

# System Management Hub

## Interfaces

Version 9.5 SP1

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This document applies to System Management Hub Version 9.5 SP1.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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# Preface

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This document describes the standard web and batch user interfaces and the optional SNMP add-on interface in System Management Hub (SMH).

The Management Independent Layer package installs interfaces for the internal (built-in) servers and for the various external HTTP servers. The installation procedure detects and autoconfigures an Internet Information Server (Windows platforms only) and an Apache HTTP server (all platforms).

The information is organized under the following topics:

**Web Interface**

**Batch Interface**

**SNMP Add-on Interface**

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# I Web Interface

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This chapter describes the management tasks that you can perform with SMH graphical user interface.

If you must perform certain configuration tasks through that interface, the chapter also explains how to perform those tasks.

However, for post-installation instructions on starting and configuring products that are managed by SMH, see the product documentation.



**Note:** If you want to configure SMH, you must use the instructions in *Configuration*.

The information is organized under the following headings:

**Starting SMH**

**Managing Profiles**

**Customizing Frame Contents**

**Displaying Configurations**

**Displaying Configuration Details**

**Browsing for a File or Directory**

**Using the Control Panel**

**Managing Administrator Accounts in SMH**

**Managing the Settings of the Operating System**

**Displaying the Software AG Runtime Configuration**

**Monitoring Events and Jobs**

**Working with the Registry**

**Displaying Java Components**

**Displaying Distributed Components**





# 1 Starting SMH

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## ▶ To log on to SMH on Windows

- 1 Navigate to the <product> menu under the Windows **Start > Programs** button
- 2 Select <product> **System Administration**.
- 3 Type your user name and a password to log on. If you are using a Windows domain, specify the user name in the "DomainName\UserID" pattern.
- 4 SMH verifies that the user is registered on that machine, using that machine's operating-system-specific (native) method.

After logon, SMH activity screen is displayed. Your current user name (with domain, where applicable) and profile are displayed under **Managed Hosts** on the left of the screen.

The screen is divided into two frames: the navigation frame on the left; and the content frame on the right. The following screenshot illustrates the information about the product provided in the content frame, such as the product's version, the installation path, and the installation parameters:

To log out, choose the **Log out** option in the upper left corner of the screen.

If you select **About**, you see information on the plug-ins currently registered in your environment.

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## 2 Managing Profiles

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The profile management function is available from the top-level SMH activity screen.

### ▶ To access profile management

- Press the profile icon () in the upper left corner of the SMH Activity screen.

The **System Management View** tab displays all of the items contained in the view. The contents of the table can be sorted.

The following icons are provided at the top of the page.

Icon	Description
	Allows you to create a new profile.
	Saves any changes you have made to a profile.
	Reverts to the previously saved version.
	Empties the table of the contents displayed for a profile.
	Deletes the active profile.

As described in the table above, users can do the following:

- Create a new profile. Add the name for the new profile in the space provided.
- Save a profile.
- Revert to the last saved profile. Confirm that you wish to revert by pressing the **Yes** button or press the **No** button to back out of the option.
- Clear a profile. Confirm that you wish to clear a profile by pressing the **Yes** button, or press the **No** button to back out of the option.

- Delete a profile. Confirm that you wish to delete a profile by pressing the **Yes** button, or press the **No** button to back out of the option.
- Specify how information is displayed by changing the default settings in the **General Settings** area.



**Note:** The **General Settings** area can be collapsed or expanded.

▶ **To collapse the General Settings area**

- Press the down arrow (▼) in the upper right corner of the general settings area.

▶ **To expand the General Settings area**

- Press the right arrow (▶) in the upper right corner of the general settings area.

▶ **To change the general settings for an item**

- 1 In the table (**System Management View** or **Settings**), choose the item for which you wish to change the settings.
- 2 Make the desired changes in the general settings area.

The table below lists the options available for the general settings.

Setting	Available options	
Time and date detail level	ALL	Displays both date and time. This is the default setting.
	DATE	Displays only the date.
	TIME	Displays only the time.
Time and date display format	FULL	
	LONG	
	MEDIUM	
	SHORT	
	DEFAULT	
Default number of table rows per page	Users can specify the number of rows they wish to be displayed in the table.	

▶ **To switch from the System Management View page to the Settings page**

- Choose the **Settings** tab.

▶ **To close the profile management area**

- Press the close button (✕) in the upper right corner of the profile management area.



# 3 Customizing Frame Contents

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The appearance of tables in the content frame can be customized to meet the user's individual requirements or to suit the user's personal preferences. The width of the columns in a table can be adjusted. The position of the columns within a table can be changed. Where appropriate, the contents of tables can be displayed in chart or graph form. The contents of all SMH tables can also be sorted alphabetically/ reverse alphabetically (text) or in ascending/ descending order (numbers).



**Note:** This function requires an SVG viewer.

## ▶ To adjust the width of columns in a table

- In the table header move your mouse pointer to the double line between two columns until the double-headed arrow (↔) appears and slide it back and forth until the desired width is reached.

## ▶ To change the positions of columns in a table

- 1 In the header of the column you wish to move, press and hold your mouse pointer.
- 2 Without releasing the mouse pointer, when the positioning arrows (↕) appear, move the column to the desired position. Release the mouse pointer when the column is in the position you wish.

## ▶ To display table information as charts

- 1 From the table heading, open the context menu.

<input checked="" type="checkbox"/>	Show PID
<input checked="" type="checkbox"/>	Show CPU-Time
<input checked="" type="checkbox"/>	Show Process Name
<input type="checkbox"/>	Display All Columns
<input type="checkbox"/>	Display as Bar Chart
<input type="checkbox"/>	Display as Pie Chart
<input type="checkbox"/>	Display as Line Chart
<input type="checkbox"/>	Display as Points Chart

- Choose the desired format for the chart. Where appropriate, charts can be made in four forms: bar, pie, line or points chart. This option is not available for every table as the information in some tables cannot be presented in chart form.
- For bar, line and points chart types, a screen similar to the following is displayed:

**Select Chart Data**

**Select column to use as the chart x-axis**

Column	Column Data Type
<div style="background-color: #000080; color: white; padding: 2px;"> </div>	Default

**Select column to use for data series 1**

Column	Column Data Type
	Default

**Select column to use for data series 2 (optional)**

Column	Column Data Type
	Default

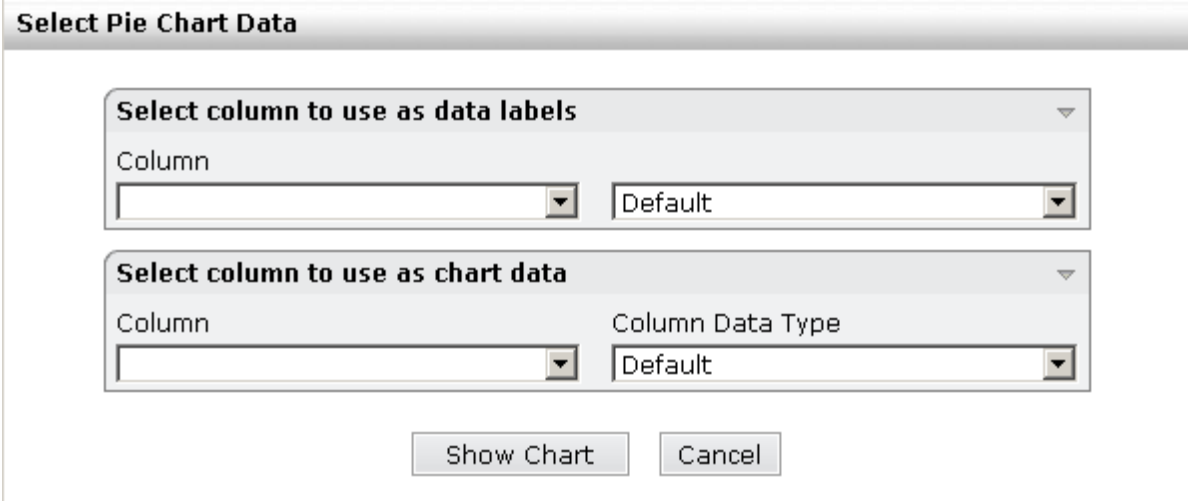
**Select column to use for data series 3 (optional)**

Column	Column Data Type

Fill in the appropriate data and press **Show Chart** to display the table in the desired chart format.

- For pie charts, a screen similar to the following appears:






The dialog box titled "Select Pie Chart Data" contains two main sections. The first section, "Select column to use as data labels", has a "Column" dropdown menu and a "Default" dropdown menu. The second section, "Select column to use as chart data", has a "Column" dropdown menu and a "Column Data Type" dropdown menu with "Default" selected. At the bottom are "Show Chart" and "Cancel" buttons.

Fill in the appropriate data and press **Show Chart** to display the table as a pie chart.

▶ **To sort the information in a table**

- Move your mouse pointer to the header of the column you wish to use as sort criterion and press the sort icon (  ) near the right margin of the column.

The contents of the table are re-arranged, based on the information in the active column.



# 4 Displaying Configurations

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The navigation frame displays configuration information specific to your local environment. This information is displayed in nodes that can be expanded or collapsed as required.

This chapter lists the options provided by SMH graphical user interface for displaying the local configuration information. The information is organized under the following headings:

## System Management View

---

In the navigation frame, choose **System Management View** at the bottom of the frame to display the contents of the frame according to your settings. The system management view can be displayed at any time.

Select **System Management** at the top of the navigation frame to return to the default display.

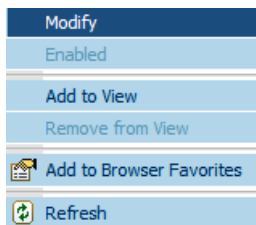
## Add to View

---


Any node displayed in the default view can be added to (or removed from) the **System Management View**.

### ▶ To add a node to the System Management View

- 1 Return to the default view and highlight the node you wish to add to the system management view.
- 2 Open that node's context menu.



- 3 Choose **Add to View** from the node's context menu.

 **Note:** Log on the managed host to connect to one of its nodes that you have added to the **System Management View**. Otherwise, you get an error message.

---

## Remove from View

---

▶ To remove a node from the **System Management View**

- From that node's context menu, choose **Remove from View**.

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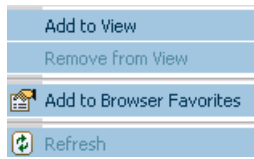
## Add to Browser Favorites

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Similarly, any node in the navigation frame can be added to your list of browser favorites.

▶ To add a node to your browser favorites

- 1 Open that node's context menu.



- 2 Choose **Add to Browser Favorites** from the node's context menu.

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## Refresh

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▶ To update the contents of the display of a node

- Choose **Refresh** from that node's context menu.

---

## Managed Hosts

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Depending on your configuration and requirements, managed hosts can be added, modified, and deleted.

▶ To log on to a host:

- 1 In the navigation frame, choose the host you wish to log on.

- The screen **Login to Managed Host** is displayed in the content frame. Enter the user name and password as with any other logging on.

### Login to Managed Host

User Name:

Password:

Remember that if your logon host is a Windows machine (that is part of a Windows domain), then your logon **Username** must also include your logon domain as:

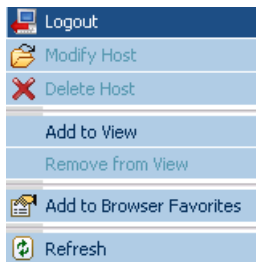
```
<MYDOMAIN>\<myname>  
for example, : sag\myself  
↵
```

Please contact your system administrator for further details.

- Press the **Login** button or the **Enter** key to complete the logon.

#### ▶ To log out:

- Make sure that the correct host is selected, click the right mouse button and choose **Logout**.



## Add a Managed Host

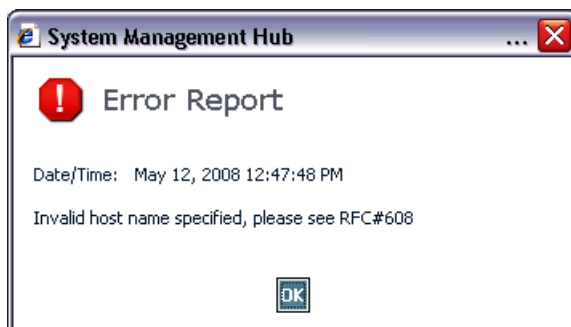
Each managed host must be defined by the system administrator using the **Add Host** option.

▶ **To add a host:**

- 1 Connect as a system administrator, using the entry URL.
- 2 From the context menu of the **Managed Hosts** node, choose the option **Add Host**.



- 3 A screen similar to the one illustrated below is displayed in the content frame. Enter the full host name of the host you wish to add. This can be either the complete host (domain) name or the IP address (for example, 101.102.103.04) of the respective host. This field is required.
- 4 Enter the name you wish to be displayed in the list of managed hosts. This field is optional. If you do not wish to enter a name, the new host's name as you entered it in the previous field (either domain name or IP address) are displayed.
- 5 Enter the TCP/IP port number for the CSLayer server on the managed host. The default value is 10012. This field is required.
- 6 Press the **OK** button to confirm your entries or the **Cancel** button to make any changes.
- 7 Any failure to provide the correct credentials results in an error message screen:

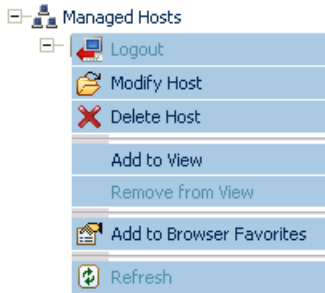


## Modify a Managed Host

---

▶ **To modify a host:**

- 1 From the context menu of the host you wish to modify, choose **Modify Host**.



- 2 A screen similar to the one illustrated below is displayed in the content frame.

You can do either of the following:

- Enter a new display name for the managed host;
- Enter a new TCP/IP port number for the CSLayer server;
- Do both of the previous.

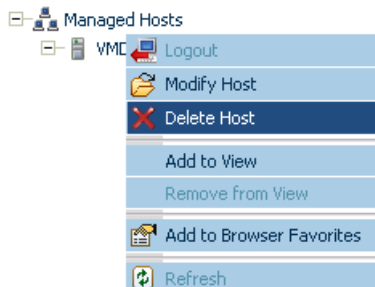
- 3 Press the **OK** button to confirm the modifications or the **Cancel** button to make any changes.

## Delete a Managed Host

---

▶ **To delete a host:**

- 1 From the context menu of the host you wish to delete, choose **Delete Host**.





2 A screen similar to the one illustrated below is displayed in the content frame.

Press the **OK** button to confirm that you wish to delete the host or press the **Cancel** button to terminate the process.

The host you have selected is permanently deleted from the list of managed hosts.



# 5

## Displaying Configuration Details

---

The content frame is where more specific information is displayed about the node that is highlighted in the navigation frame. The content frame is also used to display system messages such as error reports. The contents of the content frame vary according to the node that is highlighted in the navigation frame.

### Displaying Information in the Content Frame

#### ▶ To display information in the content frame

- Choose a node in the navigation frame.

Information on that node is displayed in the content frame as illustrated below.

Much of the information in the content frame is displayed in tables. The user can adjust the widths of the columns in these tables.

#### ▶ To adjust column width

- Move your mouse pointer to the double line between any two columns in a table until the double-headed arrow (↔) appears and slide it back and forth until the desired width is reached.

The contents of a table can also be sorted in a variety of different ways.

#### ▶ To sort the information in a table

- Move your mouse pointer to the header of the column you wish to sort and press the sort icon (▢) on the right margin of the header cell.

Icon	Description
	The default icon. Press once to sort table contents based on the active column.
	Indicates table contents have been sorted alphabetically (text cells) or in ascending order (numeric cells), based on the column with this icon.
	Indicates table contents have been sorted reverse alphabetically (text cells) or in descending order (numeric cells), based on the column with this icon.

Press the **OK** button to return to the previous screen.

### Personalizing the Information in the Content Frame

The information displayed in the content frame can be personalized. Naturally, the exact information displayed in the content frame varies according to the node selected in the navigation frame.

#### ▶ To display personalization options

- 1 In the content frame open the context menu from any row in the product table.

The options available for the table are displayed in a window similar to the one illustrated below.



- 2 Select the options you wish to be displayed in the table, or deselect any items you wish not to be displayed.

# 6 Browsing for a File or Directory

---

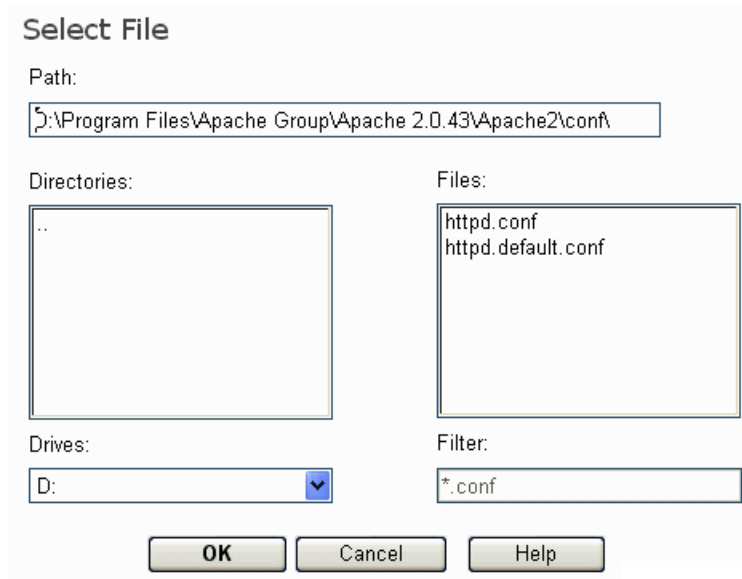
- Browsing for a File ..... 36
- Browsing for a Directory ..... 24

The Browse function allows the user to navigate the current directory structure in order to select a particular file or directory. The details are described here.

## Browsing for a File

---

Press the **Browse** button when a file name is required. The following screen is displayed in the detail-view frame:



## Browsing for a Directory

---

Press the **Browse** button when a directory is required. The following screen is displayed in the detail-view frame:

### Select Location Path

Path:

C:\

Directories:

- JBuilder6
- jdk1.2
- jmx
- ms\_euro
- PlayerE
- Program Files
- Project-Additions
- Projects

Drives:

C:

OK Cancel Help





# 7 Using the Control Panel

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This chapter provides information on the Control Panel of SMH for display and edit of the current configuration.

## Overview

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The control panel displays information about the installed SMH packages.

### ▶ To display the installed SMH packages

- 1 Select **System Management Hub** in the navigation frame.

The packages currently installed are displayed both in the navigation frame and in the content frame, as illustrated in the image above.

- 2 Similarly, expand **Control Panel** in the navigation frame to display the control panel packages in both views.

## Software AG Infrastructure

---

The **Common Software AG Infrastructure** package provides access to configuration information related to the infrastructure common to all Software AG products.

### ▶ To display configuration information

- 1 Select **System Management Hub > Control Panel > Common Software AG Infrastructure**.

Configuration information is displayed in the content frame.



**Note:** Version information is displayed from the Version Info under the context menu of SMH infrastructure.

- 2 Right-click **Common Software AG Infrastructure** to open its context menu.
- 3 Choose **Version Info**.

Information on the names, types and version numbers of the files associated with the Common Software AG Infrastructure installation are displayed in the content frame.

## System Management Hub

The **System Management Hub** package provides access to configuration information related to the SMH installation on the current host machine.

### ▶ To display the common SMH infrastructure

- Select the **System Management Hub** node.

Information on the common SMH infrastructure is displayed in the content frame.

### ▶ To display details on a property

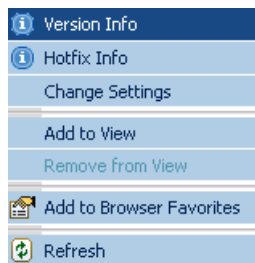
- Choose **Details** by pressing the question mark symbol (?) in the **Details** column next to a property.

Help for that property is displayed in the content frame, as illustrated for the property **Language** below:

Press **Cancel** to return to the previous view.

### ▶ To display version information for SMH

- 1 Right-click **System Management Hub** to open its context menu.



- 2 Choose **Version Info** from the context menu.

Details are displayed in the content frame.

### ▶ To display installed components

- Expand the **System Management Hub** node to see the installed SMH packages. You can configure each of the displayed components.

This display varies depending on the options selected during the initial installation on the host machine.

## Client/Server and Agent Layer

---

The Client/Server and Agent Layer component allows the user to display and configure information related to the Client/Server Layer.

### ▶ To display client/server layer and agent layer properties

- Select the **Client/Server and Agent Layer** node below the **System Management Hub** node within the **Control Panel** in the navigation frame.

Detailed information is displayed in the display view.

### ▶ To display details on a specific property

- Choose **Details** by pressing the question mark symbol (?) in the **Details** column next to a property.

Information for that property is displayed in the content frame, as illustrated for the property **TCP/IP Queue Size** below.

Press **Cancel** to return to the previous view.

### ▶ To display the installed plug-ins

- 1 Right-click the **Client/Server and Agent Layer** node below the **System Management Hub** node.
- 2 From the context menu choose **Plug-in Info**.

A table with the installed plug-ins currently installed is displayed in the content frame.

### ▶ To change the settings of a Client/Server Layer property

- 1 Right-click the **Client/Server and Agent Layer's** context menu and choose **Change Settings**.  
A table with the Client/Server Layer properties is displayed in the content frame.
- 2 Make any desired changes in the spaces provided and press **OK** to confirm them.

- 3 Details on the available options are provided for each property that is accessible by pressing the question mark symbol (?) in the **Details** column of the table next to each property. The example illustrated below is for the property **TCP/IP Receive Timeout**.

Press **Cancel** to return to the previous screen.

- [Session Plug-ins](#)
- [Session Agents](#)
- [SSX Configuration](#)

## Session Plug-ins

This agent is used to add, remove and modify the callback plug-ins in the **Client/ Server and Agent Layer**.

### ▶ To display the session plug-ins

- Expand the **Client/Server and Agent Layer** node in the navigation frame.

The session plug-ins and session agents currently installed are displayed below the **Client/Server and Agent Layer** node in the navigation frame.

### ▶ To display details

- Choose **Session Plug-ins** in the navigation frame.

Information on the session plug-ins is displayed in the content frame.

### ▶ To add a session plug-in

- 1 Open the context menu of the **Session Plug-ins** node.
- 2 Choose **Add Session Plug-in** from the context menu.
- 3 Enter the plug-in name in the space provided. Confirm the library path (or edit it, if necessary, in the dialog box) or press the **Browse** button to select a different path.
- 4 Press **OK** to add the new plug-in or **Cancel** to make any changes.

### ▶ To modify a session plug-in

- 1 Choose **Modify Session Plug-in** from the context menu.
- 2 Make the desired modifications in the dialog box and press **OK** to confirm those modifications.

Or:

Press the **Setting** button in the **Command** column.

▶ **To delete a session plug-in**

- 1 Choose **Delete Session Plug-in** from the context menu.
- 2 Select the check box next to the session plug-in to be deleted.
- 3 Press the **OK** button to delete the plug-in or the **Cancel** button to make any changes.

### Session Agents

This function is used to add, remove and modify Session Agents in the Client/Server Layer.

▶ **To display the session agents**

- Expand the **Client/Server and Agent Layer** node in the navigation frame.

▶ **To display details**

- Choose **Session Agents** in the navigation frame.

Information on the session agents and their parameters is displayed in the content frame.

▶ **To add a session agent**

- 1 Open the context menu of the **Session Agents** node.
- 2 Choose **Add Session Agent** from the context menu.

An input frame similar to the one below requesting the agent's parameters and classpath is displayed.

**Add Session Termination Agent**

Agent Type:  
 C Agent  Java Agent

Agent:

Parameters:

Classpath:

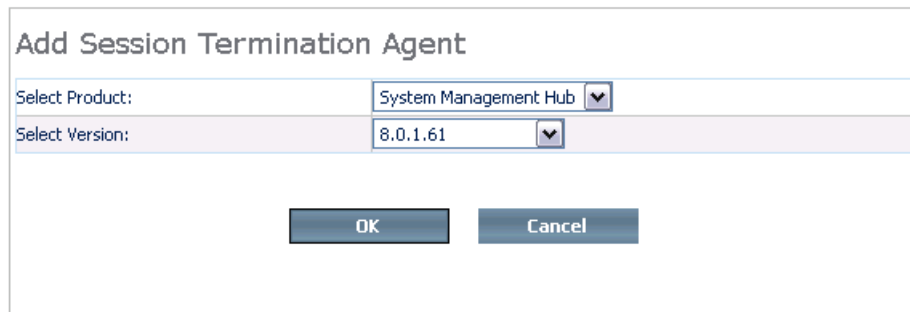
- 3 Specify the agent type using the appropriate radio buttons and confirm the agent (or edit it, if necessary, in the dialog box). Enter the parameter and classpath information in the spaces provided.

Press **Next** to continue or **Cancel** to make any changes.

Or:

Select a different agent (in the relevant directory) by pressing the **Browse** buttons.

- 4 After pressing the **Next** button in the previous step, a screen similar to the one below is displayed.



The screenshot shows a dialog box titled "Add Session Termination Agent". It features two dropdown menus. The first is labeled "Select Product:" and has "System Management Hub" selected. The second is labeled "Select Version:" and has "8.0.1.61" selected. At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Choose the product and version number from the selection boxes and press **OK** to continue.

#### ▶ To modify a Session Agent

- 1 Choose **Modify Session Agent** from the context menu.
- 2 Make any desired modifications in the dialog box in the content frame and press **OK** to confirm those modifications.

#### ▶ To delete a Session Agent

- 1 Choose **Delete Session Agent** from the context menu.
- 2 Choose the agent to be deleted in the content frame and press **OK** to confirm the deletion or **Cancel** to make any changes.

For general information on Agents, see *SMH Agents*.

## SSX Configuration

The CSLayer server has the option to enable SSX authentication and respectively to manage it.

**SSX Configuration** is located in the **Control Panel** node, under the **Client/ Server and Agent Layer** menu of SMH.

When you click **SSX Configuration**, the system displays the current SSX properties.

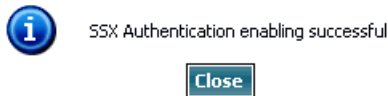
Right-click **SSX Configuration** to display the system's configuration commands:

- **Modify SSX configuration;**
- **Enable (Disable) SSX configuration;**
- **Revert last changes.**

The **Enable (Disable) SSX configuration** command enables or disables the SSX configuration.

If SSX configuration is successful, you must see the following screen:

### SSX Configuration



The **Revert last changes** command loads the last configuration. This means that it enables or disables the SSX authentication accordingly.

When you click **Modify SSX configuration**, a dialog box opens on the right for you to select the authentication type - Active directory, LDAP, or Operating system.

Make your choice and follow the screen's instructions to provide the specific authentication parameters for each authentication type.

For details on the usage of the SSX module in SMH, see *Authentication in SMH*.



---

## Events and Job Monitor Layer

---

The **Events and Job Monitor** component allows the user to display and configure information related to the Events Layer.

▶ **To display the Events and Job Monitor**

- Expand the **System Management Hub** node below the **Control Panel** node in the navigation frame and choose **Events and Job Monitor Layer**.

Detailed information on the properties of the Events Layer is displayed in the content frame.

▶ **To display Events and Job Monitor Layer Properties**

- Open the context menu of the **Events and Job Monitor Layer** and choose **Plug-in Info**.

Information on the plug-ins currently loaded by the Events Layer is displayed in the content frame.

▶ **To display details on a specific property**

- Choose **Details** by pressing the question mark symbol (❓) in the **Details** column next to a property.

Information for that property is displayed in the content frame.

Press **Cancel** to return to the previous view.

▶ **To change the current Events and Job Monitor Layer settings**

- 1 Open the context menu of the **Events and Job Monitor Layer** and choose **Change Settings**.

The current Events Layer properties are displayed in the content frame.

- 2 Make any desired changes in the spaces provided and press **OK** to confirm those changes.
- 3 Details on the available options are provided for each property, accessible by pressing the question mark symbol (❓) in the **Details** column of the table next to each property. The example illustrated below is for the property **TCP/IP Receive Timeout**.

Press **Cancel** to return to the previous screen.

▶ **To display details on installed event agents**

- Expand the **Events and Job Monitor Layer** node and choose **Event Agent**.

Details on the events framework are displayed in the content frame.

▶ **To add an event agent**

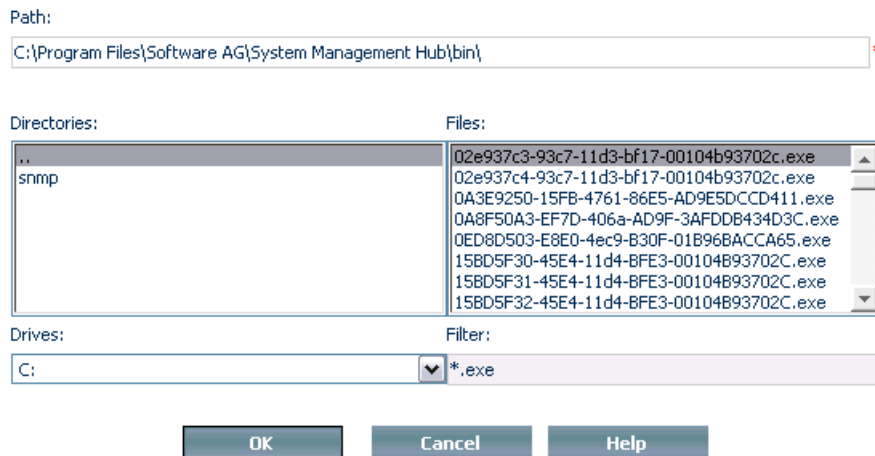
- 1 Open the **Event Agent**'s context menu.
- 2 From the context menu choose **Add Event Agent**.
- 3 Specify the agent type using the appropriate radio buttons and confirm the agent (or edit it, if necessary, in the dialog box). Enter the parameter and classpath information in the spaces provided.

Press **Next** to continue or **Cancel** to make any changes.

Or:

Select a different agent by pressing the **Browse** button. A screen similar to the one below is displayed.

Select File



- 4 Choose the product and version number from the selection boxes and press **OK** to continue.

▶ **To modify an Event Agent**

- 1 Choose **Modify Event Agent** from the context menu.
- 2 Make any desired modifications in the dialog box in the content frame and press **OK** to confirm those modifications.

▶ **To delete an event agent**

- 1 Choose **Delete Event Agent** from the context menu.
- 2 Choose the agent to be deleted in the content frame and press **OK** to confirm the deletion or **Cancel** to make any changes.

For general information on Agents, see *SMH Agents*.

## Simple Network Management Protocol (SNMP) Layer

---

The SNMP component allows the user to display and configure information related to the SMH SNMP Layer.

- [SNMP Details and Settings](#)
- [SNMP Notifications](#)


### SNMP Details and Settings

▶ **To display information on the SNMP Layer**

- Choose the **SNMP Layer** below the **System Management Hub** node within the **Control Panel** in the navigation frame.

Information on the current settings is displayed in the content frame.

▶ **To display details on a specific property**

- Choose **Details** by pressing the question mark symbol () in the **Details** column next to a property.

Information for that property is displayed in the content frame.

Press **Cancel** to return to the previous view.

▶ **To change the current SNMP Layer settings**

- 1 Open the context menu of the **SNMP Layer** below the **Control Panel** node in the navigation frame.
- 2 From the context menu choose **Change Settings**.

The current SNMP Layer properties are displayed in the content frame.

- 3 Make any desired changes in the spaces provided and press **OK** to confirm them.
- 4 Details on the available options are provided for each property that is accessible by pressing the question mark symbol (**?**) in the **Details** column of the table next to a property.

Press **Cancel** to return to the previous screen.

## SNMP Notifications

The SNMP Notification component allows the user to display and configure the current SMH SNMP notifications.

### ▶ To display the SNMP Notifications Layer

- Expand the **SNMP Layer** below the **Control Panel** node in the navigation frame and choose **SNMP Notifications**.

The current SNMP Notifications are displayed in the content frame.

### ▶ To add a new SNMP notification

- 1 Open the context menu of the **SNMP Notifications** node in the navigation frame.
- 2 From the context menu choose **Add Notification**.
- 3 Enter the URL and UDP Port for the new notification in the spaces provided and press **OK** to confirm.

### ▶ To modify an existing SNMP notification

- 1 Open the context menu of the **SNMP Notifications** node in the navigation frame.
- 2 From the context menu choose **Modify Notification**.
- 3 Modify the UDP Port for the notification in the space provided and press **OK** to confirm.

### ▶ To delete an existing SNMP notification

- 1 Open the context menu of the **SNMP Notifications** node in the navigation frame.
- 2 From the context menu choose **Delete Notification**.
- 3 Choose the notification to be deleted and press **OK** to confirm.

## Enabling SSL Support in SMH

---

If you want to use SSL communication you must have a valid key pair – a Certificate file and a Private Key file. This pair is stored in PKCS12 keystore. It must be available before you enable the SSL. SSL support is disabled by default because you must provide a valid keystore first.

Enable SSL using **Enable** from the **SSL Configuration** menu.

If you do not have a valid keystore, SMH can create it with the **Modify** wizard of the **SSL Configuration** menu.

Right-click **SSL Configuration** from the **Control Panel** node and point to **Modify**.

You can generate a new certificate (PKCS12), upload an existing PKCS12 (PFX) certificate keystore, or use a pair of a private key file and a certificate file in PEM format.

Following is information for *server.p12* location:

- Windows users: The generated PKCS12 file is stored in `{{ARGDIR}}\files` as *server.p12*. `{{ARGDIR}}` stands for the SMH installation directory. By default, it is *Software AG\_directory\InstanceManager*. The full path is *Software AG\_directory\InstanceManager\files\server.p12*.
- UNIX users: The generated PKCS12 file is stored in `{{ARGDIR}}/files` as *server.p12*. `{{ARGDIR}}` stands for the SMH installation directory. By default, it is *\$SAG/common/arg*. The full path is *0.\$SAG/common/arg/files/server.p12*.

You must provide a password for the keystore to generate a new certificate. The password must be at least 5 characters long. Then, SMH generates a keystore that contains a certificate file and a private key file.

If you want to upload an existing PKCS12 (PFX) keystore, provide the existing password of the keystore and navigate to the location where your existing keystore is located, using the **Browse** button.

If you want to use a private key file and a certificate file in PEM format, provide the private key file's password and navigate to the locations where your PEM files are stored in the same way as in the preceding example.

After you complete all the steps, SMH verifies the success of the operations with the following screen:

## SSL Configuration



Operation Successful

Close

This screen confirms that SSL support is enabled for all the options of the SSL configuration tool.. For general information on SSL, see *Secure Sockets Layer (SSL) in SMH*.

## Automated Tasks

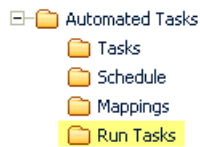
---

Users can add tasks, scheduled tasks, and mappings.

The following example of the two ways of executing an automated task is taken from the execution of a sendmail client script (*sendmail.cmd*, located in C:\Program Files\Software AG\System Management Hub\tasks)

Depending on the location the tasks are called from, you can execute them from two different places.

1. From the `argsrv poller` thread; it checks for any event messages fired during a certain period. `argsrv` is configured in the registry settings: Default 1 min.
2. From the **Run Tasks** in the **Automated Tasks** menu; this provides manual execution of the task (scripts).



Depending on the location from where they are executed, the following sample shows the order of parameters that the agent receives for further processing:

- If called from `argsrv poller` thread, then:

```

Parameter 0 -> The name of the script that is called.
Parameter 1 -> The Task ID from the registry.
Parameter 2 -> The Event Job Token ID. {This event job token ID can be used for
further logging into the
    argevt layer infrastructure. The executable argevtul can be used
to log and close the events}
Parameter 3 -> The Mapped Message ID within Message mappings for which the script
is executed.
Parameter 4 -> The Description of the above message ID.
Parameter 5 -> The Entire task parameters that are sent to the script to execute.
    This parameter simply starts with the substring "TP:TP|" to define
that this is the Task parameter
    {NOTE: The parameter syntax expected can be defined by the
originator of the task (script).
    The example provided is of a Send Mail utility which expects
the following format for the parameter
    "TP:TP|To:Benedict.Dsilva@softwareag.com|From:Customer.Support@softwareag.com|
    CC:Benedict.Dsilva@softwareag.com|Subject: Tamino 4.4.1
Licences (Licence Expired)|
    Body: Please renew your License. For assistance, call
Software AG support center|SMTP:punmsg01"
    }
Parameter 6 -> The Message parameters, (if any...)
Parameter 7 -> The Message parameters, (if any...)
Parameter . -> The Message parameters, (if any...)
Parameter n -> The Message parameters, (if any...)

```

■ **If called from Run Tasks GUI Interface, then:**

```

Parameter 0 -> The name of the script which is called.
Parameter 1 -> The Task ID from the registry.
Parameter 2 -> The Event Job Token ID. {This event job token ID can be used for
further logging on the
    argevt layer infrastructure. The executable argevtul can be used
to log and close the events}
Parameter 3 -> The Entire task parameters which are sent to the script to execute.
    This parameter simply starts with the substring "TP:TP|" to define
that this is the Task parameter
    {NOTE: The parameter syntax expected can be defined by the
originator of the task/script.
    The example provided is of a Send Mail utility which expects
the following format for the parameter
    "TP:TP|To:Benedict.Dsilva@softwareag.com|From:Customer.Support@softwareag.com|
    CC:Benedict.Dsilva@softwareag.com|Subject: Tamino 4.4.1
Licences (Licence Expired)|
    Body: Please renew your Licence. For assistance, call
Software AG support center|SMTP:punmsg01"
    }

```

Following is an example if the task (script) is called from the Argsrv poller thread:

```
java com.softwareag.systemmanagementhub.emailclient.MailClient %5
```

Example if called from the **Run Tasks** interface:

```
java com.softwareag.systemmanagementhub.emailclient.MailClient %3
{NOTE: The MailClient above uses the JavaMail SMTP API to send mails.
      Please include the mail.jar, activation.jar and argjlib.jar (ARGUS internal
jar which provides the MailClient
      in the CLASSPATH environment variable
}
```

### Closing Applications with the Automated Tasks Feature

When you start an application from **Automated Tasks**, it is assigned a job token as a parameter. The application must close it before end of execution.



**Note:** The job has to be closed from the application that started it.

Following is a script example:

```
:CLOSE_JOB_LOG
"%Programfiles%\Software AG\System Management Hub\bin\argevutl.exe" %1 %2 close <
ARGAA0303 >> %LOGFILE% 2>&1

Usage: TaskID JobToken Action MessageID [MessageParams]

TaskID           : Task ID
JobToken         : The Event Job Open Token ID
Action           : addmsg | create | close
MessageID        : Message ID
[MessageParams]  : 0..n Number of Message Parameters
```

Example:

```
argevutl.exe 0 0 create ARGAA0100 USER_NAME=mickeymouse
argevutl.exe 2 000e74004359ef9e-00 addmsg ARGAA0101 USER_NAME=mickeymouse
argevutl.exe 2 000e74004359ef9e-00 close ARGAA0300

@return 0,1,2
0 -> Success
1 -> Usage Error
2 -> Invalid Token
```

Following is an example of the usage in case of using a batch file on Windows:



```
@echo off
argevutl.exe 0 0 create INOAAI0574 dbName=fake > temp.txt
FOR /F %%b in (temp.txt) Do set token=%%b
argevutl.exe 1 %token% addmsg INODSF1011
argevutl.exe 1 %token% close
```

- [Display Tasks](#)
- [Add Tasks](#)
- [Add Scheduled Task](#)
- [Add Mapping](#)
- [Configuring the Send Mail Event](#)
- [Enabling Automatic Processing of Notifications](#)
- [Restarting the Software AG Client/Server Layer services](#)

Following is a description of the **Automated Tasks** interface that provides you with the option to execute tasks (scripts) manually:

## Display Tasks

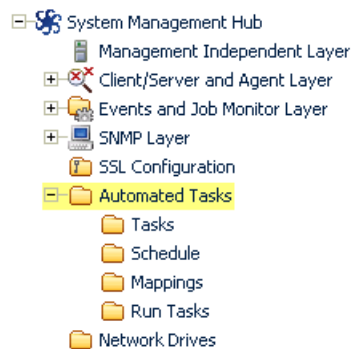
The Automated Tasks Package is used to manage automated task configuration, scheduling, event-job to task mapping and manual execution and scheduling of tasks.

In the navigation frame choose **Automated Tasks** below **System Management Hub** under the **Control Panel** node.

The detail-view frame on the right displays the dashboard for the current configurations and for the mapped and scheduled tasks with the current settings.

The **Automated Tasks** node allows you to automate actions, scheduled tasks and event mappings. It is used to add, remove, and modify tasks configured within the system.

If you want to access the tasks agent, expand **Automated Tasks** in the tree-view frame by clicking the plus symbol next to it.



Select **Tasks** in the tree-view frame. The tasks currently defined are displayed in the detail-view frame.

## Add Tasks

### ▶ To add a new automated task

- 1 Expand the **Automated Tasks** node in the navigation frame.
- 2 Click **Add Task**.
- 3 A input frame requesting the **Description**, **Script**, **Parameters**, **Run as User** and **Password** for the script is displayed. The **Task ID** is automatically generated by the agent.

Provide a description of the new task and enter the parameters associated with it. Your user ID and password are entered as default.

- 4 Press the **OK** button to confirm your entries. Press the **Cancel** button to make any changes.

## Add Scheduled Task

### ▶ To add a new scheduled task

- 1 Expand the **Automated Tasks** node in the navigation frame.
- 2 Choose the **Schedule** option. A table of the currently scheduled tasks are displayed in the content frame.
- 3 Open the context menu for the **Schedule** option.
- 4 In the **Schedule** option's context menu, choose **Add Scheduled Task**.
- 5 Enter the task ID in the dialog box. Scheduling can be on a daily, weekly or monthly basis. For weekly tasks specify the day of the week on which you wish the task to run. For monthly tasks specify the day of the month. Specify how long you wish the schedule to apply to the task by entering the start and end dates. Set the desired time and check the **Scheduled** box.
- 6 Press the **OK** button to confirm your entries. Press the **Cancel** button to make any changes.

## Add Mapping

### ▶ To add a new mapping

- 1 Expand the **Automated Tasks** node in the navigation frame.
- 2 Choose the **Mappings** option. A table of the message ID to task ID mappings currently defined are displayed in the content frame.
- 3 Open the context menu for the **Mappings** option.
- 4 In the **Mappings** option's context menu, choose **Add Mapping**.
- 5 Enter the message ID from which and the task ID to which the new mapping is to apply in the dialog boxes.

- 6 Press the **OK** button to confirm your entries. Press the **Cancel** button to make any changes.

### Configuring the Send Mail Event

#### ▶ To configure the send mail event

- 1 Open the context menu of the **Mappings** option, and choose **Add Mapping**.
- 2 Fill in the screen as shown in the next snapshot. The MessageID should be INODSW2326, which corresponds to the following Tamino message:

```
<timestamp> INODSW2326: The license for XXXX with ID YYYY has expired, server ↵
aborts in ZZZZ days
```



**Note:** Note: if Tamino uses a temporary/evaluation license, the license check is performed every 24 hours.

- 3 Once all of the fields have been filled in, press the **OK** button.

### Enabling Automatic Processing of Notifications

On Windows operating systems use the *regedit* utility and set the string value `AutomatedTasks` to "1". This can also be done directly from the SMH web interface on both Windows and UNIX.

### Restarting the Software AG Client/Server Layer services

Restart the Software AG Client/Server Layer services by selecting it from the Services screen and choosing the **Restart** option, as illustrated in the screen capture below.

## Network Drives

---

The Network Drives configuration is only available on Windows.

The Network Drives component allows the user to display and configure the network drives mapping available to the products managed by SMH.

#### ▶ To display network drives

- In the navigation frame, choose the **Network Drives** node.

Information on all networked drives is displayed in the content frame.

The contents of all SMH tables can be sorted in a variety of ways. See the section on how to sort the information in a table, above, for more details.

▶ **To display the details of an existing network drive mapping**

- In the appropriate **Action** column of the content frame, choose **Details** in the row of the drive you wish to display.

▶ **To modify an existing network drive mapping**

- 1 In the appropriate **Action** column of the content frame, choose **Modify** in the row of the drive you wish to modify.
- 2 Make the desired changes and press the **OK** button to confirm. For more information on how to modify a drive, make sure that you have pop-ups enabled in your browser and press the **Help** button.

▶ **To disconnect an existing network drive mapping**

- 1 In the appropriate **Action** column of the content frame, choose **Disconnect** in the row of the drive you wish to disconnect.
- 2 Press the **OK** button to confirm. Press the **Cancel** button to return to the previous display.

▶ **To map a new network drive**

- 1 In the navigation frame, open the context menu of the **Network Drives** node.
- 2 From the **Network Drives** context menu, choose **Map Drive**.

The Map Drive screen is displayed in the content frame.

- 3 Enter the drive letter *without* a colon (:). Enter the name of the folder (in the format \\DOMAIN\DRIVE). Your user identification and password are entered in the appropriate dialog boxes by default.
- 4 Press the **OK** button to map the new drive. Press the **Cancel** button to return to the previous display. For more information on how to map a network drive, make sure that you have pop-ups enabled in your browser and press the **Help** button.

The contents of the table of network drives can be sorted. See the section on how to sort the information in a table, above, for more details.

# 8

## Managing Administrator Accounts in SMH

---

▪ Display Installed Products .....	48
▪ Display Administrators .....	48
▪ Add Administrator .....	49
▪ Delete Administrator .....	50

The administrator package allows the user to manage the current set of administrators for the SMH product on the selected host machine.

Before you consider using any of the functionality of the administrator's facility, check *Defining New Administrators*.

The following administrator functions are described in this section:

## Display Installed Products

---

After initial logging on, a screen similar to the one below is displayed.

### ▶ To display the list of products currently installed on the host machine

- 1 Expand the appropriate local host (for example, *VMD.eur.ad.sag* as displayed on the screen capture) in the navigation frame.

The products that can be administered using the **System Management Hub** are displayed in the navigation frame. Additional details on those products are also displayed in the content frame.

- 2 Alternatively, expand **Administrators** in the navigation frame. The actual contents of this display vary depending on your local installation.

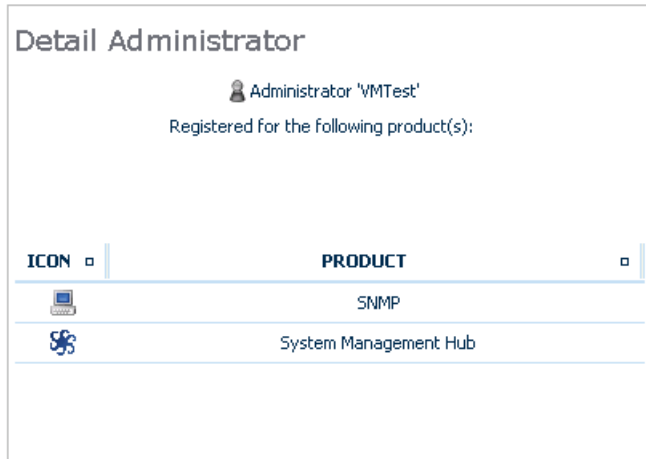
This displays the installed products in the navigation frame.

## Display Administrators

---

### ▶ To display a list of administrators for a product

- 1 Expand the product in the navigation frame. A list of administrators for that product is displayed below it in the same frame and in the content frame.
- 2 In the navigation frame, select an administrator to display in the content frame a list of all the products for which that administrator is registered.



## Add Administrator

### ▶ To add a new Administrator

- 1 In the navigation frame, expand the product to which you wish to add an administrator, select **Administrators** and open the context menu.

From the context menu choose **Add Administrator**.

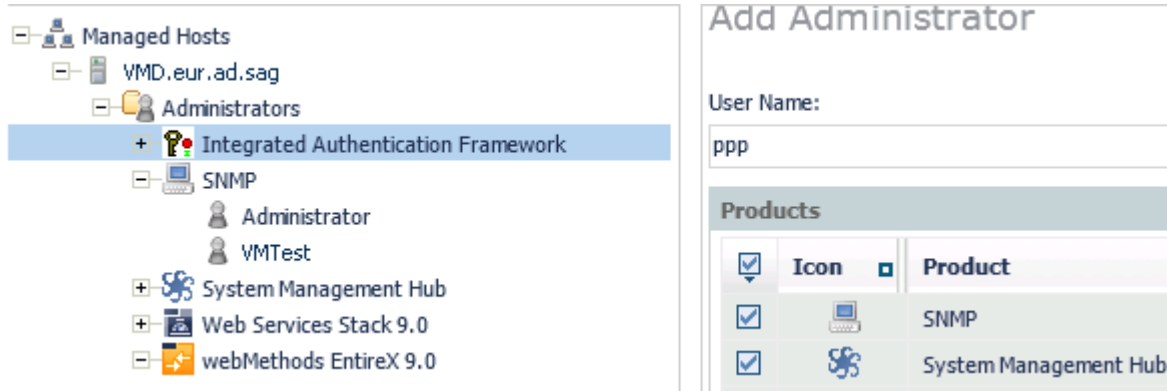
- 2 Check the selection box in the **Administrator** column next to each product for which the new name is to have administrator status. Enter the new administrator's name in the space provided under **User Name** in the content frame.



**Note:** The SNMP is a built-in internal feature. To use external products, the user must be registered for SNMP. Some Software AG products, such as EntireX, require specific administration rights to be enabled in order to perform SNMP administrative operations.

- 3 Press **OK** to confirm or **Cancel** to make changes.

All the newly added administrators appear under the product in the **Administrators** context menu:



## Delete Administrator

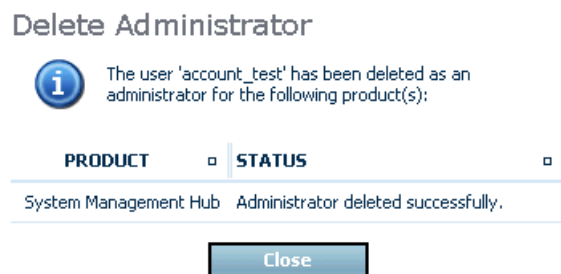
### ▶ To delete an administrator

- 1 Expand the product from which an administrator is to be deleted.
- 2 Select the administrator to be deleted from the list displayed below the selected product in the navigation frame.

With the administrator to be deleted selected in the navigation frame, open the context menu and choose **Delete Administrator**.

- 3 In the content frame, select the product or products from which the administrator is to be deleted.
- 4 Press **OK** to confirm or **Cancel** to make changes.

Wait for a confirmation, such as the following one:





# 9 Managing the Settings of the Operating System

---

- The Operating System ..... 52
- The Properties ..... 52
- The Process List ..... 52
- The Environment ..... 53

The Operating System package allows the user to manage the properties, processes and the environment of the operating system running on the selected host machine.

The following functions are described here:

## The Operating System

---

### ▶ To display Operating System tasks

- From the navigation frame, select **Operating System**.

The operating system tasks currently available are displayed in the content frame.

## The Properties

---

### ▶ To display Operating System Properties

- 1 In the navigation frame expand the **Operating System** node.
- 2 From the navigation frame choose **Properties**.

The operating system properties are displayed in the content frame.

## The Process List

---

### ▶ To display the Operating System Process List

- 1 In the navigation frame expand the **Operating System** node.
- 2 From the navigation frame choose **Process List**.

Process list details are displayed in the content frame on a screen similar to the one illustrated below.

## The Environment

---

▶ **To display the Operating System Process List**

- 1 In the navigation frame expand the **Operating System** node.
- 2 From the navigation frame choose **Environment**.

Details on the operating system environment are displayed in the content frame.



# 10 Displaying the Software AG Runtime Configuration

The Runtime Servlet/JSP container package allows the user to manage Runtime Servlet/JSP container.

## ▶ To display the Runtime configuration

- 1 From the navigation frame, select the Runtime Servlet/JSP Container node (for example, "Runtime").
- 2 Details of Software AG Tomcat configuration are displayed in the content frame.

The screenshot shows a management console interface. On the left is a navigation tree with the following items: SNMP Layer, Java Layer, Parameters, Classpath, SSL Configuration, Automated Tasks (containing Tasks, Schedule, Mappings, Run Tasks, and Network Drives), Operating System, Properties, Process List, Environment, and Runtime (which is highlighted in blue). The main content area is titled "Runtime" and contains a table with the following data:

Parameter	Details
Runtime	Installed
Service	sagctp90_1.1
State	



# 11

## Monitoring Events and Jobs

---

- Navigating in the Events and Job Monitor ..... 58
- Events and Job Monitor ..... 59
- Job Categories ..... 60

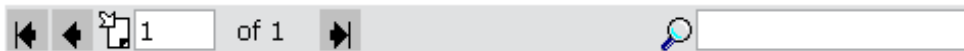
The **Events and Job Monitor** package displays the status of any running jobs related to the operation of SMH or any Alarm Events that may have been raised and require operator intervention.

The following functions are described here:

## Navigating in the Events and Job Monitor

---

For many of the screens in the Events and Job Monitor a navigation bar is provided, similar to the one illustrated here:



The various functions of this navigation bar are explained here.

▶ **To go to the previous page of items**

- Press the navigation arrow to the immediate left of the page dialog box.

▶ **To go to the next page of items**

- Press the navigation arrow to the immediate right of the page dialog box.

▶ **To go to a specific page**

- Enter the desired page number in the page dialog box and press the page icon or press **Enter**.

▶ **To go to the first page of items**

- Press the navigation arrow to the extreme left of the page dialog box.

▶ **To go to the last page of items**

- Press the navigation arrow to the extreme right of the page dialog box.

▶ **To search for a text string in the table**

- Enter the text string to be searched for in the search dialog box and press the search icon or press **Enter**.



## Events and Job Monitor

---

### ▶ To display a summary of all jobs

- Choose **Events and Job Monitor** in the navigation frame.

A summary of all jobs is displayed in the content frame.

### ▶ To display details of a specific job

- The entries in the **Job** column are hyperlinks. Follow a hyperlink to display job details. This applies to all categories.

Details for the selected job are displayed in the content frame.

### ▶ To execute a command on the displayed job

- Select the desired command from the list box and press the **Execute Command** button. The options provided vary depending on the job selected and your local environment.

### ▶ To return to the All Jobs display


- Press the **Back** button.

### ▶ To change the settings of the Events and Job Monitor

- 1 From the navigation frame, open the Events and Job Monitor context menu.

The table of events and job monitor layer properties are displayed in the content frame.

- 2 Make changes in the spaces provided and press **OK** to confirm those changes.

- 3 For more information on a property, press the question-mark icon () in the **Details** column next to an item.

## Job Categories

---

The **Events and Job Monitor** contains several job categories, allowing you to display job-related information and perform a variety of job-related functions on any running jobs.

### ▶ To display job categories

- In the navigation frame expand the **Events and Job Monitor**.

The job categories available are displayed below the **Events and Job Monitor** node in the navigation frame.

- Pending Alerts
- Running Jobs
- Completed Jobs
- Suspended Jobs

### Pending Alerts

#### ▶ To display a summary of unacknowledged alerts

- Select the **Pending Alerts** node below **Events and Job Monitor** in the navigation frame.

A summary of any jobs that have raised alerts that have not yet been acknowledged is displayed in the content frame.

#### ▶ To confirm pending alerts

- From the pending alerts context menu, you have the option to confirm all jobs or only SMH jobs.

### Running Jobs

#### ▶ To display all running jobs

- From the navigation frame choose **Running Jobs** below the expanded **Events and Job Monitor** node.

A summary of all jobs currently still in progress is displayed in the content frame.

▶ **To display the details of a specific running job**

- The entries in the **Job** column are hyperlinks. Follow a hyperlink to display job details. This applies to all categories.

Details of the selected job are displayed.

▶ **To show related jobs**

- 1 From the command list box, choose the command **Show Related Jobs**.
- 2 Press the **Execute Command** button.

### **Completed Jobs**

▶ **To display a summary of completed jobs**

- Select **Completed Jobs** below the **Events and Job Monitor** node in the navigation frame.

A summary of those jobs that have been completed is displayed in the content frame.

▶ **To display the details of a specific completed job**

- The entries in the **Job** column are hyperlinks. Follow a hyperlink to display job details. This applies to all categories.

▶ **To permanently delete all completed jobs**

- 1 Open the context menu of the **Completed Jobs** node.
- 2 From the context menu, choose **Delete ALL Completed Jobs**.
- 3 You are given a warning and prompted to continue if you still want.
- 4 Press **OK** to confirm or press **Cancel** to return to the Completed Jobs display.

▶ **To permanently delete only completed System Management Hub jobs**

- 1 Open the context menu of the **Completed Jobs** node.
- 2 From the context menu, choose **Delete SMH Completed Jobs**.
- 3 Press **OK** to confirm or press **Cancel** to return to the Completed Jobs display.

## Suspended Jobs

▶ To display a summary of suspended jobs

- Select the **Suspended Jobs** node in the navigation frame.

Details for any jobs that are suspended and awaiting user action are displayed in the content frame.

# 12 Working with the Registry

---

- The Registry ..... 64
- Display Sub-Keys ..... 64
- Add Sub-Key ..... 64
- Delete Key ..... 65
- Add Value ..... 65
- Modify Value ..... 65

The Registry package allows access to the Software AG registry, which is used to maintain configuration information for all Software AG products on the selected host.

## The Registry

---

### ▶ To display the Registry Keys

- Select **Registry** in the navigation frame.

The keys that may be viewed or configured from within SMH are displayed in the content frame.

## Display Sub-Keys

---

### ▶ To display any sub-keys

- Expand the **Registry Keys** node. The individual keys and sub-keys utilized by the Software AG products installed are displayed below the **Registry** node in the same frame.

## Add Sub-Key

---

### ▶ To add a new sub-key

- 1 Expand the **Registry Keys** node. Choose the desired key in the navigation frame (details of that key are displayed in the content frame).
- 2 Open the key's context menu.
- 3 Choose **Add Key** from the context menu. Enter the name of the new key in the space provided in the content frame and press **OK** to confirm or press **Cancel**.

## Delete Key

---

### ▶ To delete a key

- 1 From the navigation frame choose the key to be deleted.
- 2 From the context menu choose **Delete Key**. The registry key currently selected *and* any sub-keys associated with it is deleted.
- 3 Press the **OK** button to confirm or press **Cancel**.

## Add Value

---

### ▶ To add a new registry value

- 1 Choose the registry value to which a new value is to be added.
- 2 Choose **Add Value** from the context menu.
- 3 Enter the new value and value name in the spaces provided in the content frame.
- 4 Press **OK** to confirm or press **Cancel**.

## Modify Value

---

### ▶ To modify or delete a value

- 1 Choose the value to be modified.
- 2 Choose **Modify Value** from the context menu.
- 3 Make the desired modifications in the spaces provided or delete a value by checking **Delete** next to the value to be deleted.
- 4 Press **OK** to confirm or press **Cancel**.

For a detailed list of registry settings and the customizable keys, see *Registry Settings*.





# 13

## Displaying Java Components

---

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The Java facility allows the user to display information related to Java components utilized by any installed Software AG product.

The following Java-package component categories are described here:

## Java Products Detail

---

### ▶ To display detail on the Java products installed

- Choose the **Java** node below **System Management Hub** in the navigation frame.

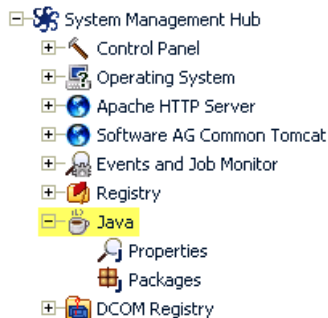
A list of all Software AG products currently installed and the JREs used by those products are displayed in the **Java Products Detail** table in the content frame, similar to the example below.

## Properties

---

### ▶ To display the Java component categories currently available:

- Expand the **Java** node in the navigation frame.



The categories available are displayed below the **Java** node in the same frame.

### ▶ To display the current configuration, related to the Java installation:

- In the navigation frame, choose **Properties** below the **Java** node.



The Java properties are displayed in the content frame, as illustrated below.

## Packages

► To display the Software AG Java packages currently installed:

- In the navigation frame, choose **Packages** below the **Java** node.



The Java packages are displayed in the content frame, as illustrated below.

### JAVA Packages

PACKAGES
com.softwareag.systemmanagementhub.agents
com.softwareag.systemmanagementhub.base
com.softwareag.systemmanagementhub.snmptrap
com.softwareag.systemmanagementhub.evtjni
com.softwareag.systemmanagementhub.evtjni.structures
com.softwareag.systemmanagementhub.argreg
com.softwareag.systemmanagementhub.emailclient



# 14

## Displaying Distributed Components

---

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▪ Application IDs .....	76
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The DCOM Registry package allows the user to display information related to the distributed components utilized by any installed Software AG products.

The following functions are described here:

## Categories

---

### ▶ To display DCOM categories

- In the navigation frame choose **DCOM Registry** below the **System Management Hub** node.

A list of the DCOM categories currently available is displayed in the content frame.

Or:

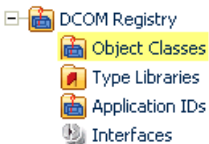
Expand the **DCOM Registry** node in the navigation frame and the available DCOM categories are displayed below it in the same frame.

## Object Classes

---

### ▶ To display Object Class Information


- In the navigation frame choose **Object Classes** below the **DCOM Registry** node.



### DCOM Object Classes Detail

When the **Object Classes** node has been selected in the navigation frame, the list of object classes is displayed in the content frame on a screen similar to the one illustrated below.

**DCOM Object Classes**

ICON	OBJECT CLASS	TYPE	DETAIL
	CLSID {0000031A-0000-0000-C000-000000000046}	Reg Object	<a href="#">Detail</a>
	{0000002F-0000-0000-C000-000000000046} CLSID_RecordInfo	Reg Object 32	<a href="#">Detail</a>
	{00000100-0000-0010-8000-00AA006D2EA4} DAO.DBEngine.36	Reg Object 32	<a href="#">Detail</a>
	{00000101-0000-0010-8000-00AA006D2EA4} DAO.PrivateDBEngine.36	Reg Object 32	<a href="#">Detail</a>
	{00000103-0000-0010-8000-00AA006D2EA4} DAO.TableDef.36	Reg Object 32	<a href="#">Detail</a>
	{00000104-0000-0010-8000-00AA006D2EA4} DAO.Field.36	Reg Object 32	<a href="#">Detail</a>
	{00000105-0000-0010-8000-00AA006D2EA4} DAO.Index.36	Reg Object 32	<a href="#">Detail</a>
	{00000106-0000-0010-8000-00AA006D2EA4} DAO.Group.36	Reg Object 32	<a href="#">Detail</a>
	{00000107-0000-0010-8000-00AA006D2EA4} DAO.User.36	Reg Object 32	<a href="#">Detail</a>
	{00000108-0000-0010-8000-00AA006D2EA4} DAO.QueryDef.36	Reg Object 32	<a href="#">Detail</a>

First Row Index:

### Navigation in the DCOM Object Classes Table

To facilitate navigation in the table of DCOM Object Classes, buttons are available at the bottom of the screen.

▶ **To navigate within the table**

- Press one of the buttons  or 

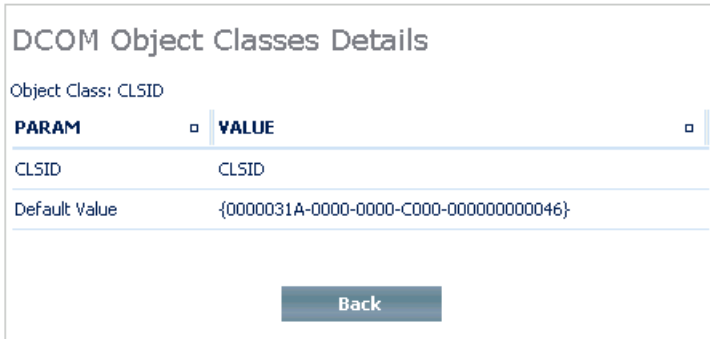
▶ **To advance to a specific row in the table**

- Enter the number of the row desired under First Row Index: and press the  button.

## Object Class Type Details

▶ To display details for a specific object class

- 1 Press the **Detail** button to the right of an Object Class in the table. Additional information on the selected Object Class is displayed in the content frame on a screen similar to the one illustrated below.



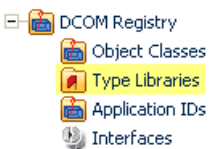
- 2 Press the **Back** button to return to the **DCOM Object Classes** display.

## Type Libraries

---

▶ To display Type Library Information

- In the navigation frame choose **Type Libraries** below the **DCOM Registry** node.





## Type Library Details

When the **Type Libraries** node has been selected in the navigation frame, the list of DCOM type libraries is displayed in the content frame on a screen similar to the one illustrated below.

### Navigation in the DCOM Type Libraries Table

To facilitate navigation in the table of DCOM Type Libraries, buttons are available at the bottom of the screen.

#### ▶ To navigate within the table

- Press one of the buttons  or .

#### ▶ To advance to a specific row in the table

- Enter the number of the row desired either under **First Row GUID Index:** or under **Version Index:** and press the  button.

## Type Library Specific Details

#### ▶ To display details for a specific type library

- 1 Press the  button to the right of a Type Library. Additional information on the selected Type Library is displayed in the content frame on a screen similar to the one illustrated below.

### DCOM Type Library Details

Type Library: {00000200-0000-0010-8000-00AA006D2EA4}

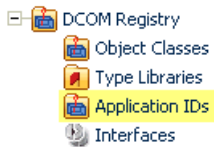
PARAM	VALUE
TypeLib	{00000200-0000-0010-8000-00AA006D2EA4}
Version 2.0	Microsoft ActiveX Data Objects 2.0 Library
--- win32	C:\Program Files\Common Files\System\ado\msado20.tlb
-- FLAGS	0
-- HELPDIR	C:\WINDOWS\HELP

- 2 Press the  button to return to the DCOM Type Libraries display.

## Application IDs

▶ To display DCOM application identifiers

- In the navigation frame choose **Application IDs** below the **DCOM Registry** node.



### DCOM Application IDs Details

When the **Application IDs** node has been selected in the navigation frame, the list of DCOM application identifiers is displayed in the content frame on a screen similar to the one illustrated below.

#### DCOM Application IDs

ICON	APPLICATION ID	DETAIL
	{69AD4AEE-51BE-439b-A92C-86AE490E8B30} BITS	<a href="#">Detail</a>
	{5CE55CD8-5179-11D2-931D-0000F875AE17} conf.exe	<a href="#">Detail</a>
	{4FB6BB00-3347-11d0-B40A-00AA005FF586} dmadmin.exe	<a href="#">Detail</a>
	{D485DDC0-49C6-11d1-8E56-00A0C92C9D5D} dmremote.exe	<a href="#">Detail</a>
	{2A6D72F1-6E7E-4702-B99C-E40D3DED33C3} FrameworkService.EXE	<a href="#">Detail</a>
	{FC7D9E01-3F9E-11D3-93C0-00C04F72DAF7} HelpCtr.EXE	<a href="#">Detail</a>
	{833E4001-AFF7-4AC3-AAC2-9F24C1457BCE} HelpSvc.EXE	<a href="#">Detail</a>
	{C49F2185-50A7-11D3-9144-00104BA11C5E} IMAPI.EXE	<a href="#">Detail</a>
	{2DE6426A-0708-415C-8C19-623CC4855F80} LegitCheckControl.DLL	<a href="#">Detail</a>
	{F808DF63-6049-11D1-BA20-006097D2898E} logagent.EXE	<a href="#">Detail</a>

First Row Index:

Go To Index
< Prev 10
Next 10 >
Cancel

## Navigation in the DCOM Application IDs Table

To facilitate navigation in the table of DCOM Application IDs, buttons are available at the bottom of the screen.

### ▶ To navigate within the table

- Press one of the buttons  or .

### ▶ To advance to a specific row in the table

- Enter the number of the row desired under First Row Index: and press the  button.

## Application IDs Specific Details

### ▶ To display details for an application identifier


- 1 Press the  button to the right of an application ID. Additional information on the selected application ID is displayed in the content frame on a screen similar to the one illustrated below.

#### DCOM Application ID Details

Interface : {00000000-0000-0000-C000-000000000046}

PARAM	VALUE
Interface	{00000000-0000-0000-C000-000000000046}
Default Value	IUnknown
-- BaseInterface	
-- NumMethods	3



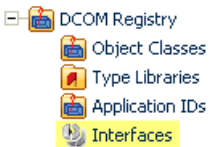
- 2 Press the  button to return to the DCOM Application IDs display.

## Interfaces

---

### ▶ To display DCOM interfaces

- In the navigation frame choose **Interfaces** below the **DCOM Registry** node.



### DCOM Interfaces Details

When the **Interfaces** node has been selected in the navigation frame, the list of DCOM interfaces are displayed in the content frame.

### Navigation in the DCOM Interfaces Table

To facilitate navigation in the table of DCOM Interfaces, buttons are available at the bottom of the screen.

### ▶ To navigate within the table

- Press one of the buttons  or .

### ▶ To advance to a specific row in the table

- Enter the number of the row desired under First Row Index: and press the  button.

## Interface-specific Details

▶ To display details for a specific interface

- 1 Press the **Detail** button to the right of an interface. Additional information on the selected interface is displayed in the content frame on a screen similar to the one illustrated below.

### DCOM Application ID Details

Interface : {00000000-0000-0000-C000-000000000046}

PARAM	VALUE
Interface	{00000000-0000-0000-C000-000000000046}
Default Value	IUnknown
-- BaseInterface	
-- NumMethods	3

Back

- 2 Press the **Back** button to return to the DCOM Application IDs display.



# II

## Batch Interface

---





# 15 Batch Interface

---

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▪ Batch Authentication .....	97
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▪ Batch Help .....	99

The batch interface is standard for SMH.



**Note:** You must have a valid admin user to run batch commands.

This chapter covers the following topic:

## Overview

---

The batch interface is a distributed console-based application. You must have at least one Runtime instance installed on your Intranet in order to perform batch-based management of a Software AG product.

The SMH installation procedure installs all of the generic components used by the batch interface. The specific product installation adds all product-specific components such as batch agents and templates.



### Notes:

1. SMH batch interface (the command `>argbatch`) must be run from the same directory on which the SMH software is installed: *Software AG\_directory\InstanceManager\bin*.
2. If Runtime is installed on a system different from the one other Software AG products are installed, the product-specific Runtime components must be installed on the Runtime machine.

From the batch interface you can query for supported commands, command syntax, etc. Usage of the batch interface is identical on every supported platform.



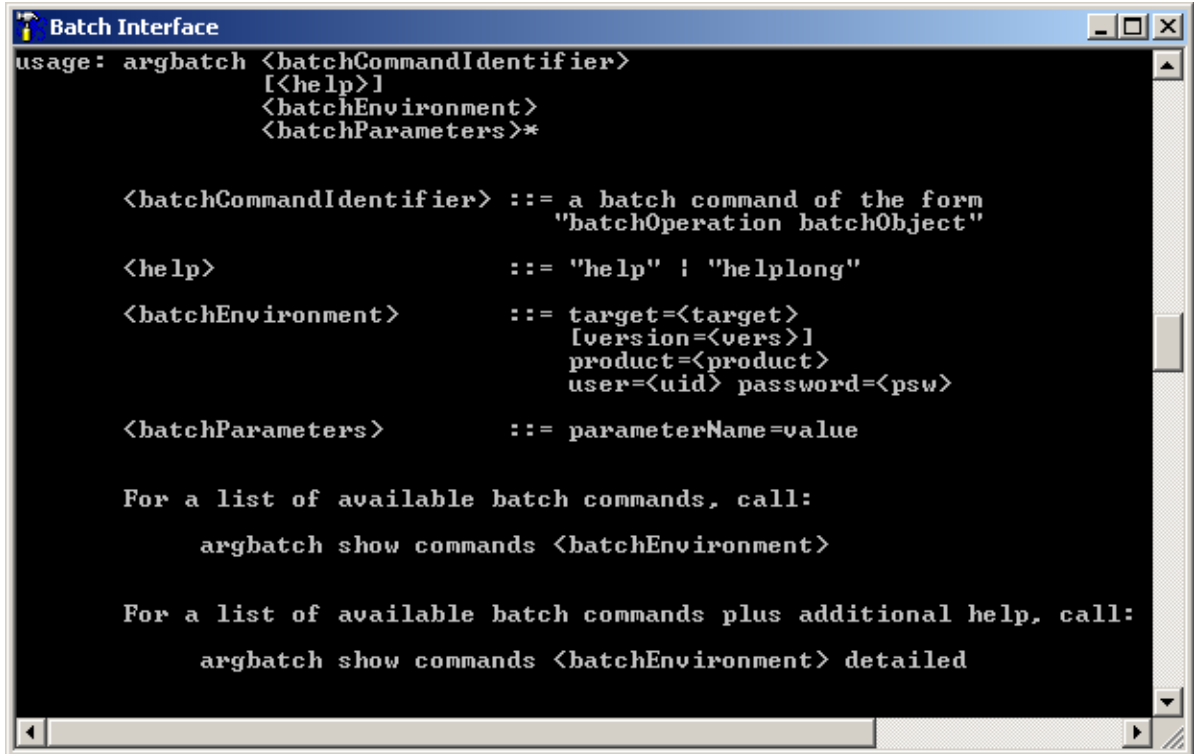
### Notes:

1. The batch console connects to the Runtime instance that is configured in your registry. Refer to the *Registry Settings* for more information on this topic.

### ▶ To display the batch interface screen

- From the system console enter `>argbatch`. Remember that the batch interface must be started from the same directory on which SMH software is installed.

A screen similar to the following is displayed. Note that the actual screen contains much more information than this screen capture.



```

Batch Interface
usage: argbatch <batchCommandIdentifier>
        [<help>]
        <batchEnvironment>
        <batchParameters>*

<batchCommandIdentifier> ::= a batch command of the form
                            "batchOperation batchObject"

<help>                      ::= "help" | "helplong"

<batchEnvironment>         ::= target=<target>
                            [version=<vers>]
                            product=<product>
                            user=<uid> password=<psw>

<batchParameters>         ::= parameterName=value

For a list of available batch commands, call:
    argbatch show commands <batchEnvironment>

For a list of available batch commands plus additional help, call:
    argbatch show commands <batchEnvironment> detailed

```

## Batch Environment

To uniquely address a proper agent in a batch command, you must provide information about the target node, the product and the version. The batch environment is specified in the format:

```
target=abc version=def product=ghi user=jkl password=mnopq
```

The following specific commands are available for the batch environment:

```
show environment
set environment
clear environment
```

With the set environment command, the user can preset the values for target, version, product, user and password to avoid having to enter this information for every subsequent command. These settings remain valid until a new set environment or clear environment command has been submitted. If the clear environment command is submitted without additional parameters, all the current settings are cleared. The show environment command lists the current settings.

An environment parameter specified directly in a batch command takes top priority. If no environment is specified in a batch command, the pre-settings are taken (if they exist). Otherwise, an error message is displayed.

## Batch Command Format

---

Every batch command must begin with the string `argbatch`. The individual elements of batch commands must be separated either by blank spaces or tabs. The basic elements of a batch command are:

```
argbatch <batchCommandIdentifier> <batchEnvironment> <batchParameters>* <batchHelp>
```



**Note:** `argbatch` relies on tokenization of the underlying shell. For this reason, always use double backslashes in parameter values (for example, for pathnames) to specify a single backslash.

A command identifier consists of a `<commandOperation>` and a `<commandObject>`. Typical command operations are `show`, `set`, `create`, `delete`, `backup`. Some of the common command objects are `database`, `databaseLocation`, `job`, and `extension`.

The element `<batchEnvironment>` specifies the target node, user and password for the batch operation, the product and the version necessary to identify an appropriate agent on the server side. The default target node is `localhost`; the default version is the most recently installed version as specified in the registry of the target node.

A batch command can take one or more parameters that consist of a `<parameterName>` and a `<parameterValue>` joined by an equal sign ("`=`") without blank spaces; for example, `target=mypc`. A parameter value may include blank spaces, in which case it must be enclosed in inverted commas (double quotes, "`"`"); for example, `product="System Management Hub"`.

Some of the parameters that come directly from a specific product are case sensitive. Otherwise, all batch interface parameters are case insensitive.

A parameter always has following form:

```
<parameterName><=><parameterValue>
```


Authorization, for those commands that require it, takes the following form:

```
user=myuserID password=mypassword
```

See [Batch Authentication](#) for more details.

If a mandatory parameter is omitted you receive an error message of the following type:

### Specification of parameter uvwxyz is mandatory!

-  **Note:** The `<commandIdentifier>` must appear immediately after `argbatch`. In most installations, the order of all other parameters is arbitrary. This may, however, vary depending on the Software AG products installed in your particular environment. Refer to the online help of the individual command for additional information.

## Batch Commands

This section contains details on the batch interface commands. It is intended for reference of system administrators.

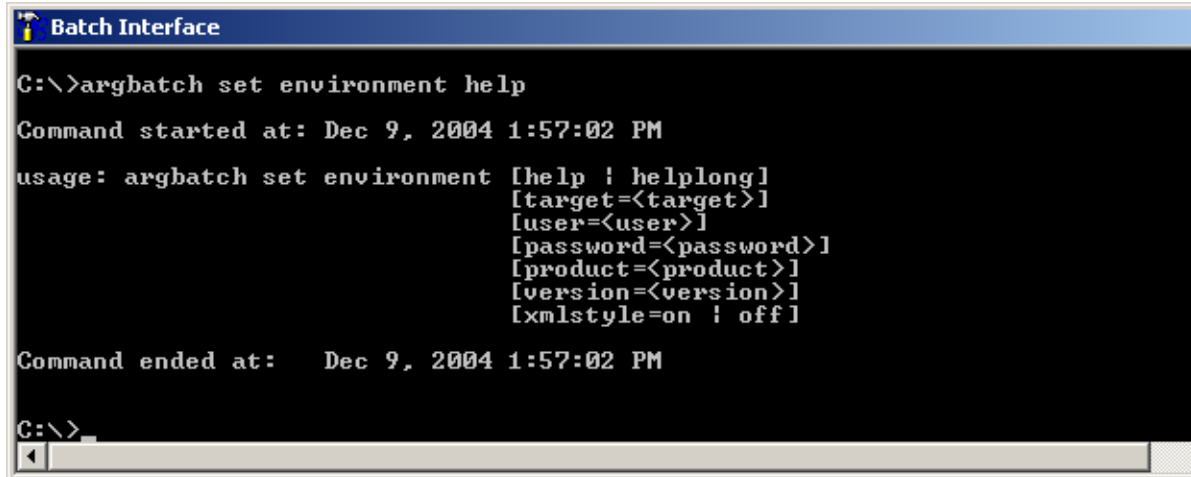
The information is structured under the following topics:

- [Displaying Help for Any Command](#)
- [Displaying the Current Environment](#)
- [Setting the Password](#)
- [Setting a New Target](#)
- [Displaying Information for a Specific Target](#)
- [Displaying Information for All Targets](#)
- [Clearing the Current Active Environment](#)
- [Clearing a Specific Environment](#)
- [Clearing All Environments](#)
- [Setting a Specific Product](#)
- [Setting a Specific Version](#)
- [Requesting a List of Available Commands](#)
- [Requesting a List of Commands for a Specific Product on a Specific Node](#)
- [Displaying a List of the Installed Products](#)
- [Displaying Hardware Information for a Particular Target](#)
- [Displaying Information on Hotfixes in Hatch](#)
- [Configuring SSX](#)
- [Ignoring an SSL Error Message](#)

### Displaying Help for Any Command

#### ▶ To display help for any command

- Type `help` after the `<commandIdentifier>` and `<batchEnvironment>`, as illustrated in the following example for `set environment`:



```
C:\>argbatch set environment help
Command started at: Dec 9, 2004 1:57:02 PM
usage: argbatch set environment [help | helplong]
      [target=<target>]
      [user=<user>]
      [password=<password>]
      [product=<product>]
      [version=<version>]
      [xmlstyle=on | off]
Command ended at:   Dec 9, 2004 1:57:02 PM
C:\>
```

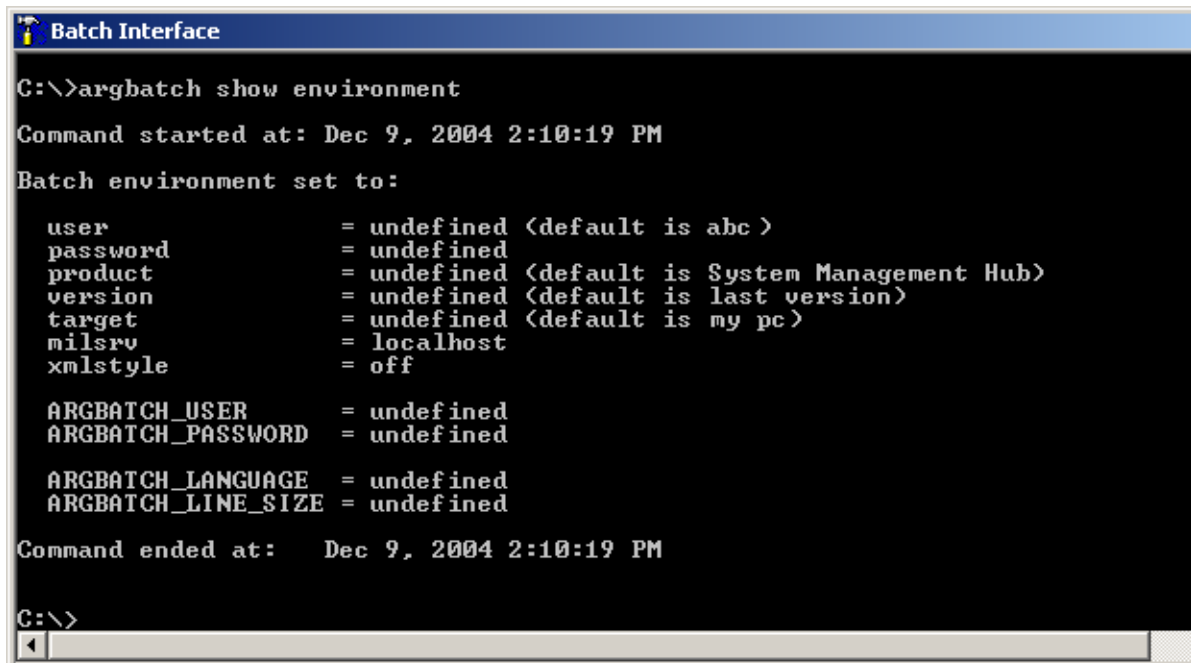
In this example, the command `argbatch set environment help` displays help on the usage of the command `set environment`. See also section [Batch Help](#).

## Displaying the Current Environment

▶ To display the current environment

- Type in the command:

```
argbatch show environment
```



```
C:\>argbatch show environment
Command started at: Dec 9, 2004 2:10:19 PM
Batch environment set to:
  user           = undefined (default is abc )
  password       = undefined
  product        = undefined (default is System Management Hub)
  version        = undefined (default is last version)
  target         = undefined (default is my pc)
  milsrv         = localhost
  xmlstyle       = off
  ARGBATCH_USER = undefined
  ARGBATCH_PASSWORD = undefined
  ARGBATCH_LANGUAGE = undefined
  ARGBATCH_LINE_SIZE = undefined
Command ended at:   Dec 9, 2004 2:10:19 PM
C:\>
```

## Setting the Password

The password is initially set to **undefined**. Since a password is required for most functions, we recommend setting this parameter first.

The `set` command can be used for a variety of functions.

### ▶ To set the password

- Type in the command

```
argbatch set environment password=mypassword
```

The password is displayed as you type it for the first time. In subsequent batch sessions, however, the password is hidden (as a string of asterisks). Refer also to [Batch Mode Password Utility](#).

## Setting a New Target

Specific target environments can be created in batch representing specific target profiles to include individual user, password, product and version parameters. Unless otherwise specified, the batch environment assumes the default settings.

### ▶ To set a new target

- Type in the command

```
argbatch set environment target=newtarget
```



**Note:** Once a new target has been specified, the new target becomes active and all subsequent commands apply by default to that new target.

When a new target is set, the default values are assumed for any parameter not specified. If you wish to set a different parameter for a new target, add the parameter to the command as in the following example.

```
argbatch set environment target=newtarget product=newproduct
```

## Displaying Information for a Specific Target

When new targets have been added, with the `show environment` command it is possible to specify a specific target.

### ▶ To display information for a specific target

- Type in the command

```
argbatch show environment target=newtarget
```

## Displaying Information for All Targets

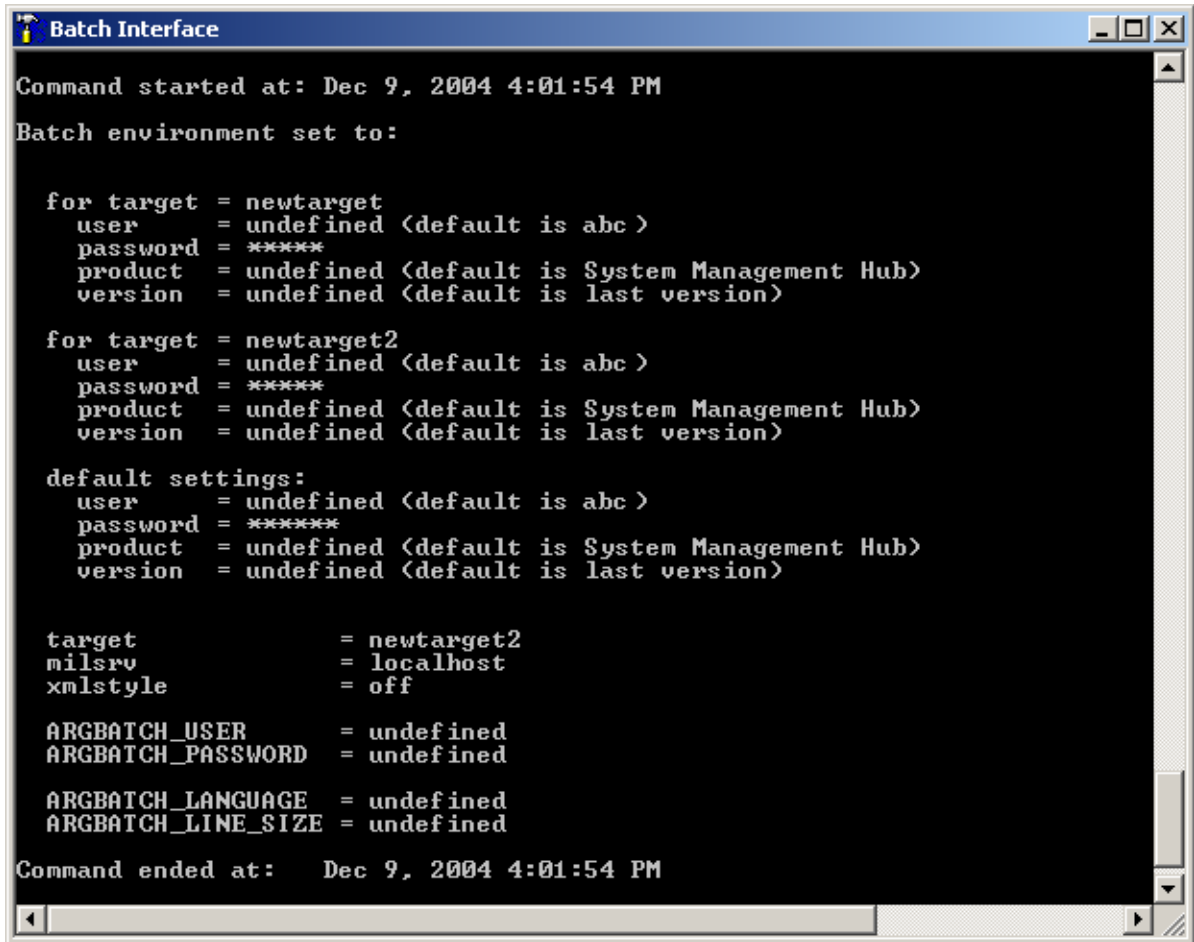
### ▶ To display information for all targets

- Type in the command

```
argbatch show environment alltargets
```

The new display is similar to the following example:



A screenshot of a Windows-style window titled "Batch Interface". The window has a blue title bar with standard minimize, maximize, and close buttons. The main content area is black with white text. The text shows the execution of a batch script, starting with "Command started at: Dec 9, 2004 4:01:54 PM" and "Batch environment set to:". It lists several "for" loops for variables like "target", "user", "password", "product", and "version", each with a default value. It also shows "default settings:" and a list of environment variables like "target", "milsrv", "xmlstyle", "ARGBATCH\_USER", "ARGBATCH\_PASSWORD", "ARGBATCH\_LANGUAGE", and "ARGBATCH\_LINE\_SIZE". The window ends with "Command ended at: Dec 9, 2004 4:01:54 PM".

```
Batch Interface
Command started at: Dec 9, 2004 4:01:54 PM
Batch environment set to:

for target = newtarget
  user = undefined (default is abc)
  password = *****
  product = undefined (default is System Management Hub)
  version = undefined (default is last version)

for target = newtarget2
  user = undefined (default is abc)
  password = *****
  product = undefined (default is System Management Hub)
  version = undefined (default is last version)

default settings:
  user = undefined (default is abc)
  password = *****
  product = undefined (default is System Management Hub)
  version = undefined (default is last version)

target = newtarget2
milsrv = localhost
xmlstyle = off

ARGBATCH_USER = undefined
ARGBATCH_PASSWORD = undefined

ARGBATCH_LANGUAGE = undefined
ARGBATCH_LINE_SIZE = undefined

Command ended at: Dec 9, 2004 4:01:54 PM
```

## Clearing the Current Active Environment

▶ To clear the current active environment

- Type in the command

```
argbatch clear environment
```

## Clearing a Specific Environment

### ▶ To clear a specific environment

- Type in the command with the target

```
argbatch clear environment target=newtarget2
```

## Clearing All Environments

### ▶ To clear all environments

- Type in the command

```
argbatch clear environment alltargets
```

## Setting a Specific Product

It is also possible to use the `set environment` command to define specific products or versions within the environment. The syntax is similar to the previous examples.

### ▶ To set a specific product

- Type in the command

```
argbatch set environment product=newproduct
```

## Setting a Specific Version

### ▶ To set a specific version

- Type in the command

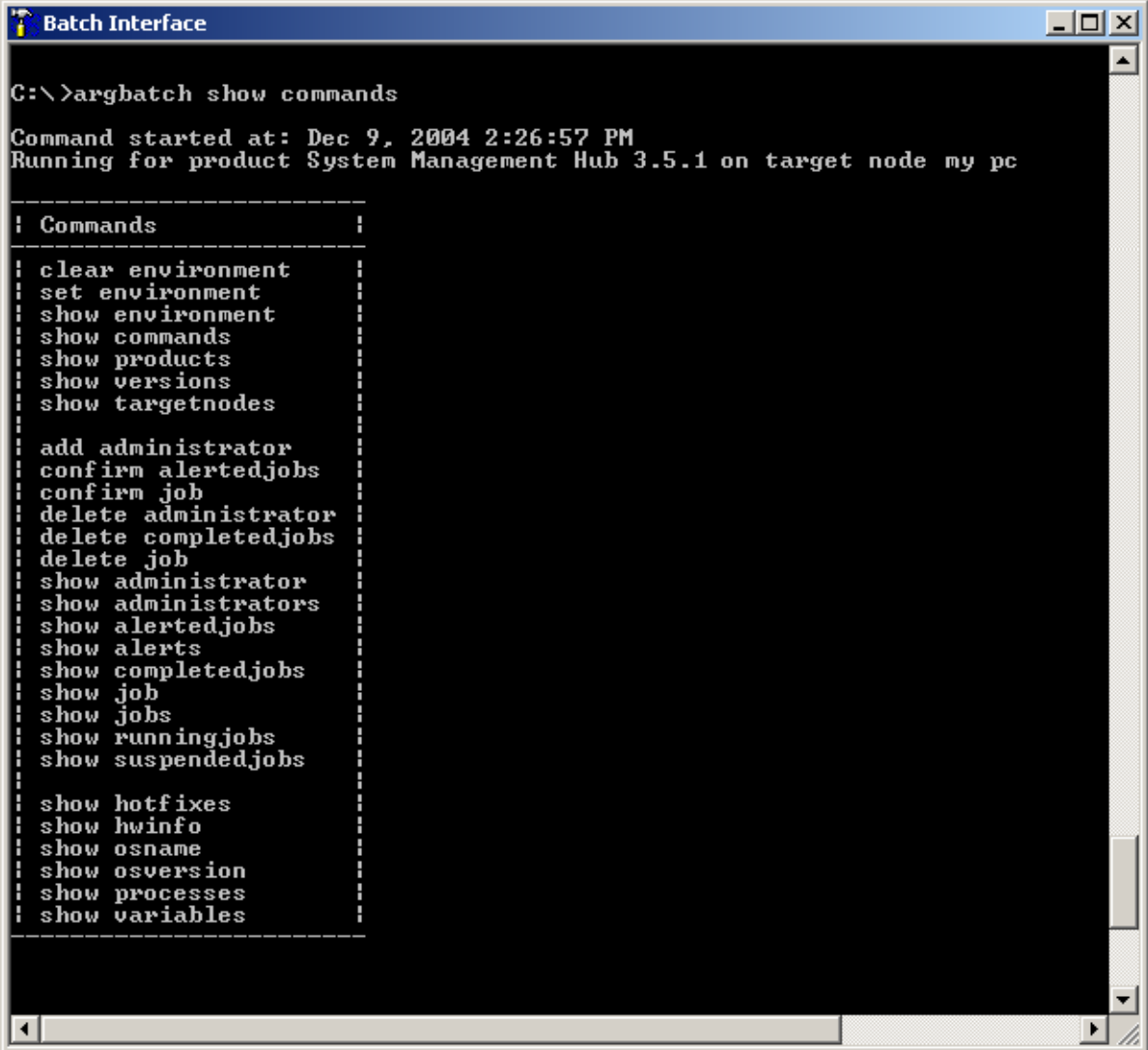
```
argbatch set environment version=newversionnumber
```

## Requesting a List of Available Commands

▶ To request a list of available commands

- Type in the command

```
argbatch show commands product="System Management Hub" ↵  
user=abc password=mypassword
```



```
Batch Interface  
C:\>argbatch show commands  
Command started at: Dec 9, 2004 2:26:57 PM  
Running for product System Management Hub 3.5.1 on target node my pc  
-----  
| Commands |  
-----  
| clear environment |  
| set environment |  
| show environment |  
| show commands |  
| show products |  
| show versions |  
| show targetnodes |  
  
| add administrator |  
| confirm alertedjobs |  
| confirm job |  
| delete administrator |  
| delete completedjobs |  
| delete job |  
| show administrator |  
| show administrators |  
| show alertedjobs |  
| show alerts |  
| show completedjobs |  
| show job |  
| show jobs |  
| show runningjobs |  
| show suspendedjobs |  
  
| show hotfixes |  
| show hwinfo |  
| show osname |  
| show osversion |  
| show processes |  
| show variables |  
-----
```

If no other parameters are specified, the commands for the default environment settings are displayed. The actual list of commands in your environment can be much longer than this snapshot.

## Requesting a List of Commands for a Specific Product on a Specific Node

Commands are organized in three blocks. The commands displayed in the first block are batch specific. The commands displayed in the second block are SMH-specific. Both of these first two blocks of commands apply to every installation of SMH. The final block of commands is product-specific and varies considerably depending on the local environment.

### ▶ To request a list of commands for a specific product on a specific node

- Add the desired environment variables to the previous command as in this example:

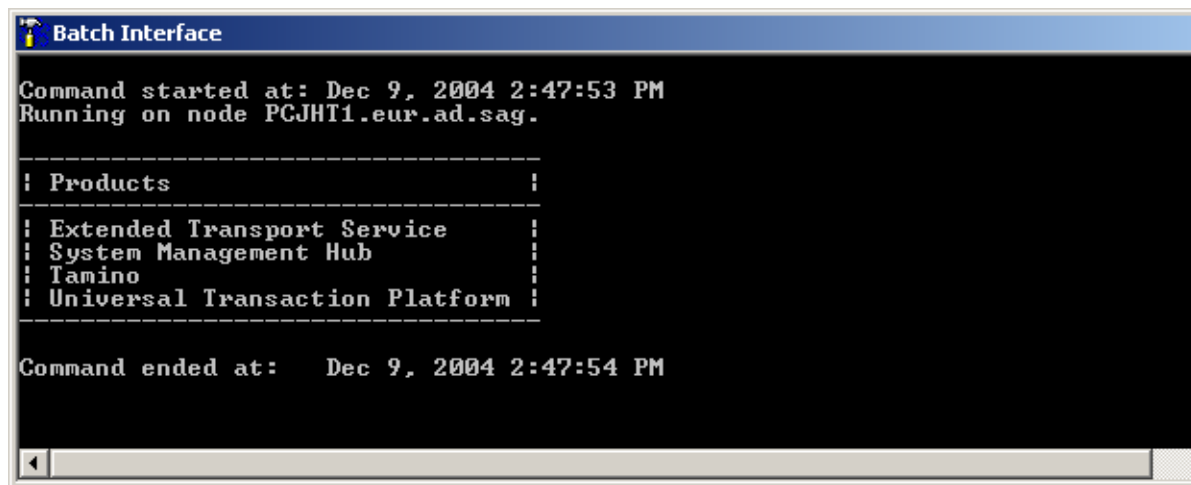
```
argbatch show commands product=myproduct user=abc password=mypassword
```

## Displaying a List of the Installed Products

### ▶ To display a list of the products installed

- Type in the command

```
argbatch show products
```



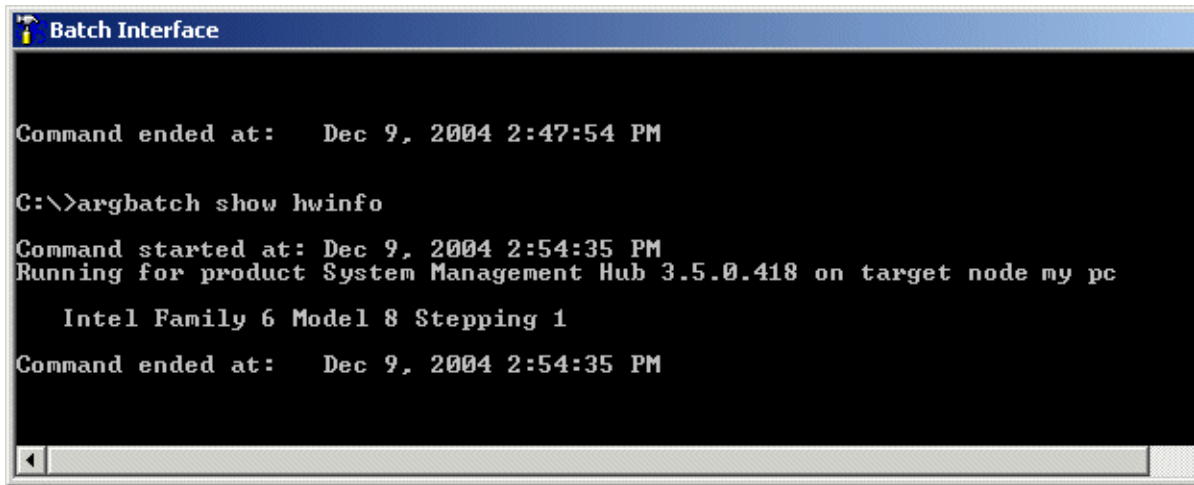
```
Batch Interface
Command started at: Dec 9, 2004 2:47:53 PM
Running on node PCJHT1.eur.ad.sag.
-----
: Products                               :
: Extended Transport Service             :
: System Management Hub                  :
: Tamino                                 :
: Universal Transaction Platform         :
-----
Command ended at:   Dec 9, 2004 2:47:54 PM
```

## Displaying Hardware Information for a Particular Target

### ▶ To display hardware information for a particular target

- Type in

```
argbatch show hwinfo
```



```
Batch Interface

Command ended at:   Dec 9, 2004 2:47:54 PM

C:\>argbatch show hwinfo

Command started at: Dec 9, 2004 2:54:35 PM
Running for product System Management Hub 3.5.0.418 on target node my pc

    Intel Family 6 Model 8 Stepping 1

Command ended at:   Dec 9, 2004 2:54:35 PM
```

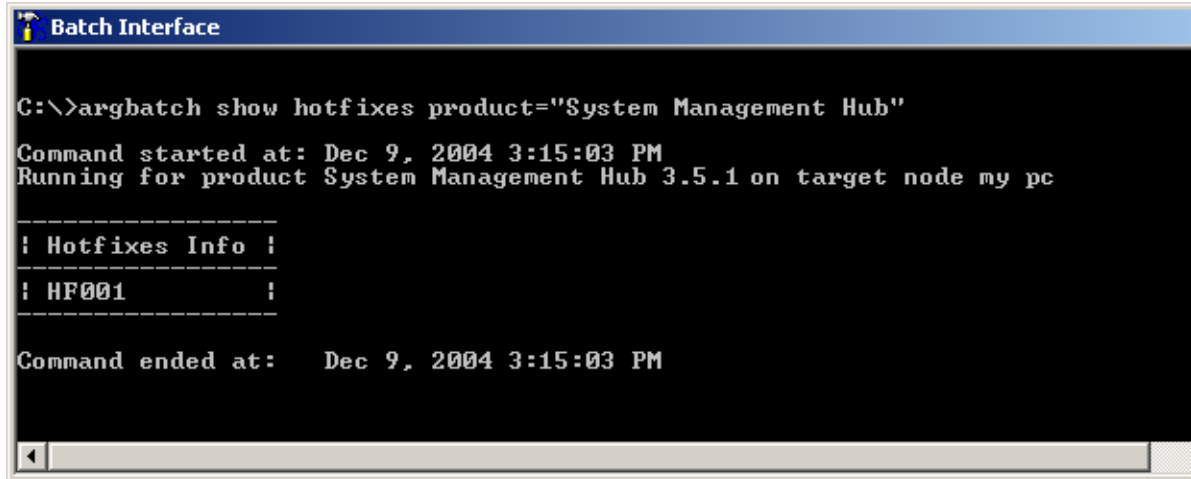
## Displaying Information on Hotfixes in Hatch

### ▶ To display information on hotfixes in batch

- In batch mode, type in the command "show hotfixes" and the product name as in the example below:

```
show hotfixes product="System Management Hub"
```

The batch interface displays a frame with information on the hot fixes installed, similar to the example below.



```
Batch Interface

C:\>argbatch show hotfixes product="System Management Hub"

Command started at: Dec 9, 2004 3:15:03 PM
Running for product System Management Hub 3.5.1 on target node my pc

-----
! Hotfixes Info !
! HF001          !
-----

Command ended at:   Dec 9, 2004 3:15:03 PM
```

The contents of this frame varies from installation to installation.

## Configuring SSX

SMH 9.0 comes with SSX disabled by default. It can be enabled via the batch interface.

```
C:\Program Files\Software AG\System Management Hub\bin>argbatch set ssexabled
Running for product System Management Hub 9.0 on target node R1.sag
Specification of parameter enable is mandatory!
usage: set ssexabled [help | helplong]
[user=<user>]
[password=<password>]
[target=<target node>]
[product=<product>]
[version=<version>]
enable="true" | "false"
```

### ▶ To check current SSX configuration

- `argbatch show ssexabled`

```
SSX authentication is currently disabled
```

### ▶ To enable SSX authentication

- Set the SSX configuration to "true"

```
argbatch set ssxenabled enable=true
```

```
SSX Authentication enabling successful
```

### ▶ To disable SSX authentication

- Set the SSX configuration to "false"

```
argbatch set ssxenabled enable=false
```

```
SSX Authentication disabling successful
```

For details on the SSX module and the authentication scenarios, see *Authentication in SMH*.

## Ignoring an SSL Error Message

If you do not ignore the SSL error message (that reports of a problem with your SSL communication) you may have problems to execute commands.

For example, if there is a problem with the SSL configuration of the host you are trying to connect to, you must either transmit data in plain text or solve the problem first.

### ▶ To ignore an SSL error message

- Append the parameter `skipsslerror=1` to each command you run in batch interface to ignore an SSL error message.

Following is an example of running a command to show information for a specific target:

```
argbatch show environment target=newtarget skipsslerror=1
```

Refer to *Secure Sockets Layer (SSL) in SMH* for a list of possible SSL configuration problems.

## Batch Authentication

For the target node, a user and a password must be specified. There are three ways to define the target user and password:

1. Directly as parameters in the batch command, for example, :

```
start database user=abc  
password=defghijk ...
```

This setting has the highest priority. If a target user and password are specified in this way, all other settings are ignored.

2. With the environment variables `ARGBATCH_USER` and `ARGBATCH_PASSWORD`. If these two environment variables have been defined on the client side, their values are taken. Specifying user and password directly as parameters in the batch command overrides these values (as stated above).
3. Specifying the target user with the `setEnvironment` statement is the recommended method, as password and user ID are encrypted and stored. This means, you do not have to enter them in the command prompt for every sub-subsequent command (see also [Batch Environment](#)). If no user and password information has been specified with the other two methods, the user and password information set here are applied.



**Note:** If the target node is a Windows machine that is part of a Windows domain, the logon user name must be provided as: `<Domain>\<user>`, for example, `sag\myself`

It is possible to pipe one or more batch commands into the batch client if they are specified in a file separated by semicolons. for example, `:argbatch < commands.in > commands.out`.

## Batch Mode Password Utility

---

Command	Parameters	Description
<code>argpswd</code>	<code>-help</code>	Displays a short help message

This utility is run from the command prompt. The first thing displayed is the current user ID that is stored in the registry. The tool then prompts you whether you would like to change the user ID, in case you have a different user ID on the target you are connecting to. To continue, enter the new user ID and password (that is masked as you type it).

In case the tool has been run by accident, you are asked to confirm that you wish to change the password. If you do so, the user name and password are stored in the SMH registry and you receive either the message that the password has been changed successfully or an error message if problems have occurred.



**Note:** Changes are reflected in the `argbatch` environment when you make an "argbatch show environment" call.



## Troubleshooting

Registry init failure	This error occurs if SMH registry initialization fails. This error normally occurs if SMH is not running.
Registry Access Failed on set user	This error occurs when the tool is unable to store the user information in SMH registry. The most common cause of this error is when the SAG environment has not been set up correctly, causing in turn incorrect settings for the SMH environment variables.
Registry Access Failed on set password	This error occurs when the tool is unable to store the password information.

## Batch Help

As mentioned previously, the batch help command has the following form:

```
[<commandIdentifier>] [<batchEnvironment>] help
```

Following are its characteristics:

- When both *<commandIdentifier>* and *<batchEnvironment>* are specified, the help information is restricted to those batch environment parameters.
- If only *<commandIdentifier>* is specified, information about the batch command on the localhost is given.
- If only *<batchEnvironment>* is specified, all available batch commands for the specified target node, product and version are given.
- If neither *<commandIdentifier>* nor *<batchEnvironment>* is specified, some general information about batch is displayed.

An alternative help command is also available: `help long`. This command, where available, displays more detailed information than the standard `help` command. Where it is not available, the `help long` command produces the same output as the `help` command.

The following screen capture shows a sample of the output of the `help long` command with the `create database` command. The information is part the `create database` command with the product Tamino.

```

Batch Interface
usage: create database [help | helplong]
[user=<user>]
[password=<password>]
[target=<target node>]
[product=<product>]
[version=<version>]

database=<name>
[backuptype="file" | "tape"]
[initialfile=<value>]
[loglocation_0=<value>]
...
[loglocation_n=<value>]
[logarchivelocation_0=<value>]
...
[logarchivelocation_n=<value>]
[temporaryworkinglocation_0=<value>]
...
[temporaryworkinglocation_n=<value>]
[reserve location_0=<value>]
...
[reserve location_n=<value>]
[backuplocation_0=<value>]
...
[backuplocation_n=<value>]
[size="small" | "medium" | "large"]
[updates="few" | "many"]
[users="few" | "many"]
[dataspace size_0=<value>]
...
[dataspace size_n=<value>]
[dataspace location_0=<value>]
...
[dataspace location_n=<value>]
[indexspace size_0=<value>]
...
[indexspace size_n=<value>]
[indexspace location_0=<value>]
...
[indexspace location_n=<value>]
[journal space size=<value>]
[journal space location=<value>]
[autostart="yes" | "no"]
[autoexpand="yes" | "no"]

Detailed Parameter description:
database: Name of the database, maximum length is 32
characters
backuptype: Deprecated! Backup medium, if the new database
is to be created from an existing backup
file: xxx
tape: xxx
initialfile: Deprecated! Name of backup file for database
creation
loglocation_0...n: Name of log location
logarchivelocation_0...n: Name of log archive location
temporaryworkinglocation_0...n: Name of temporary working location
reserve location_0...n: Name of reserved location
backuplocation_0...n: Name of backup location
size: small: Creation of a small database
medium: Creation of a medium database
large: Creation of a large database
The parameter size influences the size of the data-, index- and journal space
containers. Please refer to the documentation for detailed values.
updates: few: Few write operations on database
many: Many write operations on database
users: few: Few users working with the database
many: Many users working with the database
dataspace size_0...n: Size of data space in MB
dataspace location_0...n: Name of location used for data space x
indexspace size_0...n: Size of index space in MB
indexspace location_0...n: Name of location used for index space x
journal space size_0...n: Size of journal space in MB
journal space location_0...n: Name of journal space location
autostart: yes: The database will be started automatically
when the computer starts as well as after its
creation
no: The database will not be started automatically
when the computer starts

```

# III

## SNMP Add-on Interface

---



# 16

## SNMP Add-on Interface

---

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This add-on provides a SNMP interface to all products that are managed by SMH, exporting part of its functionality to other different environments with all of the advantages that this feature implies.

The SNMP interface features:

- Bilingual, support for SNMPv1 and SNMP v2c
- Notifications are sent using SNMPv1
- MIBs are provided using SMIV2



Software AG's System Management Hub has been certified ca smart with CA UNICENTER, Licensed Software, from Computer Associates.

Please follow this link for more information on ca smart certification: [ca smart Partner Certification](#).

This chapter covers the following topics:

## Installation

---

The install procedure sets up all of the required parameters:

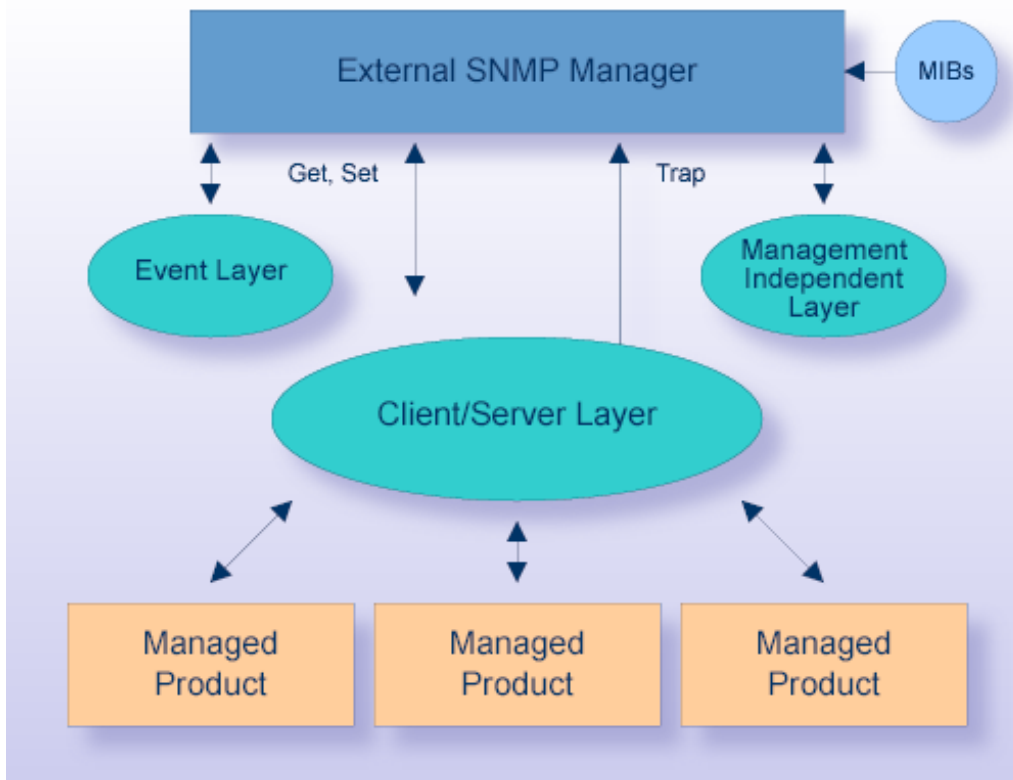
- Read community string
- Read/Write community string
- Default target for notifications
- Listen on UDP ports

## Technical Background

---


The SNMP interface package consists of the following components:

- Client/Server layer SNMP adapter
- Runtime SNMP adapter
- Event Layer SNMP adapter



Each of the three SNMP adapters exports parts of the MIB-2 tree, all of them implement the sys-Group and snmpGroup.

All three SNMP adapters are set up to listen on a private UDP port. Therefore, do not use by default the standard SNMP UDP port 161. The single entry point for using SNMP with all Software AG products managed SMH is provided with the Client/Server Layer SNMP adapter.

 **Note:** The other two adapters are provided to control the internal layers of SMH and are not mandatory for SNMP management of a Software AG product.

If you want to use the default SNMP port for listening, disable the third-party SNMP agents listening on the default SNMP port 161 and install SMH SNMP interface as:

- Client/Server Layer SNMP adapter, listening on port 161
- Runtime SNMP adapter, listening on a private port
- Event Layer SNMP adapter, listening on a private port

If you want to access all three SNMP adapters with the default SNMP port 161 and use this together with other operating-system or third-party SNMP agents that already listen on the SNMP default port 161, you must

- Use an external third-party SNMP proxy and redirect the specific SoftwareAG MIB branches to the three SMH SNMP adapters listening on private UDP ports

- All SoftwareAG MIB branches for products managed by SMH must be redirected to the Client/Server Layer SNMP, SNMP adapter
- Configure the operating system master agent to perform the port translation if this is possible (for example, on Solaris)

See the README.TXT for unsupported SNMP features including SNMP proxy modules for various SNMP master agents; the proxy modules that act as SNMP subagent are described in the section "SNMP sub-agent configuration".

## SNMP Components

---

This section describes the configuration of SMH SNMP interface for usage as a subagent of native, operating system-dependant, SNMP master agents.

- `argsnmpp1`
- `argsnmpp2`
- `argsnmpp3`

### `argsnmpp1`

SMH `argsnmpp1` module integrates with native SNMP master agents that use the SNMP protocol to communicate with subagents (for example, Oracle SNMP agent for Solaris 7 or above).

Start the `argsnmpp1` using the following command line:

```
argsnmpp1 port port_cs port_ev port_mil r_str w_str
```

where

```
port      : the SNMP port for this module, for example, 9161
port_cs   : the SNMP port of the ClientServerLayer SNMP interface, for example, 9903
port_ev   : the SNMP port of the EventLayer SNMP interface, for example, 9904
port_mil  : the SNMP port of the ManagementIndependentLayer SNMP interface, for ←
example, 9992
r_str     : the read community string
w_str     : the read/write community string
```

For Solaris 7 or above systems, see also the Solaris *readme.txt* for additional configuration information.

### Configuration of `argsnmpp1` on Windows

The `argsnmpp1.exe` can run as service or standard win32 application. The SNMP port used by the `argsnmpp1` proxy must be defined in the registry under the key:



```
HKEY_LOCAL_MACHINE\SOFTWARE\Software AG\System Management Hub\SNMPLayer\Proxy
String value: Snmp_Port
```

### Registration as service:

```
argsnmpp1.exe -register      ; register the argsnmpp1 as service
argsnmpp1.exe -unregister   ; unregister the argsnmpp1 service
argsnmpp1.exe -start       ; start the argsnmpp1 service, or use the control panel ←
for services
argsnmpp1.exe -stop        ; stop the argsnmpp1 service, or use the control panel ←
for services
```

## argsnmpp2

SMH `argsnmpp2` module integrates with native SNMP master agents that use the Agent Extensibility (AgentX) Protocol to communicate with subagents (for example, NET-SNMP master agents, default on Linux platforms).

Start the `argsnmpp2` using the following command:

```
argsnmpp2 port_mode port_cs port_ev port_mil r_str w_str
```

### where

`port_mode`: 0 - use only TCP sockets, the agentx communication port is configurable in the services file:

```
/etc/services/services
```

```
for example, agentx entry:
agentx 1510/tcp
```

If no entry in the services file, the default port number 705 is used.

1 - use only UNIX domain sockets, the used agentx port location:

```
/var/agentx/
```

Note: if using UNIX domain sockets, the `argsnmpp2` must run with 'root' rights.

2 - use both TCP and UNIX sockets

```
port_cs : the SNMP port of the ClientServerLayer SNMP interface, for example, 9903
port_ev : the SNMP port of the EventLayer SNMP interface, for example, 9904
port_mil : the SNMP port of the ManagementIndependentLayer SNMP interface, for ←
example, 9992
```

```
r_str      : the read community string
w_str      : the read/write community string
```

### Configuration of argsnmpp2 on Windows

The argsnmpp2.exe can run as a service or standard Win32 application. The agentx communication port used by the argsnmpp2 proxy is configurable in the services file:

```
%WINDIR%\system32\drivers\etc\SERVICES
```

```
for example, agentx entry:
    agentx    1510/tcp
```

If no entry in the services file, the default port number 705 is used.

Registration as service:

```
argsnmpp2.exe -register      ; register the argsnmpp2 as service
argsnmpp2.exe -unregister   ; unregister the argsnmpp2 service
argsnmpp2.exe -start       ; start the argsnmpp2 service, or use the control panel ↵
for services
argsnmpp2.exe -stop        ; stop the argsnmpp2 service, or use the control panel ↵
for services
```

### argsnmpp3

SMH argsnmpp3 module integrates with the native Windows SNMP Agent for Windows NT, Windows 2000 and Windows XP.

The Microsoft Windows SNMP service must be installed on the same machine. Please, consult the Windows documentation for more informations about the Microsoft Windows SNMP service.

### Configuration Steps

1. Stop the Windows SNMP service using the Windows Service Control Manager (for example, on Windows: *Control Panel*-> *Administrative Tools* -> *Services*).
2. Use the Windows registry editor (for example, *regedit.exe*), expand the key `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SNMP\Parameters\ExtensionAgents` and add under this key the new string value.

```
Name="Software AG System Management Hub"
Value="SOFTWARE\Software AG\System Management Hub\SNMPLayer\Proxy\argsnmpp3"
```

for example, REGEDT4 format:

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SNMP\Parameters\ExtensionAgents]
"Software AG System Management Hub"="SOFTWARE\\Software AG\\System Management
Hub\\SNMPLayer\\Proxy\\argsnmpp3"
```

3. Start the Windows SNMP service using the Windows Service Control Manager (for example, on Windows: *Control Panel-> Administrative Tools -> Services*)



**Note:** The proxy feature can be enabled/ disabled for specific Software AG products using the key HKEY\_LOCAL\_MACHINE\SOFTWARE\Software AG\System Management Hub\SNMPLayer\Proxy\Products. Setting the string value for a given MIB sub-tree to "no" or "yes" disables or enable the proxy for this MIB sub-tree.

## Setting up the External SNMP Managers

The SMH SNMP interface can be used with an external SNMP manager that supports:

- SNMPv1 and/or SNMPv2c
- MIBs specified using SMIV2
- Multiple SNMP agents running on the same host using distinct UDP ports

Most third-party SNMP managers support the setup of the target SNMP port for a managed host and access to multiple SNMP agents (for example, define "proxied targets", consult the specific manager documentation).



**Note:** SMH SMIV1 MIB is provided as an unsupported feature. The SMIV1 MIB is generated from the SMIV2 MIB using an automated translation tool. Use the SMIV1 MIB with external SNMP managers that do not support the SMIV2 syntax.

SMH integration package for Computer Associates UNICENTER NSM version 3.0 and above is provide on an "as-is" basis.

For more information, read the *ARG\_CAUnicenter\_GettingStarted.doc*. You can find it at *C:\Program Files\Software AG\System Management Hub\snmp\_mibs\integration\unicenter*.

### Prerequisites for CA Unicenter NSM 3.0 SMH 4.1.1.1 and later

- The *SNMP Interface* of SMH must be installed and running.
- The previous versions of SMH(version 3.1, 3.3, 3.4 and 3.6) are not supported. Please update your copy of SMH to version 4.1 or later on all managed hosts.

- When SMH 9.0 is installed with the default settings, it uses the ports 10013, 10010, 10012 for the Management Independent Layer running inside the Software AG Runtime. These ports are not used by default by Unicenter.
- If SMH is installed as an update over a previous installation, then the Management Independent Layer may use the ports 10013, and 10010 which are used by default by Unicenter. SMH or Unicenter must be customized to use a distinct set of ports.
- The integration policy uses SMH 4.1 default port set.

## Installation

For CA Unicenter running on Windows platforms, install / uninstall scripts are provided.

- Use *Install.bat* to install the package for CA Unicenter.
- Use *Uninstall.bat* to uninstall the package from CA Unicenter.

These files are located under C:\Program Files\Software AG\System Management Hub\snmp\_mibs\integration\unicenter.

## Configuration Steps

---

- Load SMH and managed products MIBs.
- Define for each managed host the three SMH SNMP adapters, each one listening on the UDP ports specified according to the installation and configuration of SMH.

## Loading SMH MIBs

---

The SMH MIBs are provided in the *snmp\_mibs* sub-directory of the main installation directory.

Load the following MIBs in the external SNMP manager:

1. SOFTWAREAG-ARG-ALL.mib
2. <other Software AG MIBs>

SMH SNMP MIB (SMIv1) created the *SOFTWAREAG-ARG-ALL-v1.mib* (using an automated translation tool (SMIv2 to SMIv1) from the *SOFTWAREAG-ARG-ALL.mib*. This MIB can be used with SNMP managers that do not support SMIv2 MIB's.

The location of *SOFTWAREAG-ARG-ALL-v1.mib* is C:\Program Files\Software AG\System Management Hub\snmp\_mibs\unsupported\smiv1