTERCONNECTION=True
EstimatedDiskSpace=10 MB
```

- Copy the source files for the software product to be distributed to the source directory.

IMPORTANT: Make sure that the appropriate version of the software product is copied to the defined source directories:

- Insight Management Agents version 7.0 or 7.1
- ProLiant Support Pack version 7.0 or 7.1

For information on obtaining software products, refer to Appendix A, “Obtaining HP Software.”

Creating a Package

After preparing the site server, use the Create Package from Definition wizard to create a package for the software product to be distributed:

1. To invoke the wizard:
 - a. In the SMS administrator console, right-click **Packages**.
 - b. Click **New**.
 - c. Click **Package from Definition**.

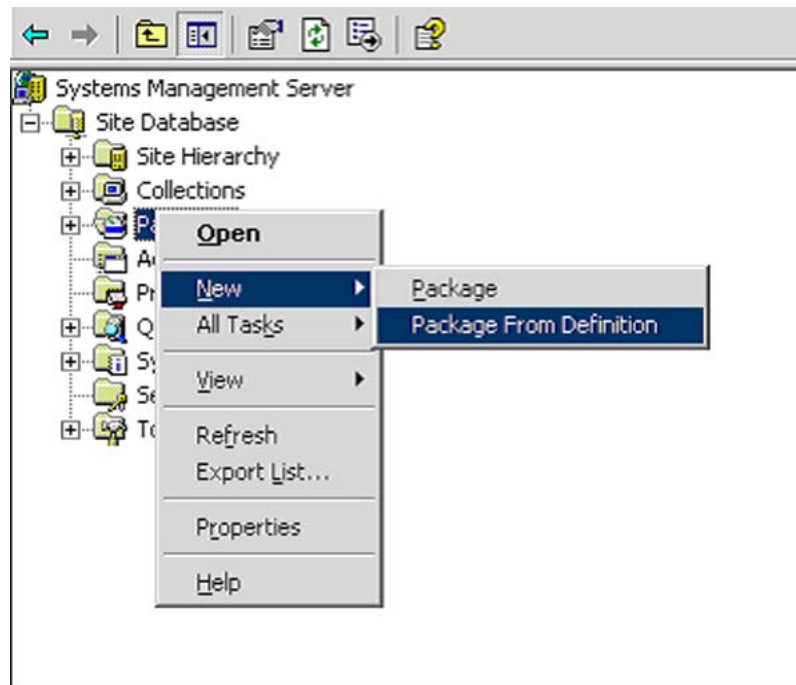


Figure 5-1: Invoking the Create Package from Definition wizard

2. Click **Next** to start the Create Package from Definition wizard.



Figure 5-2: The Create Package from Definition wizard

- Use **Browse** to select the directory where the .SMS file for the particular software product is located.

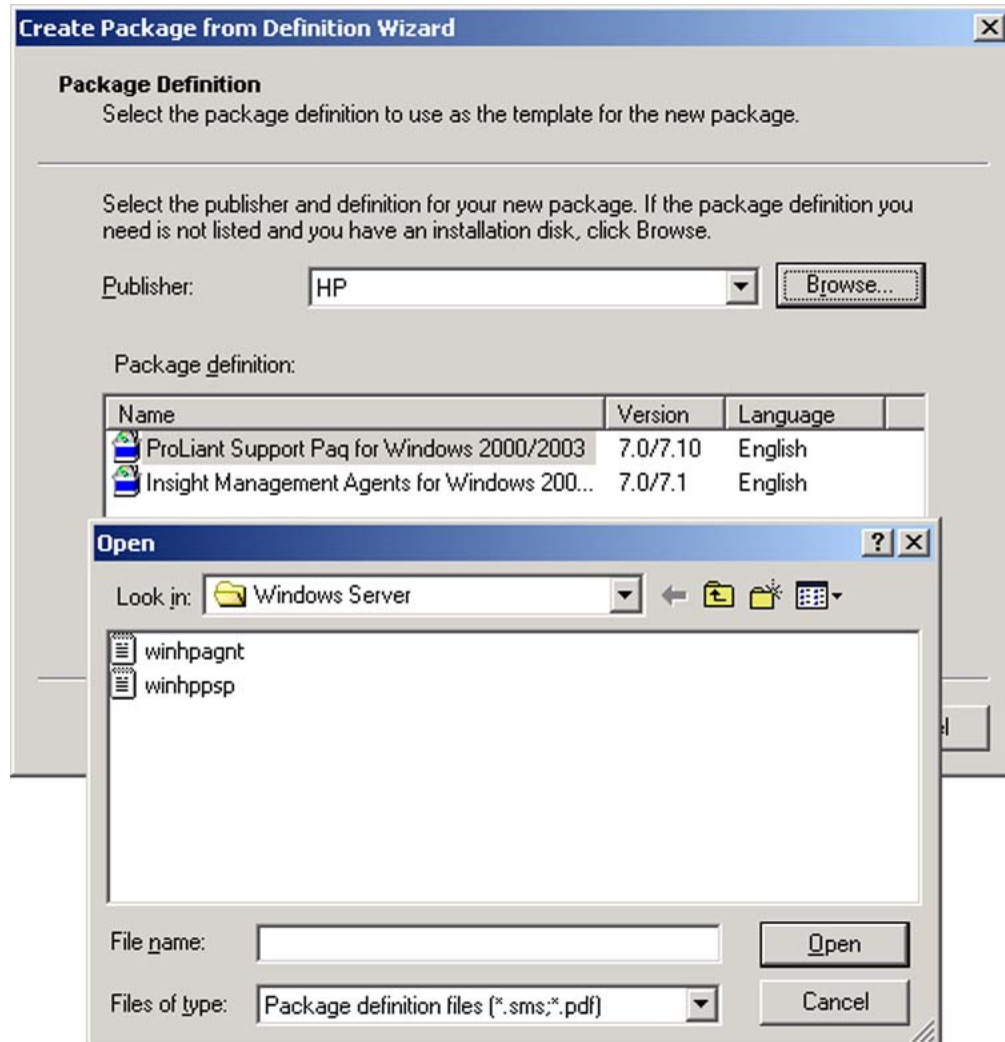


Figure 5-3: Selecting the .SMS file

- Identify the HP software product to be distributed.

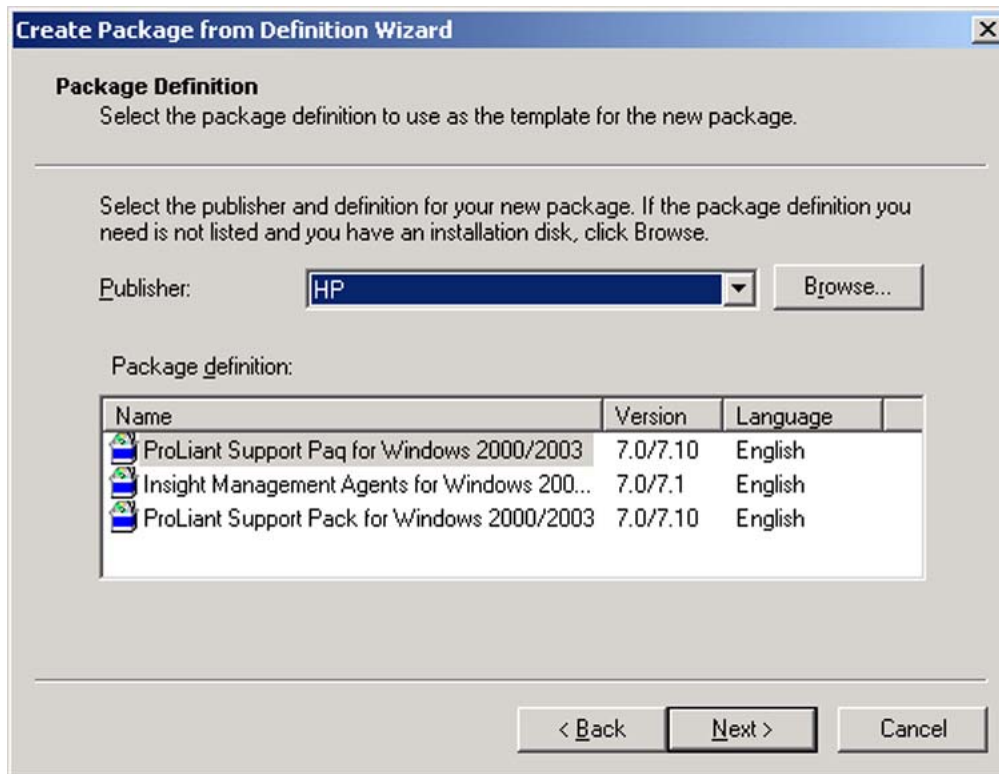
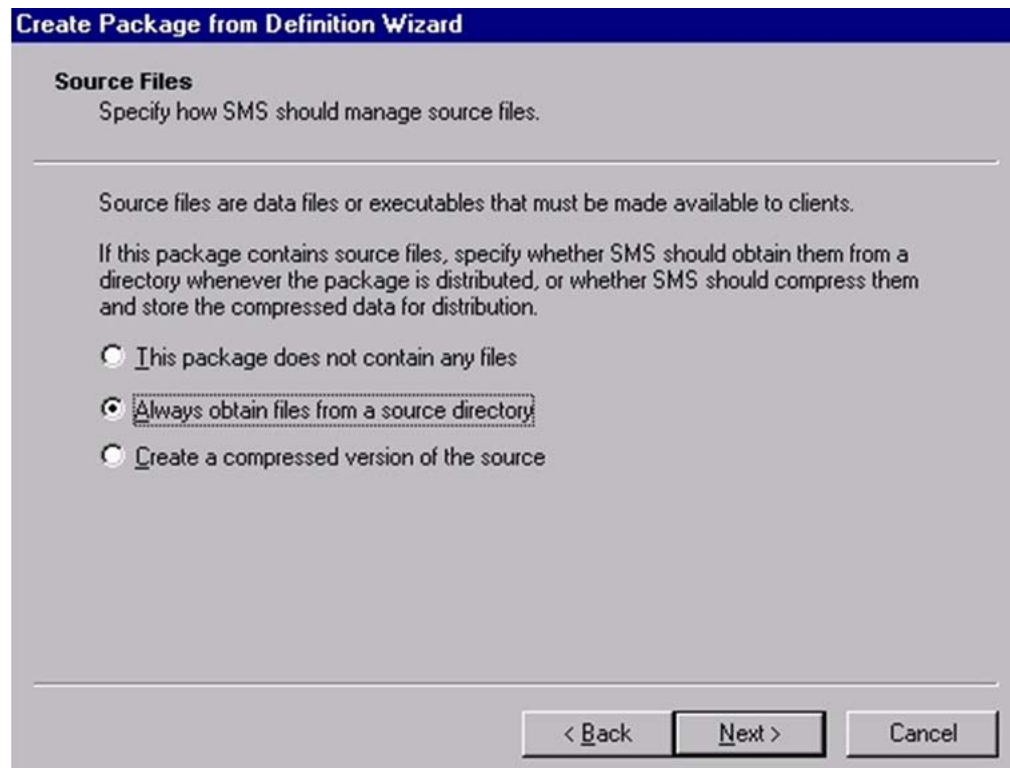


Figure 5-4: Selecting the HP software product to be distributed

5. Specify how SMS will manage the source files:
 - If the files will always be available in a source directory, select **Always obtain files from a source directory**.

IMPORTANT: It will be the SMS administrator's responsibility to make sure that the files in the source directory are updated as required so that clients running this advertisement always receive the latest versions of the files.

- If the source files will never be updated, select **Create a compressed version of the source**.
- If the advertisement consists of a command line but no source files, select **This package does not contain any files**.



The screenshot shows a dialog box titled "Create Package from Definition Wizard" with a "Source Files" section. The section contains the following text: "Specify how SMS should manage source files." Below this is a horizontal line, followed by the text: "Source files are data files or executables that must be made available to clients. If this package contains source files, specify whether SMS should obtain them from a directory whenever the package is distributed, or whether SMS should compress them and store the compressed data for distribution." There are three radio button options: "This package does not contain any files", "Always obtain files from a source directory" (which is selected and has a dashed border around it), and "Create a compressed version of the source". At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

Figure 5-5: Managing the source files

6. Identify the directory containing the product source files. Typically these files are located on the SMS site server.

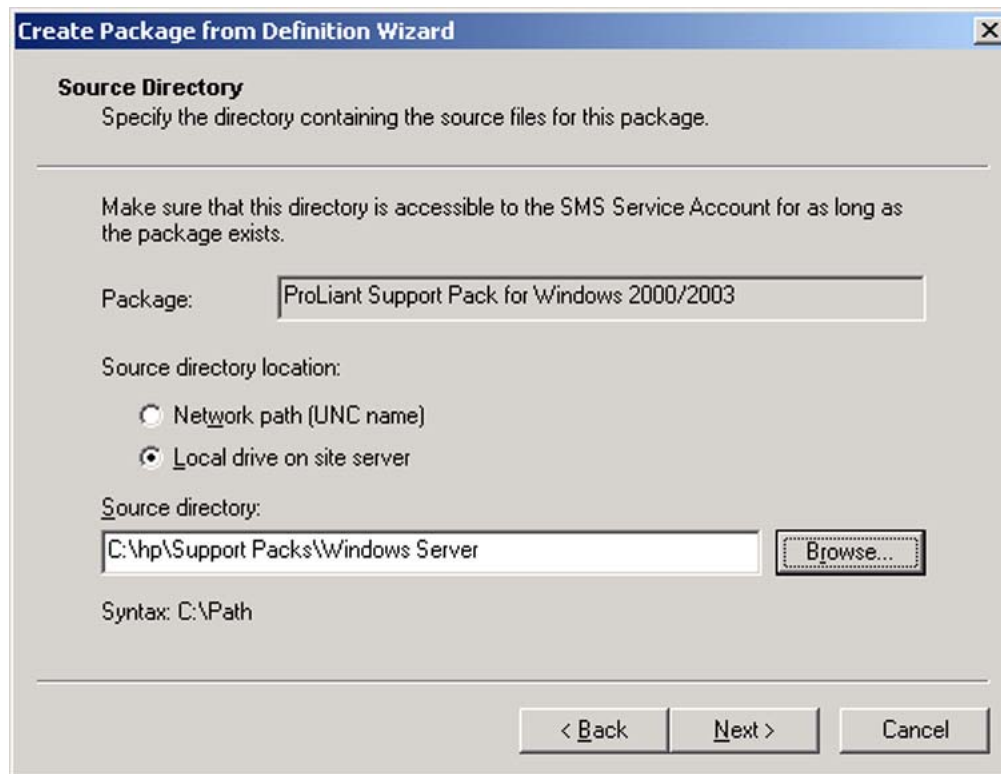


Figure 5-6: Identifying the directory that contains the source files

7. Click **Next**.
8. Click **Finish** to exit the Create Package from Definition wizard.
9. After creating the package, start the New Distribution Points wizard to specify which SMS distribution points will receive the package.

NOTE: Clients receive the package from one of the configured distribution points.

- a. Right-click on the new package on the SMS Administrator console.
- b. Click **New**.

- c. Click **Distribution Points**.

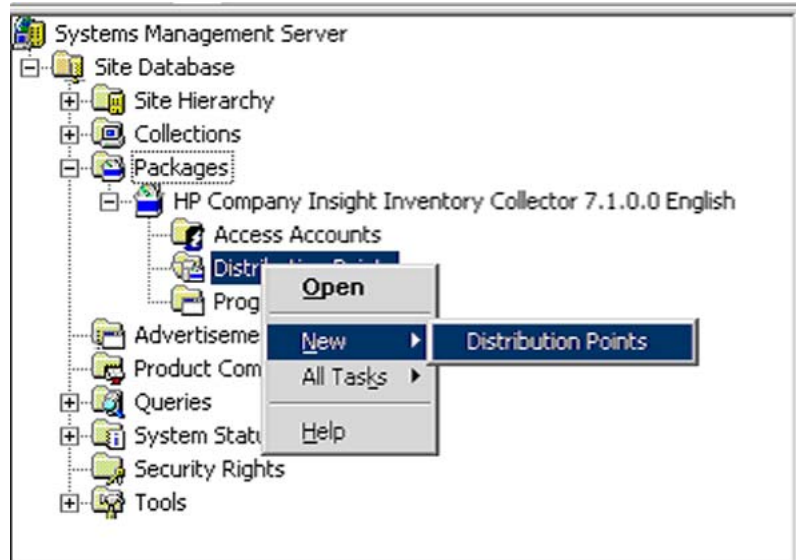


Figure 5-7: Obtaining the New Distribution Points wizard

10. Select the distribution points for the new package.

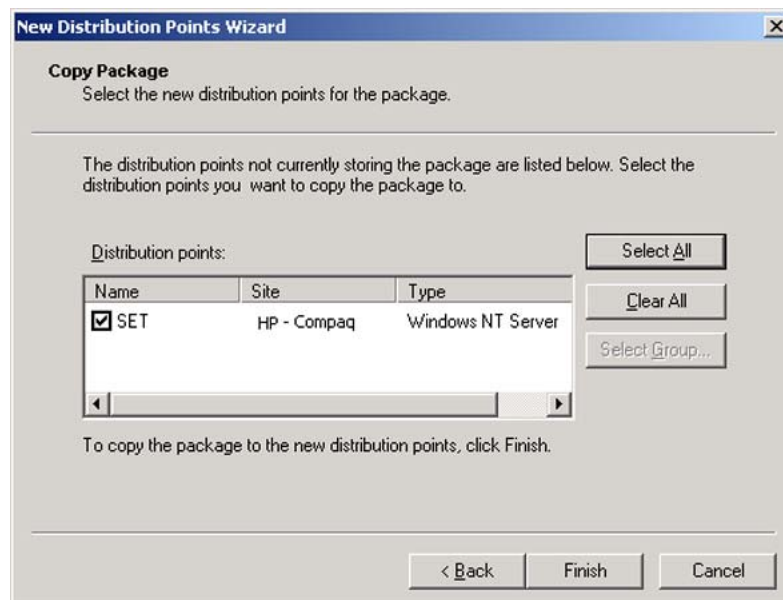


Figure 5-8: Selecting the distribution points

Creating a Query to Target Advertisements

Any information in the SMS database (including HP specific information obtained by the Insight Inventory Collector) can be the subject of a query. The SMS administrator can use the results of a query (known as a collection) to target software advertisements to specific machines.

If the SMS administrator is distributing a software package to a large number of clients, it might be advisable to break the distribution into a series of smaller waves to ease the burden on the network and distribution points. To achieve this, the SMS administrator can:

- Create queries to target different groups of clients, for example, clients requiring a manual install and those requiring an automatic install.
- Schedule advertisements to run at different times.

For information on creating queries, refer to *Microsoft Systems Management Server 2.0 Administrator's Guide*.

Example of the Use of Queries

To spread the distribution load on the network over a longer period, the SMS administrator can do one of the following:

- Create a query to send a manual install to machines that are operated by knowledgeable users and an additional query to target machines where an automatic install is advisable.
- Create queries that target a small sub-set of machines to perform an automatic install then create several advertisements scheduled to run at different times that use each query as their target.

For information on using collections to target advertisements, refer to *Microsoft Systems Management Server 2.0 Administrator's Guide*.

IMPORTANT: The SMS administrator should take care when specifying Auto Install of Agents because installation failure can occur.

The Microsoft Windows *SETUP.EXE* application is used to install the Microsoft Management Agents. This application opens windows during the installation process which can lead to unpredictable results during a background install

The client end-user can avoid this potential problem by running a password-protected screen saver during an automated installation or by making sure that qualified personnel are available to carry out a manual installation when the software package arrives.

Creating an Advertisement

After determining how the package will be distributed, use this procedure to create a suitable advertisement:

1. To obtain the Advertisement Properties window:
 - a. In the SMS Administrator console, right-click **Advertisements**.
 - b. Click **New**.
 - c. Click **Advertisement**.

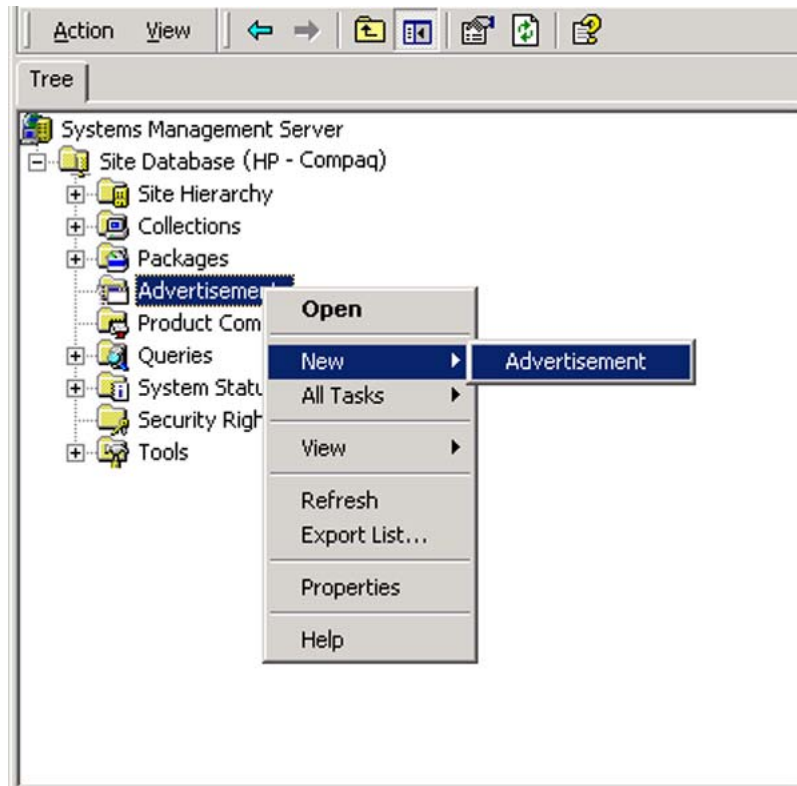


Figure 5-9: Obtaining the Advertisement Properties window

2. Using the **General** tab of the Advertisement Properties window, specify the contents of the advertisement:
 - a. Specify a name for the advertisement.
 - b. Identify the software package to be distributed.
 - c. Specify the particular program from the HP Software Distribution File to be run on the client. For more information on these programs, refer to Chapter 4, “HP Software Distribution Files: Features.”

- d. Specify the collection targeting the clients that will receive this advertisement.

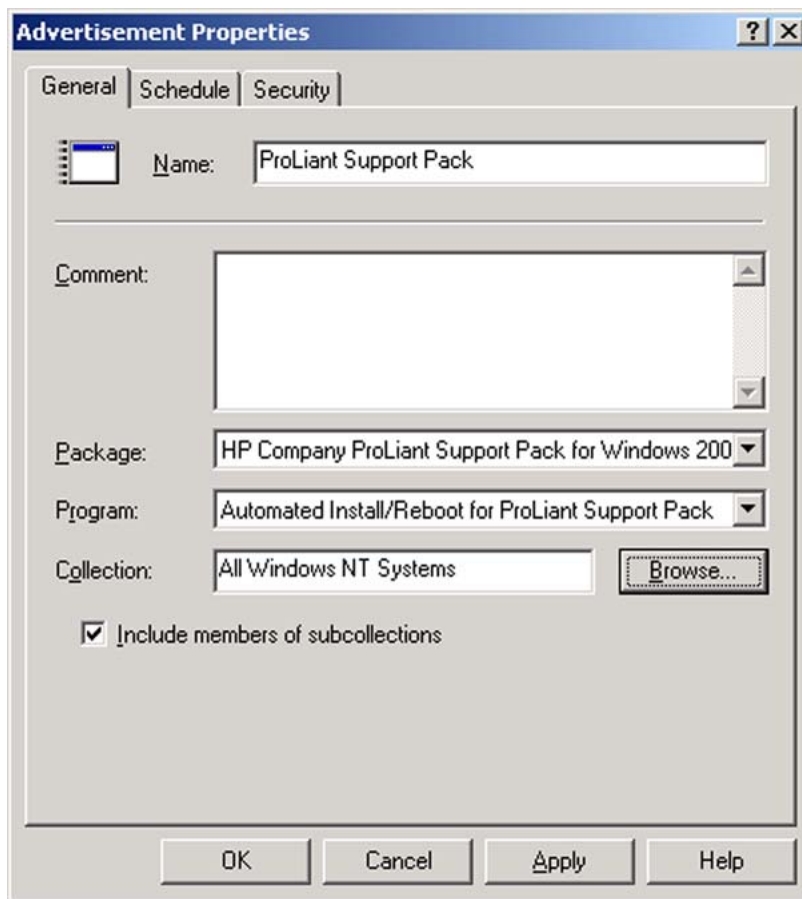


Figure 5-10: Specifying the contents of the advertisement

3. Using the **Schedule** tab, specify the distribution criteria:
 - a. Set the priority to be assigned by SMS to the advertisement.
 - b. If required, make the advertisement mandatory. In this case, use the starburst icon to schedule the advertisement or specify that the advertisement will run when a particular client event occurs.

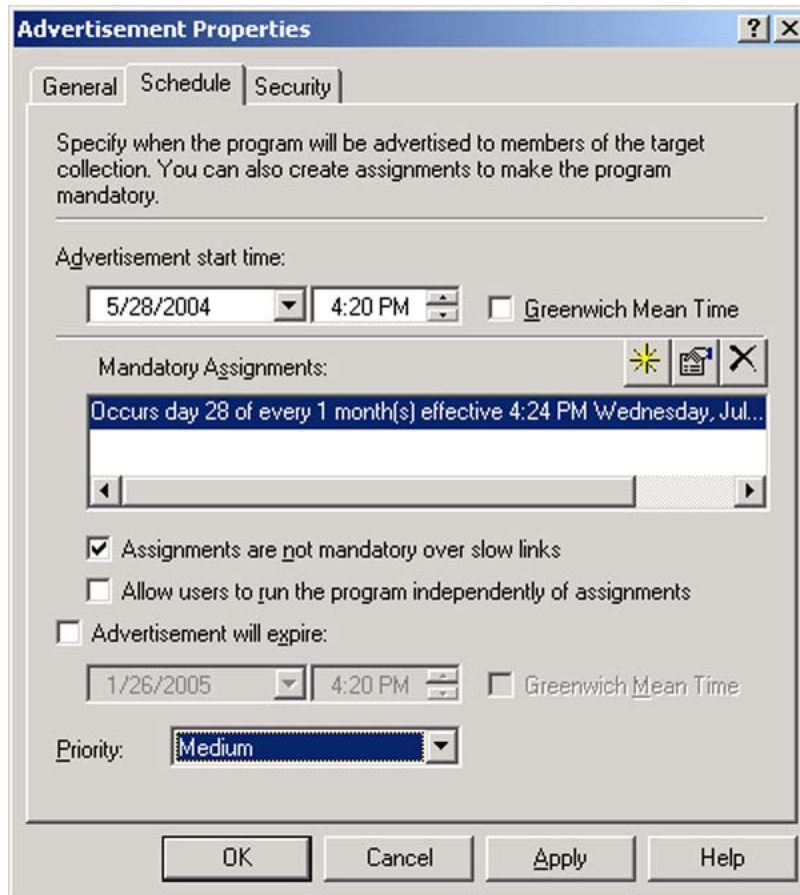


Figure 5-11: Specifying distribution criteria

4. Click **OK** to save the advertisement. SMS now places the package on the SMS distribution points and notifies clients at the appropriate time that an advertisement is ready to run.

Obtaining HP Software

Locating Source Files for HP Products

Source files for HP products are available at the following locations.

Table A-1: Locations of Source Files

Product	Location
Insight Management Agents for ProLiant Servers	HP Management CD: \compaq\csp\nt or HP Support and Drivers website: http://welcome.hp.com/country/us/en/support.html
ProLiant Support Pack	HP SmartStart for Servers CD: \compaq\csp\nt or HP Support and Drivers website: http://welcome.hp.com/country/us/en/support.html
HP Insight Integration for SMS <ul style="list-style-type: none">• Insight Inventory Collector (Collect)• HP Software Distribution Files (.SMS)	http://www.hp.com/servers/integration

Pre-Installation Requirements

Supported Hardware Platforms

Supported hardware platforms are:

- HP ProLiant servers
- HP ProSignia servers

Requirements for SMS

Before installing SMS 2.0, make sure that the following requirements are met:

- Minimum hardware requirements:
 - HP ProLiant or ProSignia server with a Pentium Pro 200 processor
 - SMS only: 128MB RAM; SMS and SQL Server: 256MB RAM
 - 1GB available hard disk space; if using the machine to run SQL Server or distribute software packages: 4GB
- Minimum software requirements:
 - For site servers: Microsoft Windows NT® Server 4.0 with Service Pack 4
 - For site servers: Microsoft SQL Server for Windows NT 6.5 with Service Pack 4

IMPORTANT: Since SMS depends heavily on the use of Microsoft SQL Server as a data store, tuning of the SQL Server is highly recommended to optimize performance. For more information, refer to the Microsoft SQL Server documentation.

Requirements for Insight Management Agents

The Insight Integration for SMS supports Insight Management Agents for ProLiant servers. Refer to the “Requirements for the Insight Integration for SMS” section for version-specific data.

Before installing the Insight Management Agents, make sure that the following requirements are met:

- Minimum hardware requirements:

- 32MB available RAM; 48MB recommended
- 35MB available hard disk space
- Network Interface Controller (NIC) supported by Microsoft Windows NT 4.0 SP4, or later
- Minimum software requirements:
 - Microsoft Windows NT 4.0 SP4
 - SNMP and TCP/IP stacks installed
 - If managing NetWare servers with IPX protocol: NWLink IPX/SPX transport

Requirements for the Insight Integration for SMS

To successfully implement the Insight Integration for SMS, certain pre-installation conditions must be met for the following main components:

- Insight Inventory Collector
- HP Software Distribution Files

The minimum requirements are detailed in the following section.

Requirements for the Insight Inventory Collector

Before installing the Insight Inventory Collector, make sure that these requirements are met:

- Minimum hardware requirements:
 - 1MB available disk space
 - NIC supported by Microsoft Windows NT 4.0 SP4 or later
- Minimum software requirements:
 - Windows NT 4.0 SP4 or later
 - HP Insight Management Agents v6.0 and later

Requirements for HP Software Distribution Files

HP Software Distribution Files are designed for use with ProLiant servers running Microsoft Windows 2000 and 2003. There are no additional pre-installation requirements.

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