HP Insight Integration for CA Unicenter User Guide

August 2006 (Fourth Edition)

Part Number 219065-004

Audience assumptions

This document is for the person who installs, administers, and troubleshoots servers and storage systems. HP assumes you are qualified in the servicing of computer equipment and trained in recognizing hazards in products with hazardous energy levels.

Contents

Introduction

In this section

Overview

The HP Insight Integration for Computer Associates Unicenter simplifies system management by integrating the discovery and management of HP ProLiant, AlphaServer, and Integrity servers into the Unicenter NSM application.

The Insight Integration is a scalable solution that works directly with native Unicenter applications, including WorldView, Enterprise Console, and the TNG Agent Technology to monitor HP servers, clients, and storage that use Unicenter as the primary management console. With the Insight Integration, you can manage events for HP hardware and other enterprise resources from a common Unicenter interface.

Additional in-depth data for HP hardware is available through integrated menu items that enable access the HP System Management Homepage, HP Systems Insight Manager, and HP RILOE and iLO management tools.

Features

The Insight Integration offers the following features:

- Integration with CA Unicenter 2.4, 3.0, 3.1, and r11 hosted on Microsoft® Windows® 2000, Windows Server™ 2003, and Windows® XP platforms
- Support for HP Insight Management Agents 5.0 through 7.60
- Multiple installation options for easy integration with single-system and distributed Unicenter environments
- HP systems clearly defined by a specific class in the Unicenter Repository
- Second-level discovery to identify HP nodes by device class and operating system on the WorldView Map
- Unique icons for HP Systems Insight Manager servers and RILOE and iLO management processors
- Comprehensive integration with Unicenter Agent Works technology, enabling HP hardware to be monitored directly through Unicenter Node views
- Color-coded icons that represent hardware status at all levels, from the Unicenter WorldView Map through Node view
- Monitoring major HP hardware subsystems, including System Health, Drive Array, SCSI, Fibre Channel, Clustering, NIC, Remote Insight, and host operating systems

- Over 400 HP SNMP events for servers, clients, and storage configurations, received and translated at the Unicenter Enterprise Console
- In-context application launch to HP Systems Insight Manager, providing access to additional cross-platform lifecycle management tools for a broad range of HP hardware resources, such as software version control, inventory reporting, storage management, printer and client management, and systems deployment
- Integrated menu items that facilitate access the HP System Management Homepage and RILOE and iLO management processors
- Comprehensive installation and user reference documentation
- HP message records updated to include definitions provided by HP Insight Management Agents 7.60
- An updated integration kit with version 7.60 of the HP MIBs
- A new directory, \hpqnsm\cpqem\new33, which contains only the new message records since the last release of the Insight Integration (version 3.2)
- A new directory, \hpqnsm\cpqem\updated33, which contains only the message record files that have been modified since the last release of the Insight Integration (version 3.2)
- An updated overall status monitoring policy for Unicenter 3.x and Unicenter r11 to minimize monitored items (modified all state messages to begin with "HP_").
- Updated Web Jetadmin integration to include a link to HP Systems Insight Manager
- A new class for the HP Onboard Administrator
- Support for the discovery of HP systems running the following operating systems:
  - Tru64 UNIX
  - OS/2
  - SCO UnixWare
  - SCO OpenServer Release 5
  - Novell NetWare 5.x
  - Microsoft® Windows® NT
  - Windows® XP
  - Windows® 2000
  - Windows Server™ 2003
  - Windows® 9x
  - Linux

The following class definitions have been added to the integration module. The Insight Integration adds these classes to the CORE.

- HP_Host
  - HP_UnixWare
  - HP_Linux
  - HP_Novell
  - HP_WindowsNT_Server
  - HP_Windows2000_Server
  - HP_Windows_NetServer
  - HP_InsightManager
  - HP_RemoteInsight
  - HP_IntegrityServer

- HP_SANappliance
- HP_TaskSmart
- HP_RackEnclosure
- HP_OnboardAdministrator
- HP_Workstation
  - HP_DECSystem
  - HP_OS2
  - HP_SCOUnix
  - HP_Windows95
  - HP_Windows9x
  - HP_WindowsNT
  - HP_Windows2000
- HP_WindowsXP

What's new in version 3.3

The following features are new to the Insight Integration 3.3:

- Updated HP hardware discovery and SNMP notifications that support HP Insight Management Agents 7.60
- Support for Unicenter NSM r11.0 and r11.1
- Support for c-Class server blades
- Option to generate Unicenter event messages directly from HP Systems Insight Manager
- New installation program that provides more flexible installation options
- Alternative DSM policies to monitor HP server events (requires Insight Management Agents 6.30 and later)
- Updated DSM policies for monitoring the overall status of the HP Management Agents

System requirements

This user guide assumes that you have a working knowledge of CA Unicenter and the HP Insight Management Agents.

Monitored systems must have the following requirements:

- Intel® Pentium®-based system or better
- 64 MB of RAM
- One of the following operating systems with HP Insight Management Agents installed:
  - Microsoft® Windows Server™ 2003
  - Microsoft® Windows® XP
  - Microsoft® Windows® 2000
  - Microsoft® Windows® NT 4.0
  - Microsoft® Windows® 95 (desktop and portables only)
  - Microsoft® Windows® 98 (desktops and portables only)
  - Novell NetWare 3.12 or later
  - SCO UnixWare

- SCO OpenServer
- IBM OS/2
- Linux
- VMware ESX
- True64 UNIX
- OpenVMS
- SNMP installed and running
- HP Server Management Agents 5.0 or later installed and running
- HP Systems Insight Manager 4.1 or later installed and running.
- One of the following versions of Unicenter installed:
  - Unicenter Release 2.4
  - Unicenter NSM Release 3.0
  - Unicenter NSM Release 3.1
  - Unicenter NSM Release r11.0
  - Unicenter NSM Release r11.1

Revision history

Version 1.0 of the Insight Integration was made available by Computer Associates in 1997.

Version 1.1 has been distributed using two individual deliverables: cim_tng011899.zip for Unicenter 2.1 and cim_tng220322.zip for Unicenter 2.2. An intermediate update of the HP message records supports HP Insight Management Agents 4.21: cpqtraps.zip.

During 1999, HP and CA worked to transfer all future development, distribution, and support of the integration to HP. Compaq Insight Manager for CA Unicenter 2.0, built on the previous releases from CA, was released in April 2000. This product was the first integration with Unicenter to be distributed by HP.

Version 2.1 was the second release from HP.

Version 3.0 was released to support Unicenter 3.0.

Version 3.0a was released to support up to version 6.40 of the HP Management Agents.

Version 3.1 was released to support Unicenter NSM 3.1 and up to version 7.00 of the HP Management Agents.

Version 3.2 was released to support up to version 7.40 of the HP Management Agents.

Version 3.3 is the current release.

Product availability

Download and register the HP Insight Integration for Computer Associates Unicenter from the HP Management Integration Solutions website (http://www.hp.com/servers/integration).

Installation

In this section

Installation overview

Details on the installation steps and the features of the integration are provided in the following sections. HP recommends that you review this document before installing the Insight Integration. If you are upgrading from a previous version of the Insight Integration, any existing HP class definitions and menu items are deleted before the new definitions are loaded.

The following sequence describes the general flow of events during the installation of the Insight Integration into a Unicenter environment.

1. The setup.exe program performs the following:

   a. The files listed in the following table are copied to the appropriate places in the Unicenter directory.

File	Source location	Destination
Icons	hpqnsm\cpqwv\icons	NSMDIR\icons
Models	hpqnsm\cpqwv\models	NSDMIR\models
Images	hpqnsm\cpqwv\images	NSDMIR\images
HP MIBs	hpqnsm\cpqwv\mibs	• NSDMIR\schema\included • NSDMIR\services\config\mibs
Browser file	hpqnsm\cpqwv\browser	NSDMIR\config\abrowser
Policy files	hpqnsm\cpqwv\policy\version	NSDMIR\services\config\aws_wvgate
Class definition	hpqnsm\cpqwv\policy\version	NSDMIR\services\config\aws_wvgate
HP SIM launch files	hpqnsm\cpqwv\	NSDMIR\bin

   b. The MIBs are deposited in the CORE system.

   c. The Insight Manager class is loaded.

   d. The DSM is reset.

2. The cpqload batch file in the \cpqem directory loads the HP message records into the enterprise management database.

3. The new HP class definitions are installed into the CORE.

4. After the Insight Integration is installed, the HP Insight Management Agent definitions are populated into the Unicenter WorldView for use with all other Unicenter applications and utilities.

5. After installation is complete, discovery and classification of HP devices is performed.

NOTE: Although the Insight Integration is designed for installation as a whole, some elements might be installed individually by command line or specific scripts. If you want to install the HP MIBs, the cpqmibs.bat batch file is available in the \cpqwv\mibs directory.

Installing the Insight Integration

1. Download the Insight Integration from the HP Management Integration Solutions website (http://www.hp.com/servers/integration).
2. Unzip the file to a local hard drive.
3. Execute the file setup.exe to install the Insight Integration. During the installation, you will be prompted to connect to the Unicenter repository. Depending on the options selected during the setup wizard, you might be prompted to connect to the repository more than once. Be sure to have the following information available:
   - The name of the CORE system
   - The user name to log in to the database
   - The password to log in to the database
   - The SNMP community string to use for discovery
4. Click **Next** to start the setup wizard.
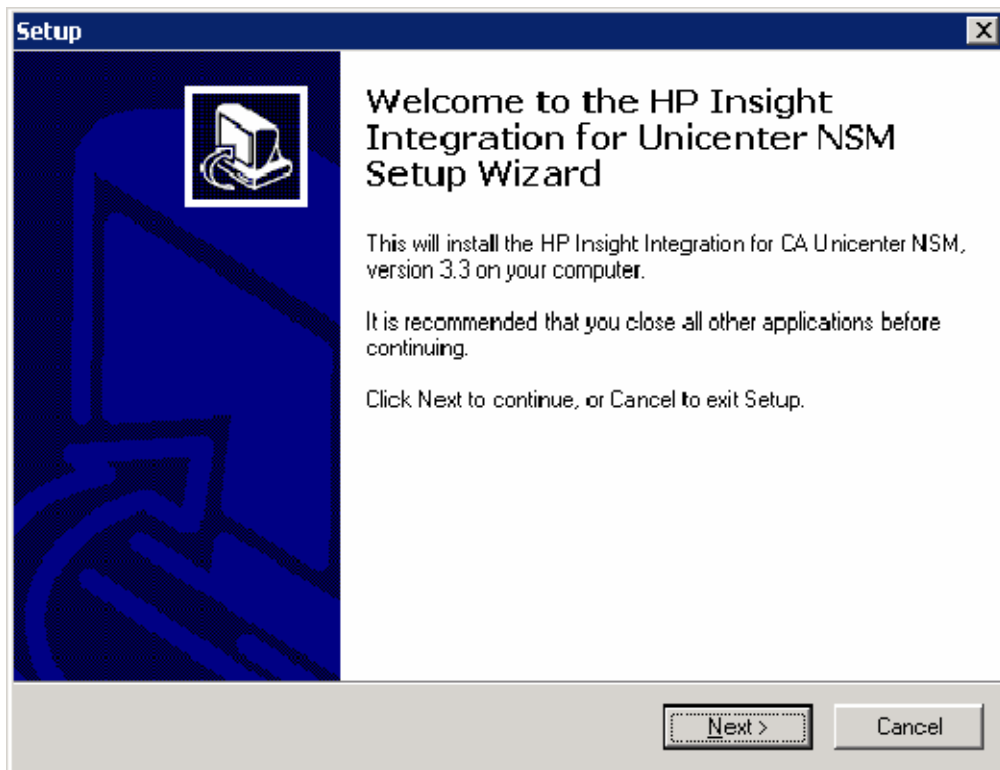
5. Accept the license agreement, and click **Next.**
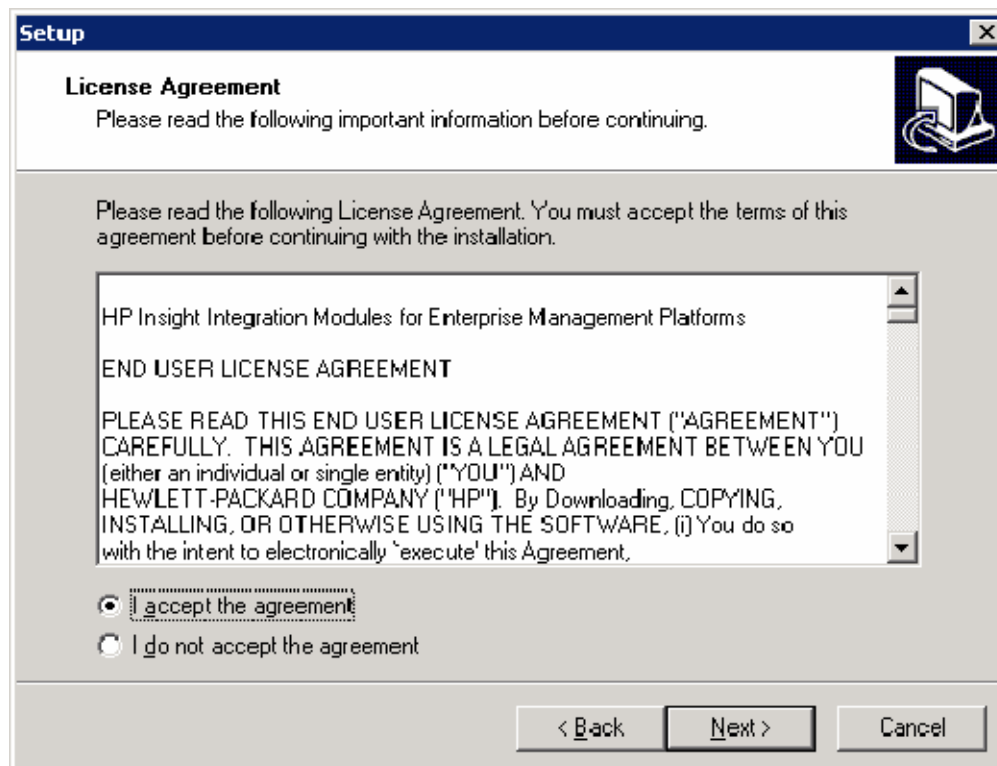
6. Review the information in the Information window. This window provides an overview of the options you will be given during the installation. Click **Next.**
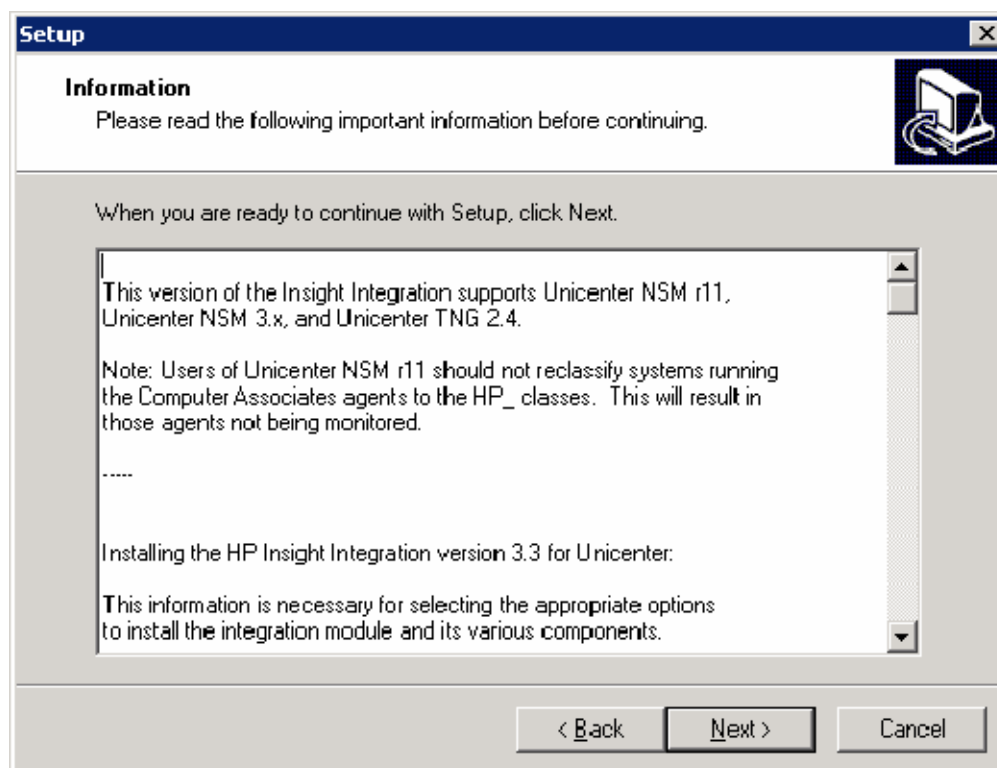
7. Select the version of Unicenter you are using. This version of the Insight Integration supports Unicenter TNG 2.4, Unicenter NSM 3.x, and Unicenter NSM r11. Click **Next.**
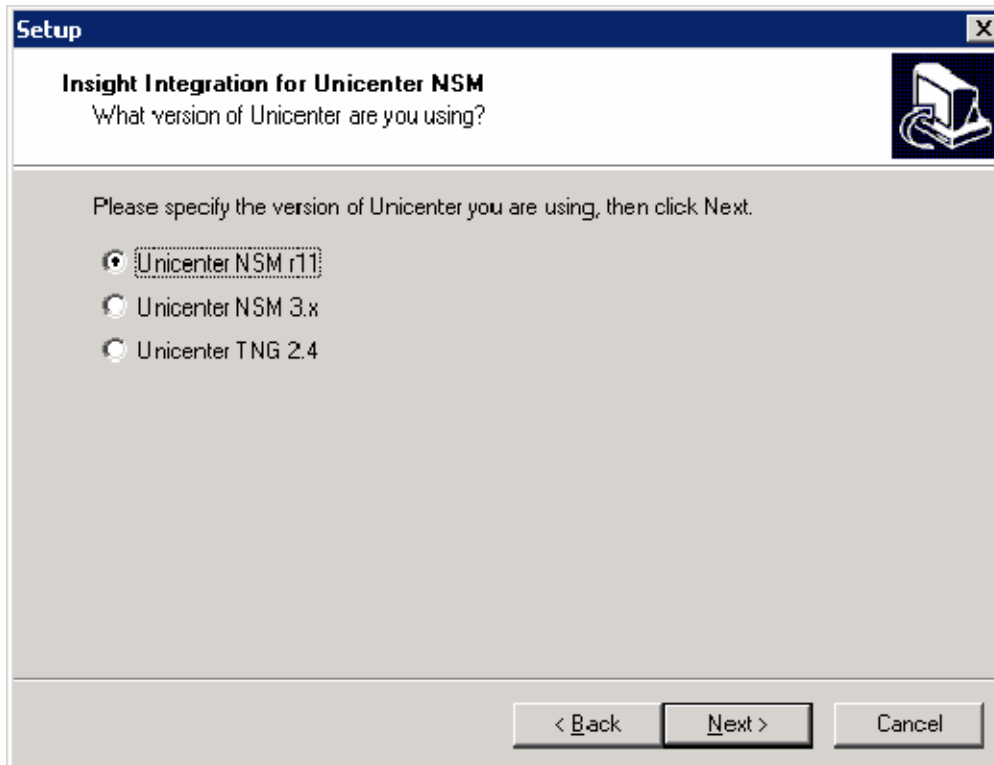
8. Select the directory in which to install the Insight Integration files. The default location is C:\Program Files\HPQNSM. Click **Next.**
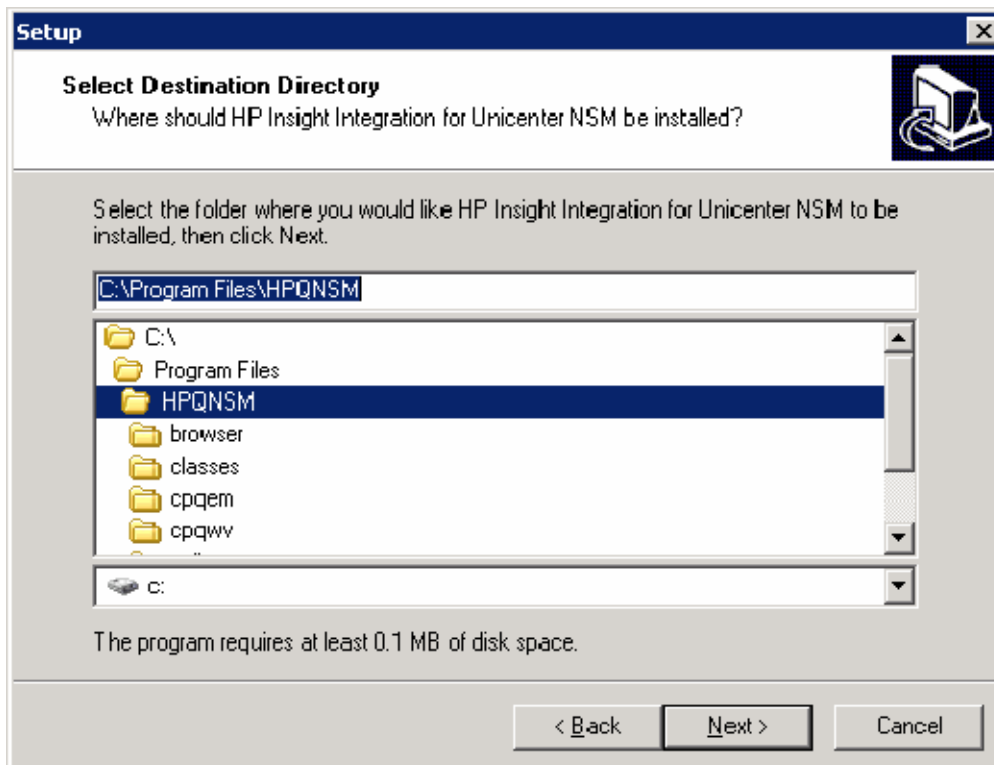
9. (Optional) Complete the entries in the Insight Integration for Unicenter NSM window. The entries in this window are designed to help establish connectivity between the Unicenter application, HP Systems Insight Manager, and HP Web Jetadmin, as appropriate.

- HP Insight Manager IP Address—Enter the name or IP address of the Systems Insight Manager server.
- CAI_MSG_EXIT environment variable—Enter the program to execute when you right-click an icon and select User action in the Enterprise Management Console. In this example, the hpqemc.exe program will launch the browser to the web agents on the node in selected event.
- Web Jetadmin Server and Port—Enter the name and port number of the Web Jetadmin server.

Click **Next.**

10. Select one of the following installation options.

- Standard Installation (Agent DSM Policy and Message Records)
- Full Installation (Agent DSM Policy, Message Records, and HP Classes)
- Insight Agent Policy (Agent DSM Policy Only)
- Message Records (Message Records and Actions Only)
- WorldView Client (Stand-alone WorldView Client)
- DSM Server (Stand-alone DSM Server)
- Web Jetadmin Integration Components
- Upgrade Existing Integration
- Custom Installation

Click **Next.**
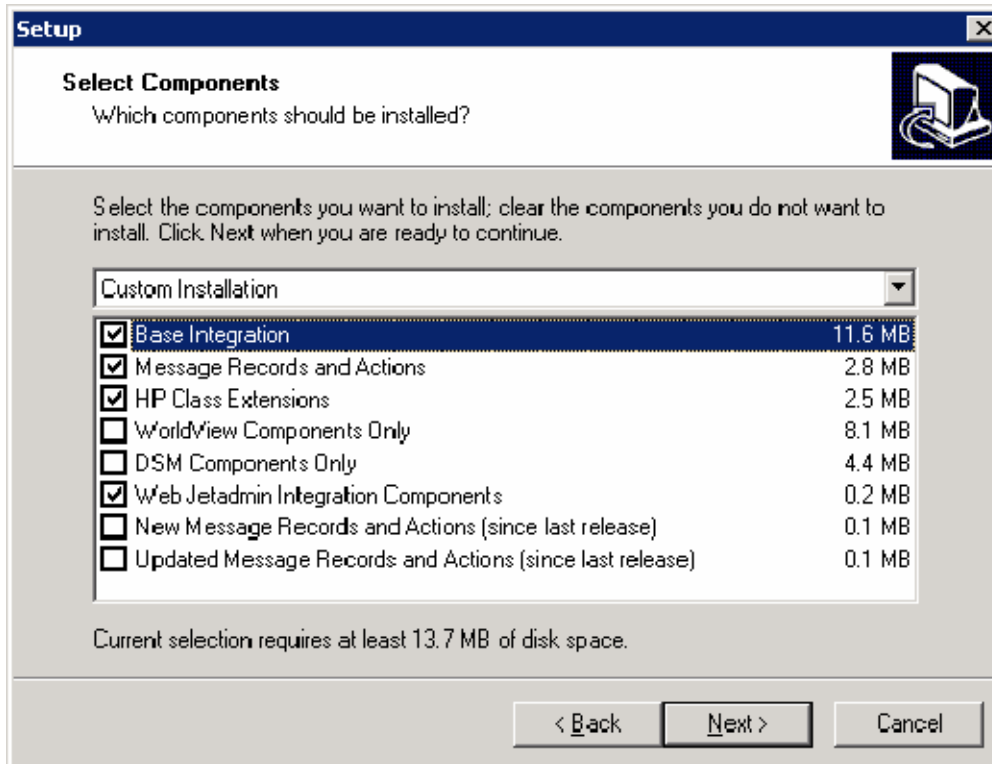
An upgrade option is now provided as one of the installation options. This option upgrades the Base Integration components (for example, agent files and policy files), installs the new HP message records and actions that have been added since the last release, and installs any updated HP message records and actions that have been changed since the last release of the Insight Integration into the Unicenter application.

NOTE: The upgrade option runs the hpqrmv.exe program. This program removes all existing InsightManager agent objects and the InsightManager class so that the new policy files are installed correctly. Any existing HP message record definitions listed in the updated files are removed before the new definitions in the \updated33 directory are installed.
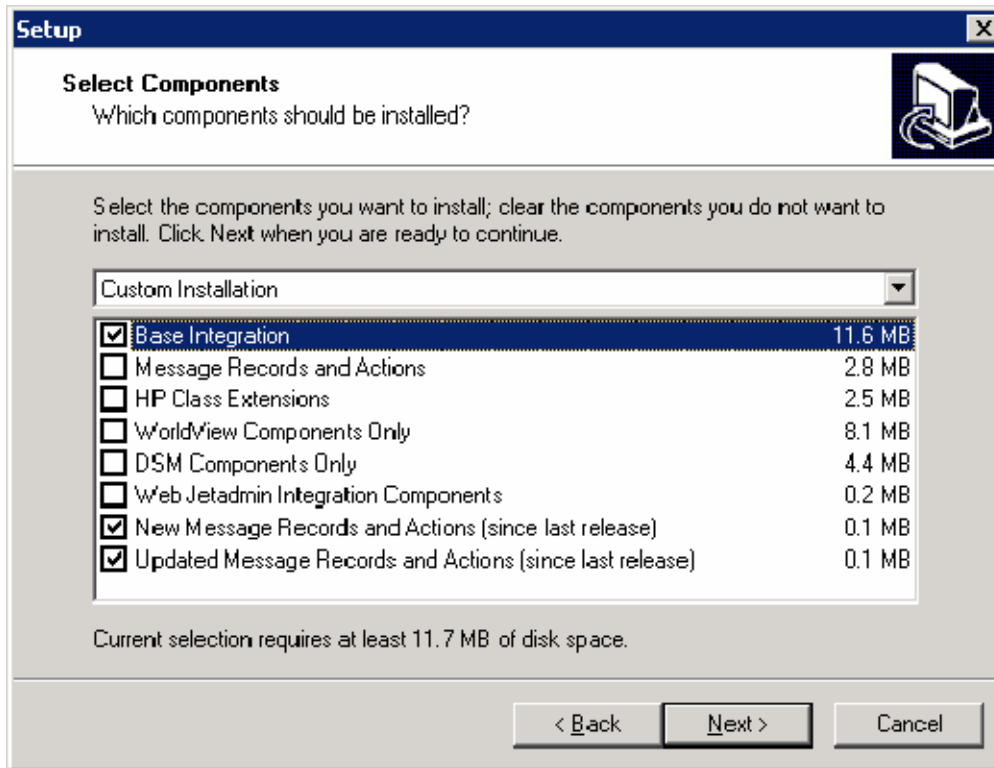
If you select the upgrade option, a message listing the components that are installed appears after you click **Next.** These components are not removed by proceeding. Click **Yes** to continue.
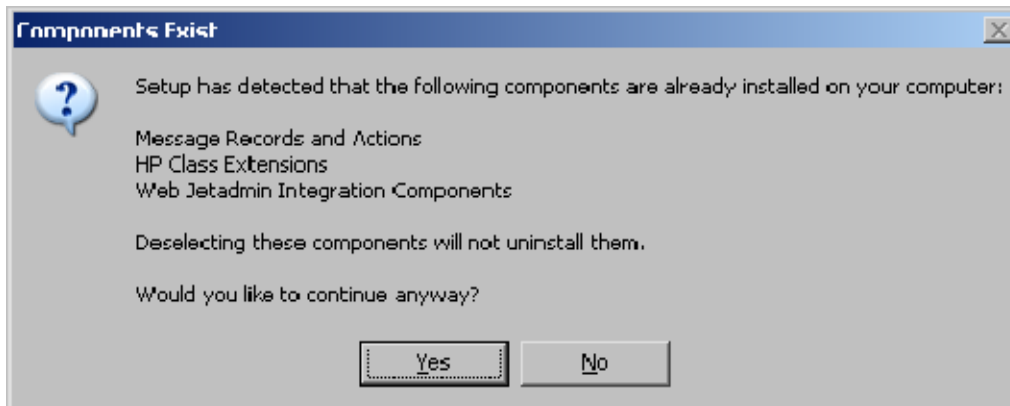
11. Select the appropriate Start Menu folder in which to install the Insight Integration shortcuts (HP Insight Integration for Unicenter is the default folder). Click **Next.**
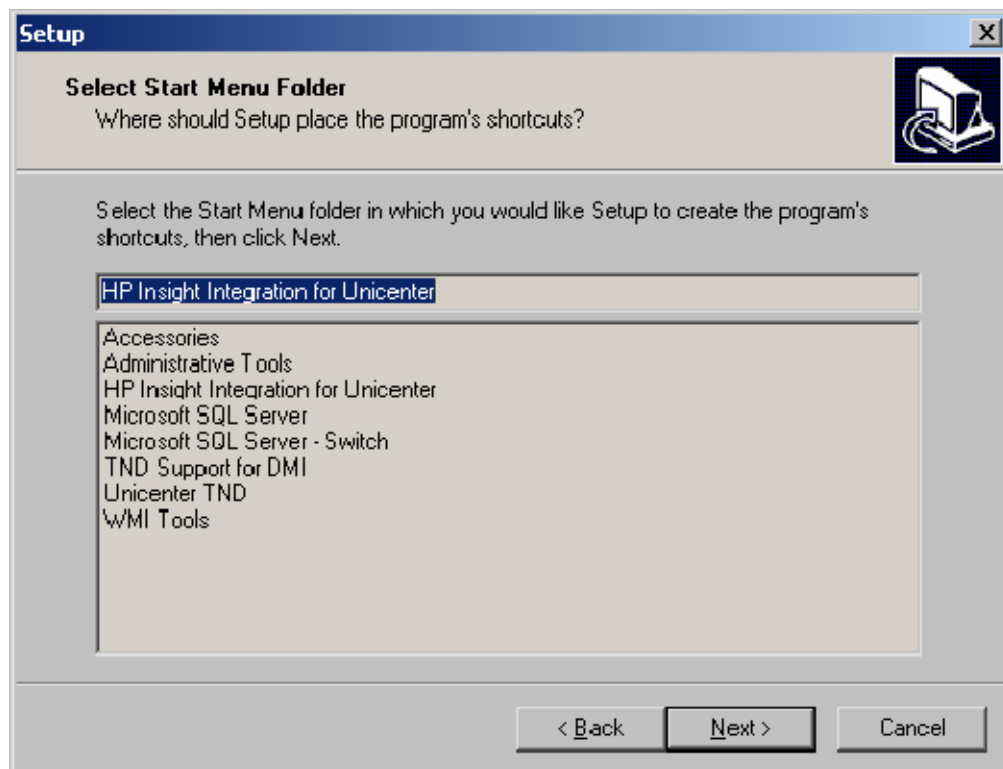
12. Review your selections, and click **Install** to begin the installation. Be sure to have the following information available:

- The name of the CORE system
- The user name to log in to the database
- The password to log in to the database
- The SNMP community string to use for discovery

NOTE: Installing the new policy files (part of the base integration) runs the hpqrmv.exe program to remove the existing InsightManager agent objects and the InsightManager class. The program executes so that the new policy files provided with the Insight Integration are installed correctly.
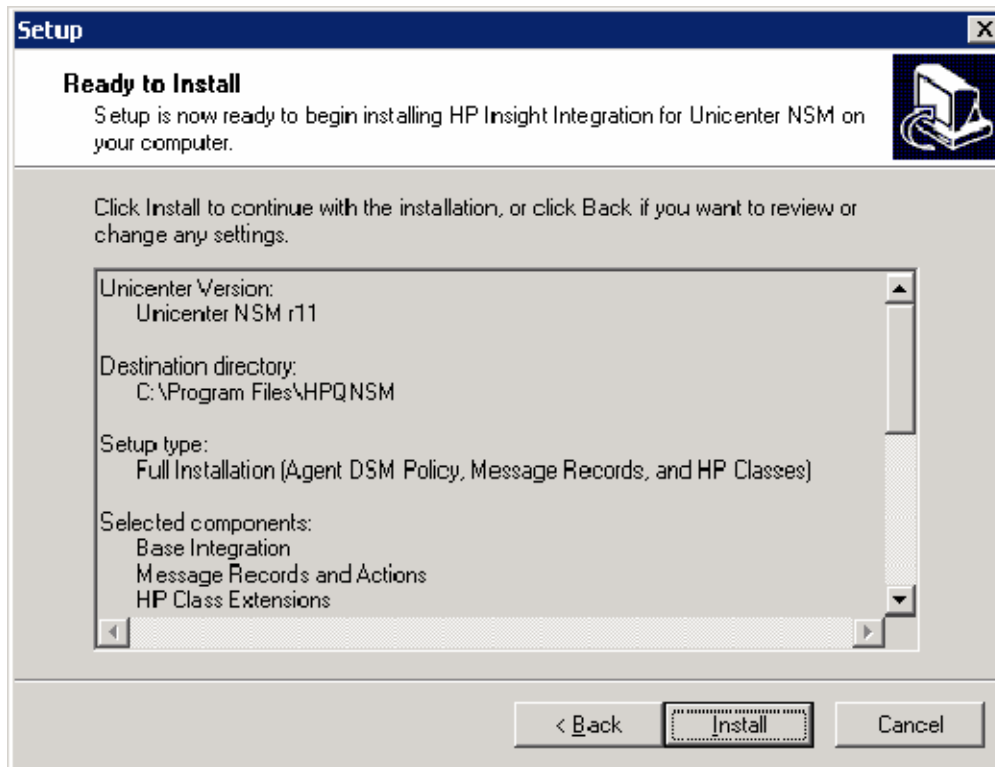
Installation notes

If you are upgrading from a previous version of the Insight Integration, any existing HP class definitions and menu items are deleted before the new definitions are loaded.

Message records

If the HP message records were previously installed, you can load only the message records that are new in version 3.3 of the Insight Integration. The new message records are located in the hpqnsm\cpqem\new33 directory. Instead of installing the message records from the installation program, you can run the script in this directory to install only the new message records.

The hpqnsm\cpqem directory contains all the HP message records. You can update any existing message records that have been changed since the previous release of the Insight Integration. These updated message records are located in the hpqnsm\cpqem\updated33 directory.

You can execute the cpqload installation script on the Enterprise Management system to install all the HP message records and actions.

WorldView classes

The following steps detail the installation of the new discovery features and device classification. See "Extended discovery of HP systems (on page 46)" for more information.

To manually load the HP classes, change to the hpqnsm\cpqwv\classes directory and execute the hpqclass program.

The installation program automatically modifies the gwclass.dat file. If you install the HP classes manually, edit this file to include HP_Host|HP_Workstation| at the end of the file.

If you install the Insight Integration multiple times, verify that the file does not contain extra occurrences of HP_Host|HP_Workstation| at the end of the file. The file is located in the Unicenter Directory\services\config\aws_wvgate directory.

Extended discovery

To correctly discovery and identify HP systems within Unicenter using the specific icons provided with the Insight Integration, perform the following steps from the WorldView host.

NOTE: Do not reclassify systems running the Computer Associates agents to the HP classes if you are using Unicenter NSM r11. Reclassification results in those agents not being monitored. If systems were reclassified, return the systems to their original classes using the Reclassify Object menu option.

1. From the \hpqnsm\cpqwv\classes directory, execute the hpqdscvr.exe file. This program connects to the Unicenter CORE and verifies that the devices listed are HP systems running HP Insight Management Agents. The format for the command is:

    `HPQDSCVR RepositoryName UserName Password Community S/R`

    Use the `S` or `R` parameter to specify whether you want to discover and reclassify all systems (`S`) or only Remote Insight devices (`R`). Enter `B` if the specified user account does not have a password.

2. Stop and restart the Unicenter Severity Propagation Service.

Community strings

The Insight Integration uses "public" as the default community string for discovery and monitoring the HP Management Agents. If a different community string is used, update the Pollset for the InsightManager class with the correct community string. Additionally, execute the DSM wizard to update the InsightManager class with the correct community string.

Distributed installation of the Insight Integration

The Insight Integration installation program provides DSM-only ("DSM installation" on page 18) or WorldView-only ("WorldView installation" on page 18) installation options.

The following sections describe the destination for each of the files in the Insight Integration for a distributed installation of CA Unicenter. Use this information to manually install or remove the Insight Integration in a distributed Unicenter environment.

For a manual installation, the policy and class definition sources are not fully specified. From the directory listed, you must go to another level to access the correct version directory.

Documentation and installation scripts can stay in the source directory for the integration module.

WorldView installation

Run the Insight Integration setup wizard on the WorldView system, and select **WorldView Components Only** from the Select Components screen.

To install additional HP classes, select **HP Class Extensions.**

DSM installation

Run the Insight Integration setup wizard on the DSM system, and select **DSM Components Only** from the Select Components screen.

Enterprise Management installation

Run the Insight Integration setup wizard on the Enterprise Management Console, and select **Message Records and Actions** from the Select Components screen.

WorldView and DSM components

The Insight Integration includes options for installing to a stand-alone WorldView client or a stand-alone DSM system. Both of these options are available through the installer. The batch files listed in the following table are no longer needed and are only provided for reference purposes. A distributed installation of the Insight Integration is now done through the installer program.

Batch files in the \dinstall directory (cpqwv.bat and cpqdsm.bat) install only the WorldView and DSM components of the Insight Integration. Each batch file takes source and destination directory arguments.

Before running cpqdsm.bat, edit the file to reflect the version of Unicenter being used. By default, cpqdsm.bat copies the policy files for Unicenter 2.4.

In addition, new HP classes can be imported into the CORE by executing hpqclass.exe from the WorldView host. For example:

```
C:\HPQNSM\DINSTALL\CPQDSM.BAT C:\HPQNSM\CPQWV C:\TNG

C:\HPQNSM\DINSTALL\CPQWV.BAT C:\HPQNSM\CPQWV C:\TNG
```

File	Source location	Destination
Icons	hpqnsm\cpqwv\icons	NSMDIR\icons
Models	hpqnsm\cpqwv\models	NSMDIR\models
Images	hpqnsm\cpqwv\images	NSMDIR\images
HP MIBs	hpqnsm\cpqwv\mibs	• NSMDIR\schema\included • NSMDIR\services\config\mibs
Browser file	hpqnsm\cpqwv\browser	NSMDIR\config\abrowser
Insight Manager launch file	hpqnsm\cpqwv	NSMDIR\bin
Class definition files	hpqnsm\cpqwv\classes	hpqnsm\cpqwv\classes
Icons	hpqnsm\cpqwv\icons	NSMDIR\icons

The DSM files listed in the following table are no longer needed and are provided only for reference purposes.

File	Source location	Destination
Browser file	hpqnsm\cpqwv\browser	NSMDIR\config\abrowser
Policy files	hpqnsm\cpqwv\policy	NSMDIR\services\config\aws_nsm
Class definition files	hpqnsm\cpqwv\classes	NSMDIR\services\config\aws_wvgate
HP MIBs	hpqnsm\cpqwv\mibs	NSMDIR\services\config\mibs
Agent icons	hpqnsm\cpqwv\icons\cim*.ico	NSMDIR\icons
Browser file	hpqnsm\cpqwv\browser	NSMDIR\config\abrowser

If you have trouble browsing the HP MIBs after executing the installation scripts, run `tngdir\services\bin\install_cpqmibs.bat` from either the WorldView or DSM systems.

Event Management components

HP message records are located in the \hpqnsm\cpqem directory. Copy these to the system running the Enterprise Management components, and run the cpqload.bat file.

Uninstalling the Insight Integration

Click **Start>Programs>HP Insight Integration>Uninstall** to remove the Insight Integration. Alternately, perform the following steps:

1. Click **Start>Control Panel.**
2. Double-click **Add/Remove Programs.**
3. Select **HP Insight Integration for Unicenter.**
4. Click **Change/Remove.**
5. Click **Yes** to confirm when prompted.

Uninstalling the Insight Integration moves the HP classified devices back to the default Unicenter classes and deletes the HP classes from the repository. HP_RemoteInsight devices are moved to the Host class.

Addressing upgrade issues and manual removal

By default, the installation program provided with the Insight Integration performs any necessary steps for upgrading from an existing version. If the Insight Integration was previously uninstalled, the installation program automatically removes any remaining components before installing the new files. Use the information in this section if manual removal of the Insight Integration is required.

The program hpqrmv.exe and the TRIX Script deletecpqwvobj.tng are provided in the Tools directory to aid in upgrading the integration module. Either of these utilities can be used instead of the following manual upgrade procedure.

IMPORTANT: HP recommends backing up the repository before performing any upgrades.

NOTE: This procedure is not required for new installations of the Insight Integration.

To upgrade a previously installed integration module, run the hpqrmv.exe program to remove the Insight Manager objects and to delete the Insight Manager class.

To manually remove the Insight Integration:

1. Save all customized message records before proceeding because performing the following steps deletes the existing files.
2. Go to the hpqnsm\cpqem\remove directory, and run the `cpqem_remove` script to delete the previous versions of the HP message records.

   Alternatively, you can access these messages through the Enterprise Management Messages window. All HP and Compaq entries have 232 in the Message ID field or "HP -" in the Description field. Deleting these entries prevents the duplication of entries when the new message records are installed.
3. Go to the hpqnsm\cpqwv\ directory.
4. Execute the `hpqunclass` command, and enter the repository name, user name, and user password. For example, enter `hpqunclass Repository User Password`.
5. Reclassify any devices that were manually changed to HP devices using the menu option or the `reclass` command.
6. Delete the previous definition of the HP Insight Manager class.

a. Start the TNG Object Browser by clicking **Start>Programs>Unicenter WorldView>Object Browser.**

b. In the Object Browser tree view, navigate to **TNGRoot>ManagedObject>Agent>InsightManager,** and select the **Insight Manager** entry to display all the Insight Management Agents.

c. Delete all the Insight Manager objects displayed. You must delete these objects before you can delete the Insight Manager class definition.

IMPORTANT: Do not select the **Delete Child Objects** option.

d. Close the Object Browser window.

e. Start the TNG Class Wizard by clicking **Start>Programs>Unicenter WorldView>Class Wizard.**

f. Select **Modify Existing Class,** and browse to **TNG Root>Managed Object>Agent>InsightManager.**

g. Select **InsightManager,** and click **Delete Class.**

h. Click **Yes** to confirm when prompted.

IMPORTANT: If the error "Cannot delete class Insight Manager, Unicenter error code 47" displays, then all instances of Insight Manager were not deleted earlier; repeat the procedure.

i. Click **Cancel** to close the Class Wizard window.

7. Delete the previous definitions of the HP defined menus.

a. Start the TNG Object Browser by clicking **Start>Programs>Unicenter WorldView>Object Browser.**

b. In the Object Browser tree view, navigate to **TNG Root,** and select **Pop-up Menu.**

c. Delete the instances of CIMAgt listed in the left window.

d. Close the window.

8. Delete the previous definitions of the HP defined methods.

a. Start the TNG Object Browser by clicking **Start>Programs>Unicenter WorldView>Object Browser.**

b. In the Object Browser tree view, navigate to **TNG Root>Method,** and delete the following items:

- CIM
- CPQRIB1
- CPQTS
- CWA
- HPIM7
- HPIM72

9. Close the window.

10. Go to the hpqnsm\tools directory.

11. Execute the uninstall.bat file. This action deletes all files added to the Unicenter installation directory by the integration. For Unicenter NSM r11, go to the agent technology and icon directories to delete the Insight Integration files.

Using the software

In this section

Unicenter WorldView integration

The HP Insight Integration for Computer Associates Unicenter provides integration with the Unicenter WorldView interface. These features include icons for the 2D and 3D WorldView Maps, an Agent view for the HP Insight Management Agents, and the Insight Manager class definition.

WorldView interface

The Insight Integration displays systems in the Unicenter WorldView interface. The following windows display HP-specific icons for discovered systems:

- Unicenter Management Command Center
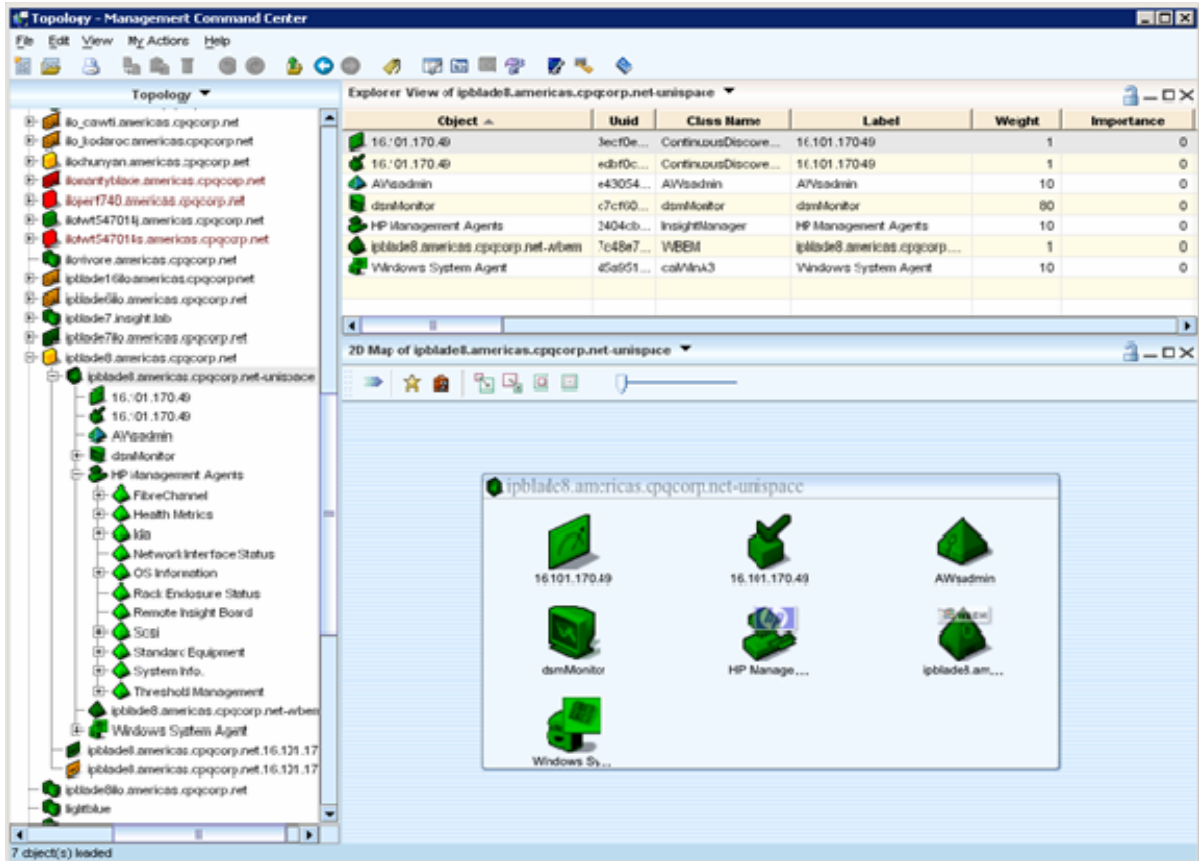
- Unicenter Explorer
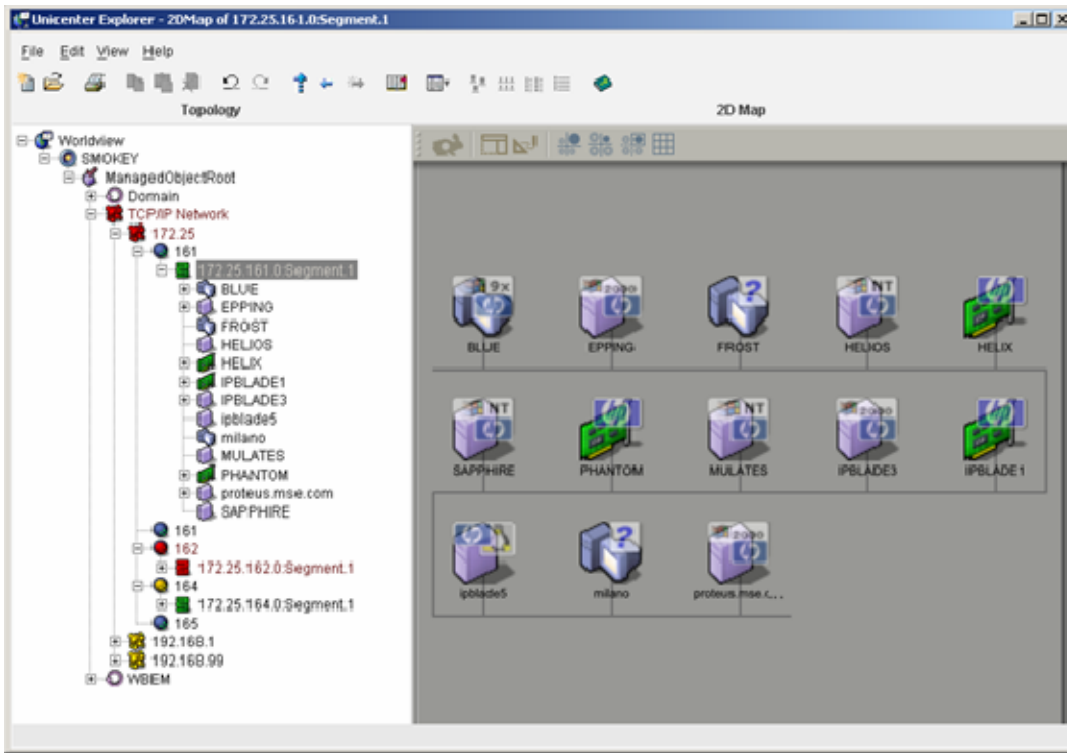
- Unicenter 2D map
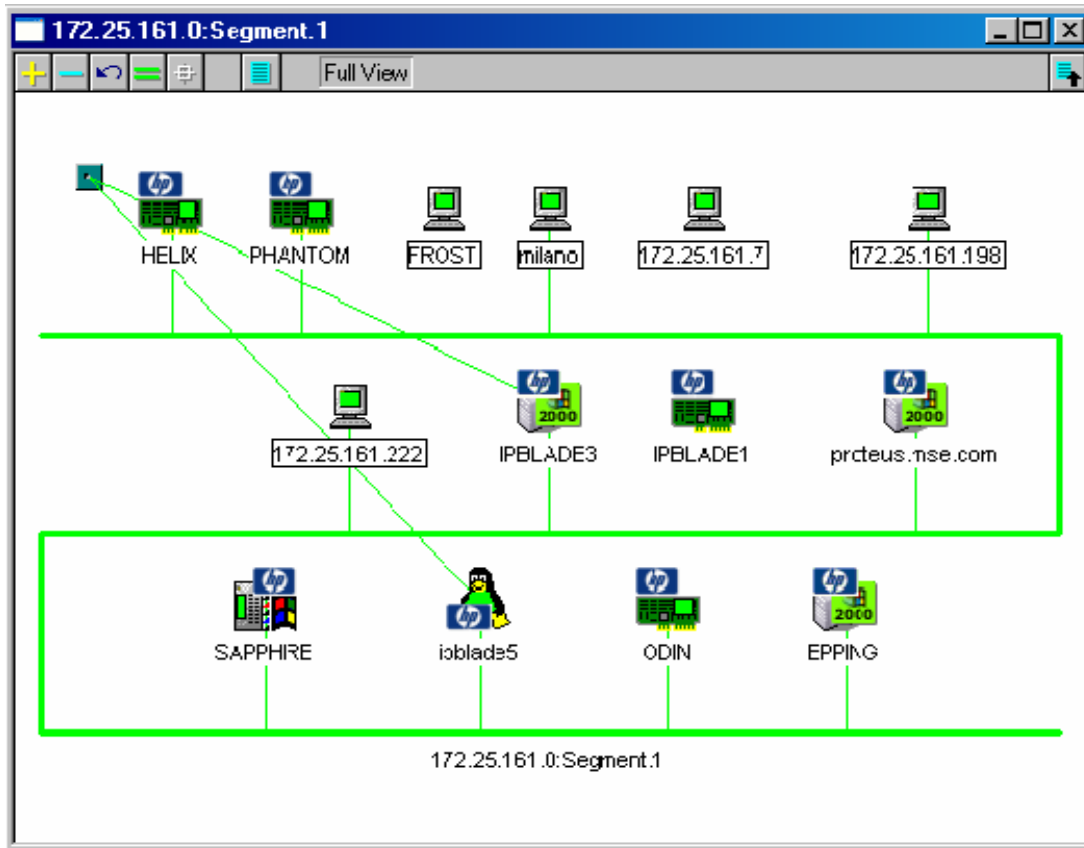
Class definition for the Unicenter repository

The Insight Manager class definition is configured inside the InsightManager.wvc file for Unicenter 2.4 or later. All properties, menus, status definitions, and methods for the HP Management Agent class are defined within this file. To manually install the Insight Integration outside of the provided installation program, change to the directory in which InsightManager.wvc is located and issue the `awwvcfg -c InsightManager.wvc` command.

This command loads the entire definition. If this class is already defined, you will not receive an error message, and the command will not execute. It will not overwrite a previous installation of this class.

If it is necessary to reload this class, first delete the class by using the `hpqrmv.exe` command in the hpqnsm\tools directory or by using the Unicenter Class Wizard. The class InsightManager is located under the Agent subclass.
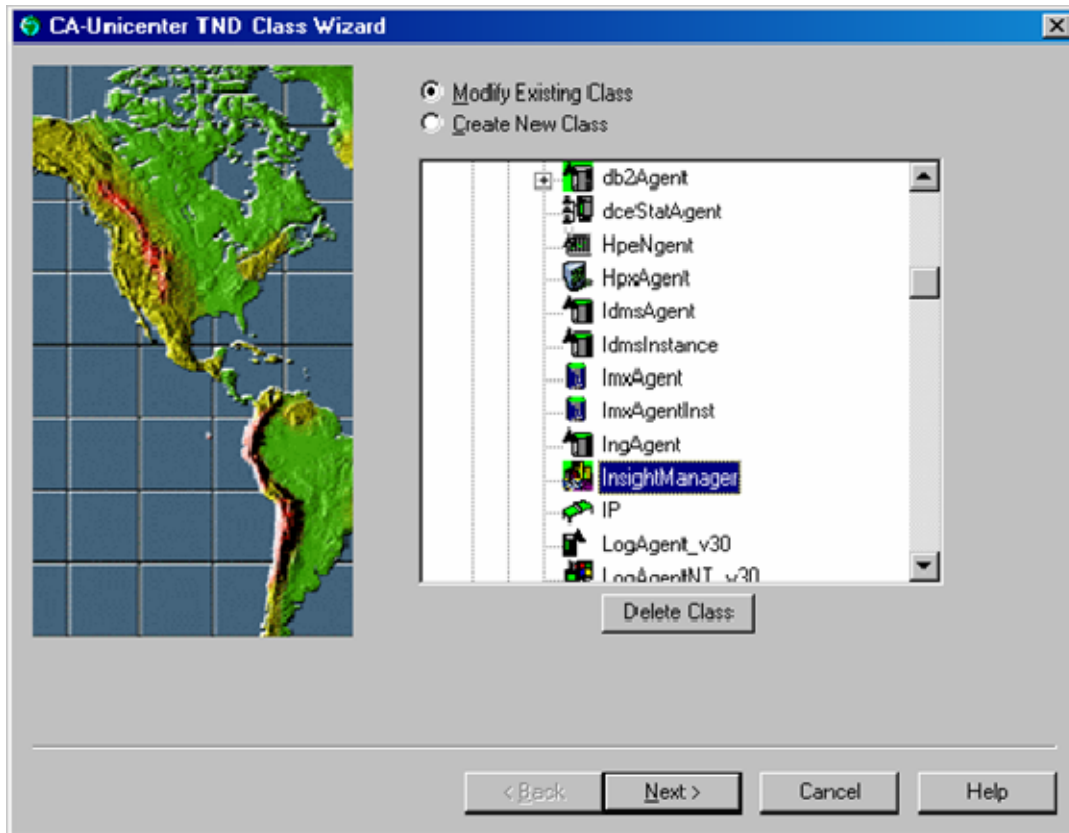
Unicenter Agent Technology integration

The Insight Integration provides integration with the Unicenter Agent Technology. Features include the definition for the InsightManager class and policy files for monitoring the HP Insight Management Agents.

Policy definition for agent status detection

The Unicenter Agent Works component uses the policy definition for the HP Insight Management Agents. Status changes are detected by polling the HP Insight Management Agents, and the gathered information is translated into policy. This policy sets the status for each of the discovered HP Insight Management Agents inside the Unicenter repository.

HP Node View

The Insight Integration includes the ability to monitor the status of HP hardware subsystems through the Unicenter Node View. By right-clicking the **Insight Agent** icon in the Unispace container and selecting **Node View,** you can expand the nodes to display lower-level objects and drill down to view HP Insight Manager MIB icons at the system variable level.

The Unicenter Node View window displays various status levels of HP hardware subsystems using color-coded icons.
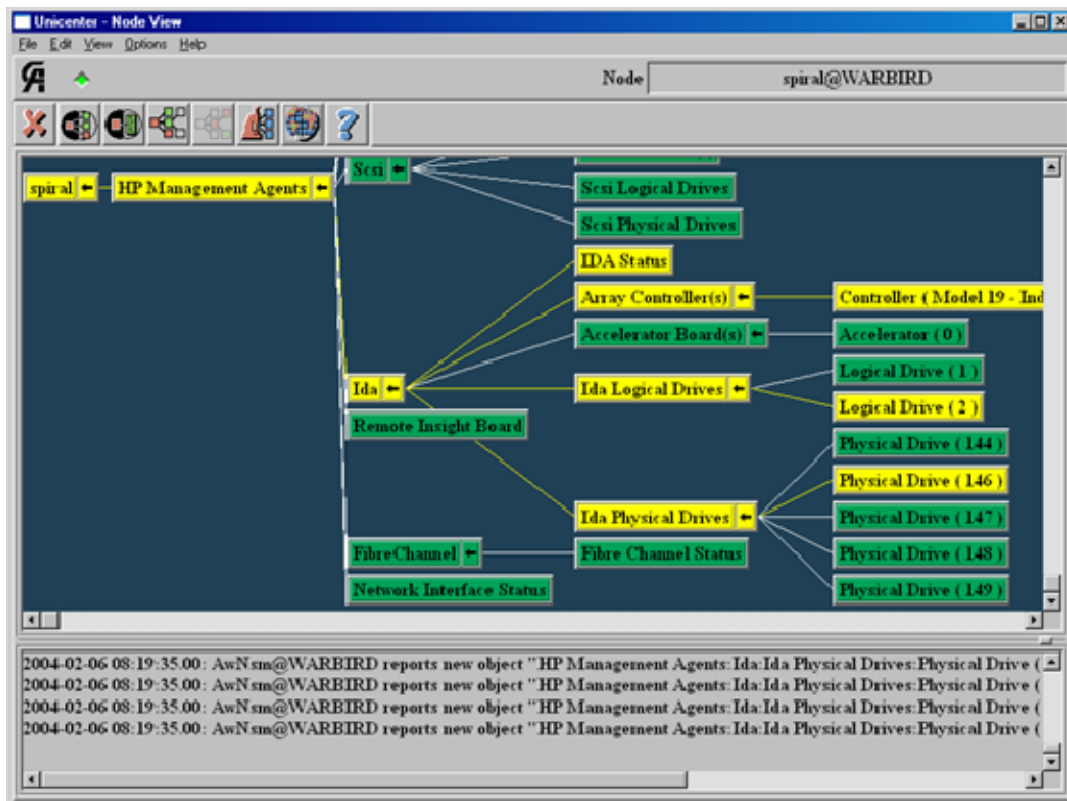
Overall status policy

The Insight Integration includes an additional set of policy files that provide a high-level view of HP hardware subsystem status. The overall status policy files are not installed by default but are provided as a user option. These policies can limit the amount of polling traffic generated in the DSM for HP devices.

The hpqnsm\policy\overall directory contains policy files for Unicenter 2.4, 3.x, and r11 that monitor the overall status of each HP hardware subsystem.

Each HP ProLiant MIB contains a variable that represents the overall status of the entire MIB. The overall policy files monitor this variable. Instances under the various subsystems are not enumerated. For example, these policies monitor the overall drive array status, but not the individual logical and physical drives.

The status of HP hardware is monitored, but the information given in the policy files is not as detailed. For detailed information, view a device through the HP web-based Management Agents or HP Systems Insight Manager.

NOTE: The overall status policy for Unicenter 3.x and later has been updated to minimize the number of items monitored on each system. The monitored items have been updated with new names beginning with the string "HP_".

To install the policy files:

1. Place the insightmanager.wvc file in the UnicenterDirectory\services\config\aws_wvgate directory.
2. Place the insightmanager.dat and insightmanager.cnf files in the UnicenterDirectory \services\config\aws_nsm\dm directory.

The Unicenter Node View appears similar to the following window after these policies are implemented.
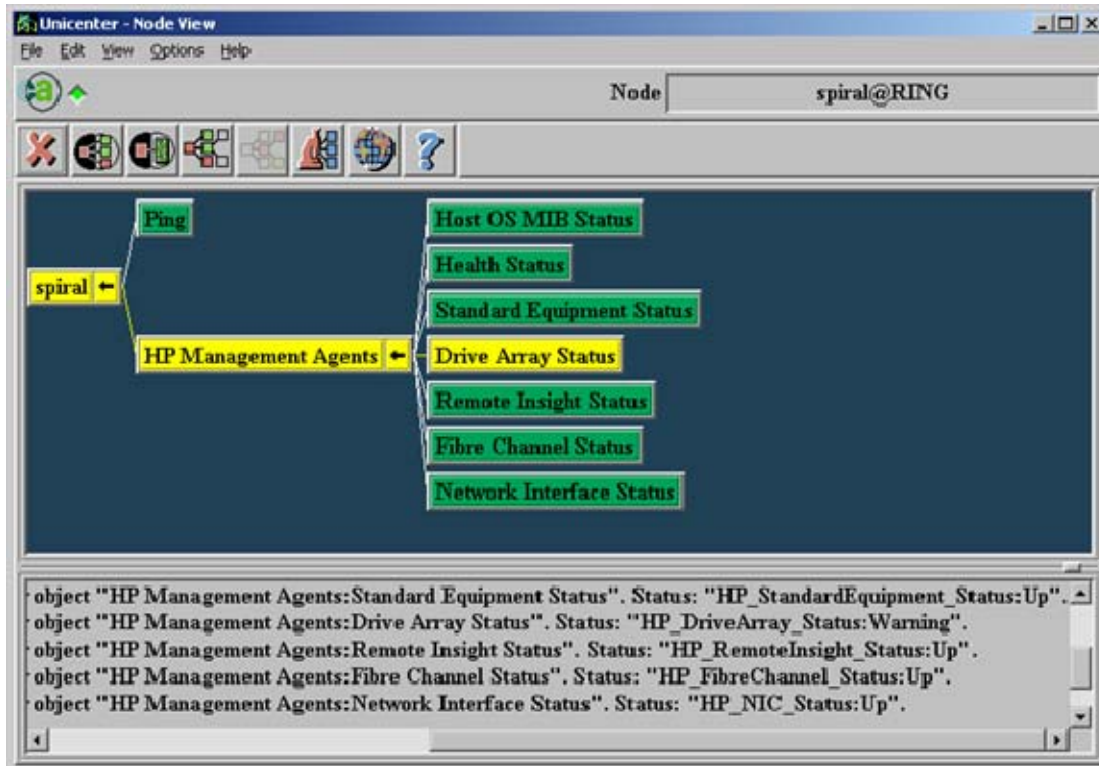
DSM event monitoring policy

The Insight Integration includes an additional set of policy files that provide event monitoring for HP Management Agents. This policy is based on the standard policy files installed with the Insight Integration. Implementing this policy enables you to monitor events using the DSM policy instead of Message Record and Action files.

The DSM Event policy files are not installed by default but are provided as a user option. The DSM Event policy files monitor the same hardware systems as the standard policy files, in addition to monitoring SNMP events.

The .cnf file provided in the dsm_events directory parses SNMP alarms from HP devices, in addition to the standard functions of the integration DSM policy.

The trap policy in this file requires HP Management Agents 6.30 or later. Traps from earlier versions of HP Management Agents are not defined in this file.

This policy does not process trap variables. Each trap is processed based on only the specific trap ID. For example, a drive array trap might contain many variables, but the DSM trap policy will only display a generic "HP Drive Array Physical Drive Status Change" message. Only server alarms are included in the policy definition file.

The hpqnsm\policy\dsm_events directory contains the policy files for Unicenter that monitor for SNMP traps. To install the policy files:

1. Place the insightmanager.cnf file in the Unicenter Directory\services\config\aws_nsm\dm directory. The hpqemc2.exe file launches the browser to the web agents from the Enterprise Management Console using the User action menu option.

2. Place the hpqemc2.exe file in the Unicenter Directory\bin directory.

3. Edit the CAI_MSG_EXIT environment variable to contain the value hpqemc2.exe.

After these policies are implemented, the Enterprise Management Console will display messages similar to those shown the following example.
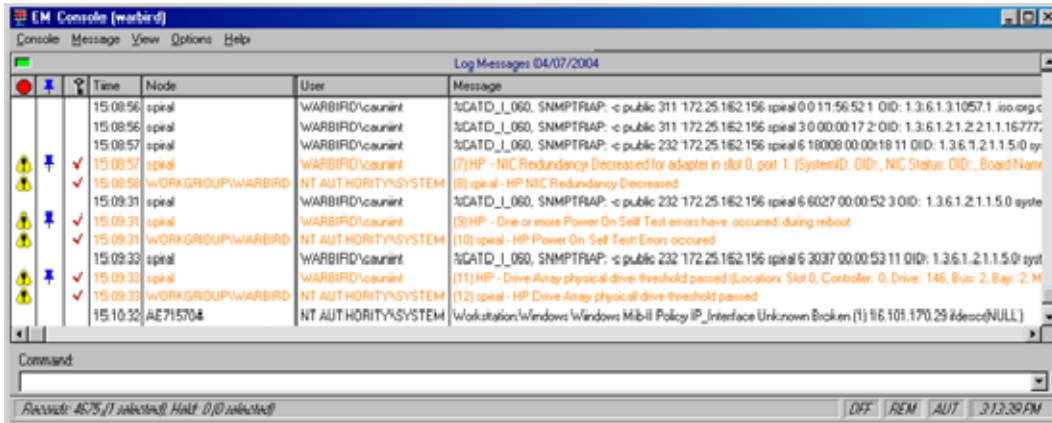
The messages from the WORKGROUP\WARBIRD node were generated from the DSM Event policy. The messages from the spiral node were generated from the message records and actions.

HP Management Agent view

The Insight Integration provides an Agent view for the HP Insight Management Agents. This feature is similar to other Agent view options and provides a brief view of the status of HP servers.
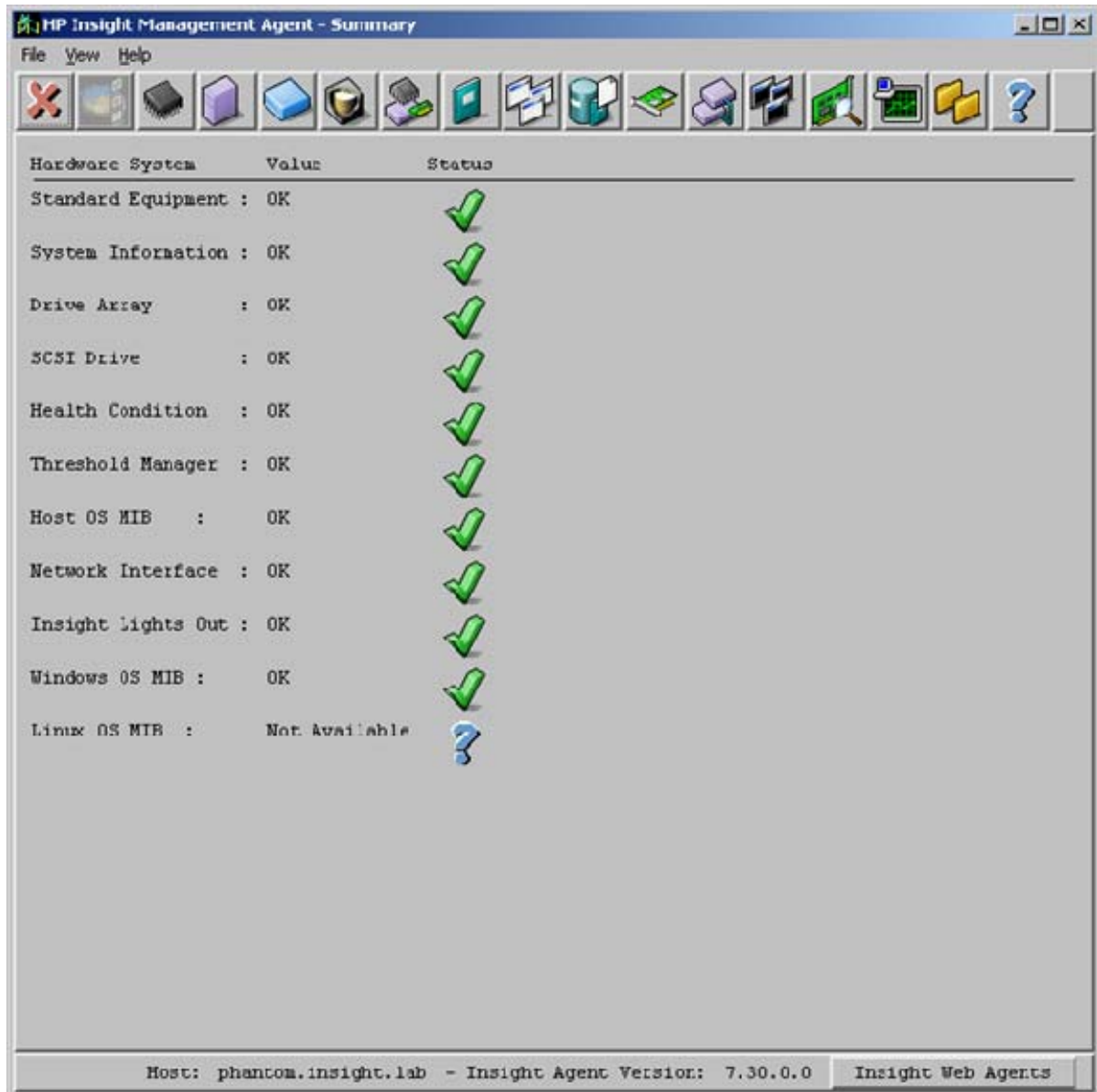
The Agent view contains buttons that launch to the HP System Management Homepage (web agents), the RILOE and iLO management processors, and the Integrated Administrator for HP blade enclosures.

The System Management Homepage launch button is on the summary screen, the Remote Insight/Integrated Lights-Out button is on the Remote Insight information screen, and the Integrated Administrator button is on the Rack Information screen. The Rack Information screen also contains a button to launch to the management processor on an HP Integrity server.

The following systems are monitored for overall status by the Agent view for the HP Insight Management Agents. More detailed information can be obtained on each system by selecting the appropriate system icon at the top of the Summary window:

- Standard Equipment
- System Information

- Drive Array
- SCSI Drive
- Health Condition
- Threshold Manager
- Host OS MIB
- Network Interface
- Insight Lights Out
- Windows OS MIB
- Linux OS MIB

The Insight Agent view contains the following screens that display more detailed information. These screens are accessed from the icons at the top of the Agent view window.

- Standard Equipment
- System Information
- Drive Array
- SCSI Drives
- Health
- Integrated Management Log
- Thresholds
- Operating System
- Network Interface Card
- Fibre Channel Array
- Rack Enclosure/Management Processor
- Remote Insight/Integrated Lights-Out
- Utilization
- Software Versions

Information that does not apply to the server or is not available might display as Not Available or Unknown. For example, a system with no SCSI drives displays as Not Available. Additionally, an error message might also display.

Application launches

The Insight Integration is built on the features and functionality of the HP Insight Management Agents and is designed to operate directly with native Unicenter applications and utilities. To provide further access to detailed HP systems data and additional HP resource management tools from within Unicenter, the Insight Integration includes several application launches:

- Browser launch to the HP System Management Homepage (Insight Management Agents) (on page 31)
- Browser launch to HP Systems Insight Manager (on page 31)

Browser launch to the HP System Management Homepage (Insight Management Agents)

For machines with HP Insight Management Agents installed, the HP Management Agent icon appears under the node container.

To launch the HP System Management Homepage, right-click **HP Management Agent,** and select **HP System Management Homepage.**
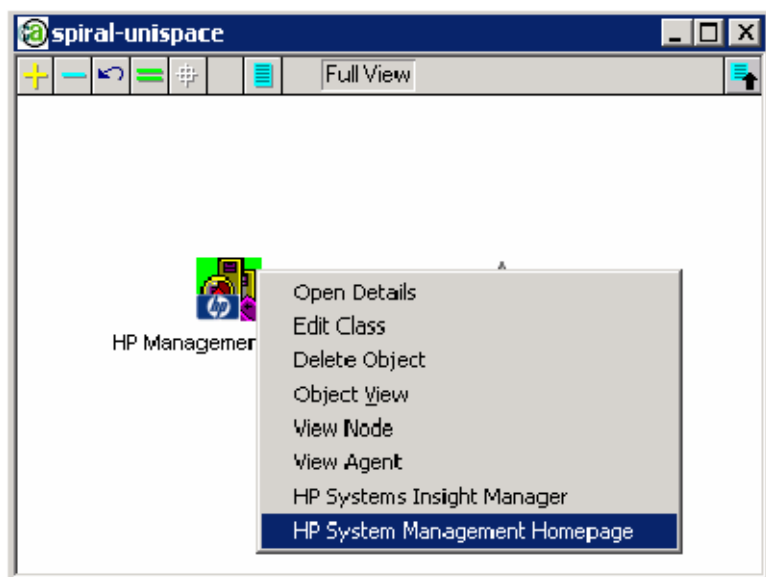
The HP System Management Homepage is a web-based application that provides an aggregated view of all data collected by HP Insight Management Agents and other plug-ins for an individual HP node. This feature uses the default browser on the system.

Browser launch to HP Systems Insight Manager

HP Systems Insight Manager is a web-based application that provides unified lifecycle management for HP servers, storage, and other HP and third-party infrastructure resources. HP Systems Insight Manager can maximize system uptime, reduce total cost of ownership, and provide powerful systems lifecycle monitoring, inventory, and control. HP Systems Insight Manager utilizes the same Insight Management Agents used by the Insight Integration to merge HP hardware data with Unicenter status and event processing.

To launch HP Systems Insight Manager, right-click **HP Management Agent,** and select **HP Systems Insight Manager.**

In-context launch to HP Systems Insight Manager

In-context launching capability appears on all HP systems managed by the Insight Integration and launches to a selected node through the HP Systems Insight Manager management server. The in-context launch provides links to other resource management features available in HP Systems Insight Manager.

This feature requires HP Systems Insight Manager 4.1 or later and Unicenter 2.4 or later. To use this feature, you must log in to the HP Systems Insight Manager server before the System Page can be displayed.
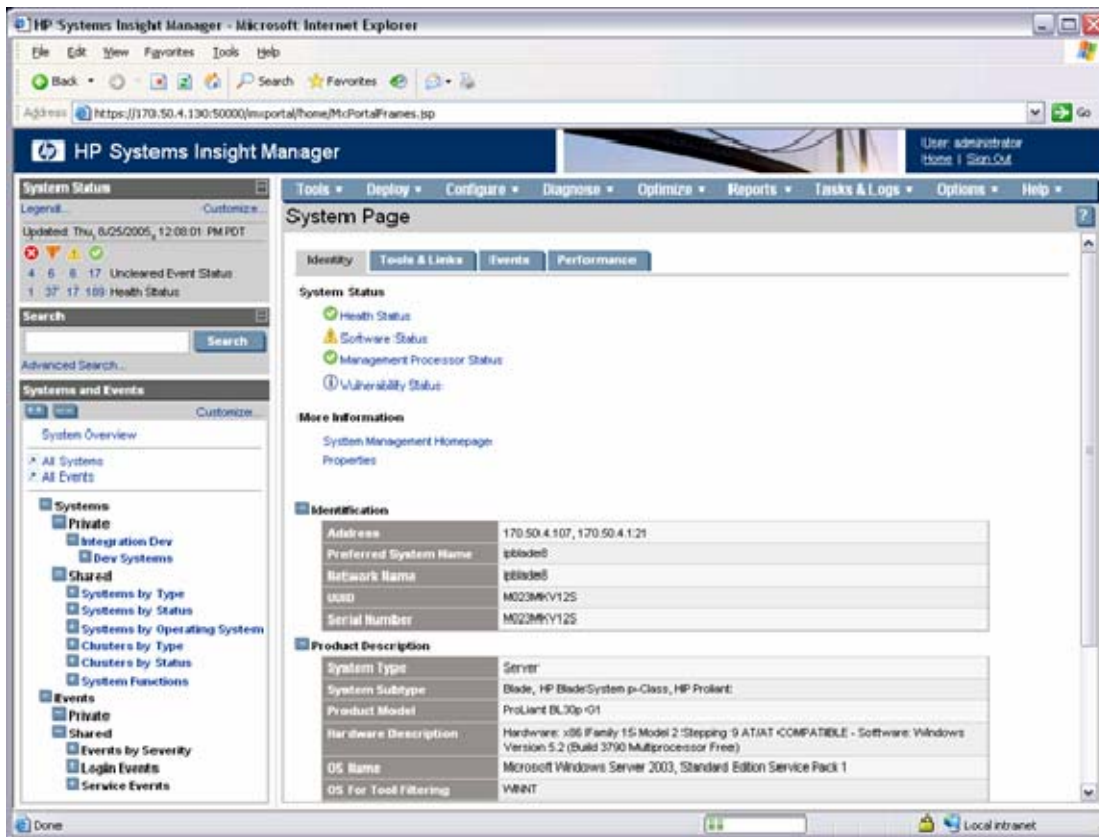
Unicenter Enterprise Management integration

The Insight Integration provides integration with the Unicenter Enterprise Management Console. This integration is provided through message records that define the HP SNMP traps in the Enterprise Management Console.

Enterprise Management Console

The event management components of Unicenter receive incoming events from a variety of sources. After receiving the event, the event manager processes and records data in a daily log that is viewable from the Console Log GUI. The log file name format is yyyymmdd.log and is stored in the default directory, \Unicenter Directory\logs. After receiving an event, Unicenter can react to the event based on message records and message actions created by the administrator.

The message records provided with the Insight Integration enable the Unicenter Enterprise Management Event Console to interpret SNMP traps received from HP systems. These message records can be extended as needed to perform specific actions.
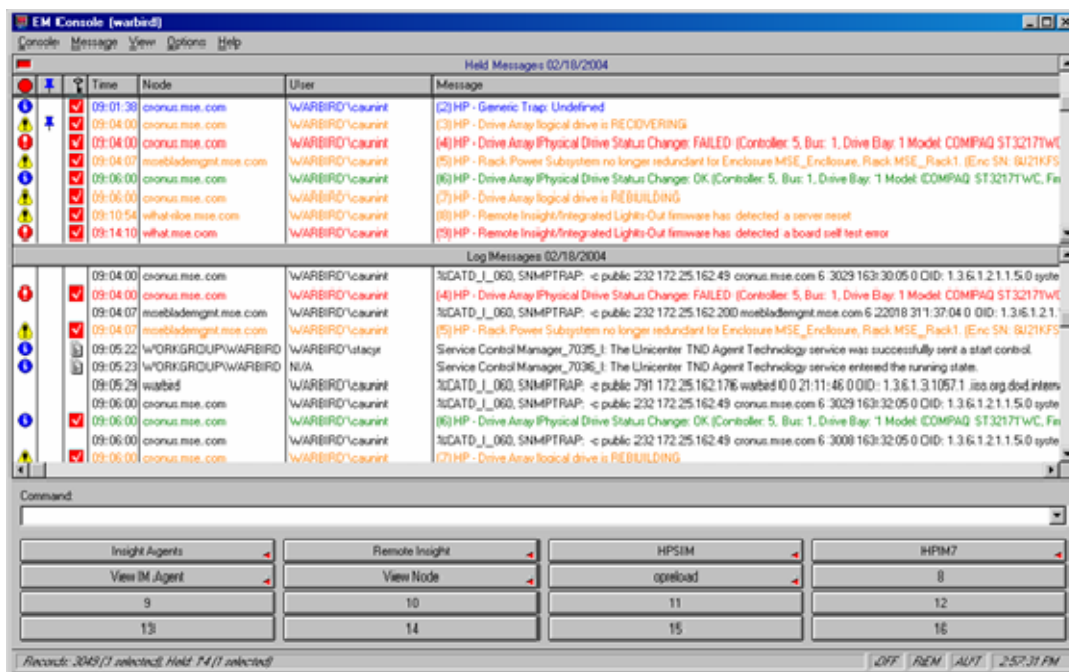
Enabling SNMP trap processing

Before using the event processing functionality, configure Unicenter to process SNMP traps by executing the `catrapd` command from the Enterprise Management Event Console command line. This command enables SNMP trap processing for the current session only.

To enable SNMP trap processing by default:

1. Click **Start>Programs>Unicenter>Enterprise Management>Enterprise Managers.**
2. Select **Windows NT>Configuration>Settings.**
3. Locate SNMP Trap Server Activated in the Settings screen.
4. Double-click the Settings column, and select **Yes** to activate this option.
5. Click **Yes** to confirm when prompted.
6. Close the window.

Enterprise Management Console buttons

The Enterprise Management Console buttons can perform various actions, including launching the HP System Management Homepage (Insight Agents) or HP Remote Insight tools for the node in the selected alarm.

The following example shows sample button configurations. This shows buttons that launch the HP System Management Homepage, the HP Remote Insight/Integrated Lights-Out, and HP Systems Insight Manager.
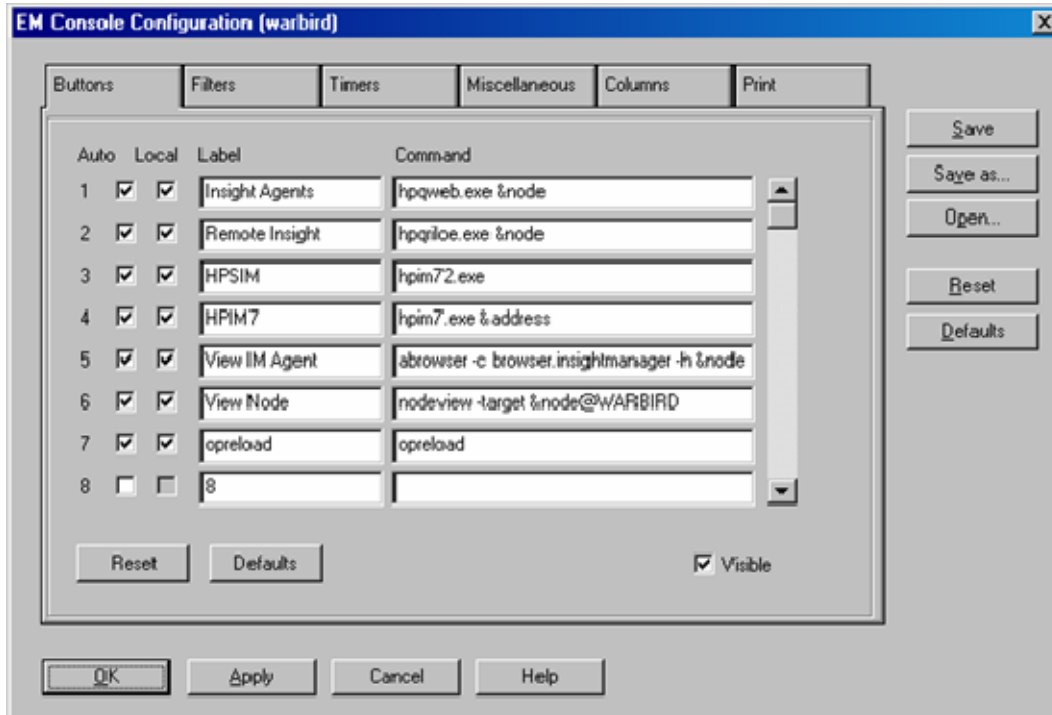
In addition to configuring the buttons in the Enterprise Management Console, you can configure the User Action option to launch the browser to the HP System Management Homepage (Insight Agents) on the node in the selected alarm. The User Action option displays when you right-click an alarm. The action performed is the program defined in the CAI_MSG_EXIT environment variable, which is configured during installation. The recommend value for this environment variable, if it is not already in use, is hpqemc.exe.

Message records and actions

The files listed in the following table are used to populate the CA Unicenter Event Management databases with predefined HP SNMP trap messages and message actions.

To manually load the HP message records into the local Unicenter event management database, execute the `cpqload.bat` file. The HP message record files can be loaded individually by entering `Cautil -f <file name>` at the command prompt.

IMPORTANT: Verify that SNMP trap processing is enabled in the management console so that you can receive HP alarms. After installing the HP message records, issue the `opreload` command in the Event Management Console to load the new records into the database.
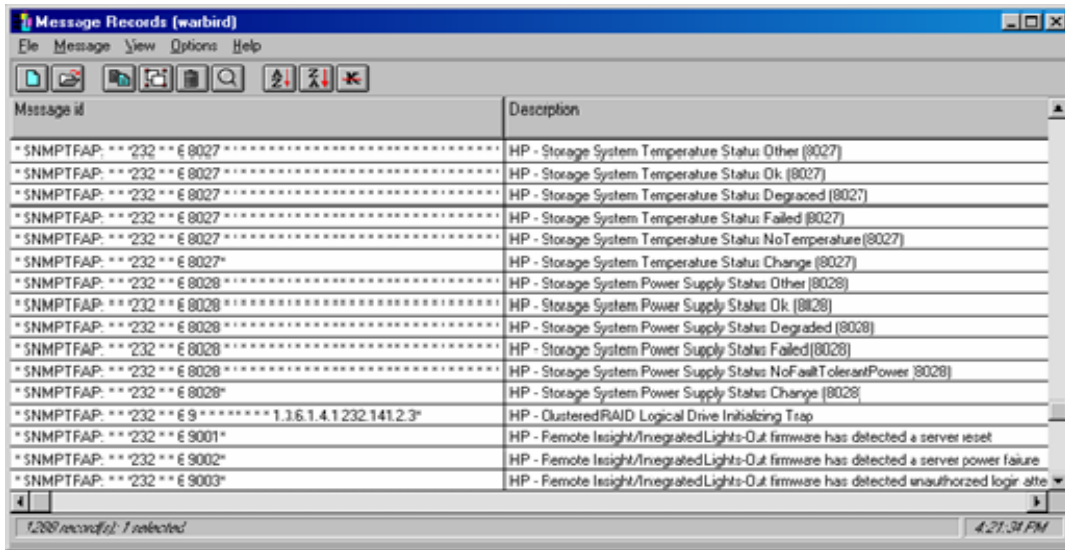
File name	Trap type	Trap-specific ID
cpq_hsagent	StorageWorks Enterprise Array Manager	OID—1.3.6.1.4.1.36 Trap IDs—1–22
cpqavab.txt	HP Availability Agents	OID—1.3.6.1.4.1.5910 Trap ID—1
cpqcluster.txt	HP Cluster Alarms	15001–15008
cpqcr.txt	HP Clustered RAID Alarms	OID—1.3.6.1.4.1.232.141.2.3 Trap IDs—5–9 OID—1.3.6.1.4.1.232.141.2.5 Trap IDs—10–14
cpqdesktop.txt	HP Desktop Alarms	2001–2014
cpqDMI.txt	HP DMI Indications mapped to SNMP traps	150001–150006
cpqFCA1.txt	HP Fibre Channel Array Alarms	16001–16003
cpqFCA2.txt	HP Fibre Channel Array Alarms	16004–16015
cpqFCA3.txt	HP Fibre Channel Array Alarms	16016–16021
cpqFCA4.txt	HP Fibre Channel Array Alarms	16022–16025
cpqFCA5.txt	HP Fibre Channel Array Alarms	16026 and 16027
cpqFCA6.txt	HP Fibre Channel Array Alarms	16028
cpqFCB1.txt	HP Fibre Channel Bridge Alarms	139001–139006
cpqHealth1.txt	HP Health Alarms	6001–6015
cpqHealth2.txt	HP Health Alarms	6016–6028
cpqHealth3.txt	HP Health Alarms	6029–6040
cpqHealth4.txt	HP Health Alarms	6041
cpqHealth5.txt	HP Health Alarms	6041 and 6042
cpqHealth6.txt	HP Health Alarms	6043–6046

File name	Trap type	Trap-specific ID
cpqHealth7.txt	HP Health Alarms	6047–6050
cpqHealth8.txt	HP Health Alarms	6051
cpqHealth9.txt	HP Health Alarms	6052–6058
cpqHealth10.txt	HP Health Alarms	6059–6063
cpqhost.txt	HP Host Alarms	11001–11011
cpqhost2.txt	HP Host Alarms	11012 and 11013
cpqhost3.txt	HP Host Alarms	11014
cpqHotPlug.txt	HP Hot Plug PCI Alarms	2008–2010
cpqICA1.txt	HP Intelligent Cluster Administrator Alarms	140001–140006
cpqIDA1.txt	HP Drive Array Alarms	3001, 3008, and 3009
cpqIDA2.txt	HP Drive Array Alarms	3002–3007
cpqIDA3.txt	HP Drive Array Alarms	3010–3014
cpqIDA4.txt	HP Drive Array Alarms	3015–3019
cpqIDA5.txt	HP Tape Alarms	3020–3024
cpqIDA6.txt	HP Drive Array Alarms	3025–3030
cpqIDA7.txt	HP Drive Array Alarms	3031–3045
cpqIDA8.txt	HP Drive Array Alarms	3046 and 3047
cpqIDE.txt	HP IDE Drive Alarms	14001–14003
cpqIDE2.txt	HP IDE Drive Alarms	14004 and 14005
cpqNIC.txt	HP NIC Alarms	18001–18004
cpqNIC2.txt	HP NIC Alarms	18005–18008
cpqNIC3.txt	HP NIC Alarms	18009 and 18010
cpqrack.txt	HP Rack Information Alarms	22001–22036
cpqrack2.txt	HP Rack Information Alarms	22037–22048
cpqRecov.txt	HP Recovery Server Alarms	13001–13005
cpqrib.txt	HP Remote Insight/Integrated Lights-Out Alarms	9001–9010
cpqrib2.txt	HP Remote Insight/Integrated Lights-Out Alarms	9011–9013
cpqsanap.txt	HP SAN Management Appliance Alarms	—
cpqsanap2.txt	HP SAN Management Appliance Alarms	—
cpqSCSI1.txt	HP SCSI Alarms	5001–5005
cpqSCSI2.txt	HP SCSI Alarms	5006 and 5007
cpqSCSI3.txt	HP SCSI Alarms	5008–5015
cpqSCSI4.txt	HP SCSI Alarms	5016 and 5017
cpqSCSI5.txt	HP SCSI Alarms	5018–5020
cpqSCSI6.txt	HP SCSI Alarms	5021
cpqSCSI7.txt	HP SCSI Alarms	5022 and 5023
cpqSCSI8.txt	HP SCSI Alarms	5024

File name	Trap type	Trap-specific ID
cpqStdeq.txt	HP Standard Equipment Alarms	1004–1004
cpqStdeq2.txt	HP Standard Equipment Alarms	1005–1008
cpqSTSYS1.txt	HP Storage System Alarms	8001–8007
cpqSTSYS2.txt	HP Storage System Alarms	8008–8014
cpqSTSYS3.txt	HP Storage System Alarms	8015–8017
cpqSTSYS4.txt	HP Storage System Alarms	8018 and 8019
cpqSTSYS5.txt	HP Storage System Alarms	8020 and 8021
cpqSTSYS6.txt	HP Storage System Alarms	8022–8024
cpqSTSYS7.txt	HP Storage System Alarms	8025
cpqSTSYS8.txt	HP Storage System Alarms	8026–8028
cpqSTSYS9.txt	HP Storage System Alarms	8029–8031
cpqSWCC1.txt	HP StorageWorks Command Console Alarms	OID—1.3.6.1.4.1.232.132.2.1 OID—1.3.6.1.4.1.232.132.3.1 OID—1.3.6.1.4.1.232.132.4.1
cpqThrsh.txt	HP Threshold Alarms	10001–10006
cpqThrsh2.txt	HP Threshold Alarms	10007 and 10008
cpqUPS.txt	HP UPS Alarms	12001–12014
cpqv22sw.txt	HP Fibre Channel Switch Alarms	OID—1.3.6.1.4.1.1588 Trapd IDs—1–6
cpqwinos.txt	HP WINOS MIB Alarms	19001—19008
Hpovsam.txt	HP OpenView Storage Area Manager	OID—1.3.6.1.4.1.11.2.27.3.1.1.1.1 Trapd IDs—1–5
svrclu.txt	Server Cluster Alarms	OID—1.3.6.1.4.1.232.36 Trapd IDs—100 and 1001
Gadzoox.txt	Gadzoox Alarms	OID—1.3.6.1.4.1.1754 Trap IDs—1–5

HP Web Jetadmin integration

The Insight Integration provides an option for installing links to an existing implementation of HP Web Jetadmin. This option modifies the HP_Printer class to include new menu definitions for launching to HP Web Jetadmin in-context and for launching directly to the web interface on a printer.

Right-click the appropriate printer icon, and select **HP Web Jetadmin** from the menu.
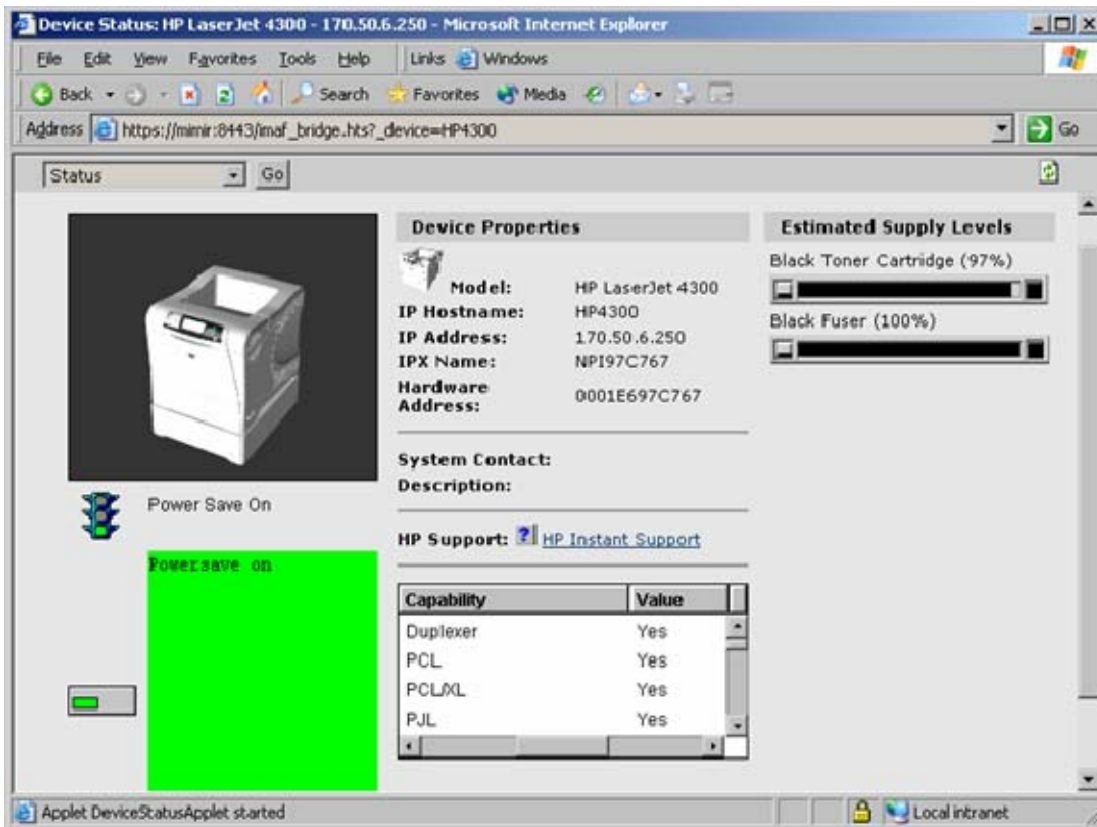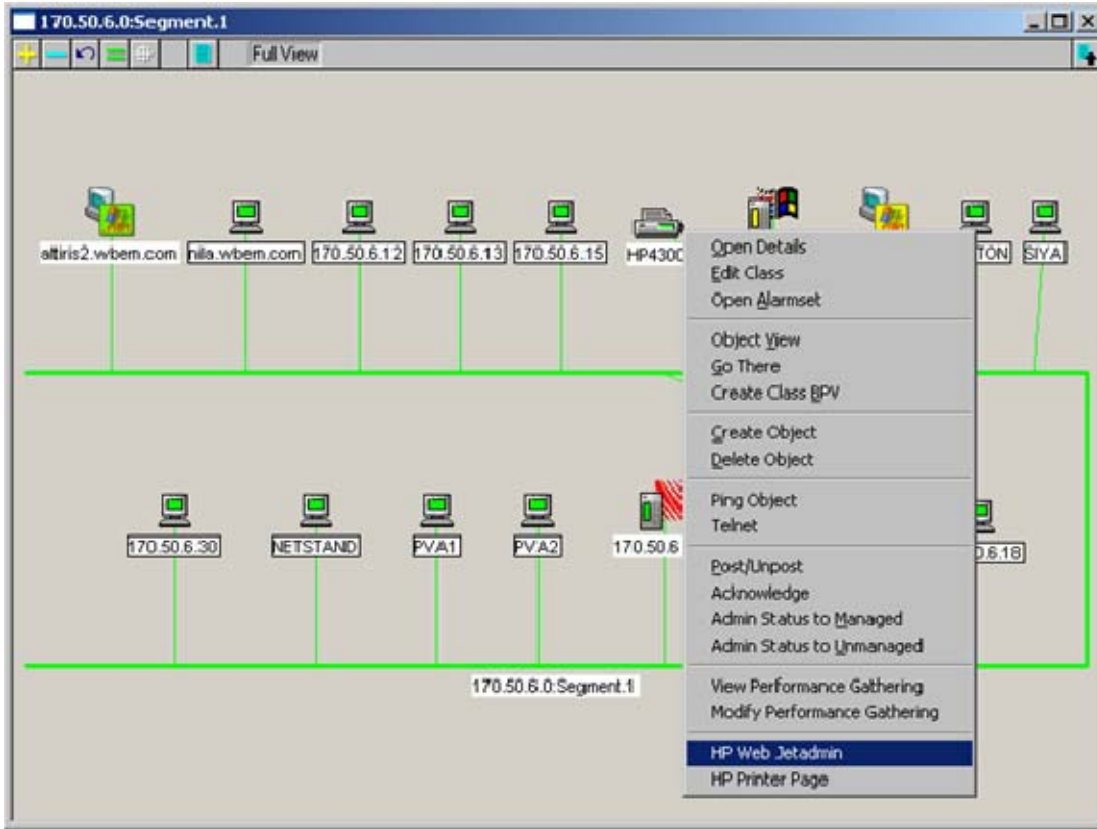
Message records and actions have also been included for basic printer events.

Message Records (ring)

File Message View Options Help

Message id	Description	Domain Node	Domain User	Message Active	Create Date	Create Time	Created By
*SNMPTRAP.***11**6 10031*	HP - Checking Printer			Y	02/15/2005	14:39:23.79	Administrator
*SNMPTRAP.***11**6 35037*	HP - Printer Page Punt (error 21)			Y	02/15/2005	14:39:24.26	Administrator
*SNMPTRAP.***11**6 35076*	HP - Printer out of memory (error 20)			Y	02/15/2005	14:39:24.68	Administrator
*SNMPTRAP.***11**6 40010*	HP - Printer Toner Out			Y	02/15/2005	14:39:25.12	Administrator
*SNMPTRAP.***11**6 40019*	HP - Printer Output Full			Y	02/15/2005	14:39:25.54	Administrator
*SNMPTRAP.***11**6 40021*	HP - Printer Cover Open			Y	02/15/2005	14:39:25.98	Administrator
*SNMPTRAP.***11**6 40026*	HP - Printer Tray Missing			Y	02/15/2005	14:39:26.40	Administrator
*SNMPTRAP.***11**6 40038*	HP - Printer Toner Low			Y	02/15/2005	14:39:26.84	Administrator
*SNMPTRAP.***11**6 40050*	HP - Printer Generic Error			Y	02/15/2005	14:39:27.34	Administrator
*SNMPTRAP.***11**6 40051*	HP - Printer Fatal Error			Y	02/15/2005	14:39:27.76	Administrator
*SNMPTRAP.***11**6 40052*	HP - Printer Scanner Failure			Y	02/15/2005	14:39:28.18	Administrator
*SNMPTRAP.***11**6 40059*	HP - Printer Main Motor Failure			Y	02/15/2005	14:39:28.71	Administrator
*SNMPTRAP.***11**6 40079*	HP - Printer Offline			Y	02/15/2005	14:39:29.14	Administrator
*SNMPTRAP.***11**6 40090*	HP - Printer Envelope Connection Error			Y	02/15/2005	14:39:29.59	Administrator
*SNMPTRAP.***11**6 40124*	HP - Printer Duplex Connection Error			Y	02/15/2005	14:39:30.03	Administrator
*SNMPTRAP.***11**6 41002*	HP - Printer Tray 1 Empty			Y	02/15/2005	14:39:30.45	Administrator
*SNMPTRAP.***11**6 41202*	HP - Printer Tray 2 Empty			Y	02/15/2005	14:39:30.85	Administrator
*SNMPTRAP.***11**6 41302*	HP - Printer Tray 3 Empty			Y	02/15/2005	14:39:31.29	Administrator
*SNMPTRAP.***11**6 41502*	HP - Printer Tray 4 Empty			Y	02/15/2005	14:39:31.70	Administrator
*SNMPTRAP.***11**6 44001*	HP - Printer Paper Jam: Input			Y	02/15/2005	14:39:32.12	Administrator
*SNMPTRAP.***11**6 44002*	HP - Printer Paper Jam: Output			Y	02/15/2005	14:39:32.54	Administrator
*SNMPTRAP.***11**6 44003*	HP - Printer Paper Jam: Top Cover			Y	02/15/2005	14:39:32.96	Administrator
*SNMPTRAP.***11**6 44004*	HP - Printer Paper Jam: Duplexer			Y	02/15/2005	14:39:33.39	Administrator

188 record(s), 1 selected   2:42:53 PM

These message records and actions translate printer events in the Unicenter Enterprise Management Console.

EM Console (ring)

Console Message View Options Help

Held Messages 02/15/2005

Time	Node	User	Message
15:30:04	mimir.wbem.com	RING\caunint	(1029) HP - Checking Printer
15:30:34	mimir.wbem.com	RING\caunint	(1030) HP - Printer Offline
15:30:34	mimir.wbem.com	RING\caunint	(1031) HP - Printer Cover Open

Log Messages 02/15/2005

Time	Node	User	Message
15:28:59	HP4300	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.6.250 HP4300 6 40079 00:00:08 1 OID
15:28:59	HP4300	RING\caunint	(1018) HP - Printer Offline
15:29:04	mimir.wbem.com	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.4.26 mimir.wbem.com 0 0 00:00:01 1 OI
15:29:04	mimir.wbem.com	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.4.26 mimir.wbem.com 6 40079 00:00:08
15:29:04	mimir.wbem.com	RING\caunint	(1019) HP - Printer Offline
15:29:35	HP4300	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.6.250 HP4300 6 40021 00:00:44 1 OID
15:29:35	HP4300	RING\caunint	(1020) HP - Printer Cover Open
15:29:36	HP4300	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.6.250 HP4300 6 40079 00:00:44 1 OID
15:29:36	HP4300	RING\caunint	(1021) HP - Printer Offline
15:29:48	HP4300	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.6.250 HP4300 6 40021 00:00:56 1 OID
15:29:48	HP4300	RING\caunint	(1022) HP - Printer Cover Open
15:29:48	HP4300	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.6.250 HP4300 6 10031 00:00:57 1 OID
15:29:48	HP4300	RING\caunint	(1023) HP - Checking Printer
15:30:03	HP4300	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.6.250 HP4300 6 40079 00:01:11 1 OID
15:30:03	HP4300	RING\caunint	(1024) HP - Printer Offline
15:30:03	HP4300	RING\caunint	%CATD_I_060, SNMPTRAP: -c public 11 170.50.6.250 HP4300 6 40021 00:01:11 1 OID

Command:

Insight Agents	Remote Insight	HPSIM	View IM Agent
View Node	Web Jetadmin	HP Printer	8
opreload	10	11	12
13	14	15	16

Records: 1254 (1 selected) Held: 14 (0 selected)   OFF REM MAN 3:30:50 PM

You can configure any of the buttons in the Enterprise Management Console to launch to an existing implementation of HP Web Jetadmin and display the node in the selected event. Edit one of the button configurations, and enter `hpwja.exe &node` in the command field.

HP Integrity server integration

The Insight Integration can perform discovery of HP Integrity servers during the execution of the integration discovery program. The servers are identified on the WorldView Map with their own HP icon.
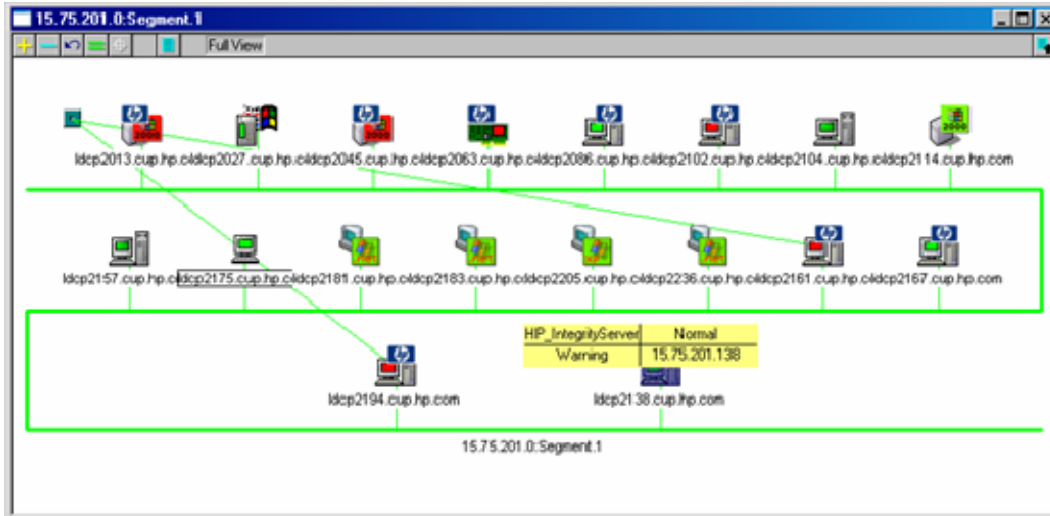
Currently, automatic discovery of Integrity servers is only supported on systems running Windows Server™ 2003. You can manually reclassify servers running other operating systems as HP Integrity servers.

The HP Management Agents are discovered and monitored running on an Integrity server, and a new entry is created in the Agent view (the management processor section) to provide information about the management processor in the HP Integrity server.

Message records and actions are also provided for HP Integrity servers. These message records are based on the information provided in the hpipftrap.mib file and are located in the \hpqnsm\cpqem\ipf directory. These message records are not installed by default.

To load these message records, change to the IPF directory and run the `messagerecords.bat` script.

To remove these message records, change to the IPF directory and run the `messagerecords rm.bat` script.

Because the Insight Integration was originally designed for HP ProLiant servers, some elements do not function in the same manner on other systems. Information that does not apply to the server or is not available might display as Not Available or Unknown. For example, a system with no SCSI drives displays as Not Available.
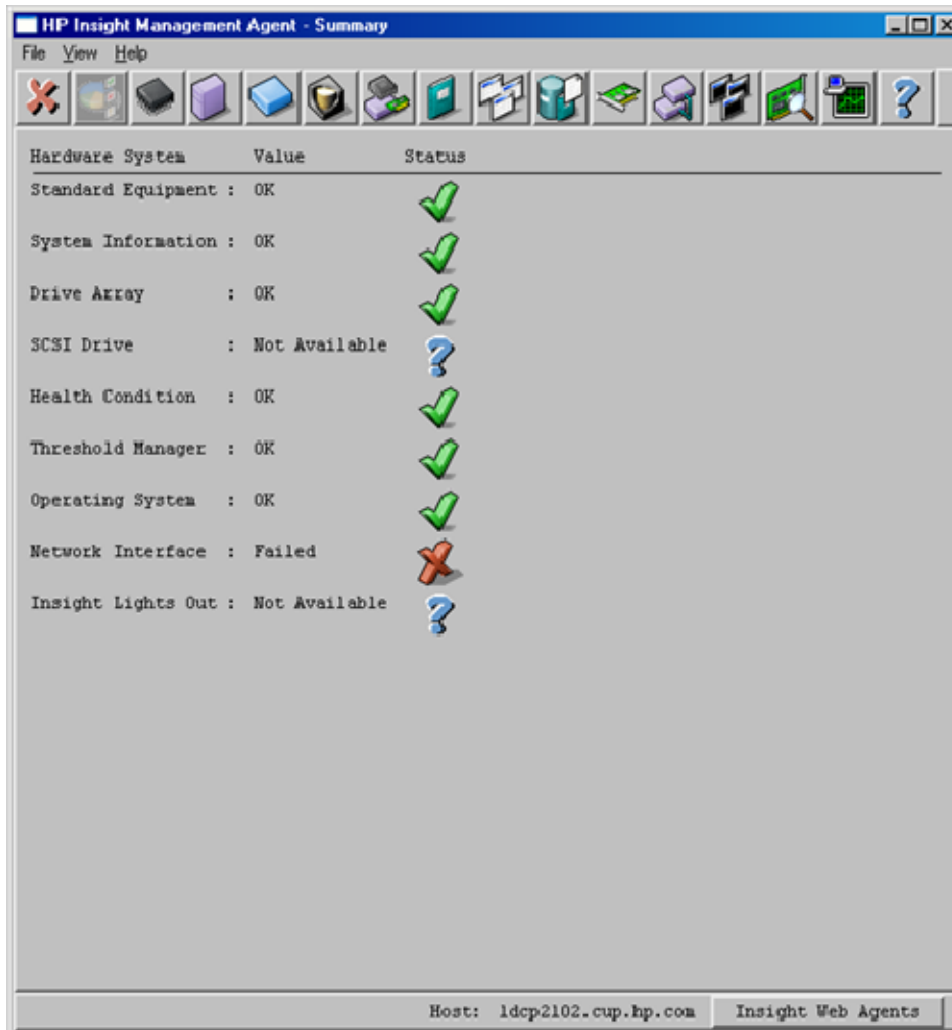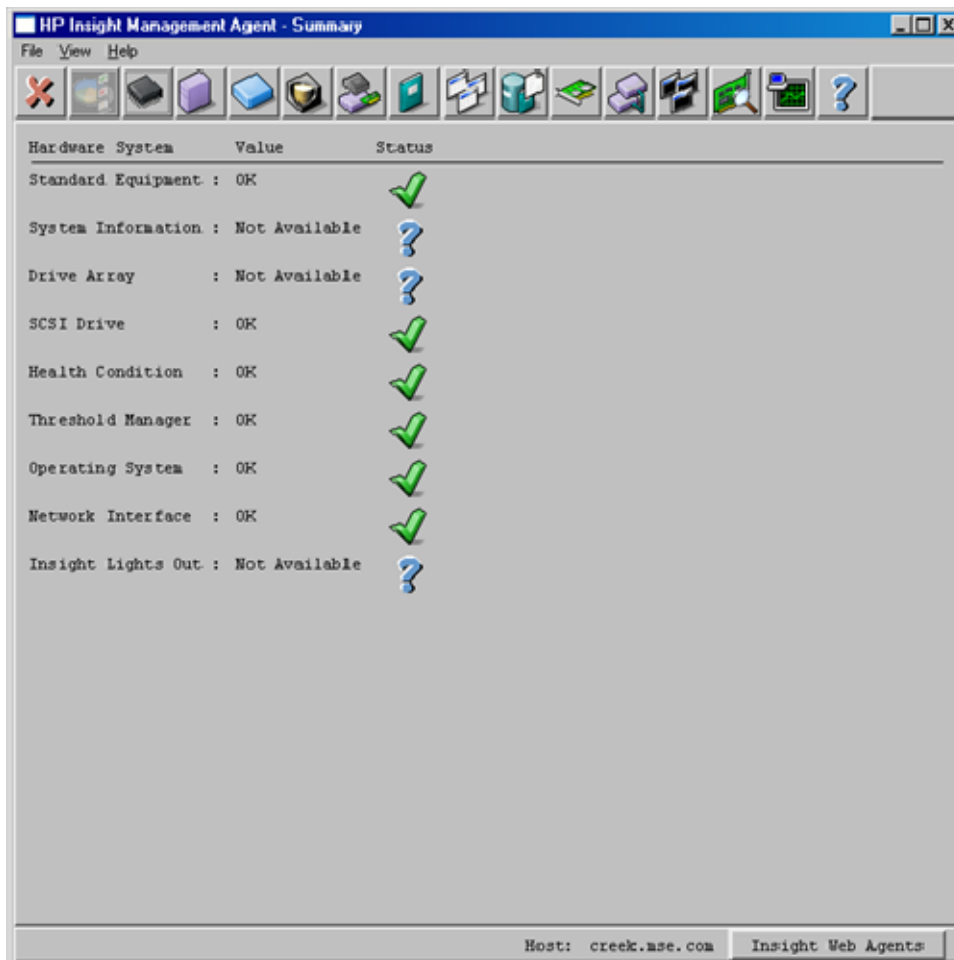
SCSI information and other system configuration and status details can be obtained through the HP System Management Homepage (Insight Agents). Although the Remote Insight section does not apply, management processor information is displayed.
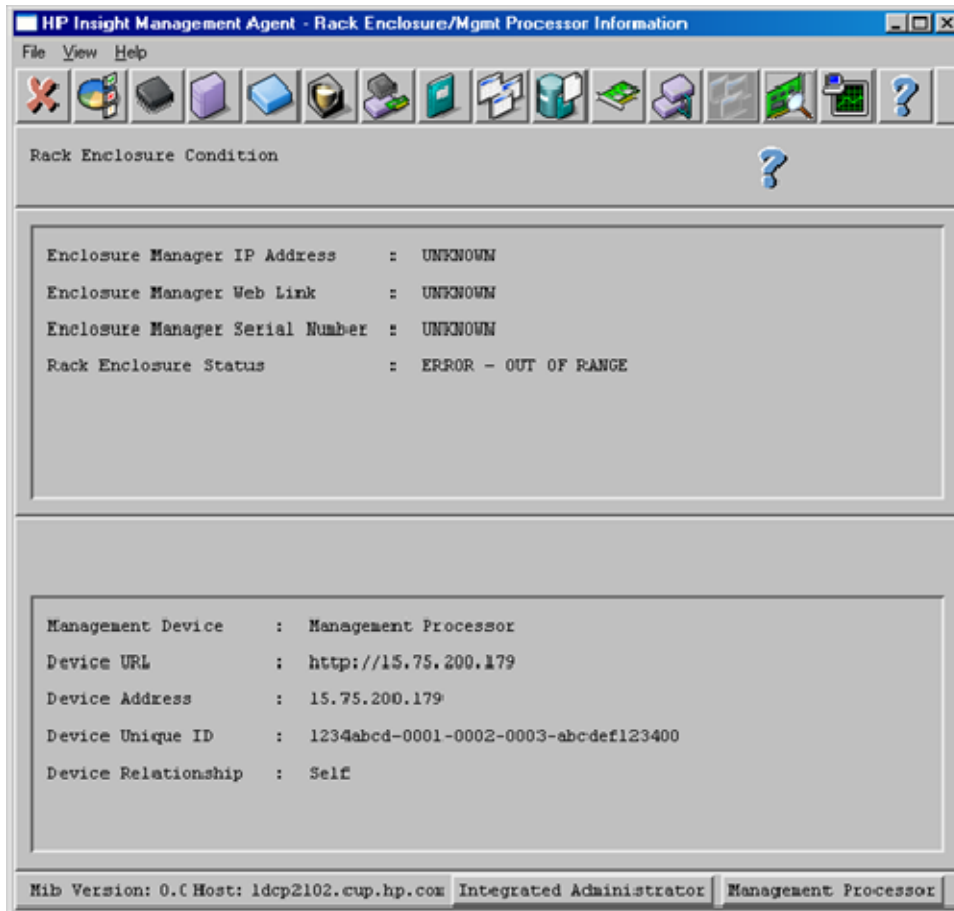
HP Tru64 UNIX integration

Most management functions for Tru64 UNIX systems occurs through the web-enabled HP Insight Management Agents. The following example uses the Agent view on a Tru64 UNIX system.

The following example uses the Node view on a Tru64 UNIX system.

HP OpenVMS integration

Similar to the way in which HP Tru64 Unix systems are managed, most OpenVMS system management occurs through the web-enabled HP Insight Management Agents.

HP-UX server integration

By default, Unicenter discovers and classifies HP-UX servers into the HPUnix class. The Insight Integration provides menu definitions for HPUnix class that enable launching to the HP System Management Homepage or HP Systems Insight Manager. You must modify the existing HPUnix class definition to include these menu definitions.
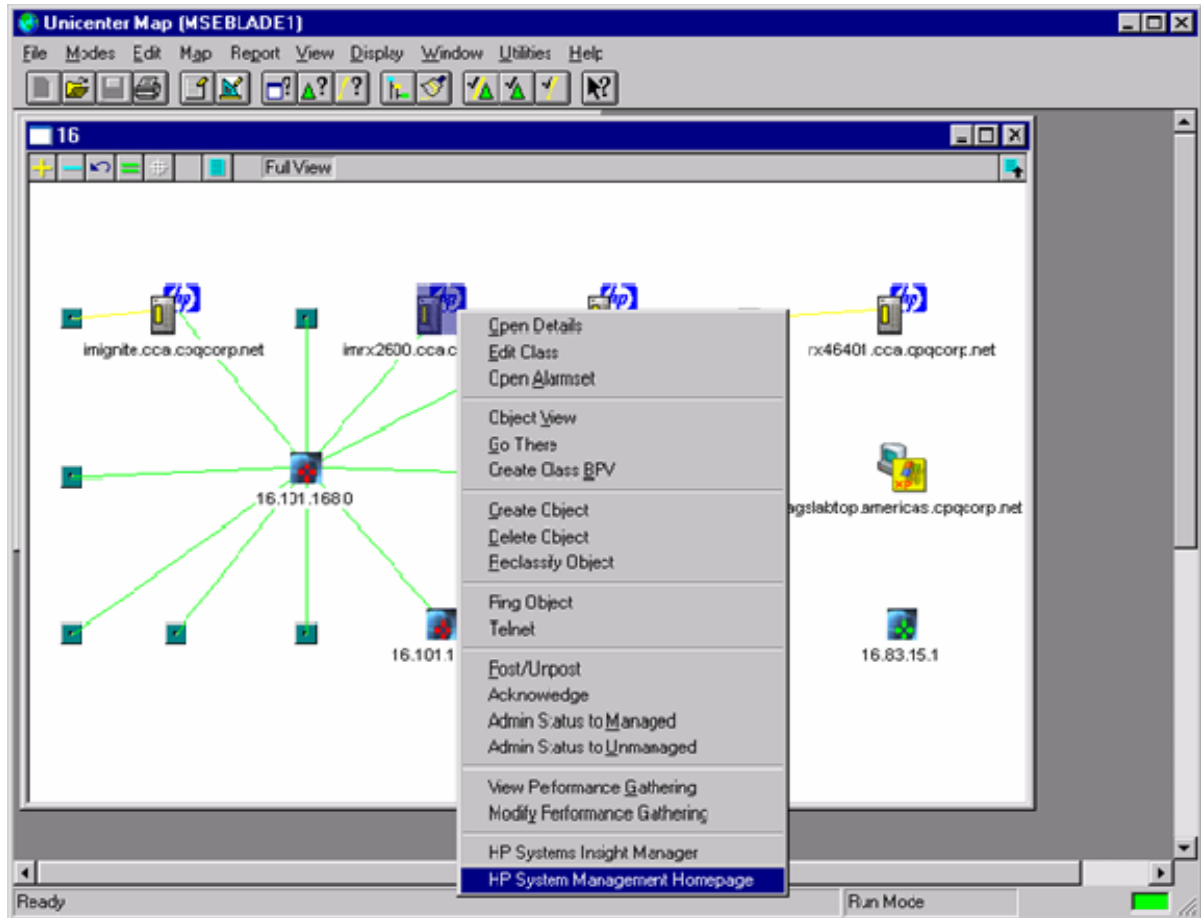
The menu definitions are applied to the following Unicenter classes after the definitions are installed:

- HPUnix
- HPServer
- HP_Device

The menu entries are available on all systems within these classes, even if the system is not running the HP System Management Homepage.

To install these menu definitions:

1. Open a command prompt.
2. Go to the \hpqnsm\cpqwv\menus directory.
3. Run the hpqclass.exe program.

To remove these menu definitions:

1. Open a command prompt.
2. Go to the \hpqnsm\cpqwv\menus directory.
3. Run the hpqclassremove.exe program.

To use the new menu definitions, right-click an icon, and select the appropriate menu option (**HP System Management Homepage** is selected in the following example).
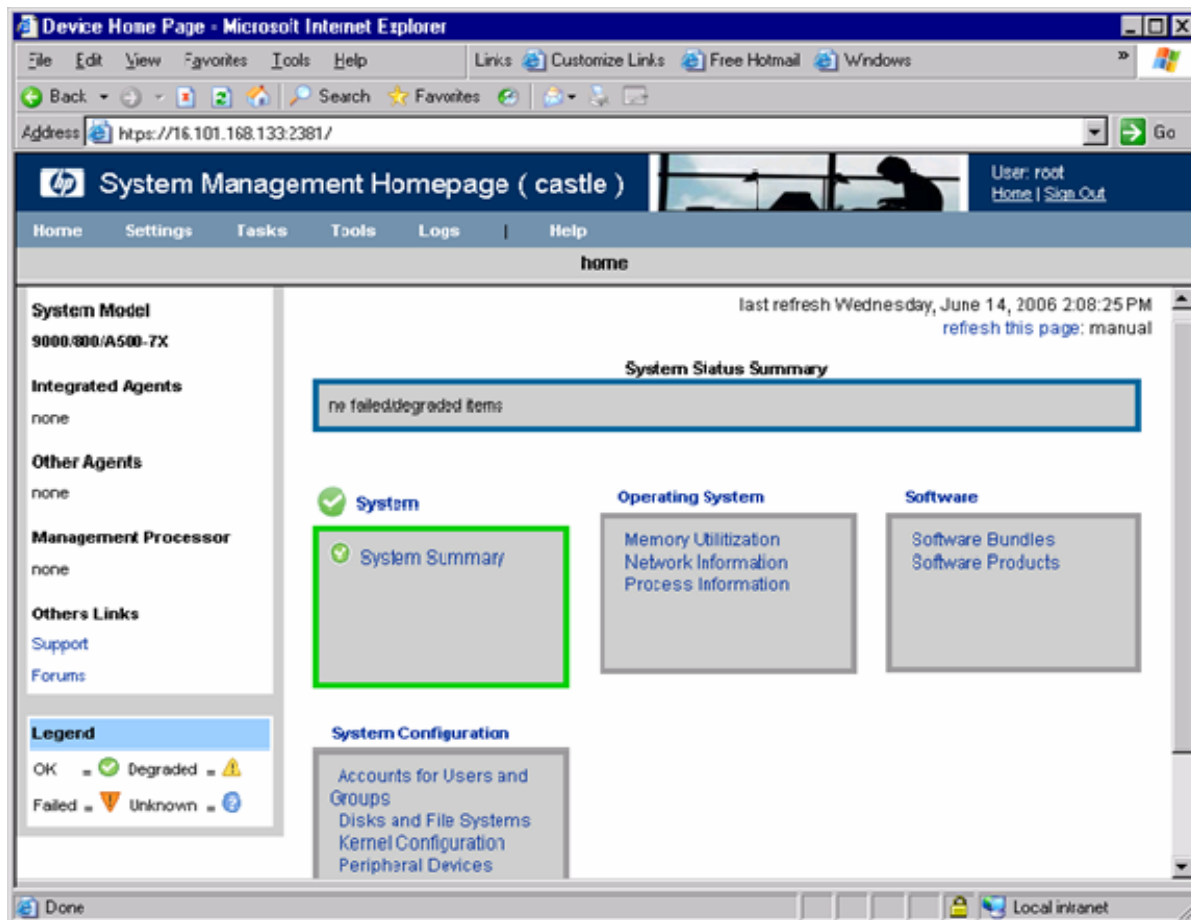
Extended discovery of HP systems

The Insight Integration has traditionally identified HP systems on the Unicenter WorldView Map by displaying the HP Management Agent icon in Unispace. Additionally, HP systems can be discovered and classified on the subnet map. Using subnet map, you can identify HP systems by device class and operating system type without drilling down to the agents running on that operating system.

IMPORTANT: Do not reclassify systems running the Computer Associates agents to the HP classes if you are using Unicenter NSM r11. Reclassification results in those agents not being monitored. If systems were reclassified, return the systems to their original classes using the Reclassify Object menu option.
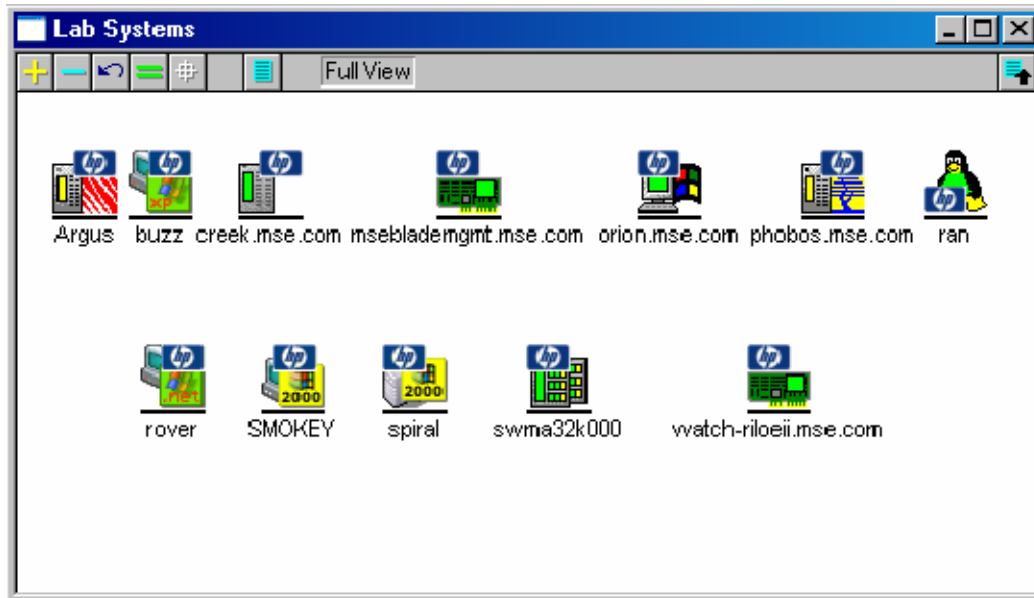
To be discovered, HP systems must meet the following requirements:

- Unicenter 2.4 or later
- SNMP running on the managed devices
- IP running on the managed devices
- HP Insight Management Agents running on the managed devices (SNMP only)
- HP classes defined in the CORE

HP class creation

To enable the new HP classes, load the class definitions into the CORE. If the HP Classes option is selected, the installation program automatically loads the new HP classes. To manually install the HP classes, execute the Hpqclass.exe command in the hpqnsm\cpqwv\classes directory.

The HP_Host root class is created under the TNGRoot - ManagedObject - Host class, and the HP_Workstation root class is created under the TNGRoot - ManagedObject - Workstation class. All other HP classes are defined as children of these HP classes. The new HP_Host classes are shown in the following image.
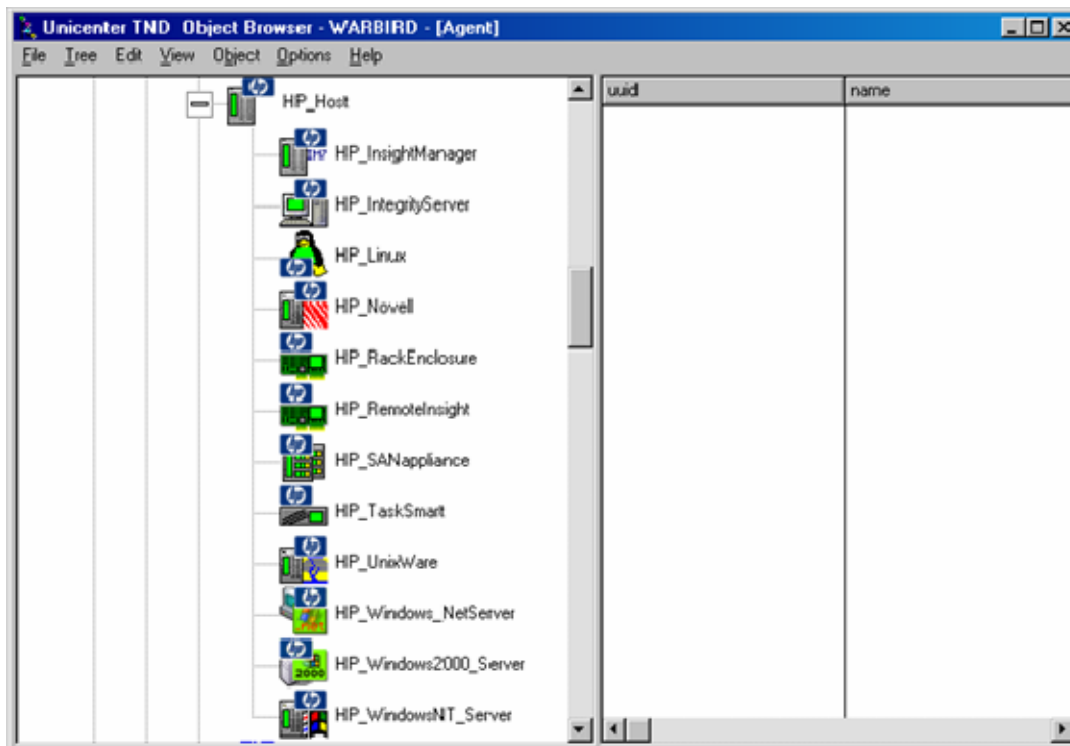
After the Unicenter discovery runs, execute the hpqdscvr utility. This utility verifies that the CORE for objects in the supported classes and each object in the supported classes are HP devices. If the device is identified as an HP device, the utility reclassifies the device to the appropriate HP class.

Devices that must be placed in the HP_InsightManager and HP_TaskSmart classes are not reclassified automatically. Manually reclassify the devices using the Reclassify menu option or the `reclass.exe` command.

The installation program edits the gwclass.dat file to include the value HP_Host|HP_Workstation| at the end to ensure that the DSM monitors the new HP classes for status. The gwclass.dat file is located in the \Unicenter Directory\services\config\aws_wvgate\ directory.

To discover HP systems, execute the `hpqdscvr.exe Repository UserName Password Community S` command.

The discovery executable takes the following parameters:

- Repository—The name of the Unicenter Repository.
- UserName—The user name used to connect to the repository.
- Password—The password for the specified user. Enter B if the specified user account does not have a password.
- Community—The SNMP community string to use during the discovery process
- S or R—The variable that indicates whether to reclassify all systems or only remote systems. Enter S to reclassify all systems, or enter R to reclassify only Remote Insight systems (these values are case-sensitive). When you specify the R option, the integration discovery program only reclassifies those objects it identifies as Remote Insight or iLO objects. Other objects remain in the default Unicenter classes.

While the HP discovery is running, messages similar to the following display in the command prompt.

```
There were 3 WindowsNT_Server objects found:
Device name to use for SNMP query: THANATOS
Device address to use for SNMP query: 172.25.162.41
Reclassify THANATOS as an HP NT Server

Device name to use for SNMP query: RICHMOND
Device address to use for SNMP query: 172.25.162.13
Device not reclassified.

Device name to use for SNMP query: 7f.cpqcorp.net
Device address to use for SNMP query: 172.25.162.90
Could not complete the SNMP request
```

To track which systems are classified as HP devices, the discovery program creates the hpqdscvr.log file in the Unicenter directory. The output from the discovery program is logged to this file automatically. This file is overwritten each time the integration discovery program is executed.

The time required for hpqdscvr to complete varies depending on the number of objects in the CORE.

Discovery messages

During the discovery process, the following messages might be displayed.

- Device not reclassified—This message is most commonly caused by the following conditions:
  - The system is not an HP system.
  - The system is not running SNMP.
  - The system is not running the HP Insight Management Agents.
- Could not complete the SNMP request—This message is most commonly caused by the following conditions:
  - The system is not running SNMP.
  - The SNMP request timed out.
  - The SNMP community string does not match the community string entered for discovery.

The supported classes for discovery and the reclassification of devices are listed in the following table.

Unicenter class	HP class
DECSystem	HP_DECSystem
Novell	HP_Novell
OS2	HP_OS2
SCOUnix	HP_SCOUnix
UnixWare	HP_UnixWare
Linux	HP_Linux
Windows95	HP_Windows95
Windows9x	HP_Windows9x
WindowsNT	HP_WindowsNT
WindowsNT_Server	HP_WindowsNT_Server
Windows2000	HP_Windows2000
WindowsXP	HP_WindowsXP
Windows2000_Server	HP_Windows2000_Server

Unicenter class	HP class
Windows_NetServer	HP_Windows_NetServer

Manual reclassification

You can also manually perform the HP reclassification on some devices without running the HP discovery program. Execute the `reclass.exe` command from the command prompt to change a discovered object to an HP object.

```
reclass /C=classname /O=objectname /T=toclass
```

For more information on the `reclass` command, execute the following command:

```
reclass /?
```

For example, to reclassify an object from WindowsNT_Server to HP_WindowsNT_Server, execute the following command:

```
reclass /C=WindowsNT_Server /O=SERVERNAME /T=HP_WindowsNT_Server
```

Reverting to previous classifications

To return to the default class categories provided in Unicenter, run the `hpqunclass` program. This program reclassifies the devices in all HP classes to the standard Unicenter classes.

To remove the classification of HP systems and return the devices to the original Unicenter classes, execute the command `hpqunclass.exe Repository UserName Password.`

The command uses the following parameters:

- Repository—The name of the Unicenter Repository.
- UserName—The user name used to connect to the repository.
- Password—The password for the specified user. Enter B if the specified user account does not have a password.

The reclassification proceeds according to the rules listed in the following table.

HP class	Unicenter class
HP_DECSystem	DECSystem
HP_Novell	Novell
HP_OS2	OS2
HP_SCOUnix	SCOUnix
HP_UnixWare	UnixWare
HP_LInux	Linux
HP_Windows95	Windows95
HP_Windows9x	Windows9x
HP_WindowsNT	WindowsNT
HP_WindowsNT_Server	WindowsNT_Server
HP_Windows2000	Windows2000
HP_WindowsXP	WindowsXP
HP_Windows2000_Server	Windows2000_Server
HP_Windows_NetServer	Windows_NetServer
HP_SANappliance	Windows2000_Server
HP_RemoteInsight	Host

HP class	Unicenter class
HP_RackEnclosure	Linux
HP_IntegrityServer	Windows_NetServer

See "Manual reclassification (on page 50)" for information on returning a device to a standard Unicenter class.

Additional HP classes

In addition to the classes that are automatically discovered, two other HP classes are provided. These classes are installed with the integration, but automatic discovery is not available for the device types:

- HP_InsightManager (on page 51)
- HP_TaskSmart (on page 51)

These classes add support for HP Insight Manager 7, HP Systems Insight Manager, and HP TaskSmart web acceleration systems. The support provided in these additional classes includes customized menu options for each device type to provide easy access to device-specific functions.

Devices can be reclassified into these HP classes using the Unicenter `reclass` command.

To return to the previous classifications for devices changed to these new classes, manually reclassify each device to its original class. Reverting to the original class can be done using the `reclass.exe` command ("Reverting to previous classifications" on page 50) or using the Reclassify Object option from the menu. The Reclassify Object option is available on all HP custom menus to aid in the reclassification of objects when necessary.

HP_InsightManager

This class provides easy identification of HP Insight Manager 7 or HP Systems Insight Manager host servers. Menu entries launch the management application and the device in-context.

- HP Insight Agents—Launches to the HP System Management Homepage running on the server
- HP Insight Manager—Launches HP Insight Manager in-context so the first screen displays the node you want
- HP Insight Manager Home—Launches to the management application at http://insightmanagerserver:280./ (http://insightmanagerserver:280./)

HP_TaskSmart

This class enables you to classify HP Internet caching appliances and group them accordingly. The menu for this class provides the following options:

- HP Insight Agents—Launches the web browser to the HP System Management Homepage (Insight Agents)
- HP TaskSmart—Launches the web browser to the HP TaskSmart configuration page
- HP Insight Manager—Launches HP Insight Manager in-context so the first screen displays the node you want

HP classes defined

The new HP classes are defined by TRIX scripts located in the \hpqnsm\cpqwv\classes directory of the Insight Integration. These scripts are imported into the Unicenter CORE using the `hpqclass` program.

The new classes have their own icon definitions to customize the view on the 2D WorldView Map and their own menu definitions that provide access to various HP tools.

File name	Class name	Description
HP_Host.tng	HP_Host	Defines the HP_Host root class in the location TNGRoot - ManagedObject - Host. This script also defines the following menus used in the HP classes: HPServerMenu and HPHostMenu.
HP_Workstation.tng	HP_Workstation	Defines the HP_Workstation root class in the location TNGRoot - ManagedObject - Workstation. This script also defines the HPClientMenu.
HP_DECSystem.tng	HP_DECSystem	Defines the HP_DECSystem class of objects. This class is based on the DECSystem class and is created under HP_Workstation.
HP_Windows95.tng	HP_Windows95	Defines the HP_Windows95 class of objects. This class is based on the Windows95 class and is created under HP_Workstation.
HP_Windows9x.tng	HP_Windows9x	Defines the HP_Windows9x class of objects. This class is based on the Windows9x class and is created under HP_Workstation.
HP_WindowsNT.tng	HP_WindowsNT	Defines the HP_WindowsNT class of objects. This class is based on the WindowsNT class and is created under HP_Workstation.
HP_WindowsNT_Server.tng	HP_WindowsNT_Server	Defines the HP_WindowsNT_Server class of objects. This class is based on the WindowsNT_Server class and is created under HP_Host.
HP_Windows2000.tng	HP_Windows2000	Defines the HP_Windows2000 class of objects. This class is based on the Windows2000 class and is created under HP_Workstation.
HP_Windows2000_Server.tng	HP_Windows2000_Server	Defines the HP_Windows2000_Server class of objects. This class is based on the Windows2000_Server class and is created under HP_Host.
HP_WindowsXP.tng	HP_WindowsXP	Defines the HP_WindowsXP class of objects. This class is based on the WindowsXP class and is created under HP_Workstation.
HP_Windows_NetServer.tng	HP_Windows_NetServer	Defines the HP_Windows_NetServer class of objects. This class is based on the Windows_NetServer class and is created under HP_Host.
HP_Novell.tng	HP_Novell	Defines the HP_Novell class of objects. This class is based on the Novell class and is created under HP_Host.
HP_SCOUnix.tng	HP_SCOUnix	Defines the HP_SCOUnix class of objects. This class is based on the SCOUnix class and is created under HP_Workstation.
HP_UnixWare.tng	HP_UnixWare	Defines the HP_UnixWare class of objects. This class is based on the UnixWare class and is created under HP_Host.
HP_Linux.tng	HP_Linux	Defines the HP_Linux class of objects. This class is based on the Linux class and is created under HP_Host.

File name	Class name	Description
HP_OS2.tng	HP_OS2	Defines the HP_OS2 class of objects. This class is based on the OS2 class and is created under HP_Workstation.
HP_RemoteInsight.tng	HP_RemoteInsight	Defines the HP_RemoteInsight class of objects under HP_Host. This script also defines the HP_RIBMenu menu.
HP_RackEnclosures.tng	HP_RackEnclosures	Defines the HP_RackEnclosure class of objects under HP_Host. This script also defines the HP_RackMenu menu.
HP_OnboardAdministrator.tng	HP_OnboardAdministrator	Defines the HP_OnboardAdministrator class of objects under HP_Host. This class definition supports c-Class server blades.
HP_IntegrityServer.tng	HP_IntegrityServer	Defines the HP_IntegrityServer class of objects under HP_Host.
HP_TaskSmart.tng	HP_TaskSmart	Defines the HP_TaskSmart class of objects under HP_Host. This script also defines the HP_TSMenu menu.
HP_SANappliance.tng	HP_SANappliance	Defines the HP_SANappliance class of objects under HP_Host. This script also defines the HP_SWKSMenu menu.
HP_InsightManager.tng	HP_InsightManager	Defines the HP_InsightManager class of objects under HP_Host. This class is based on the Windows® NT Server object and defines the HP_CIMXEMenu menu.

Generating event messages from HP Systems Insight Manager

In addition to the HP message record and DSM policy capabilities, integrating HP hardware management events into the Unicenter Event Console can also be achieved by forwarding events directly from HP Systems Insight Manager. You can use this solution as a lighter integration alternative to message records and DSM policy event management.

Completing the following procedure enables the display of HP events in the Unicenter Event Management Console as they appear in HP Systems Insight Manager. Some additional event translation and severity details provided with HP message records and DSM policies for Unicenter might not display.

To enable event message generation from HP Systems Insight Manager:

1. Copy the hpsimnsm.exe and hpsimnsm.cmd files from the \hpsim directory to the Unicenter\bin directory, for example C:\NSM\BIN on the HPSIM server. The Unicenter NSM Components - Enterprise Management - Event Management - Event Management Base component should already be installed on the HP SIM server.

2. Create a custom command for launching the hpsimnsm.cmd script with HP SIM. This script launches the hpsimnsm.exe file, which uses the Systems Insight Manager variables to write a message to the Unicenter Enterprise Management Console using the `cawto` command. See the HP SIM user documentation for details on creating a custom command.

   a. Run the `Unicenter BIN Directory\hpsimnsm.cmd` command.

   b. Set the environment variable NSM_DIR to the NSM root directory (C:\NSM).

   c. Set the environment variable NSM_SERVER to the name of the server to send the messages.

   The hpsimnsm.cmd script will contain code that is similar to the following:

```
@echo off
set PATH=%PATH%;c:\nsm\bin;c:\ca_appsw;
c:\nsm\bin\hpsimnsm.exe /f
```

The hpsimnsm.exe program can use the /f (formatted output) or /n (no output formatting) options. The hpsimnsm program is only available for HP SIM running supported versions of Microsoft® Windows®.
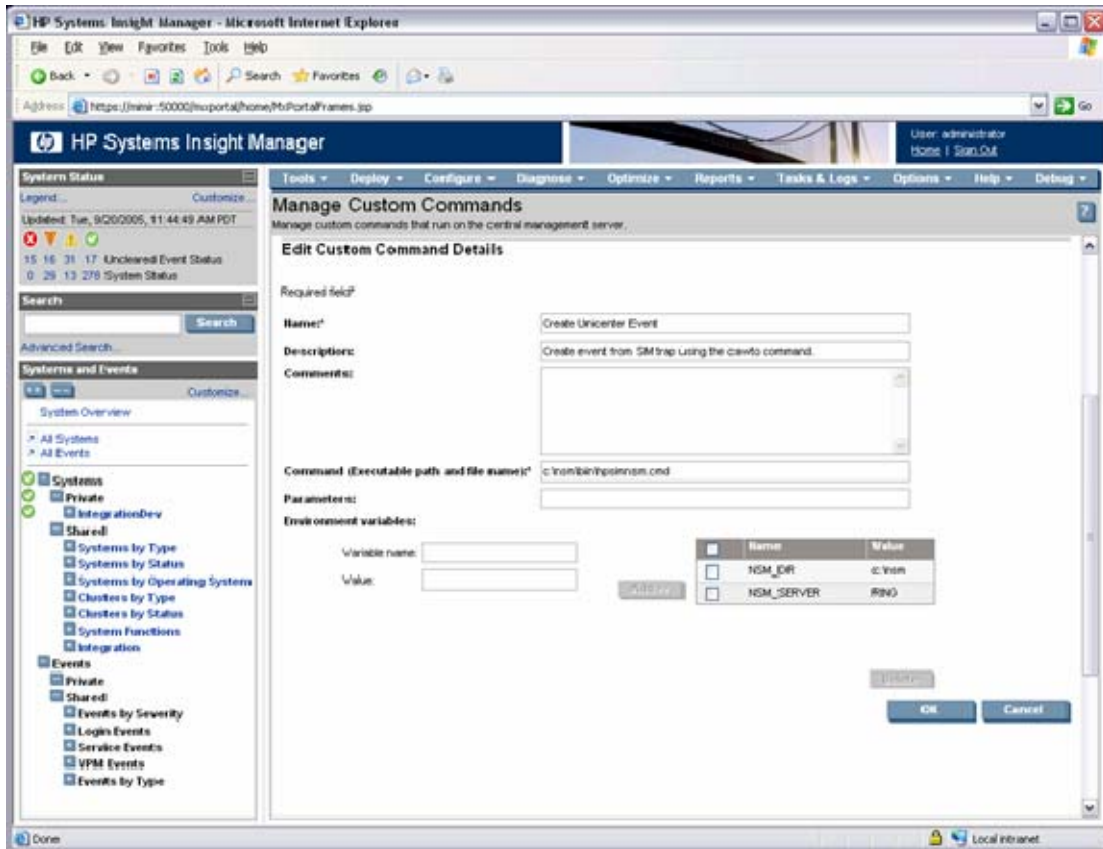
3. Select **Options>Events>Automatic Event Handling,** and create a new task.
4. Name the task, and select the events to run the task against.
5. Select custom command as the action, and select the name of the command created previously.

When HP Systems Insight Manager receives one of the configured events from the specified systems, it executes the hpsimnsm.cmd script. This script calls the hpsimnsm.exe program with the appropriate environment variables to create the Unicenter event.
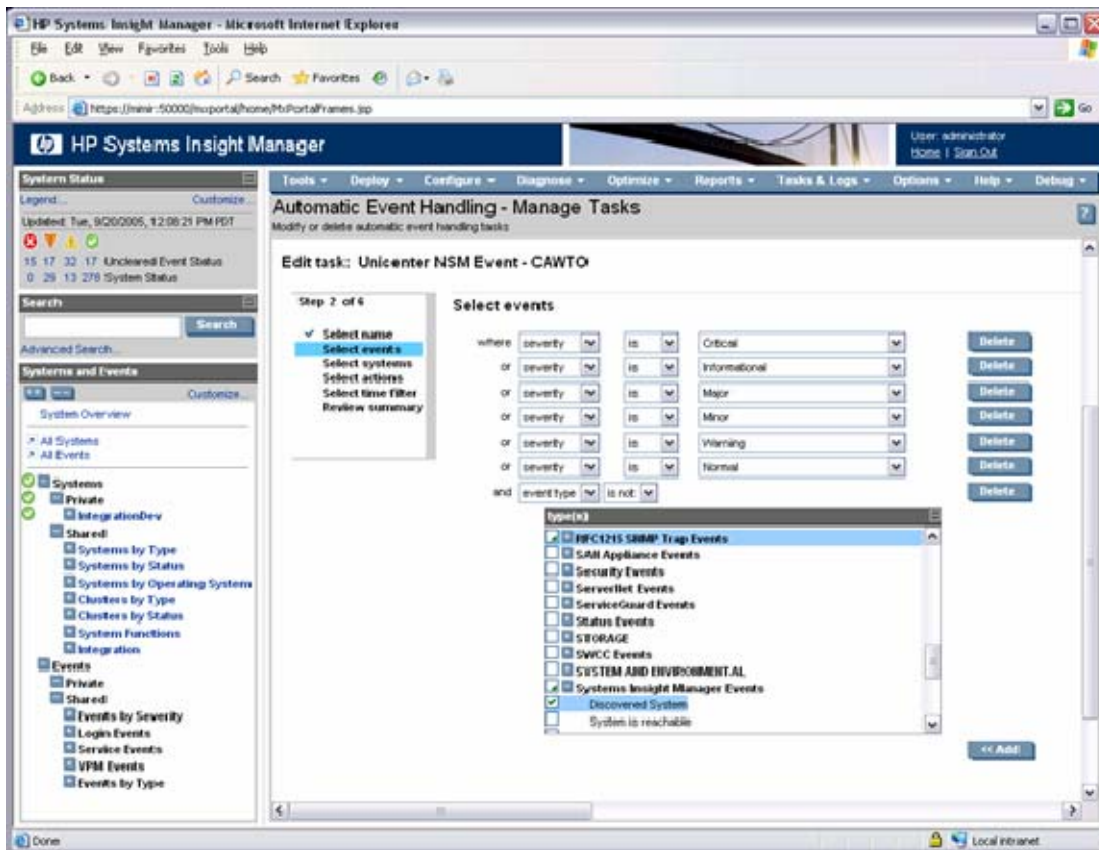
The following are examples of forwarded events. The status is mapped directly from the status of the event in HP Systems Insight Manager. If none of the following can be matched, the status defaults to Informational.

- Critical = Severity E = Color red
- Major = Severity W = Color orange
- Minor = Severity W = Color yellow
- Normal = Severity S = Color green
- Informational = Severity S = Color blue

The category and source in the `cawto` command are both set to HPSIM.
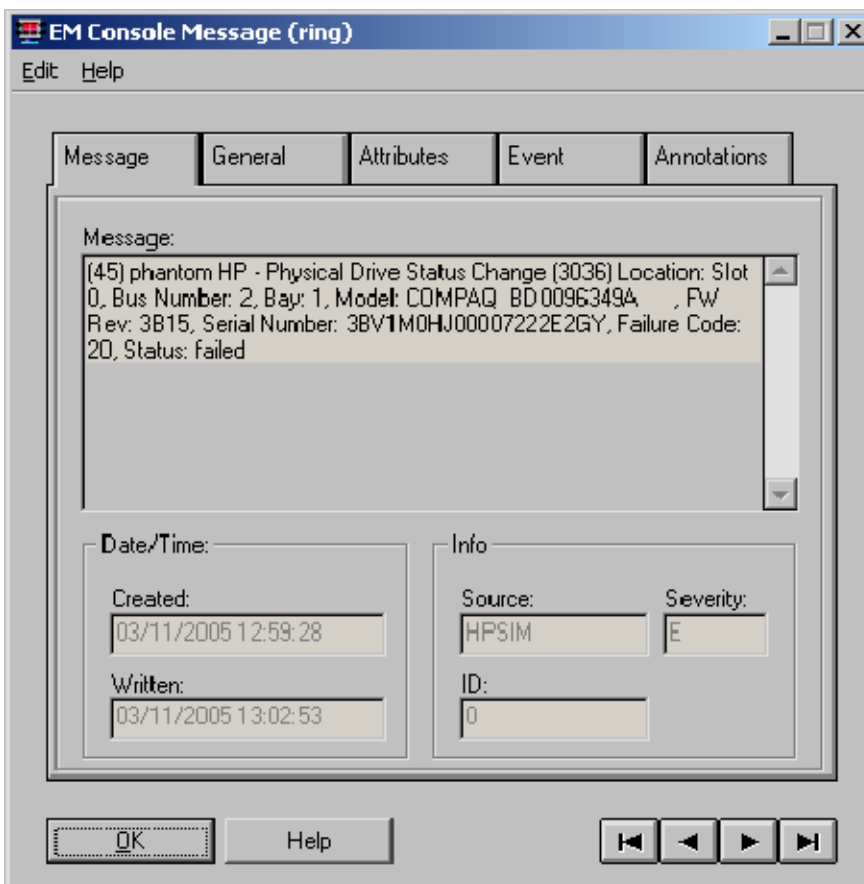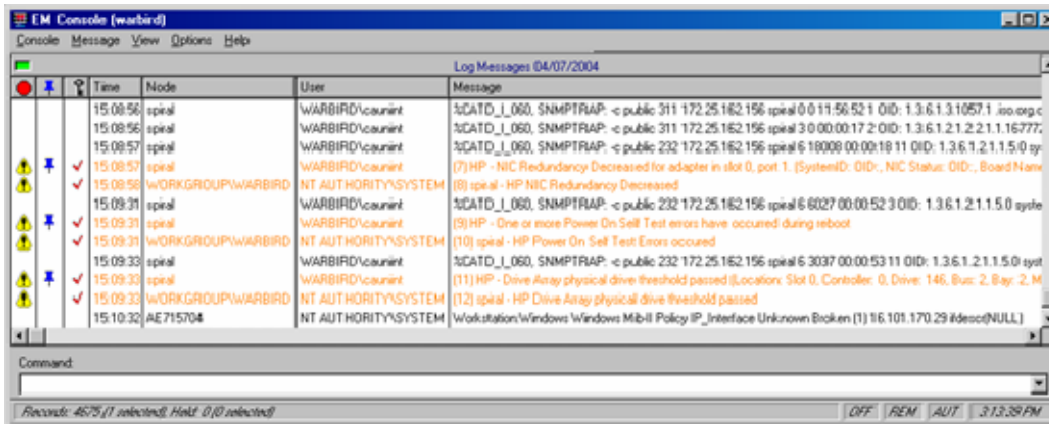
Unicenter Severity Browser

The Unicenter Severity Browser provides a brief status of the systems on the network, including the status of the Unicenter Agents (for example, the NT System Agent and the SQL Server Agent) and the HP Insight Management Agents and provides a brief overview of systems that are in a degraded or failed state.

Repository maintenance

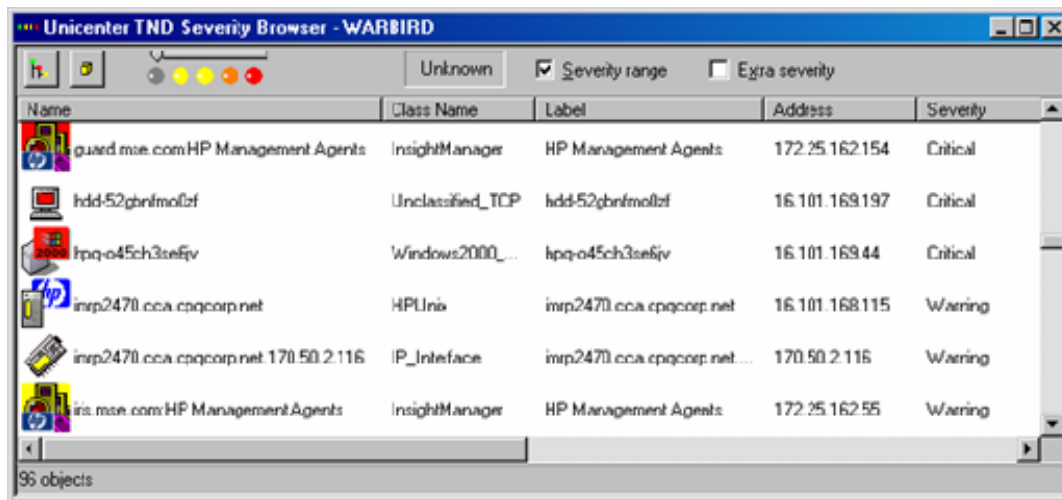Some situations might require you to rebuild the Unicenter CORE. In these cases, you might be required to reinstall the Insight Integration to verify that the HP classes and menus are represented correctly in the new repository.

Browsing the HP MIBs

When you use the Mibbrowse utility, some SNMP variables are listed as NOT FOUND, indicating that the agent does not implement these SNMP variables. This condition is expected and does not require intervention.

HP client support

Support for HP client systems in the Insight Integration is currently limited to systems running SNMP and the HP Insight Management Agents. HP clients are defined as systems that are not running the HP Server Management Agents. These systems include HP Deskpros, HP Armada portables, and HP Evo systems.

The integration with CA Unicenter has been written to provide primary support for the ProLiant server family of products. Limited information is available for clients in the Agent view and Node view of the Insight Integration. The following support for clients is provided:

- HP clients running SNMP and the HP Insight Management Agents are discovered in the integration and identified by the HP Management Agent icon on the Unicenter map.
- The Unicenter Enterprise Management Console receives alarms from HP clients. These alarms are defined in the HP message records (many are defined in the cpqdesktop.txt file).
- The web browser can be launched from the Unicenter map to the HP Web-enabled Management Agents running on a client system.

The following example shows the Agent view used on a client system.


```
HP Insight Management Agent - Summary                    _ □ ×
File  View  Help

Hardware System        Value          Status
Standard Equipment :   OK               ✔

System Information :   OK               ✔

Drive Array        :   Not Available    ?

SCSI Drive         :   Not Available    ?

Health Condition   :   OK               ✔

Threshold Manager  :   Not Available    ?

Operating System   :   OK               ✔

Network Interface  :   Not Available    ?

Insight Lights Out :   Not Available    ?




                              Host:  ARMADA_E700    Insight Web Agents
```
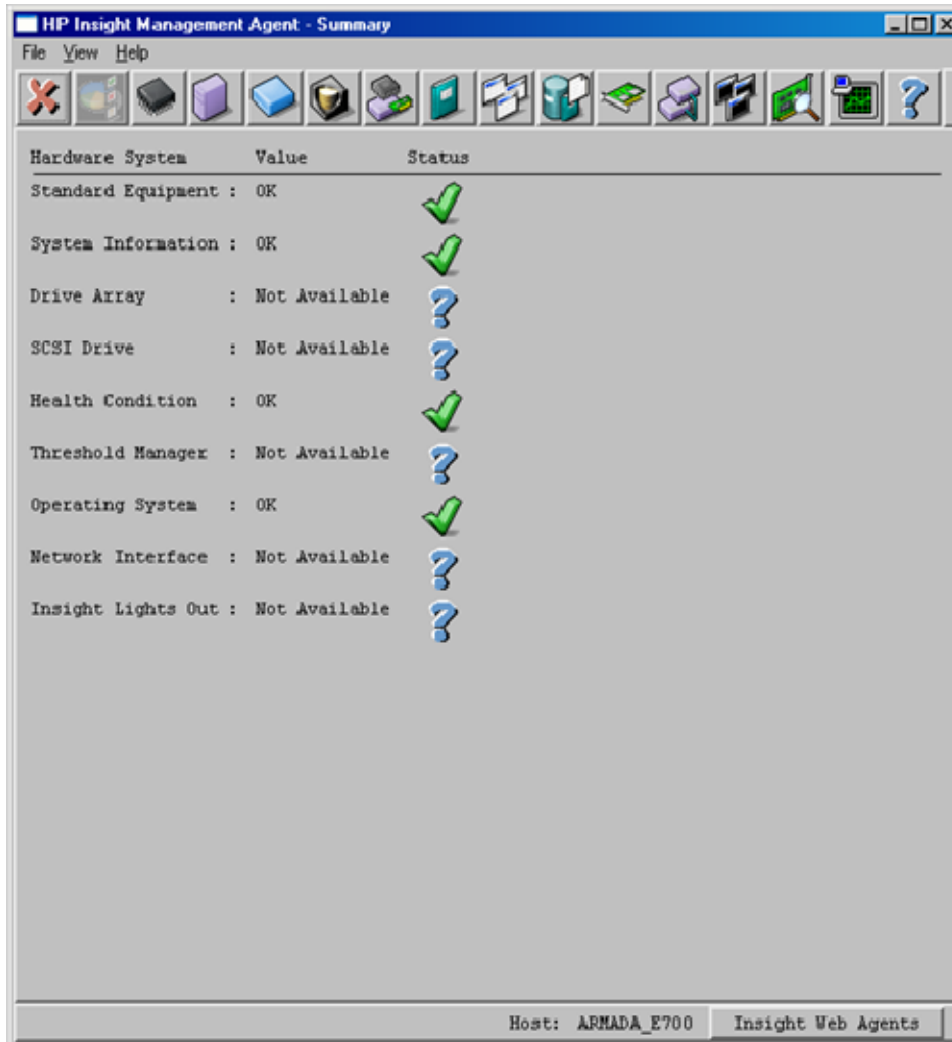
The following example shows the Node view used on a client system.
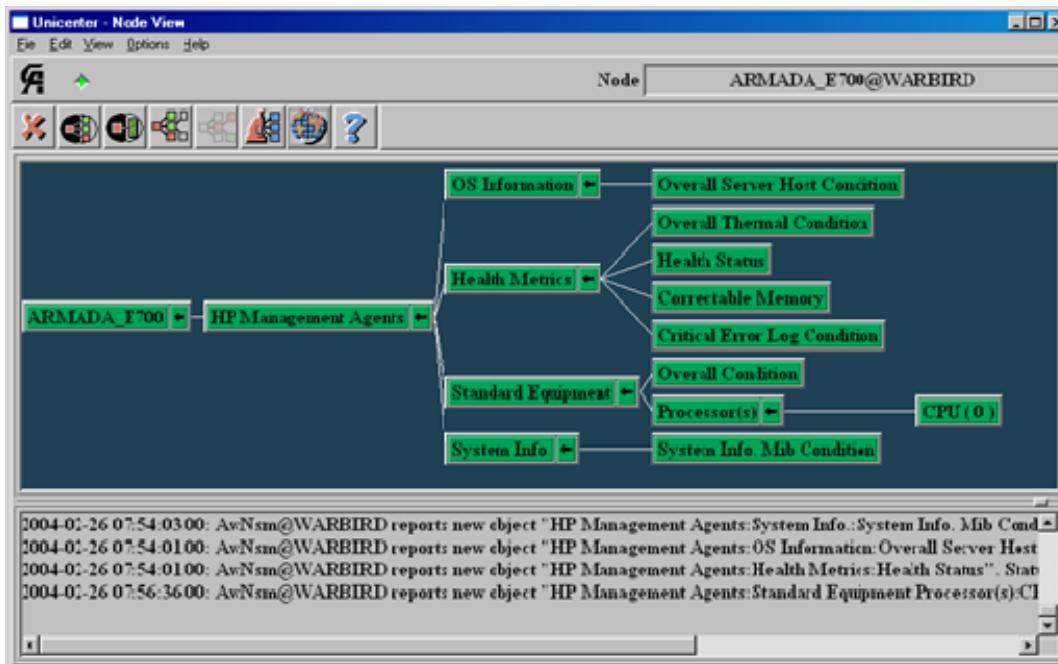
HP DMI client support

This section describes the information received from HP desktops running the HP DMI agents. Most of the management for clients occurs through the use of the web-enabled agents. The following are examples of a system running the client agents viewed through the Unicenter DMI Manager.

The following example shows the menu options for the DMI service on an HP client. Drill down to a specific system from the Unicenter WorldView Map. HP client systems running the HP DMI Agents do not display an HP icon.
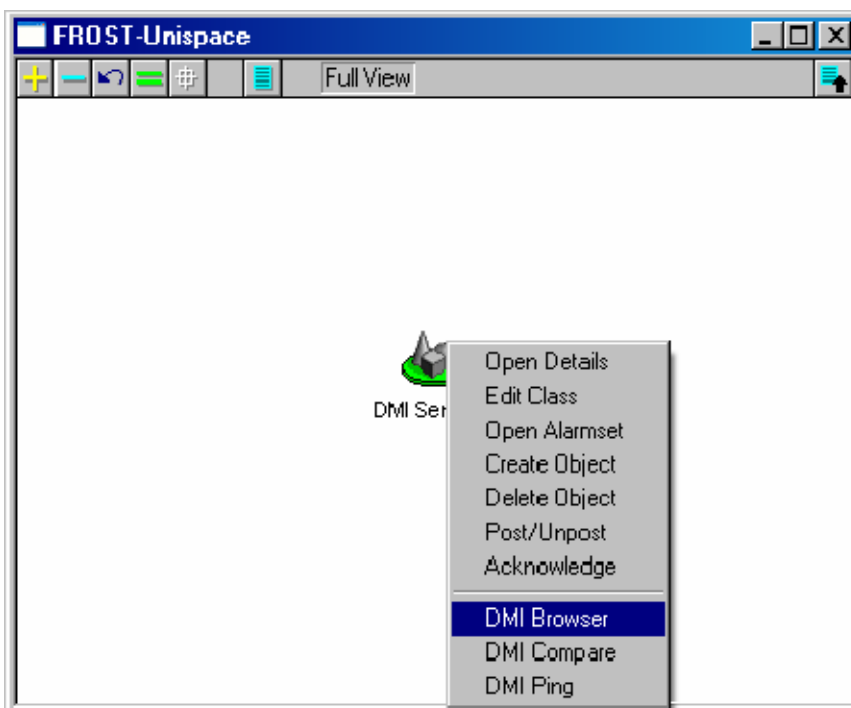
The following example shows the DMI browser pointed to an HP client running only the DMI agents. The Compaq Monitor Information and Compaq PC Systems MIF entries listed provide information into the DMI browser. You can launch the browser from the WorldView Map, which brings up the selected node, or from the menu (enter the name of the machine to browse).
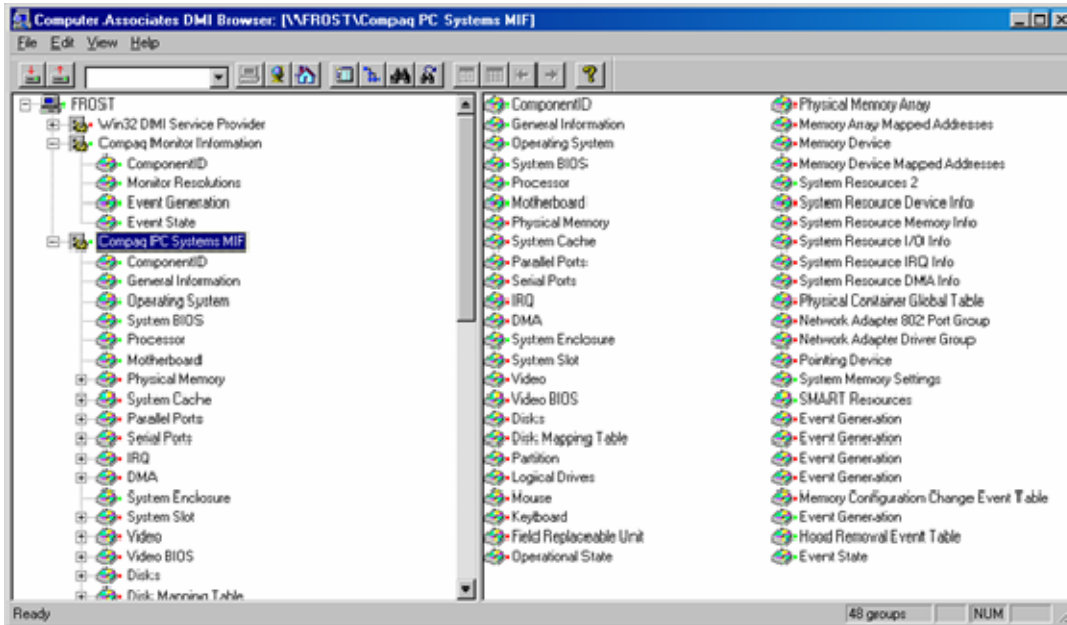
The following example shows the information provided in the Compaq PC Systems MIF. The ComponentID field is selected and displayed. This field contains information on the manufacturer, product, version, and serial number of the selected computer.
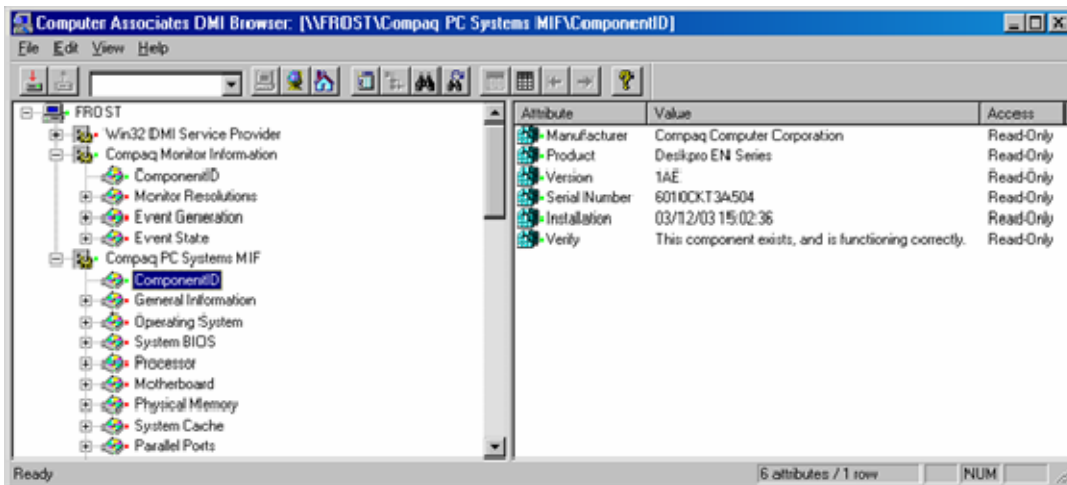
Troubleshooting

In this section

HP Management Agent discovery issues

Version 3.3 of the Insight Integration provides extended discovery and classification for HP systems. In some situations, this discovery might not work. This section discusses several reasons why HP systems might not be discovered and provides some tips on verifying the HP Management Agent setup.

Supported classes

The DSM only checks classes supported in the Insight Integration to verify a device of that class is an HP device. If Unicenter discovers a device as one of the following, then the DSM verifies that the device is an HP device. The Insight Integration does not classify the device as an HP device if Unicenter does not classify a device as running one of the following operating systems:

- Microsoft® Windows® NT
- Windows® 95
- Windows® 9x
- Windows® NT Server
- Windows® 2000
- Windows 2003™ Server
- Windows® XP
- Windows® NetServer
- Novell
- UnixWare
- SCO UNIX
- Linux
- DEC System
- OS/2

Changing the default community string

If a community string other than "public" is used for SNMP read access, update the Pollset for InsightManager. You can change the Pollset using the Pollset Browser.

Use the DSM wizard to update the class with the correct SNMP community strings. Change the adminCommunityString in a similar manner.

Verifying agent communication

Verify the HP Insight Management Agents are installed and that the management console can communicate with the utilities provided in Unicenter.

Use the SNMPGET utility to verify that the management console is receiving a response from the HP Insight Management Agents. The general format for the command is:

```
C:\tng\bin\snmpget.exe IPADDRESS 1.3.6.1.4.1.232.1.1.1.0 -c COMMUNITY
```

The HP OID specified is the OID used for discovery of HP systems by the DSM policy. The command generates a response similar to the following. The following example verifies that the device is an HP system discovered by the Insight Integration.

```
C:\TNG\BIN>snmpget 172.25.162.30 1.3.6.1.4.1.232.1.1.1.0
1.3.6.1.4.1.232.1.1.1.0: INTEGER: 1 -c public
```

An error might return a message similar to the following:

```
C:\TNG\BIN>snmpget 172.25.162.191
1.3.6.1.4.1.232.1.1.1.0 -c public
snmpget: Agent reported error with variable #1
1.3.6.1.4.1.232.1.1.1.0: SNMP: Variable does not exist or access is
denied
```

If the HP OID is not queried successfully, then the specified system cannot be discovered as an HP device. To troubleshoot the problem:

1. Verify that SNMP is loaded on the target machine.
2. Verify that the correct community string is being used ("Community strings" on page 18).
3. Verify that the HP Insight Management Agents are loaded on the target machine.
4. Run the Unicenter MIB browsing utility (mibbrowse.exe) to verify that the HP MIBs were loaded into the database correctly. Click the connect icon. If the HP MIBs were loaded correctly, the dropdown menu displays entries beginning with the letters CPQ.

TRIX exists when importing classes

If TRIX generates a Dr. Watson message when importing the HP specific classes into a Unicenter 3.0 installation, download and install patch QO39829.CAZ from the Computer Associates website (ftp://ftp.ca.com/CAproducts/unicenter/CCS30/nt/0211/qo39829/QO39829.CAZ).

Discovery command

Both the Remote Insight/iLO devices and the host systems must be discovered by Unicenter for the device association to successfully occur. You can execute ping discovery on the managed subnet to help with device discovery by running the following command:

```
dscvrbe -R REPOSITORY -J IP -D PINGSWEEP -M 172.25.161.*
```

Discovery issues

If hpqdscvr.exe aborts when running discovery, verify that the discovery log file is not open and execute the program again.

Gwclass.dat with multiple entries

If the Insight Integration is installed multiple times, the gwclass.dat file has the string "HP_Host|HP_Workstation|" appended to the end several times. Edit the file to remove the extra occurrences of the string.

Discovered HP systems only display agents as Any:Absent

The gwclass.dat file is edited during installation to append "HP_Host|HP_Workstation|" to the end of the file. If the file is not edited, systems in the HP classes do not display discovered agents. Verify that this entry has been made in the gwclass.dat file.

To make this addition to the file:

1. Change to the \hpqnsm\cpqwv\classes directory.
2. Run the hpgwedit.exe file.

   The output displays similar to the following:

   ```
   GWCLASS.DAT
   Current=Agent|Bridge|Host|Hub|Printers|Router|Switch|Workstation|Managed
   PC|Xterm|OtherDevices|Unclassified_Class|Access_Point|UPS|

   GWCLASS.DAT
   New=Agent|Bridge|Host|Hub|Printers|Router|Switch|Workstation|ManagedPC|X
   term|OtherDevices|Unclassified_Class|Access_Point|UPS|HP_Host|HP_Worksta
   tion|

   File gwclass.dat successfully updated.
   ```

Alternatively, you can edit the file and add the entry manually.

Environment variables not properly set

The two environment variables used by the integration are placed in the registry in the HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Environment directory.

If the IMAddress and CAI_MSG_EXIT environment variables do not get set properly during the installation, you can set them manually.

1. Right-click **My Computer,** and select **Properties.**
2. Click the **Advanced** tab.
3. Click the **Environment Variables** button.
4. In the System Variables window, select **CAI_MSG_EXIT** and click **Edit.**
5. Enter **HPQEMC.EXE** in the Variable Value field and click **OK.**
6. In the System Variables window, select **IMAddress** and click **Edit.**
7. Enter the address of the Insight Manager server in the Variable Value field and click **OK.**
8. Click **OK>OK** to exit the windows.
9. Restart the system for the changes to take effect.

New message records not used

The integration kit was installed, but the new message records are not being utilized (most of the trap messages still say Compaq).

The old message records are not removed by default when the new message records are installed on a system. Run the `cpqem_remove` script from the previous version of the Insight Integration to remove the old message records from the database.

Existing message records are not automatically removed so that you can preserve any custom settings.

If only the message records that are new since the last version of the Insight Integration must be installed, change to the \cpqem\new33 directory and run the `loadnew` script.

Remote Insight Inclusion not created

These following conditions must be met before the inclusion link for the Remote Insight/iLO management processor in a server can be created.

Both the server and the Remote Insight/iLO management processor must be discovered by Unicenter. The Remote Insight object remains on the Unicenter segment map.

The Remote Insight/iLO management processor must be classified in the HP_RemoteInsight class.

Frequently asked questions

Why are the HP Management Agents not discovered on HP_RemoteInsight devices?

To avoid severity propagation errors like the following example, HP_RemoteInsight devices are no longer monitored for the HP Management Agents. Only the host servers are monitored for the agents.

The hpqdscvr program deletes any InsightManager objects that have the state "ANY:ABSENT" when it is executed. Any devices that are reclassified as HP_RemoteInsight objects have their InsightManager objects deleted during this step.

Other InsightManager objects with the status of "ANY:ABSENT" might be deleted. In this case, the agents are rediscovered by the DSM when they return to the UP state.

Example severity propagation error:

"CA-Unicenter TND Severity Propagation_0_E: <No Message Table> CA-Unicenter TND Severity Propagation Circular reference. Inclusion object ignored. Inclusion: ccd495bd-68f1-447b-aa75-e90266b8373f Parent: 8bd6702b-43c4-4e4d-9019-bcffee624362 Child: 15a57601-5a94-4719-acee-03cdd39eade7"

When launching to Insight Manager 7, why does the browser open and shows the "this page cannot be displayed" error message?

The browser could not find the HP Insight Manager 7 server. Edit the IMAddress environment variable with the correct IP address of the HP Insight Manager 7 server on the network.

When launching to Insight Manager 7, why does the browser open after logging into the server and show the "The device at IPADDRESS was not found. The device was not found" error message?

The device launched has not been discovered by the HP Insight Manager 7 server. Log in to the HP Insight Manager 7 server, and run discovery on the subnet containing the device or add the device into HP Insight Manager 7 manually.

When installing the HP message records, why does the following error occur: "line no 623, no such file or directory"?

The size of the file being imported is causing problems with CAUTIL. Obtain an updated version of cautil.exe from Computer Associates that can handle file sizes larger than 13 KB, or divide the file into parts smaller than 13 KB each before loading them into the database.

When launching the web browser to a device, why is there a message saying that the page cannot be displayed or a connection cannot be established?

Currently, the HP Insight Agents menu option appears on all HP systems. In this case, the web agents might not be running on the device that you are trying to browse.

Why is the menu on the HP Management Agent icon duplicated (entries are listed twice)?

If you were running a previous version of the integration, all menu entries in the Unicenter database were not removed before installing the new integration. Run the Unicenter Object Browser and navigate to TNGRoot and then Popup_Menu. Search for entries with the name CIMAgt and delete the duplicate entries.

Why are the original SNMP traps from HP devices not discarded in the Unicenter Event Management Console?

HP keeps the original SNMP trap along with the event translation in the Unicenter Event Management Console. The original trap is kept to provide extra information if necessary. You can suppress the original trap by adding the lines

```
"DEFine MSGCTion NAME=(*,5)" and "ACTION=SUPPRESS"
```

between the TYPE=MSG and DEFine MSGACTion NAME=(*,10) lines in the existing message records. Ensure that these lines are added for each message record.

How do I load only the alarm translations that I require into the database?

HP recommends editing the cpqload.bat file and deleting the line that loads the unwanted message records. For example, deleting the line `cautil -f cpqnt.txt` from the cpqload.bat file prevents the translations for the HP NT OS Management alarms from being loaded into the database. If you must remove specific alarms, edit the individual files containing the unwanted alarms. Also, access the Unicenter Message Records list, and delete the unwanted message records after the Insight Integration has been installed.

How do I see any HP event translations after loading the HP message records?

1. Verify that SNMP trap processing is enabled at the management console so that you can receive HP alarms. To enable SNMP trap processing, select **Enterprise Management>Configuration>Settings>SNMP Trap Server Activated,** and set the value to ON.
2. Issue the `opreload` command in the Event Management Console after installing the HP message records to load the new records into the database.

How do I see a list of all my systems with HP Insight Management Agents?

1. Start the TNG Object Browser by clicking **Start>Programs>Unicenter WorldView>Object Browser.**
2. In the Object Browser tree view, navigate to **TNGRoot>ManagedObject>Agent>InsightManager,** and select the **Insight Manager** entry to display all the Insight Management Agents.

How do I mark entries in the IML as corrected?

The HP Agent View enables you to view the IML on a system. However, it does not enable you to mark as corrected. To mark log entries as corrected, use the options provided through the HP System Management Homepage and Insight Management Agents.

Why does the message "An error occurred while processing this request" appear when using the Agent View window?

This message appears when you request information from the Agent View window, but the hardware subsystem is not present on a system. For example, the initial Agent View window provides status on the Drive Array system and the SCSI system, but if either of these systems is not present in the device, the warning message appears.

Why do the new HP message records not display all the information on hard drive alerts?

The new HP hard drive alarms pass several fields of information that were not sent with previous alarms (including Model, Serial Number, and Firmware Revision). The message records for new alarms that attempt to parse the trap information and display it to the user. If some drives do not send the model information, the information after the model field displayed to the user will be incorrect.

For example, the following trap did not send the model number. All the basic trap information is correct, but the extended information after Model might be invalid.

```
HP Drive Array Physical Drive Status Change (3029): FAILED (Controller:
5, Bus: 1, Drive Bay: 1 Model:, Firmware: VALUE:, S/N: VALUE:, Failure
Code: .iso.org.dod.internet.private.enterprises.232.3.2.5.1.1.55.5.1)
```

This example is the same trap with all the data fields correctly transmitted and parsed by the message records.

```
HP Drive Array Physical Drive Status Change (3029): FAILED (Controller:
5, Bus: 1, Drive Bay: 1 Model: COMPAQ WDE2170S , Firmware: 1.52, S/N:
WS7000134715, Failure Code: 20)
```

Devices appear on the map with the new HP icons, but no agents are discovered running on the HP devices. Why?

Verify that the gwclass.dat file located in UnicenterDirectory\services\config\aws_wvgate contains the entries "HP_Host|HP_Workstation|" at the end of the line. These entries enable the DSM to monitor the new HP classes.

Why do my HP agents in Node view display SCSI devices when my system is running a drive array?

The HP SCSI agent is running on the monitored system. Because the agent is running, the SCSI MIB variables are discovered and some information is displayed.

Additional resources

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

- Management Integration Support website (http://h18000.www1.hp.com/products/servers/management/integrationmodule-support.html)
- HP Management website (http://www.hp.com/servers/manage)
- *CA Unicenter NSM User's Guide*
- *Unicenter Books Online*

Insight Integration state change messages

In this section

State event messages

The following state event messages are defined in the InsightManager.dat file:

- HostMibCond:\\$event:\\$oldState:\\$newState:$hostName $reason
- ThermalCondition:\\$event:\\$oldState:\\$newState:$hostName $reason
- HealthStatFSM:\\$event:\\$oldState:\\$newState:$hostName $reason
- cpqCorrectableMemory:\\$event:\\$oldState:\\$newState:$hostName $reason
- CriticalErrorLog_FSM:\\$event:\\$oldState:\\$newState:$hostName $reason
- EquipmentCondition:\\$event:\\$oldState:\\$newState:$hostName $reason
- cpu_fsm:\\$event:\\$oldState:\\$newState:$hostName:$cpqSeCpuUnitIndex $reason
- SystemInfoMibCondition:\\$event:\\$oldState:\\$newState:$hostName $reason
- ThresholdCondition:\\$event:\\$oldState:\\$newState:$hostName $reason
- UPSCondition:\\$event:\\$oldState:\\$newState:$hostName $reason
- UPSLineStatus:\\$event:\\$oldState:\\$newState:$hostName $reason
- cpqScsiMibCnd_FSM:\\$event:\\$oldState:\\$newState:$hostName $reason
- ScsiCntrl_FSM:\\$event:\\$oldState:\\$newState:$hostName:$cpqScsiCntrlIndex $reason
- ScsiLogicalDrive_fsm:\\$event:\\$oldState:\\$newState:$hostName:$cpqScsiLogDrvIndex $reason
- ScsiPhysicalDrive_fsm:\\$event:\\$oldState:\\$newState:$hostName:$cpqScsiPhyDrvIndex $reason
- cpqDaMibCnd_FSM:\\$event:\\$oldState:\\$newState:$hostName $reason
- DACntrlEnt_fsm:\\$event:\\$oldState:\\$newState:$hostName:$cpqDACntrlIndex $reason
- Accelerator_fsm:\\$event:\\$oldState:\\$newState:$hostName:$cpqDAccIndex $reason
- IdaLogicalDrive_fsm:\\$event:\\$oldState:\\$newState:$hostName:$cpqIdaLogDrvIndex $reason
- IdaPhysicalDrive_fsm:\\$event:\\$oldState:\\$newState:$hostName:$cpqDaPhyDrvIndex $reason
- CPQ_ClusterFSM:\\$event:\\$oldState:\\$newState:$hostName $reason
- CPQ_RemoteInsight_FSM:\\$event:\\$oldState:\\$newState:$hostName $reason
- CPQ_FibreChannelFSM:\\$event:\\$oldState:\\$newState:$hostName $reason
- CPQ_NIC_FSM:\\$event:\\$oldState:\\$newState:$hostName $reason
- CPQ_RACKENCLOSURE_FSM:\\$event:\\$oldState:\\$newState:$hostName $reason

DSM policy state change messages

In the following DSM policy state change messages, oldState and newState vary:

- 161 (ClassName = HostMibCond oldState = ?? newState = ??)
- 161 (ClassName = ThermalCondition oldState = ?? newState = ??)
- 161 (ClassName = HealthStatFSM oldState = ?? newState = ??)
- 161 (ClassName = cpqCorrectableMemory oldState = ?? newState = ??)
- 161 (ClassName = CriticalErrorLog_FSM oldState = ?? newState = ??)
- 161 (ClassName = EquipmentCondition oldState = ?? newState = ??)
- 161 (ClassName = cpu_fsm oldState = ?? newState = ??)
- 161 (ClassName = SystemInfoMibCondition oldState = ?? newState = ??)
- 161 (ClassName = ThresholdCondition oldState = ?? newState = ??)
- 161 (ClassName = UPSCondition oldState = ?? newState = ??)
- 161 (ClassName = UPSLineStatus oldState = ?? newState = ??)
- 161 (ClassName = cpqScsiMibCnd_FSM oldState = ?? newState = ??)
- 161 (ClassName = ScsiCntrl_FSM oldState = ?? newState = ??)
- 161 (ClassName = ScsiLogicalDrive_fsm oldState = ?? newState = ??)
- 161 (ClassName = ScsiPhysicalDrive_fsm oldState = ?? newState = ??)
- 161 (ClassName = cpqDaMibCnd_FSM oldState = ?? newState = ??)
- 161 (ClassName = DACntrlEnt_fsm oldState = ?? newState = ??)
- 161 (ClassName = Accelerator_fsm oldState = ?? newState = ??)
- 161 (ClassName = IdaLogicalDrive_fsm oldState = ?? newState = ??)
- 161 (ClassName = IdaPhysicalDrive_fsm oldState = ?? newState = ??)
- 161 (ClassName = CPQ_ClusterFSM oldState = ?? newState = ??)
- 161 (ClassName = CPQ_RemoteInsight_FSM oldState = ?? newState = ??)
- 161 (ClassName = CPQ_FibreChannelFSM oldState = ?? newState = ??)
- 161 (ClassName = CPQ_NIC_FSM oldState = ?? newState = ??)
- 161 (ClassName = CPQ_RACKENCLOSURE_FSM oldState = ?? newState = ??)

The following table lists the possible Acknowledgement by User state change values:

oldState value	newState value
Broken	CriticalAcknowledged
Warning	WarningAcknowledged
Repaired	Up

The following table lists the possible Polling by DSM state change values:

oldState value	newState value
CriticalAcknowledged	- Repaired - Warning
WarningAcknowledged	- Repaired - Broken

oldState value	newState value
Down	• Repaired • Warning • Broken
Broken	• Repaired • Warning
Unknown	• Up • Warning • Broken
Repaired	• Warning • Broken
Up	• Warning • Broken
Warning	• Repaired • Broken

The following are polling state change message examples:

- 161 (ClassName = cpqScsiMibCnd_FSM oldState = Up newState = Broken)
- 161 (ClassName = ScsiCntrl_FSM oldState = Up newState = Broken)
- 161 (ClassName = cpqScsiMibCnd_FSM oldState = Broken newState = Repaired)
- 161 (ClassName = ScsiCntrl_FSM oldState = Broken newState = Repaired)

The following are acknowledge state change examples:

- (ClassName = HealthStatFSM oldState = Broken newState = CriticalAcknowledged)
- (ClassName = HealthStatFSM oldState = Warning newState = WarningAcknowledged)
- (ClassName = ScsiCntrl_FSM oldState = Repaired newState = Up)

State event messages for Overall Status Policy

The following state event messages are defined in the InsightManager.dat file for the Overall Status Policy:

- HP_HostOS_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_Health_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_StandardEquipment_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_SystemInfo_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_SCSI_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_DriveArray_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_Cluster_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_RemoteInsight_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_FibreChannel_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_NIC_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_RackEnclosure_Status:\$event:\$oldState:\$newState:$hostName $reason

DSM policy state change messages for Overall Status Policy

In the following DSM policy state change messages, oldState and newState vary:

- 161 (ClassName = HP_HostOS_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_Health_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_StandardEquipment_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_SystemInfo_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_SCSI_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_DriveArray_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_Cluster_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_RemoteInsight_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_FibreChannel_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_NIC_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_RackEnclosure_Status oldState = ?? newState = ??)

The following table lists the possible Acknowledgement by User state change values:

oldState value	newState value
Broken	CriticalAcknowledged
Warning	WarningAcknowledged
Repaired	Up

The following table lists the possible Polling by DSM state change values:

oldState value	newState value
CriticalAcknowledged	• Repaired • Warning
WarningAcknowledged	• Repaired • Broken
Down	• Repaired • Warning • Broken
Broken	• Repaired • Warning
Unknown	• Up • Warning • Broken
Repaired	• Warning • Broken
Up	• Warning • Broken
Warning	• Repaired • Broken

The following are polling state change message examples:

- 161 (ClassName = HP_SCSI_Status oldState = Up newState = Broken)
- 161 (ClassName = HP_SCSI_Status oldState = Broken newState = Repaired)

The following are acknowledge state change examples:

- (ClassName = HP_Health_Status oldState = Broken newState = CriticalAcknowledged)
- (ClassName = HP_Health_Status oldState = Warning newState = WarningAcknowledged)

Monitored agents

In this section

Agents monitored under HP classes

The following table lists the agents monitored by default under each of the new HP classes defined in the Unicenter CORE. The monitored agents are defined in the insightmanager.dat file. These definitions enable agents other than the HP Insight Management Agents to be discovered on an HP classified device. These definitions were set up according to the defaults in Unicenter.

If an agent being used on an HP device is not listed here, modify the insightmanager.dat file to include the information for the desired agent. For example, if the NT System Agent is not listed in the insightmanager.dat file, then the NT System Agent is not discovered or displays as "absent" or "gone" under the HP_WindowsNT_Server class.

HP class in the CORE	Agents monitored for the HP class
HP_Windows95	Ping SysAgtWin95 SysAgtWin9x MMExagent_v30 InsightManager
HP_Windows9x	Ping SysAgtWin95 SysAgtWin9x MMExagent_v30 InsightManager

HP class in the CORE	Agents monitored for the HP class
HP_WindowsNT	Ping
	SysAgtNT
	SQLServerAgt
	SybaseAgt
	HpaAgent
	MMExagent_v30
	LogAgentNT_v30
	caiLogA2
	IngAgent
	sapAgent
	MmoAgent
	InsightManage
	MMsapAgent
	MmsAgent
	ImxAgent
	HpxAgent
	HpeNgent
	decStatAgent
	db2Agent
	CicsInstance
	cellAgent
	caiSysAgtMvs
	caiSysAgtMqs
	caiSysAgtCics
	pplAgent
	caiW2kOs
	caiNtOsr

HP class in the CORE	Agents monitored for the HP class
HP_Windows2000	Ping
	Mib2
	SysAgtNT
	SQLServerAgt
	SybaseAgt
	HpaAgent
	MMExagent_v30
	LogAgentNT_v30
	IngAgent
	sapAgent
	MmoAgent
	caiW2kOs
	caiNtOs
	caiLogA2
	InsightManager
	sapAgent
	MMsapAgent
	MmsAgent
	ImxAgent
	HpxAgent
	HpeNgent
	decStatAgent
	db2Agent
	CicsInstance
	cellAgent
	caiSysAgtMvs
	caiSysAgtMqs
	caiSysAgtCics
	pplAgent

HP class in the CORE	Agents monitored for the HP class
HP_WindowsXP	Ping
	Mib2
	SysAgtNT
	SQLServerAgt
	SybaseAgt
	HpaAgent
	MMExagent_v30
	LogAgentNT_v30
	IngAgent
	sapAgent
	MmoAgent
	caiW2kOs
	caiNtOs
	caiLogA2
	InsightManager
	sapAgent
	MMsapAgent
	MmsAgent
	ImxAgent
	HpxAgent
	HpeNgent
	decStatAgent
	db2Agent
	CicsInstance
	cellAgent
	caiSysAgtMvs
	caiSysAgtMqs
	caiSysAgtCics
	pplAgent

HP class in the CORE	Agents monitored for the HP class
HP_WindowsNT_Server	Ping
	Mib2
	SysAgtNT
	SQLServerAgt
	SybaseAgt
	HpaAgent
	MMExagent_v30
	LogAgentNT_v30
	caiLogA2
	IngAgent
	sapAgent
	MmoAgent
	InsightManager
	MMsapAgent
	MmsAgent
	ImxAgent
	HpxAgent
	HpeNgent
	decStatAgent
	db2Agent
	CicsInstance
	cellAgent
	caiSysAgtMvs
	caiSysAgtMqs
	caiSysAgtCics
	pplAgent
	caiW2kOs
	caiNtOs

HP class in the CORE	Agents monitored for the HP class
HP_Windows2000_Server	Ping
	Mib2
	SysAgtNT
	SQLServerAgt
	SybaseAgt
	HpaAgent
	MMExagent_v30
	LogAgentNT_v30
	IngAgent
	sapAgent
	MmoAgent
	caiW2kOs
	caiNtOs
	caiLogA2
	InsightManager
	MMsapAgent
	MmsAgent
	ImxAgent
	HpxAgent
	HpeNgent
	decStatAgent
	db2Agent
	CicsInstance
	cellAgent
	caiSysAgtMvs
	caiSysAgtMqs
	caiSysAgtCics
	pplAgent
	caiWinA3
	dsmMonitor
	caiWmiAgent
	AWsadmin
	caiAdsA2
	caiIngA2
	caiIngA2Inst
	caiSqlA2
	caiSqlA2Inst

HP class in the CORE	Agents monitored for the HP class
HP_Windows_NetServer	Ping
	Mib2
	SysAgtNT
	SQLServerAgt
	SybaseAgt
	HpaAgent
	MMExagent_v30
	LogAgentNT_v30
	IngAgent
	sapAgent
	MmoAgent
	caiW2kOs
	caiNtOs
	caiLogA2
	InsightManager
	MMsapAgent
	MmsAgent
	ImxAgent
	HpxAgent
	HpeNgent
	decStatAgent
	db2Agent
	CicsInstance
	cellAgent
	caiSysAgtMvs
	caiSysAgtMqs
	caiSysAgtCics
	pplAgent
	caiWinA3
	dsmMonitor
	caiWmiAgent
	AWsadmin
	caiAdsA2
	caiIngA2
	caiIngA2Inst
	caiSqlA2
	caiSqlA2Inst
HP_Novell	Ping
	SysAgtNetWare
	MMExagent_V30
	InsightManager

HP class in the CORE	Agents monitored for the HP class
HP_UnixWare	Ping
	Mib2
	LogAgent_v30
	ProAgent_v30
	HpaAgent
	MMExagent_v30
	IngAgent
	sapAgent
	MmoAgent
	InsightManager
	SysAgtUnix
	caiLogA2
	OsAgent_v30
	OraAgent_v30
	ImxAgent
	HpxAgent
	db2Agent
	CaiUxOs
HP_OS2	Ping
	SysAgtOS2
	MMExagent_v30
	InsightManager

HP class in the CORE	Agents monitored for the HP class
HP_DECSystem	Ping
	LogAgent_v30
	ProAgent_v30
	SybaseAgt
	HpaAgent
	MMExagent_v30
	IngAgent
	sapAgent
	MmoAgent
	InsightManager
	caiLogA2
	SysAgtUnix
	SysAgtVMS
	MMsapAgent
	OsAgent_v30
	OracleAgt
	OraAgent_v30
	ImxAgent
	HpxAgent
	db2Agent
	CaiUxOs
	OraAgtVMS
	MmsAgent
HP_SCOUnix	Ping
	Mib2
	SysAgtUnix
	OsAgent_v30
	Log_Agent_v30
	ProAgent_v30
	HpaAgent
	MMExagent_v30
	IngAgent
	sapAgent
	MmoAgent
	InsightManager
	caiLogA2
	OracleAgt
	OraAgent_v30
	ImxAgent
	HpxAgent
	db2Agent
	CaiUxOs

HP class in the CORE	Agents monitored for the HP class
HP_Linux	Ping
	Mib2
	SybaseAgt
	OsAgent_v30
	Log_Agent_v30
	ProAgent_v30
	HpaAgent
	IngAgent
	MMExagent_v30
	sapAgent
	MmoAgent
	InsightManager
	caiLogA2
	ImxAgent
	HpxAgent
	db2Agent
	CaiUxOs
	caiSysAgtMqs

HP class in the CORE	Agents monitored for the HP class
HP_InsightManager	Ping
	Mib2
	SysAgtNT
	SQLServerAgt
	SybaseAgt
	HpaAgent
	MMExagent_v30
	LogAgentNT_v30
	caiLogA2
	IngAgent
	sapAgent
	MmoAgent
	InsightManager
	MMsapAgent
	MmsAgent
	ImxAgent
	HpxAgent
	HpeNgent
	decStatAgent
	db2Agent
	CicsInstance
	cellAgent
	caiSysAgtMvs
	caiSysAgtMqs
	caiSysAgtCics
	pplAgent
	caiW2kOs
	caiNtOs

HP class in the CORE	Agents monitored for the HP class
HP_IntegrityServer	Ping
	Mib2
	InsightManager
	SQLServerAgt
	Agent:SybaseAgt
	Agent:HpaAgent
	MMExagent_v30
	IngAgent
	sapAgent
	MmoAgent
	caiW2kOs
	caiLogA2
	MMsapAgent
	MmsAgent
	ImxAgent
	HpxAgent
	HpeNgent
	dceStatAgent
	db2Agent
	CicsInstance
	cellAgent
	caiSysAgtMvs
	caiSysAgtMqs
	caiSysAgtCics
	pplAgent
HP_RemoteInsight	Ping
	Mib2
HP_RackEnclosure	Ping
HP_SANAppliance	Ping
	InsightManager
HP_TaskSmart	Ping
	InsightManager

Technical support

In this section

Before you contact HP

Be sure to have the following information available before calling HP:

- Technical support registration number (if applicable)
- Product serial number
- Product model name and number
- Applicable error messages
- Add-on boards or hardware
- Third-party hardware or software
- Operating system type and revision level

HP contact information

For the name of the nearest HP authorized reseller:

- In the United States, see the HP US service locator webpage (http://www.hp.com/service_locator).
- In other locations, see the Contact HP worldwide (in English) webpage (http://welcome.hp.com/country/us/en/wwcontact.html).

For HP technical support:

- In the United States, for contact options see the Contact HP United States webpage (http://welcome.hp.com/country/us/en/contact_us.html). To contact HP by phone:
  - Call 1-800-HP-INVENT (1-800-474-6836). This service is available 24 hours a day, 7 days a week. For continuous quality improvement, calls may be recorded or monitored.
  - If you have purchased a Care Pack (service upgrade), call 1-800-633-3600. For more information about Care Packs, refer to the HP website (http://www.hp.com).
- In other locations, see the Contact HP worldwide (in English) webpage (http://welcome.hp.com/country/us/en/wwcontact.html).

Acronyms and abbreviations

CORE

common object repository

DSM

Distributed State Machine

HTTP

hypertext transfer protocol

iLO

Integrated Lights-Out

IML

Integrated Management Log

IP

Internet Protocol

MIB

management information base

MIF

Management Information Format

NIC

network interface controller

NSM

Network and Systems Management

OID

object identifier

RAM

random access memory

RILOE

Remote Insight Lights-Out Edition

SCSI

small computer system interface

SNMP

Simple Network Management Protocol

SQL

structured query language

TCP/IP

Transmission Control Protocol/Internet Protocol

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