Tivoli® IBM Tivoli Composite Application Manager
Version 7.1.0.1

Agent for HTTP Servers Installation and Configuration Guide

IBM

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Note:

Before using this information and the product it supports, read the information in "Notices" on page 69.

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About this book

This book provides instructions for installing and configuring IBM® Tivoli®
Composite Application Manager Agent for HTTP Servers (ITCAM Agent for HTTP
Servers) to monitor availability and performance of Apache Web server. IBM HTTP
Server, and Sun Java™ Web server on distributed platforms. The Agent integrates
the performance-monitoring data with the Tivoli Enterprise Portal (TEP) for event
and alert management.

Who should read this book

This book is intended for administrators and application programmers who must
use the Tivoli Enterprise Portal to monitor the performance of the HTTP servers. It
is also intended for system experts who perform tasks such as performance tuning
and troubleshooting.

Where to look for more information

This section lists publications in the ITCAM Agent for HTTP Servers library and
related documents. It also describes how to access Tivoli publications online and
how to order Tivoli publications.

ITCAM Agent for HTTP Servers library

The following publications are included in the ITCAM for Application Diagnostics
library, available at http://publib.boulder.ibm.com/infocenter/tivihelp/v24r1/
topic/com.ibm.itcamfad.doc_7101/ic-homepage.html:

- *IBM Tivoli Composite Application Manager for Application Diagnostics: Prerequisites*

  Provides the hardware and software requirements for installing ITCAM for
  Application Diagnostics components.

- *IBM Tivoli Composite Application Manager for Application Diagnostics: User's Guide*

  Provides the user overview, user scenarios, and Helps for every ITCAM for
  Application Diagnostics component.

- *IBM Tivoli Composite Application Manager for Application Diagnostics: Planning an
  Installation*

  Provides the user with a first reference point for a new ITCAM for Application
  Diagnostics installation or upgrade.

- ITCAM Agent for WebSphere® Applications Installation and Configuration
  Guides:

  - *IBM Tivoli Composite Application Manager: Agent for WebSphere Applications
    Installation and Configuration Guide*

  - *IBM Tivoli Composite Application Manager: Agent for WebSphere Applications
    Installation and Configuration Guide for z/OS*

  - *IBM Tivoli Composite Application Manager: Agent for WebSphere Applications Data
    Collector Installation and Configuration Guide for IBM i*

  Provide installation instructions for setting up and configuring ITCAM Agent for
  WebSphere Applications on distributed, z/OS®, and IBM i systems.

- ITCAM Agent for J2EE Applications Installation and Configuration Guides:

  - *IBM Tivoli Composite Application Manager: Agent for J2EE Data Collector
    Installation and Configuration Guide*

– *IBM Tivoli Composite Application Manager: Agent for J2EE Monitoring Agent Installation and Configuration Guide*

Provide installation instructions for setting up and configuring ITCAM Agent for J2EE.

- *IBM Tivoli Composite Application Manager: Agent for HTTP Servers Installation and Configuration Guide*

Provides installation instructions for setting up and configuring ITCAM Agent for HTTP Servers.

- *IBM Tivoli Composite Application Manager for Application Diagnostics Managing Server Installation Guide*

Provides installation instructions for setting up and configuring ITCAM for Application Diagnostics Managing Server.

- *IBM Tivoli Composite Application Manager for Application Diagnostics: Troubleshooting Guide*

Provides instructions on problem determination and troubleshooting for ITCAM for Application Diagnostics.

- *IBM Tivoli Composite Application Manager for Application Diagnostics: Messaging Guide*

Provides information about system messages received when installing and using ITCAM for Application Diagnostics.

In addition to the publications listed, ITCAM Agent for HTTP Servers has an online help system that describes all of the available commands and dialogs. The help system is accessed through the ITCAM Agent for HTTP Servers GUI.

Accessing publications online

The documentation CD contains the publications that are in the product library. The format of the publications is PDF, HTML, or both.

IBM posts publications for this and all other Tivoli products, as they become available and whenever they are updated, to the Tivoli software information center Web site. Access the Tivoli software information center by viewing the Tivoli software library at the following Web address:

http://www.ibm.com/software/tivoli/library/

Note: If you print PDF documents on other than letter-sized paper, set the option in the **File > Print** window that enables Adobe Reader to print letter-sized pages on your local paper.

The IBM Software Support Web site provides the latest information about known product limitations and workarounds in the form of technotes for your product. You can view this information at the following Web site:

http://www.ibm.com/software/support

Ordering publications

You can order many Tivoli publications online at the following Web site:

http://www.elink.ibmlink.ibm.com/public/applications/ publications/cgibin/ pbi.cgi

You can also order by telephone by calling one of these numbers:

- In the United States: 800-879-2755
- In Canada: 800-426-4968

In other countries, contact your software account representative to order Tivoli publications.

Accessibility

Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully. With this product, you can use assistive technologies to hear and navigate the interface. You can also use the keyboard instead of the mouse to operate most features of the graphical user interface.

Tivoli technical training

For Tivoli technical training information, refer to the following IBM Tivoli Education Web site:

http://www.ibm.com/software/tivoli/education/

Supporting information

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

- Searching knowledge bases: You can search across a large collection of known problems and workarounds, Technotes, and other information.
- Obtaining fixes: You can locate the latest fixes that are already available for your product.
- Contacting IBM Software Support: If you still cannot solve your problem, and you need to work with someone from IBM, you can use a variety of ways to contact IBM Software Support.

For more information about these three ways of resolving problems, see Appendix A, "Support information," on page 55

Conventions used in this guide

This guide uses several conventions for special terms and actions, and operating-system-dependent commands and paths.

Typeface conventions

This guide uses the following typeface conventions:

Bold

- Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text
- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as **Tip**, and **Operating system considerations**)
- Keywords and parameters in text

Italic

- Words defined in text
- Emphasis of words (for example, "Use the word *that* to introduce a restrictive clause.")
- New terms in text (except in a definition list)
- Variables and values you must provide

`Monospace`
- Code and other examples
- File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
- Message text and prompts addressed to the user
- Text that the user must type
- Values for arguments or command options

Operating-system-dependent variables and paths

The publications in this library use the UNIX® convention for specifying environment variables and for directory notation.

When using the Windows® command line, replace **$**variable* with **%**variable**%** for environment variables and replace each forward slash (/) with a backslash (\) in directory paths. The names of environment variables are not always the same in Windows and UNIX. For example, %TEMP% in Windows is equivalent to $tmp in UNIX.

Note: If you are using the bash shell on a Windows system, you can use the UNIX conventions.

Tivoli command syntax

The following special characters define Tivoli command syntax:

[ ]   Identifies elements that are optional. Required elements do not have brackets around them.

...   Indicates that you can specify multiple values for the previous element. Separate multiple values by a space, unless otherwise directed by command information.

     If the ellipsis for an element follows a closing bracket, use the syntax within the brackets to specify multiple values. For example, to specify two administrators for the option [**–a** *admin*]..., use **–a admin1 –a admin2**.

     If the ellipsis for an element is within the brackets, use the syntax of the last element to specify multiple values. For example, to specify two hosts for the option [**–h** *host*...], use **–h host1 host2**.

| Indicates mutually exclusive information. You can use the element on either the left or right of the vertical bar.

{ }   Delimits a set of mutually exclusive elements when a command requires one of them. Brackets ([ ]) are around elements that are optional.

In addition to the special characters, Tivoli command syntax uses the typeface conventions described in "Typeface conventions" on page xi. The following examples illustrate the typeface conventions used in Tivoli command syntax:

- **wcrtpr** [**–a** *admin*]... [**–s** *region*] [**–m** *resource*]... *name*

The *name* argument is the only required element for the **wcrtpr** command. The brackets around the options indicate they are optional. The ellipses after the **–a** *admin resource* option means that you can specify multiple administrators multiple times. The ellipses after the **–m** *resource* option means that you can specify multiple resources multiple times.

- **wchkdb** [**–o** *outfile*] [**–u**] [**–x**] {**–f** *infile* | **–i** | *object*...}

The **–f**, **–i**, and *object* elements are mutually exclusive. Braces that surround elements indicate that you are including a required element. If you specify the *object* argument, you can specify more than one object.

Documentation conventions

The documentation adheres to accepted typographical conventions for command syntax. Conventions specific to IBM Tivoli Monitoring (ITM) documentation are discussed in the following sections.

Panels and figures

The panels and figures in this document are representations. Actual product panels might differ.

Variables and literals in command syntax examples

In examples of command syntax for the OS/390® platform, uppercase letters indicate actual values (literals) that the user should type as given; lowercase letters indicate variables that represent data you supply:

```
LOGON APPLID (cccccccc)
```

However, for the Microsoft® Windows and UNIX platforms, variables are shown in italics:

```
-itm.kzy.instrument.control.file=instrumentation_control_file_name
-itm.kzy.agent.parms=agent_control_file_name
```

Note: In ordinary text, variable names appear in italics, regardless of platform.

Symbols

The following symbols might appear in command syntax:

Table 1. Symbols in command syntax

Symbol	Usage
|	A vertical bar is used to denote a choice. This means that you can choose either the argument on the left or the argument on the right. Example: `YES	NO` In this example, YES or NO might be specified.
[ ]	Brackets denote optional arguments. Arguments not enclosed in brackets are required. Example: `APPLDEST DEST [ALTDEST]` In this example, DEST is a required argument and ALTDEST is optional.

Table 1. Symbols in command syntax (continued)

Symbol	Usage
{ }	In some documents, braces are used to denote required arguments, or to group arguments for clarity. Example: ``` COMPARE {workload} - REPORT={SUMMARY | HISTOGRAM} ``` The *workload* variable is required. The REPORT keyword must be specified with a value of SUMMARY or HISTOGRAM.
_	Default values are underscored. Example: ``` COPY infile outfile - [COMPRESS={YES | NO}] ``` In this example, the COMPRESS keyword is optional. If specified, the only valid values are YES or NO. If omitted, the default is YES.

Chapter 1. IBM Tivoli Composite Application Manager Agent for HTTP Servers

This chapter introduces the Tivoli Enterprise Monitoring Agent provided for ITM customers for HTTP Servers and explains how it can help you monitor and administer your systems that deploy the HTTP Servers.

ITCAM Agent for HTTP Servers places this agent into the context of the IBM Tivoli Monitoring (ITM) family, a suite of products used to monitor a mixed-systems environment. With ITM, you can perform the following tasks:

- Establish your own performance thresholds
- Create situations, which are conditions you need to monitor
- Create and send commands to systems in your managed enterprise using the Take Action feature; with Take Action commands you can, for instance, restart a process that is not functioning correctly or dynamically reconfigure your environment
- Create comprehensive reports about system conditions
- Monitor for alerts on the systems and platforms you are managing
- Trace the causes leading up to an alert
- Define your own queries, using the attributes provided with the ITCAM Agent for HTTP Servers, to monitor conditions of particular interest to you

Figure 1 displays a basic overview of how the components for ITM and ITCAM for Web Resources interact.
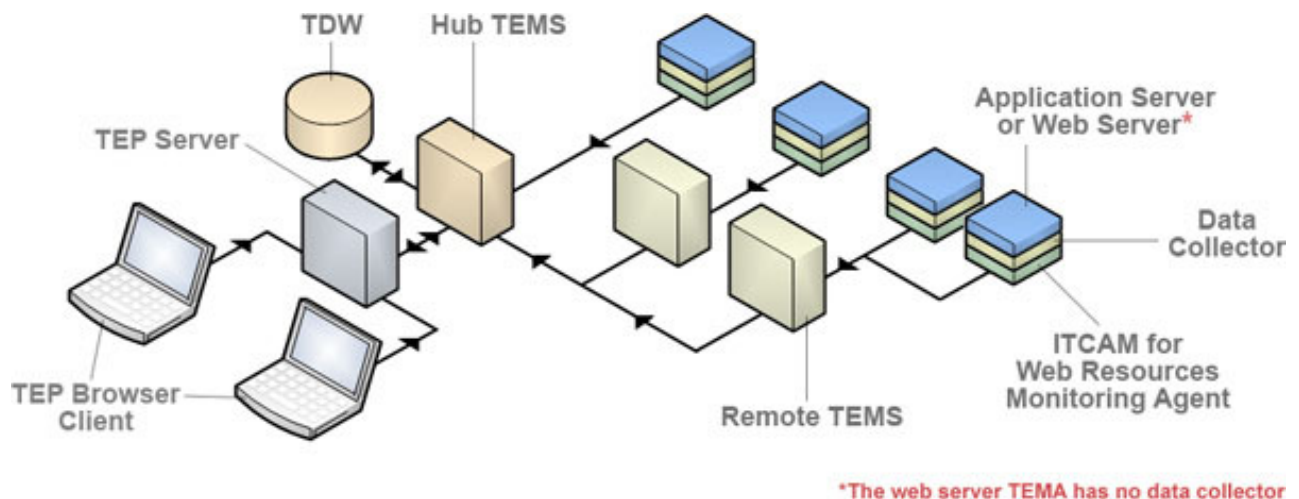
Figure 1. Product architecture

IBM Tivoli Monitoring components

In the following section, the key components of an IBM Tivoli Monitoring (ITM) environment, which run in a server/client/agent configuration:

TMS   Tivoli Monitoring Services provides the software infrastructure upon which all other ITM components (the TEMS, the TEP server and clients, and all the Agents) are built.

TEP The Tivoli Enterprise Portal is the user interface for ITM agents. It provides the status of your enterprise and views of the data that the various ITCAM Agent for HTTP Servers collect. TEP also gives you access to Take Actions commands and situations that you can use to further customize data collection and reporting.

The TEP comprises two pieces: the *TEP server*, which generally runs on a centrally located server, and the *TEP client*, which runs on your users' individual computers and with which they directly interact to query and control your enterprise's running systems. Two different TEP clients are provided:

- The Tivoli Enterprise Portal workstation client (usually called the *desktop client*)
- The TEP *browser client*, which runs within a Web browser

TEMS The Tivoli Enterprise Monitoring Server provides framework and database operations for the Tivoli Enterprise Portal Server and the various agents. The agents pass data to the TEMS, and then the TEP server requests the data.

Agents

The Tivoli Enterprise Monitoring Agents collect performance data about monitored environments such as HTTP Servers and carry out your users' Take Action commands entered using a TEP client. A Monitoring Agent collects and distributes real-time and historical performance data as needed to a TEMS.

MTMS

Manage Tivoli Enterprise Monitoring Services provides a full-screen Windows GUI that you can use to check the status of TMS processes such as the TEMS, the TEP server, and the Agent, to stop or to recycle them, and to reconfigure them.

The Tivoli Enterprise Portal

The TEP is the user interface into your site's ITM environment. It provides a view of your enterprise from which you can drill down to examine components of your systems environment more closely. Its application window consists of a Navigator that shows all the systems in your enterprise where Tivoli Enterprise Monitoring Agents are installed and a workspace that includes table and chart views of system and application conditions.

The TEP runs situations at regular intervals to verify that your applications and systems are running, and running well. A failed test causes event indicators to appear in the Navigator.

The TEP offers two modes of client operation: desktop and browser. In desktop mode, the application software is installed on your local node. In browser mode, the system administrator installs the application on the TEP server, and you start Tivoli Enterprise Portal from your Web browser; the application is then downloaded to your system the first time you log on to the browser client and thereafter only when there are software updates.

ITCAM Agent for HTTP Servers

ITCAM Agent for HTTP Servers collects performance data about the HTTP servers running on a single node in the following ways:

- Apache servers and IBM HTTP servers parse the configuration file to get the server name and collect data using the module. The module handles all HTTP requests.
- Sun Web Servers collect data by polling SNMP service for Web Server statistics and parsing Web server configuration files to get information not provided by the SNMP subagent.

The Agent accumulates data from all these sources. The TEMS then retrieves this data and merges it with monitoring data from other agents, including other ITCAM Agent for HTTP Servers agents, and passes the data on to the TEP server for display on the various TEP clients attached to it.

Monitoring Agent data collection

IBM Tivoli Composite Application Manager Agent for HTTP Servers enables you to monitor the health and availability of your site's HTTP Servers environment, as well as the performance of the applications deployed to those HTTP Servers. In particular, you can use the ITCAM Agent for HTTP Servers in the following ways:
- Track and report the status of the HTTP Servers in your enterprise
- Centrally administer HTTP Servers in your enterprise, including starting and stopping servers
- Collect and report the status of the Web sites (virtual hosts) configured for the Apache Web Server and IBM HTTP server
- Collect and report the status of the Sun Web sites (virtual hosts) configured for the Sun Web Server
- Invoke Take Action commands to avoid costly downtime and performance slowdowns

How the Monitoring Agent works

You can use the TEP interface to view the data and monitor the health and performance of your HTTP Servers environment.

The Agent performs the following types of monitoring functions.
- It obtains data and uses the data to create various views that you can define. (Numerous views are already available in the predefined workspaces.) These graphic views and reports are useful for examining the performance of the HTTP Servers system.
- It evaluates situations to detect when ITCAM Agent for HTTP Servers attribute values exceed preset thresholds that you have defined and makes this exception information available to you.

To monitor exceptions, you must create situations that are meaningful to the HTTP Servers conditions you are monitoring. Several predefined situations are provided with the Monitoring Agent.

The ITCAM Agent for HTTP Servers TEP workspaces

With the TEP workspaces for the ITCAM Agent for HTTP Servers, you can see into the data reported for HTTP Servers. The workspaces provide you with status, definitions, and statistical information for your HTTP Servers system. ITM provides two types of workspaces: *primary workspaces* are directly accessible through the Navigator, whereas you must drill down to *secondary workspaces* from the primary workspace that defines them.

The Agent provides the following primary workspaces for managing your system.

- **HTTP Servers Agent**: The HTTP Servers Agent workspace displays system-wide status information that includes enterprise events, product events, and the current status of all the HTTP Servers installed on the node.
- **HTTP Servers**: The HTTP Servers workspace displays server status and the event console for all server sessions across your HTTP Servers environment.
- *servername*: The *servername* workspace displays server status and memory use for a particular server.
- **Apache Web Servers**: The Apache Web Sites workspace shows the lists of the Web sites (virtual hosts) configured for the Apache Web Server and IBM HTTP Server along with their status.
- **Apache Web Sites**: The Apache Web Sites workspace shows the lists of the Web sites (virtual hosts) configured for the Apache Web Server and IBM HTTP Server along with their status.
- **Sun Web Servers**: The Sun Web Sites workspace shows the list of the Sun Web sites (virtual servers) configured for the server along with their status.
- **Sun Web Sites**: The Sun Web Sites workspace shows the list of the Sun Web sites (virtual servers) configured for the server along with their status.

Situations for the Agent

ITCAM Agent for HTTP Servers provides predefined situations to monitor key HTTP Servers attributes. You can use these situations to perform the following tasks:

- Immediately begin monitoring your HTTP Servers
- Monitor and manage widely dispersed HTTP Servers resources through localized automation
- Create your own situations, using the predefined situations as models.

The predefined situations issue a Critical alert whenever they are triggered. You can investigate an event by opening its workspace. See the online help provided for the Agent for detailed information about these predefined situations.

How situations work

Situations are expressions of system conditions you want to monitor that are embedded in IF-TRUE statements. If the specified condition exists, this situation is true. You can use situations to monitor particular conditions on managed systems. For example, you might want to monitor errors for a particular Web application. Situations can monitor conditions on one or more managed systems in your enterprise.

For more information about using predefined situations and creating your own situations, refer to the following product information:

- To find information about the predefined situations for provided with ITCAM Agent for HTTP Servers, see the agent's online help.
- To create and use your own situations from the Tivoli Enterprise Portal, refer to the help for TEP.

Take Action commands

You can use the Take Action commands to stop or start a process at any system in your network where one or more Tivoli Enterprise Monitoring Agents are installed. You can invoke Take Action commands from a workspace, from a situation, in an ad hoc mode, or by recalling a saved Take Action command. See the Tivoli Enterprise Portal online help for general information about using Take Action commands.

Predefined Take Action commands provided with the ITCAM Agent for HTTP Servers

ITCAM Agent for HTTP Servers provides several predefined Take Action commandsYou can issue commands from the browser interface to perform the following tasks:

- Stop, start, and recycle an Web server
- Adjust the monitoring of various HTTP Servers resources

Because of high overhead, some data is not automatically collected and reported in certain workspaces. Use the Take Action commands to set the monitoring level for certain attributes and to accumulate request, resource, and garbage-collection information.

Prerequisites to installation

The instructions in the subsequent chapters assume the following prerequisites have been met::

- You have installed IBM Tivoli Monitoring (ITM) including the following components:
  - A Tivoli Enterprise Monitoring Server (TEMS)
  - A Tivoli Enterprise Portal (TEP) server
  - The Tivoli Enterprise Portal clients
  - The IBM Eclipse Help Server (this feature enables your TEP users to search the provided help files for specific text strings).
  - "Installing a Language Pack on Linux and UNIX systems" on page 51
- You are familiar with basic TEP functions such as using the Navigator and accessing secondary workspaces and the definitions of terms like *managed object* and *subnode*.
- You have installed Apache Web Server, IBM HTTP Server, or Sun Java System Web Server, and you are familiar with the configuration.
- For Sun Java System Web Server, you have installed the SNMP service and you know how to configure SNMP service.

In addition to installing the Agent itself, the installation described in this chapter updates all these components with the code necessary to support the ITCAM Agent for HTTP Servers.

To obtain the most recent installation updates, review the Release Note information for this product. You can find this information online by viewing IBM technotes. To access the technotes, see the *IBM Tivoli Composite Application Manager Tivoli Enterprise Monitoring Agent Problem Determination Guide*.

System and software prerequisites

The software and hardware requirements for installing ITCAM Agent for HTTP Servers are listed at https://www.ibm.com/developerworks/wikis/display/tivolimonitoring/Prerequisites+for+ITCAM+for+Application+Diagnostics+7.1.0.1.

Where to begin

Begin at the road map for your Tivoli Enterprise Monitoring Agent installation.

Table 2. Road map for the Agent on Windows

What to do	Where to find more information
Obtain the installation	You can get the installation files either by downloading from the Web or using a product CD.
Verify that your computer meets the system and software prerequisites	"System and software prerequisites" "UNIX and Linux requirements" on page 33
Install the Tivoli Enterprise Monitoring Agent	"Installing the Tivoli Enterprise Monitoring Agent on Windows" on page 7 "Installing the Tivoli Enterprise Monitoring Agent on UNIX and Linux" on page 34
Configure the Tivoli Enterprise Monitoring Agent	"Configuring the Tivoli Enterprise Monitoring Agent on Windows" on page 16"Configuring the Tivoli Enterprise Monitoring Agent on UNIX and Linux" on page 37 "Configuring the Apache Web Server, IBM HTTP server, and Sun Java System Web Server" on page 46
Install application support files	"Adding application support on Windows" on page 23 "Installing application support on Linux and UNIX" on page 47
(Optional) Install a language pack	"Installing a Language Pack on Windows" on page 31 "Installing a Language Pack on Linux and UNIX systems" on page 51
(Optional) Silent install the Tivoli Enterprise Monitoring Agent	"Performing a silent installation on Windows" on page 29 "Performing a silent installation on UNIX and Linux" on page 46
(Optional) Upgrade the Agent from a previous version	"Installing the Tivoli Enterprise Monitoring Agent on Windows" on page 7
Uninstall the Tivoli Enterprise Monitoring Agent	"Uninstalling the Tivoli Enterprise Monitoring Agent on Windows" on page 30 "Uninstalling the Tivoli Enterprise Monitoring Agent on UNIX and Linux" on page 51

Chapter 2. Installing the Tivoli Enterprise Monitoring Agent on Windows

This chapter provides complete instructions for installing the ITCAM Agent for HTTP Servers on Microsoft Windows platforms. The Agent installation can only be performed by a user with Administrator access. It also includes instructions for installing the language packs for users of non-English languages.

Note:

To upgrade from earlier versions of the Agent, run the installer and specify the existing Agent runtime location. Support files for the TEP, TEPS and TEMS are upgraded in the same way.

- "Installing the Tivoli Enterprise Monitoring Agent on Windows"
- "Configuring the Tivoli Enterprise Monitoring Agent on Windows" on page 16
- "Adding application support on Windows" on page 23
- "Performing a silent installation on Windows" on page 29
- "Uninstalling the Tivoli Enterprise Monitoring Agent on Windows" on page 30
- "Installing and uninstalling a Language Pack on Windows" on page 30

Installing the Tivoli Enterprise Monitoring Agent on Windows

Perform the following steps to install ITCAM Agent for HTTP Servers:

- "Step 1: Invoke setup.exe"
- "Step 2: Accept the product license" on page 9
- "Step 3: Choose the destination folder for the installation files" on page 10
- "Step 4: Define the node's security environment" on page 11
- "Step 5: Select the product components you want to install" on page 12
- "Step 6: Select Windows program folder" on page 13
- "Step 7: Verify selected features" on page 14
- "Step 8: Select the items to configure" on page 15

Attention: you must install ITCAM Agent for HTTP Servers version 7.1 before installing version 7.1.0.1.

Step 1: Invoke setup.exe

After loading the ITCAM Agent for HTTP Servers CD, locate and double-click the setup.exe file within the WINDOWS directory. The initial InstallShield window opens:
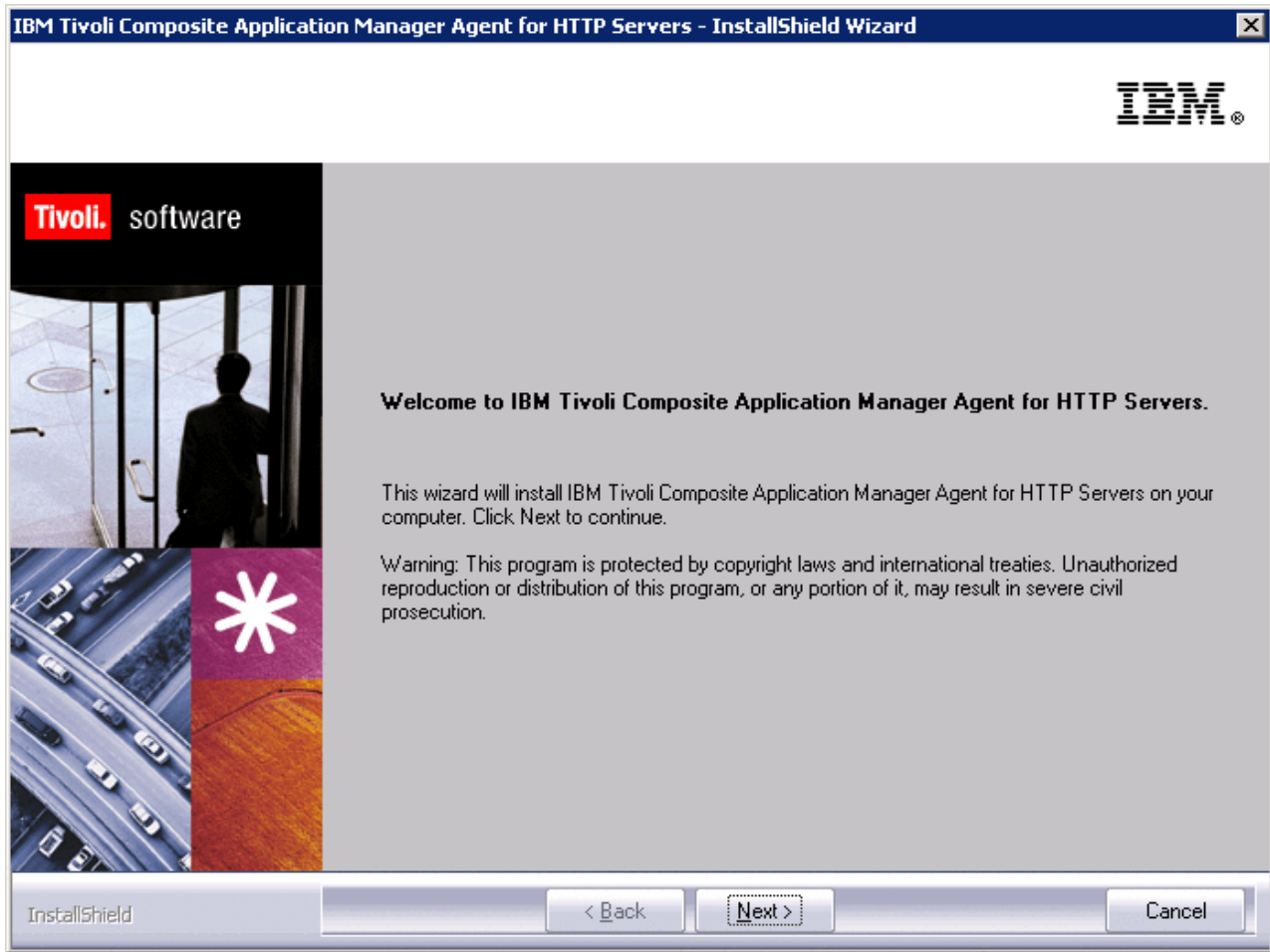
Figure 2. Installation Welcome window

Click **Next**. The product prerequisites window opens:
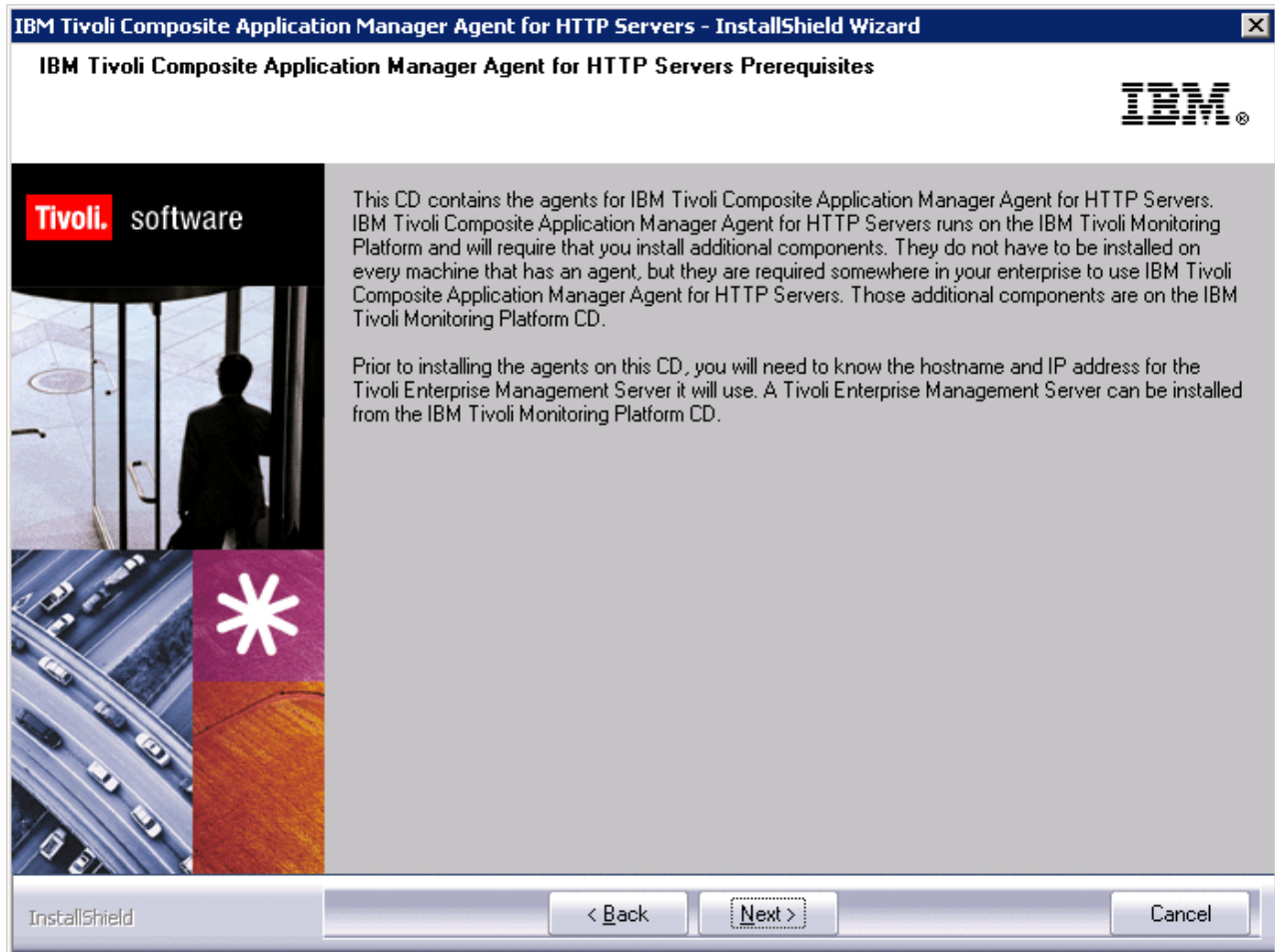
Figure 3. Prerequisites window

If the environment meets the prerequisites, click **Next**. If the Tivoli Enterprise Monitoring Server is not installed, cancel the installation and install the required components. After you meet the prerequisites, restart the installation from "Step 1: Invoke setup.exe" on page 7.

Step 2: Accept the product license

The Software License Agreement window opens. Click **Accept**.
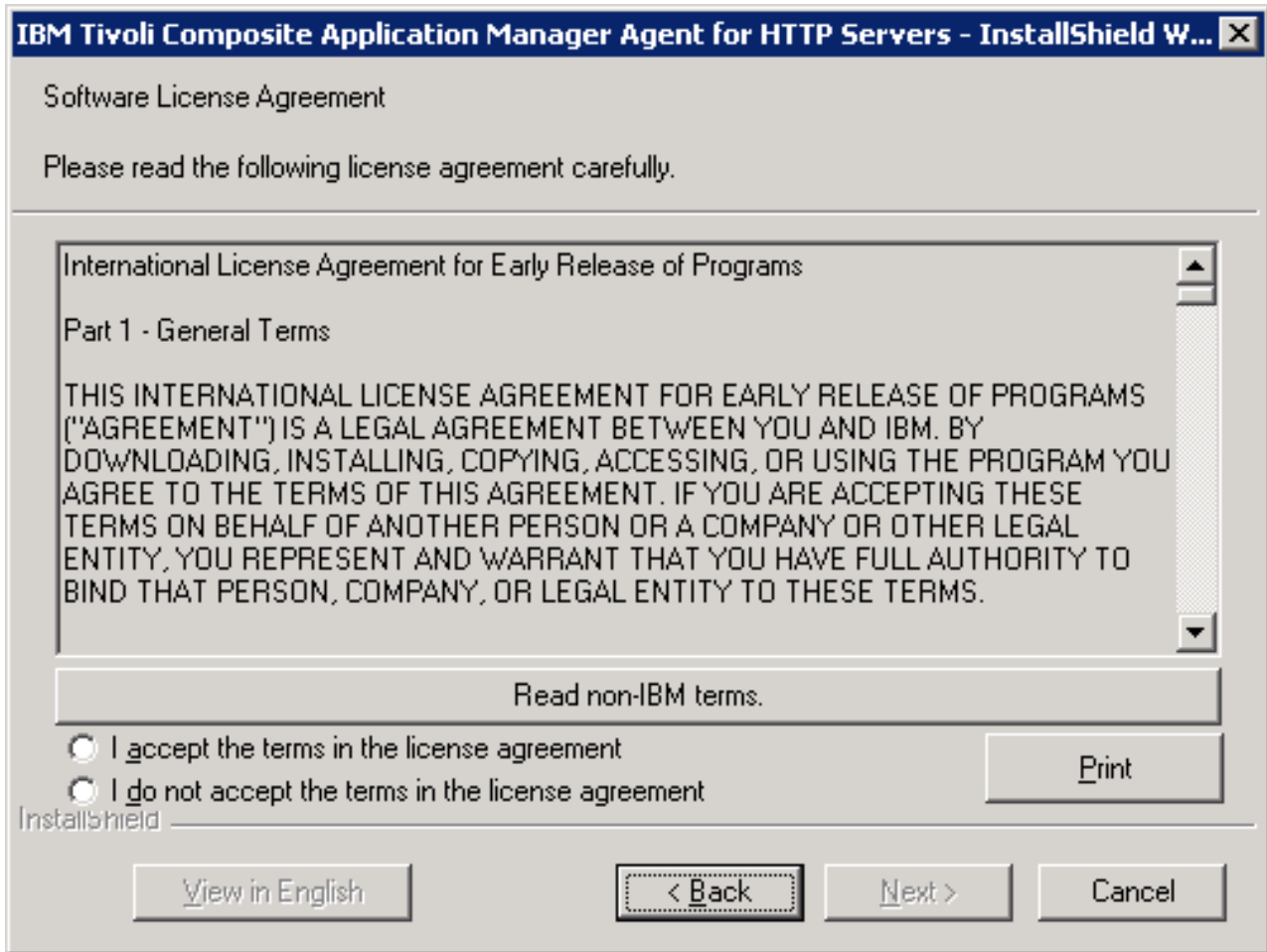
Figure 4. Software License Agreement window

Step 3: Choose the destination folder for the installation files

You are prompted to choose the destination directory for the installation files.
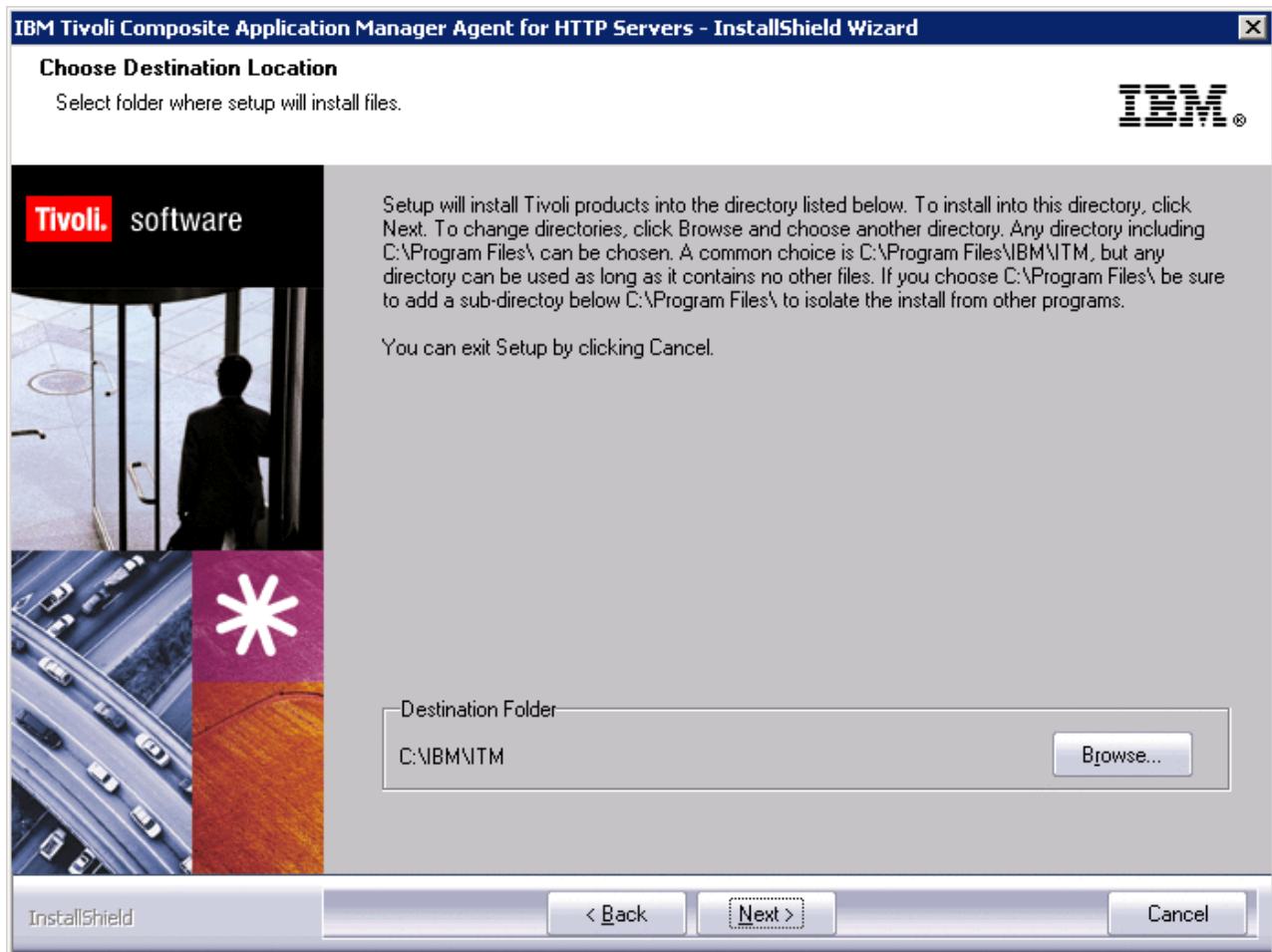
Figure 5. Choose Destination Location window

If you want to use a location other than the default installation location (C:\IBM\ITM), click **Browse**, and select the folder that you want to use. Click **Next** when you have specified the folder. The User Data Encryption Key window opens.

Step 4: Define the node's security environment

You are prompted for the 32-character encryption key used to secure password transmission and other sensitive data across your site's ITM environment:
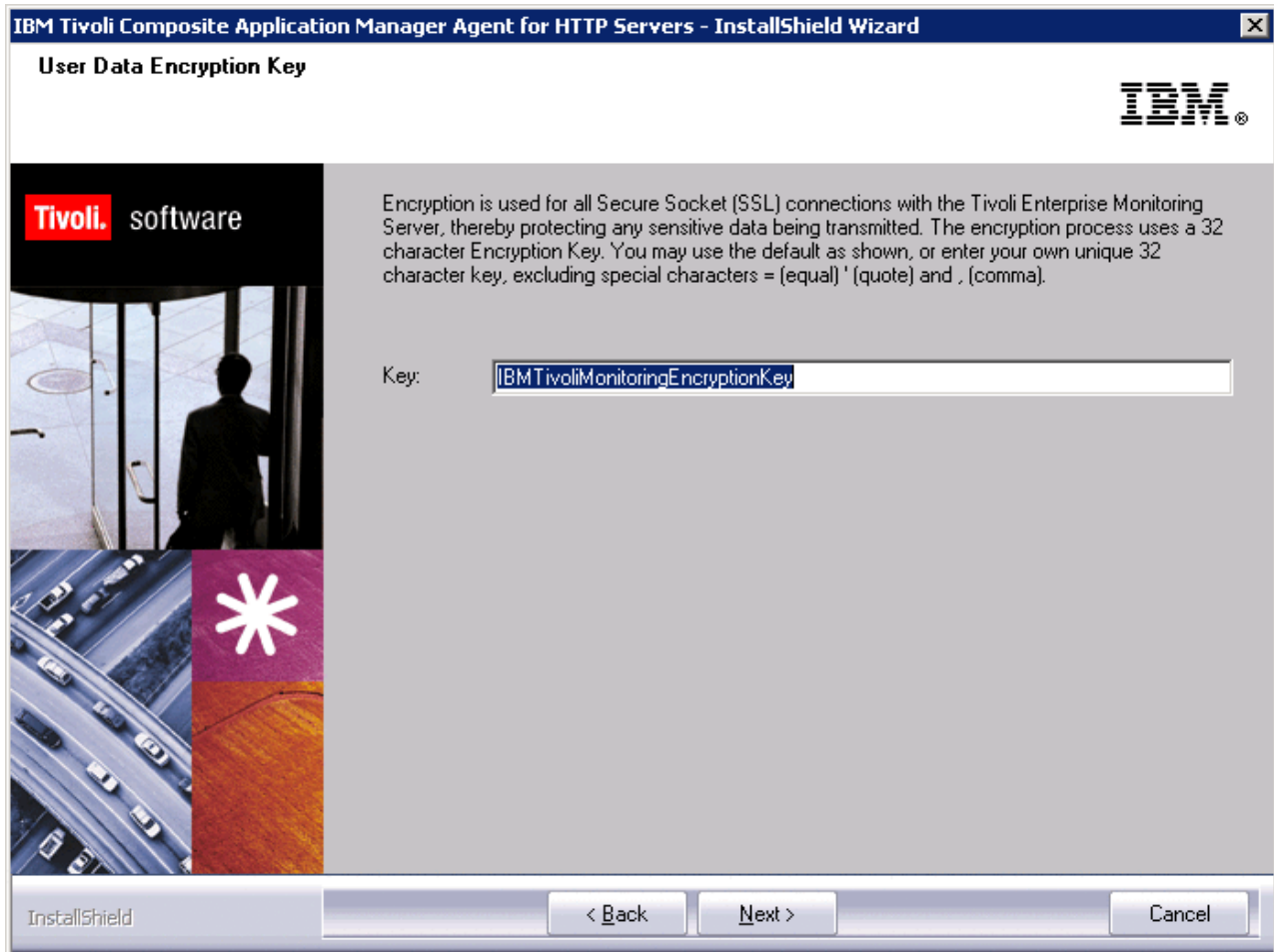
Figure 6. User Data Encryption Key window

> See the *IBM Tivoli Monitoring: Installation and Setup Guide* for details about the encryption key. Click **Next** when you have specified the key.

Figure 7. Encryption Key confirmation window

> Click **OK** to confirm the encryption key. The Select Features window opens.

Step 5: Select the product components you want to install
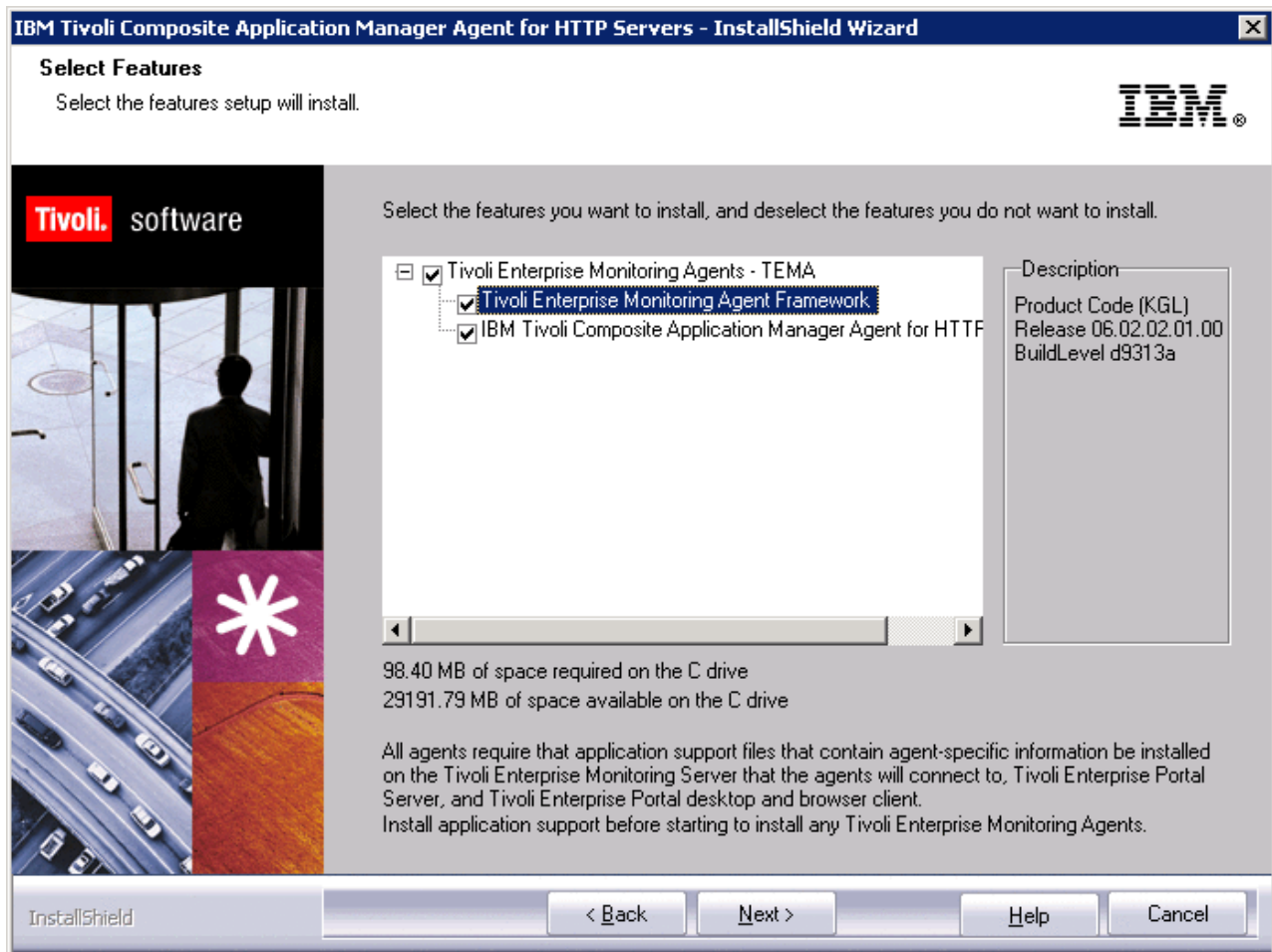
Figure 8. Select Features window

Select **Tivoli Enterprise Monitoring Agents - TEMA**. This window might vary if the ITM framework is already installed on this host.

Important: If any IBM Tivoli Monitoring Agent is already installed on this host, make sure to expand the tree in this window and explicitly check **IBM Tivoli Composite Application Manager Agent for HTTP Servers**. By default, if an IBM Tivoli Monitoring Agent is found, it will not be checked even if you check the top level box.

Click **Next** to display the Select Program Folder window.

Step 6: Select Windows program folder

InstallShield displays the Windows program folder it will create where ITM programs are made accessible:

Figure 9. Select Program Folder window

Click **Next**. InstallShield displays the features you selected in the Start Copying Files window.

Step 7: Verify selected features

IBM Tivoli Composite Application Manager Agent for HTTP Servers - InstallShield Wizard ✕

Start Copying Files
Review settings before copying files.

IBM ®

Tivoli. software

Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.

Current Settings:

Install into Directory: C:\IBM\ITM
Add Program Folder: IBM Tivoli Monitoring

Available Disk Space: 29083 MB
Required Disk Space: 197 MB
Deploy Required Disk Space: 0 MB
Total Disk Space Required: 206 MB

Install the following features:

Tivoli Enterprise Monitoring Agents - TEMA:
Tivoli Enterprise Monitoring Agent Framework
IBM Tivoli Composite Application Manager Agent for HTTP Servers

Undefined GSK component:
IBM GSKit Security Interface

InstallShield

< Back   Next >   Cancel

Figure 10. Start Copying Files window

Verify that the features that you want to install are in the list. If you need to make changes, click **Back**. If the list is correct, click **Next**. The necessary installation files are copied to your hard drive.

Step 8: Select the items to configure

After the features you selected are installed, the Setup Type window prompts you to verify the list of components to be configured.
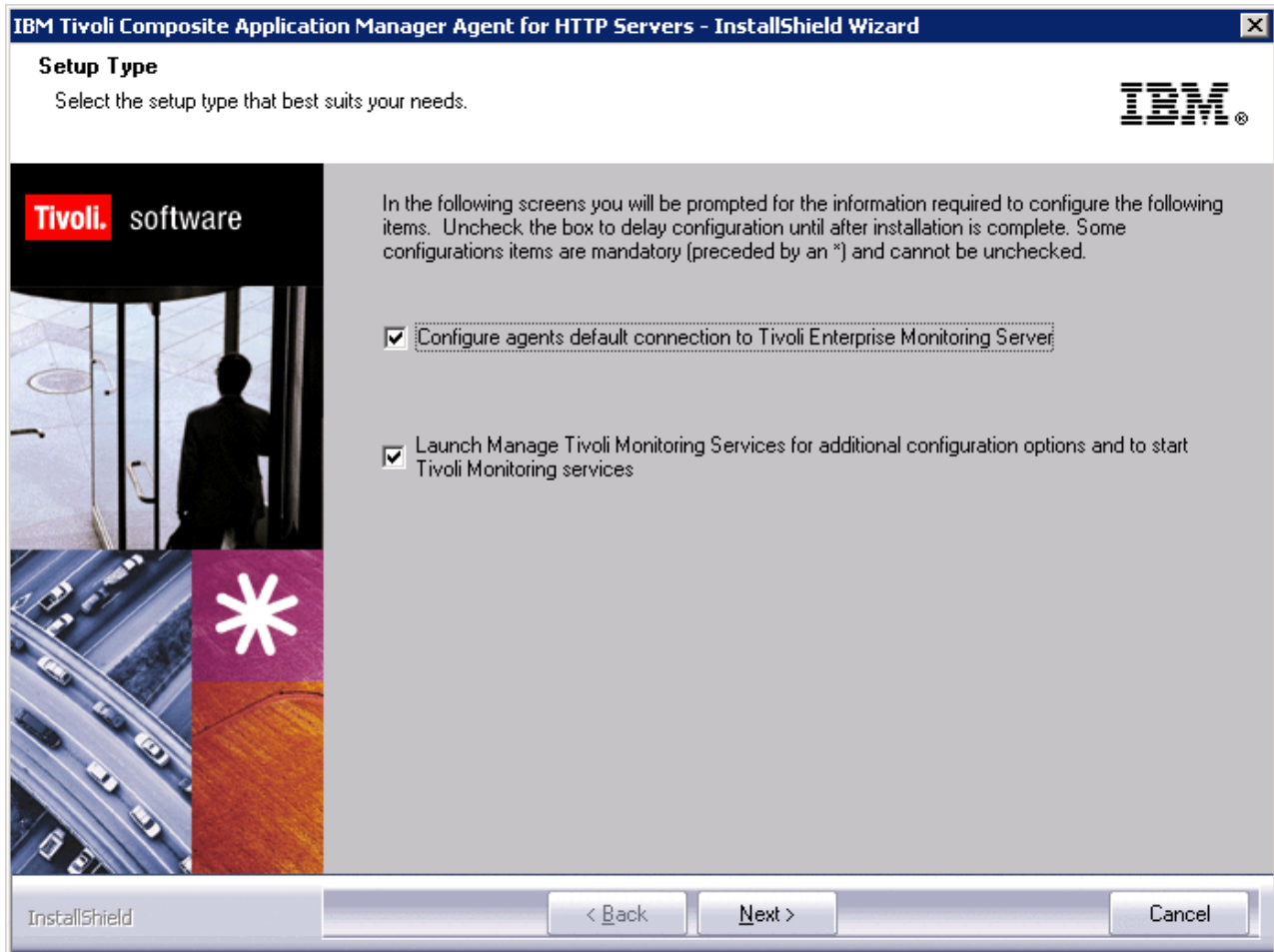
Figure 11. Setup Type window

> By default, all the checkboxes are selected. Clear the checkboxes next to the features that you do not want to configure at this time, and click **Next** to finish the installation. If you have selected the checkbox for **Configure agents default connection to Tivoli Enterprise Monitoring Server**, the Configuration Defaults for Connecting to a TEMS window opens. Go to "Configuring the Tivoli Enterprise Monitoring Agent on Windows" to complete the configuration.

Configuring the Tivoli Enterprise Monitoring Agent on Windows

> This section instructs you how to configure the Tivoli Enterprise Monitoring Agent.

Configure the Tivoli Enterprise Monitoring Agent's TEMS connection

> The Agent configuration window opens:
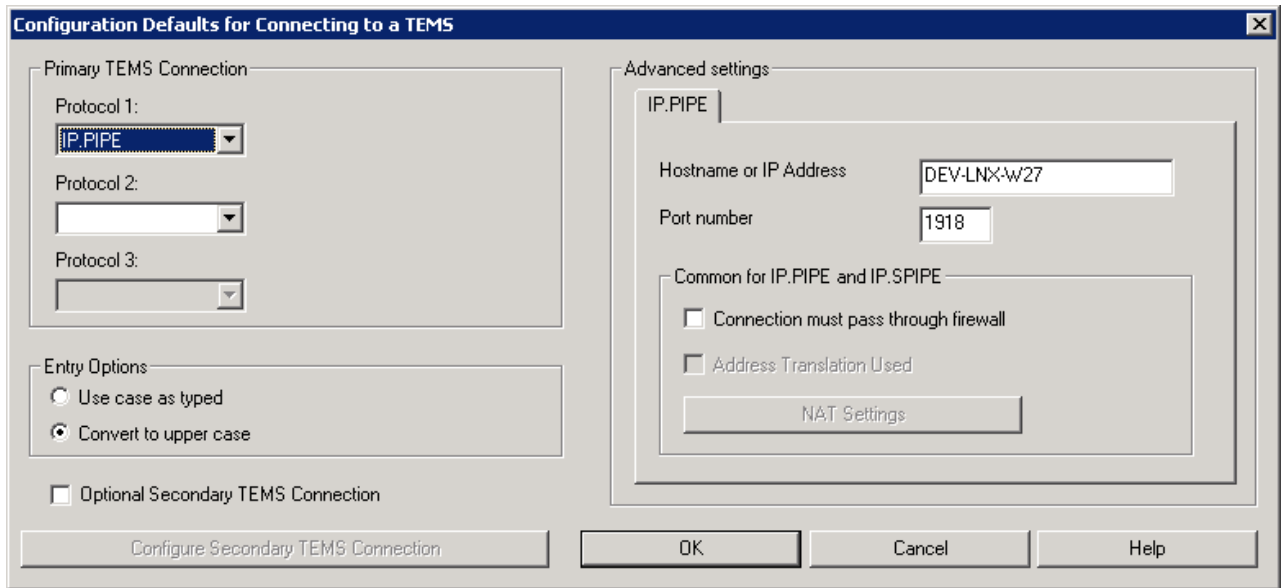
Figure 12. Configuring the Agent connection to the TEMS, window 1

Specify these parameters as explained in the *IBM Tivoli Monitoring: Installation and Setup Guide*.

- If the Agent must access the monitoring server across a firewall, select **Connection must pass through firewall**.
- Identify the protocol that the Agent will use to communicate with the hub monitoring server. You have four choices: IP.UDP, IP.PIPE, IP.SPIPE, or SNA. The value that you specify here must match whatever you specified when installing the TEMS.
- If your site has set up failover support for its ITM monitoring agents, select **Optional Secondary TEMS Connection**, and specify the same communication protocols you chose when installing the TEMS.

Specify advanced settings as explained in Table 3. Click **OK**.

Table 3. Communications protocol settings

Field	Description
IP.UDP Settings	
Hostname or IP Address	The host name or IP address for the hub monitoring server.
Port # and/or Port Pools	The listening port for the hub monitoring server.
IP.PIPE Settings	
Hostname or IP Address	The host name or IP address for the hub monitoring server.
Port Number	The listening port for the monitoring server. The default number is 1918.
IP.SPIPE Settings	
Hostname or IP Address	The host name or IP address for the hub monitoring server.
Port number	The listening port for the hub monitoring server. The default value is 3660.

Table 3. Communications protocol settings (continued)

Field	Description
SNA Settings	
Network Name	The SNA network identifier for your location.
LU Name	The LU name for the monitoring server. This LU name corresponds to the Local LU Alias in your SNA communications software.
LU 6.2 LOGMODE	The name of the LU6.2 LOGMODE. The default value is CANCTDCS.
TP Name	The transaction program name for the monitoring server.
Local LU Alias	The LU alias.

Configure ITCAM Agent for HTTP Servers

The Agent configuration notebook window opens. See Appendix C, "Configuration parameters for ITCAM Agent for HTTP Servers," on page 59 for details about configuration parameters of ITCAM Agent for HTTP Servers.
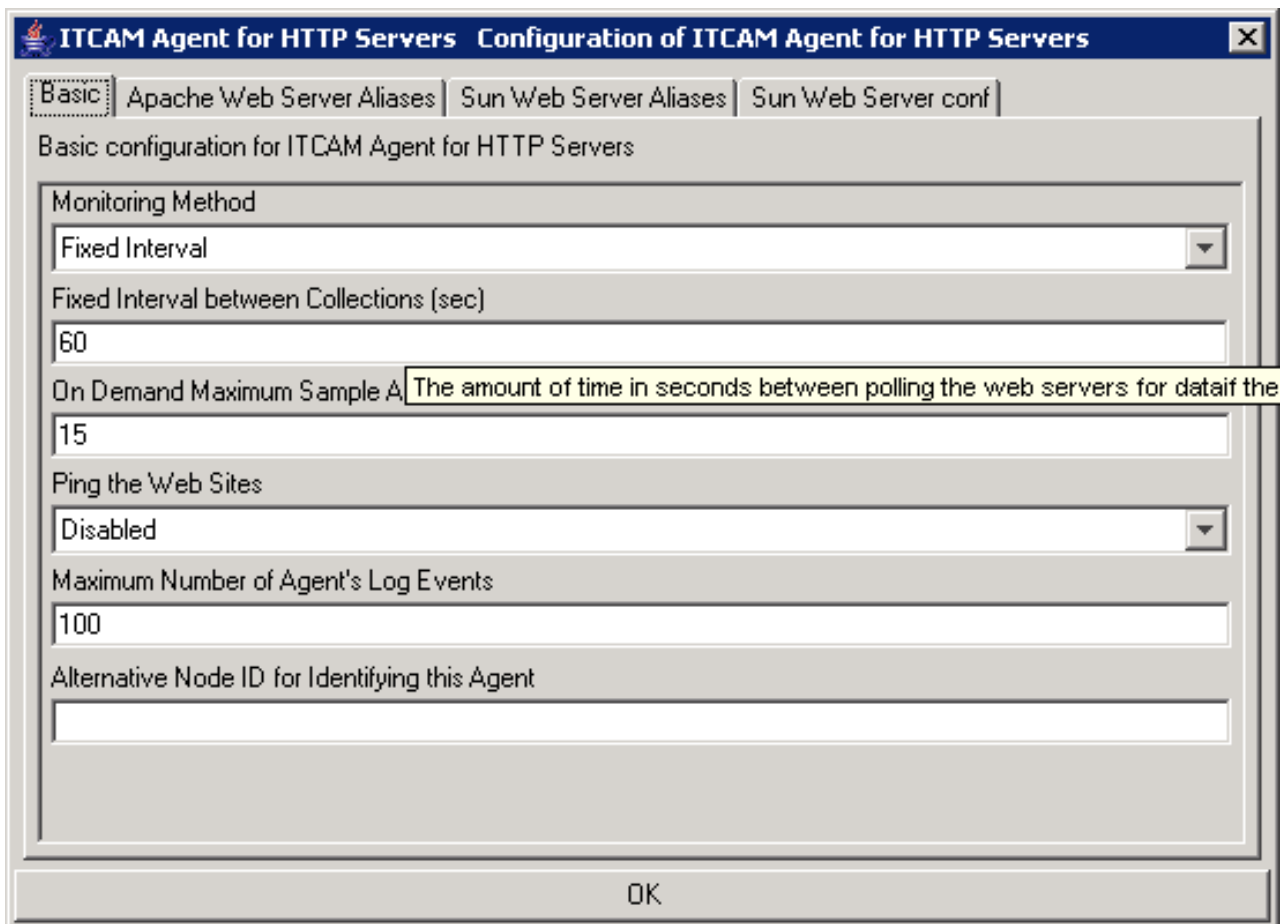
Figure 13. Configuration notebook: Basic tab

When you have completed the Basic settings page, click the **Apache Web Server Aliases** tab. Be sure to click **New** to create a Apache Web Server aliases:
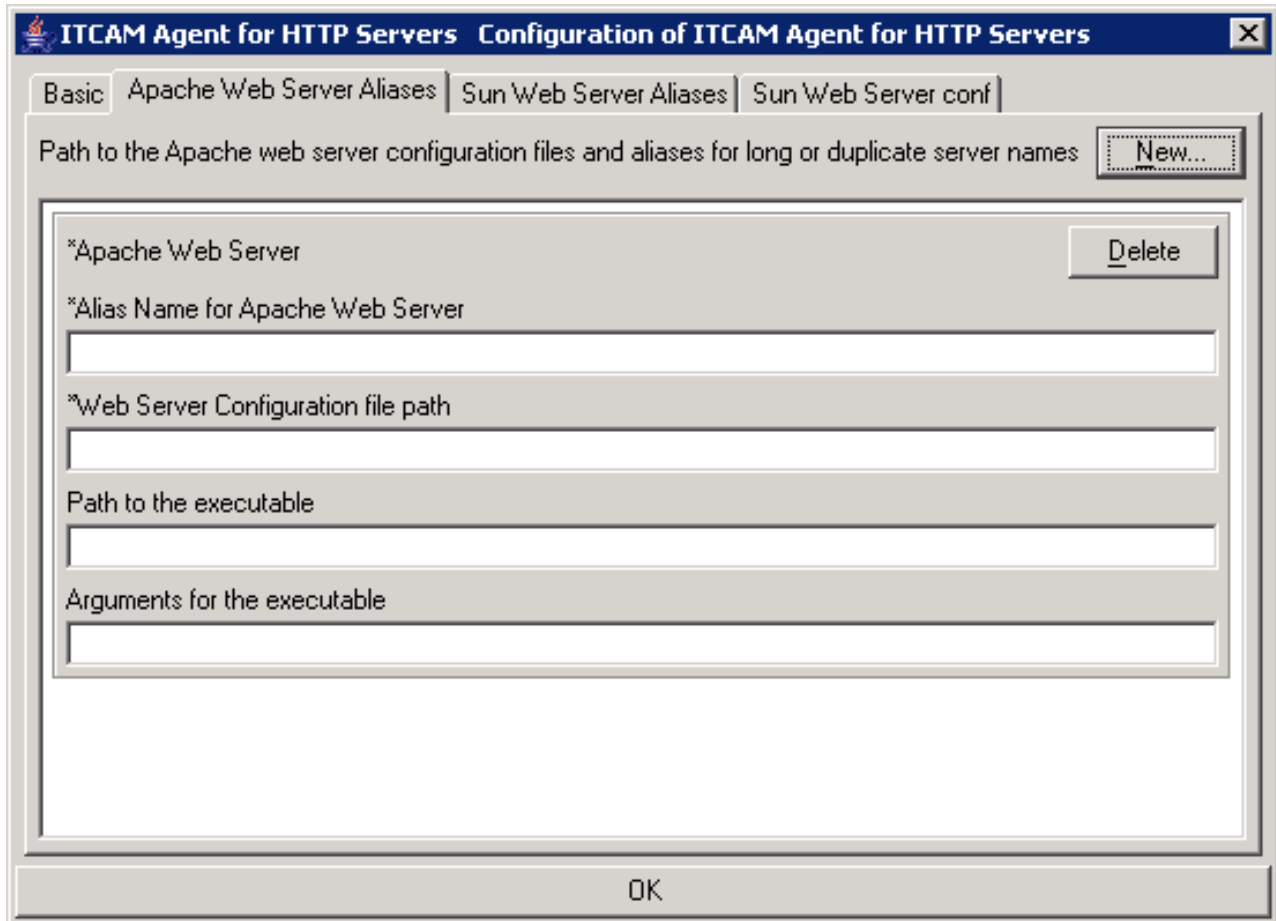
Figure 14. Configuration notebook: Apache Web Server Aliases tab

Attention: For IBM HTTP Server, use Apache configuration.

When you have completed this page, click the **Sun Web Server Aliases** tab. To specify an alternate server name of 32 characters or fewer, click **New**:
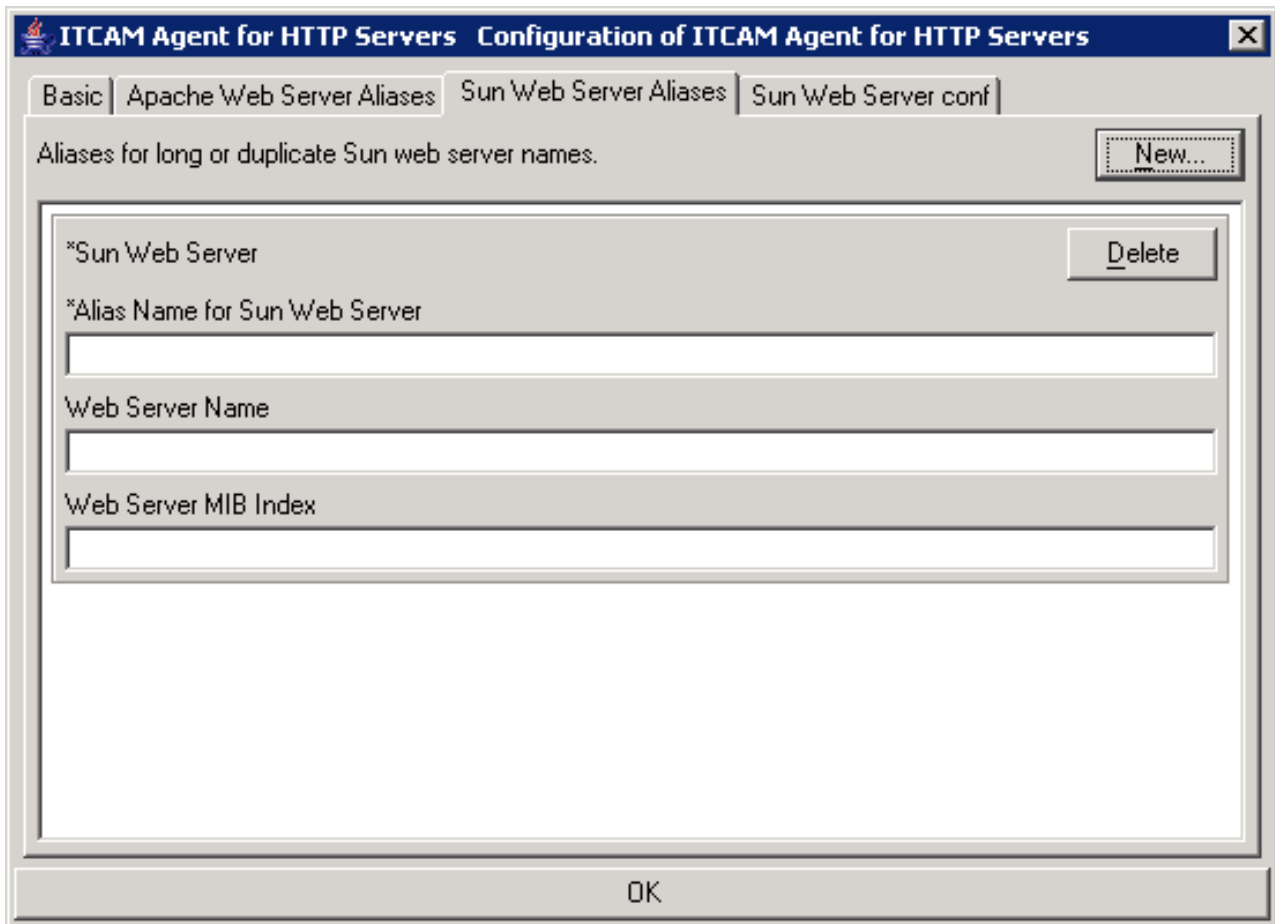
Figure 15. Configuration notebook: Sun Web Server Aliases tab

When you have completed this page, Click the **Sun Web Server conf** tab:
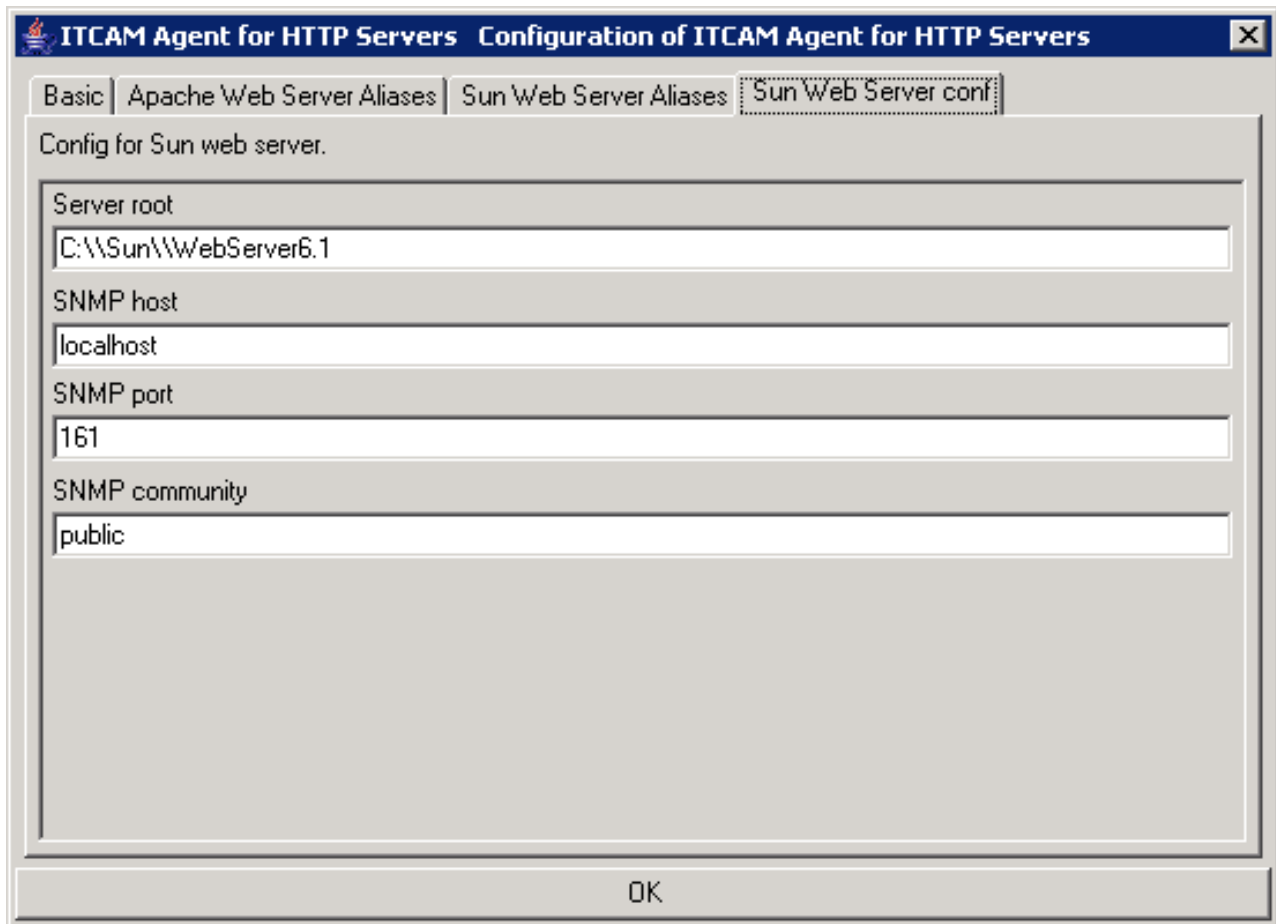
Figure 16. Configuration notebook: Sun Web Server Conf tab

When you have completed all four notebook pages, you have defined all Agent configuration parameters; click **OK** to complete the configuration process.

Configuring the Apache Web Server, IBM HTTP Server, or Sun Web server

This section introduces the configuration prerequisites for Apache Web Server, IBM HTTP Server, and Sun Java System Web Server.

Configuration steps for Apache Web Server and IBM HTTP Server

Each Apache server and IBM HTTP server that is to be monitored needs to be added to the Apache Server aliases page shown in Figure 14 on page 19. Specify the full path to Web Servers configuration file (for example: `C:\Apache\conf\httpd.conf`) for the Web Server Configuration file path. If the path to Web Server executable or the path to Web Server configuration file differs from default layout, you also need to specify the Path to the executable.

Configuration steps for Sun Java System Web Server

The Sun Web Server requires special configurations. Perform the following steps:

1. Make sure that you have the Windows SNMP agent installed and configured before you install the Sun Java System Web Severs. For details, see △Installing and Configuring the SNMP Service" in http://www.microsoft.com/technet/itsolutions/network/evaluate/technol/tcpipfund/tcpipfund_appb.mspx.

2. Configure the community name for SNMP, click **Start** > **Control Panel** > **Administrative Tools** > **Services** > **SNMP Service**, the **SNMP Service Properties** window opens. Click the **Security** tab, and click **Add** under the **Accepted Community Name** box. Enter **public** in the **Community name** field . Restart SNMP Service.

3. Install the Sun Web Server.

4. Enable SNMP monitoring for each server by clicking **server** > **manage** > **SNMP Subagent Configuration**. Specify the needed information. Select **on** for the **Enable SNMP Statistics Collection** field, then click **OK** and apply changes. For details, see http://docs.sun.com/source/819-0130/agsnmp.html.

5. Restart SNMP service.

6. Start/restart configured servers from Sun Web Server web admin console.

Finalize the installation

After you have completed all configuration tasks, Tivoli Monitoring Services is started, and the InstallShield completion window opens:
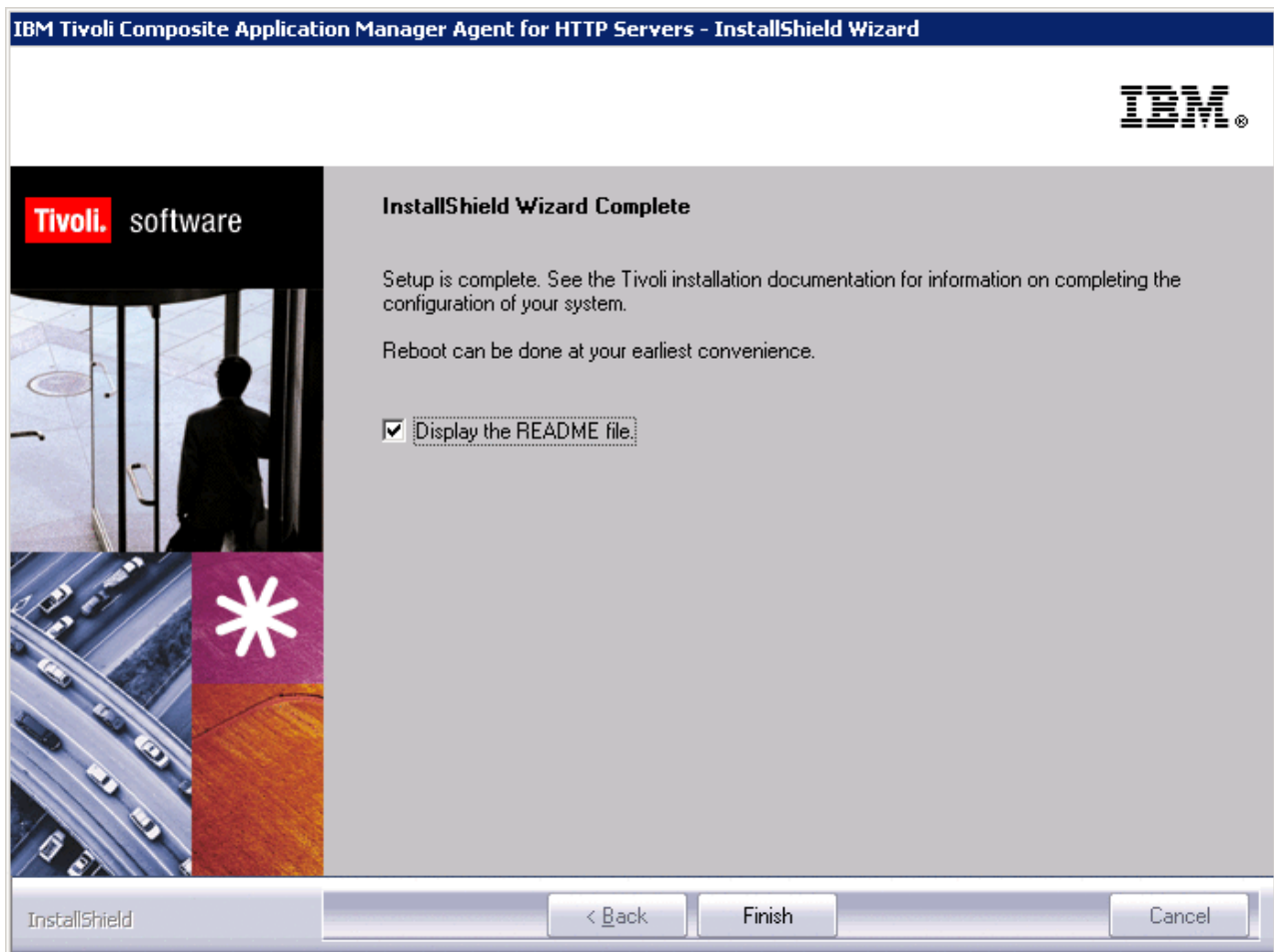
Figure 17. Installation complete window

If you choose not to read the product README for last-minute product information, clear the checkbox. Click **Finish** to close the installer.

Note: If you did not request that the Agent be configured during installation, you must do so later on Manage Tivoli Enterprise Monitoring Services. From the Manage Tivoli Enterprise Monitoring Services window, right-click the Agent and select **Reconfigure** from the pop-up menu.
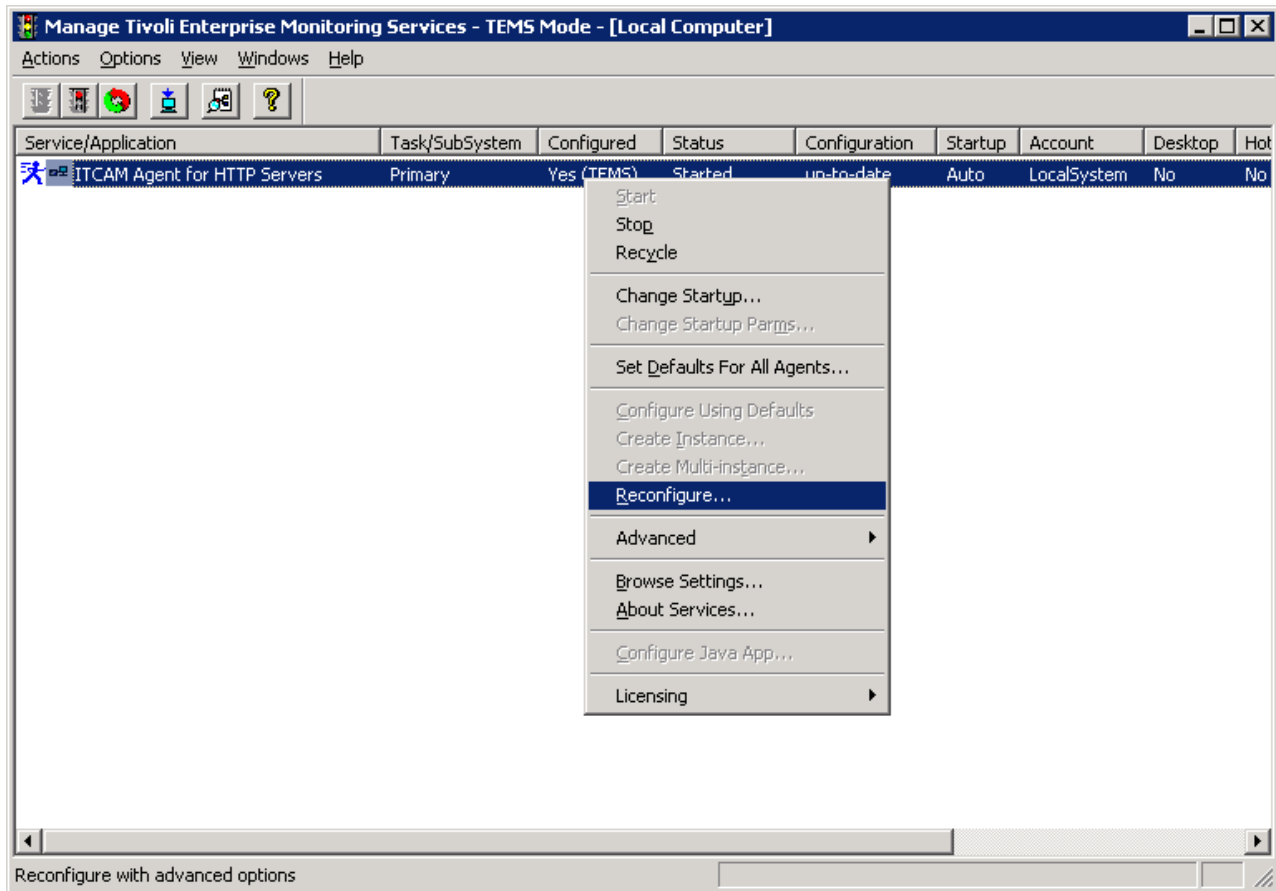
Figure 18. Manage Tivoli Enterprise Monitoring Services window

Complete the configuration panels as described from "Configure the Tivoli Enterprise Monitoring Agent's TEMS connection" on page 16.

Adding application support on Windows

This section describes how to add application support to the TEMS, TEPS, or TEP, you need to run setup.exe file in the server where you have your TEMS, TEPS, or TEP installed. This section has three parts:

- Adding application support on the Tivoli Enterprise Monitoring Server
- Adding application support on the Tivoli Enterprise Portal Server
- Adding application support on the Tivoli Enterprise Portal desktop client

Install application support on the Tivoli Enterprise Monitoring Server.

Note: The monitoring server is stopped during this process.

1. Stop the Tivoli Enterprise Monitoring Server or the software automatically stops the Tivoli Enterprise Monitoring Server when it installs. Perform the following steps to stop the Tivoli Enterprise Monitoring Server manually:

a. Click **Start** → **Programs** → **IBM Tivoli Monitoring** → **Manage Tivoli Monitoring Services**.

b. Right-click Tivoli Enterprise Monitoring Server.

c. In the pop-up menu, select **Stop**.

2. Access the /WINDOWS subdirectory on the agent installation media.

3. Double-click `setup.exe`.

4. Click **Next** on the Welcome window.

   Note: If you are installing the support separately from the agent itself and you have already installed an agent on this computer, you see the following window. Click **Modify** and skip to step 6.

Figure 19. Installing application support

5. Click **Accept** on the software license.

6. If you see a message telling you the installed versions is newer than the agent installation, click **OK** to ignore this message.

7. Select **Tivoli Enterprise Monitoring Server** and click **Next**.

   Note: If you have other components installed on the same computer, such as the desktop client, also select those components to install the component-specific application support.

8. To add the agent to the deployment depot, select the agent and click **Next**.

9. Review the installation summary details. Click **Next** to start the installation.

   After installation is complete, a configuration window is displayed. By default, all the components you just installed are selected for configuration. Clear any components that you have already installed on this computer, such as the monitoring server.

10. Click **Next** on the configuration window.

11. Specify the default values for communication with the monitoring server and click **OK**.
12. Identify the default communications protocols for agents to use to connect to the monitoring server and click **OK** .
13. Specify the location of the monitoring server and click **OK**. Your choices are **This computer** or **On a different computer**.

   Note: Because the monitoring server is not currently running, it is started automatically before the process begins.
14. Click **OK**.
15. Select the data to add to the monitoring server and click **OK**. By default, all available application support is selected.
16. Click **Next** on the application support message.
17. Specify the default values for the agent to use when it communicates with the monitoring server and click **OK**.

   Note: You can specify three methods for communication to set up backup communication methods. If the method you have identified as Protocol 1 fails, Protocol 2 is used.
   a. If the agent must cross a firewall to access the monitoring server, select **Connection must pass through firewall**.
   b. Identify the type of protocol that the agent uses to communicate with the monitoring server. You have four choices: IP.UDP, IP.PIPE, IP.SPIPE, or SNA.
18. Define the communications between agents and the monitoring server. For details of the information, see Table 3 on page 17.
19. Click **Finish**.

Install application support on the Tivoli Enterprise Portal server.
 1. Open **Manage Tivoli Enterprise Monitoring Services.**
 2. Stop the portal server by right-clicking it and clicking **Stop**.
 3. Access the /WINDOWS subdirectory on the agent installation media.
 4. Double-click **setup.exe**.
 5. Click **Next** on the Welcome window.

   Note: If you are installing the support separately from the agent itself and you have already installed an agent on this computer, you see the following window:
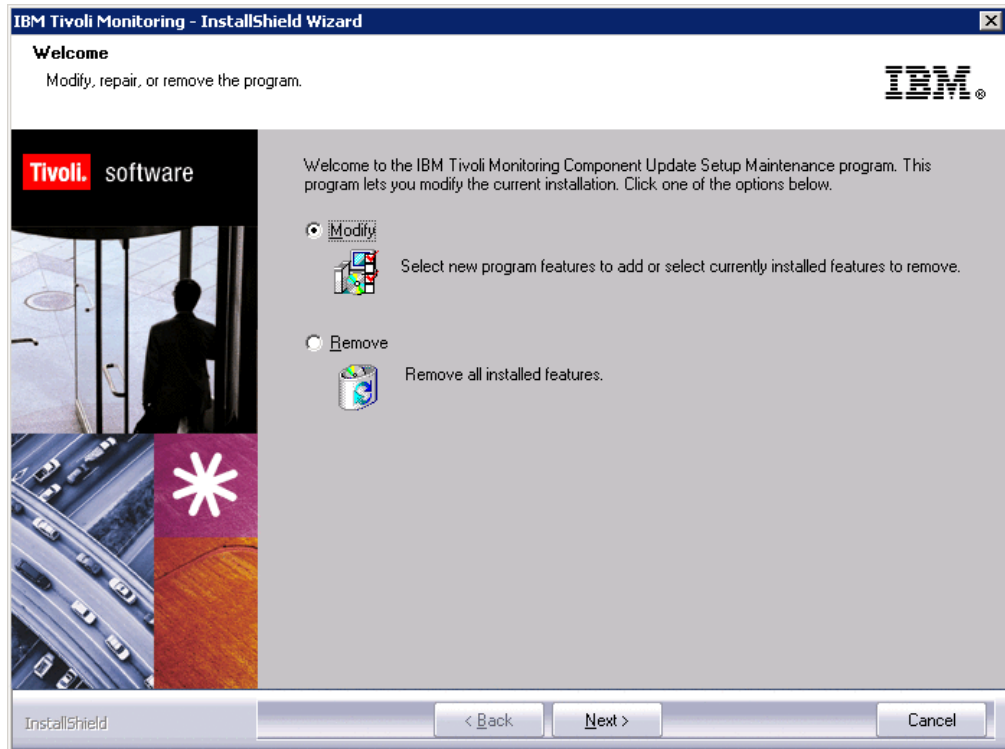
Figure 20. Installing application support

Click **Modify** and skip to step 7.

6. Click **Accept** on the software license.
7. If you see a message telling you the installed versions is newer than the agent installation, click **OK** to ignore this message.
8. Select **Tivoli Enterprise Portal Server** and click **Next**.

    Note: If you have other components installed on the same computer, such as the desktop client, also select those components to install the component-specific application support.

9. Click **Next** without selecting any agents.
10. Review the installation summary details and click **Next**.

    After installation is complete, a configuration window is displayed. By default, all the components you just installed are selected for configuration. Clear any components that you have already installed and configured on this computer.

11. Click **Next** on the configuration window.
12. Type the host name for the portal server and click **Next**.
13. Click **Finish**.
14. Restart the portal server.

Installing application support on the desktop client

1. Stop the desktop client before performing this procedure.
2. Access the /WINDOWS subdirectory on the agent installation media.
3. Double-click **setup.exe**.
4. Click **Next** on the Welcome window.

Note: If you are installing the support separately from the agent itself and you have already installed an agent on this computer, you see the following window:
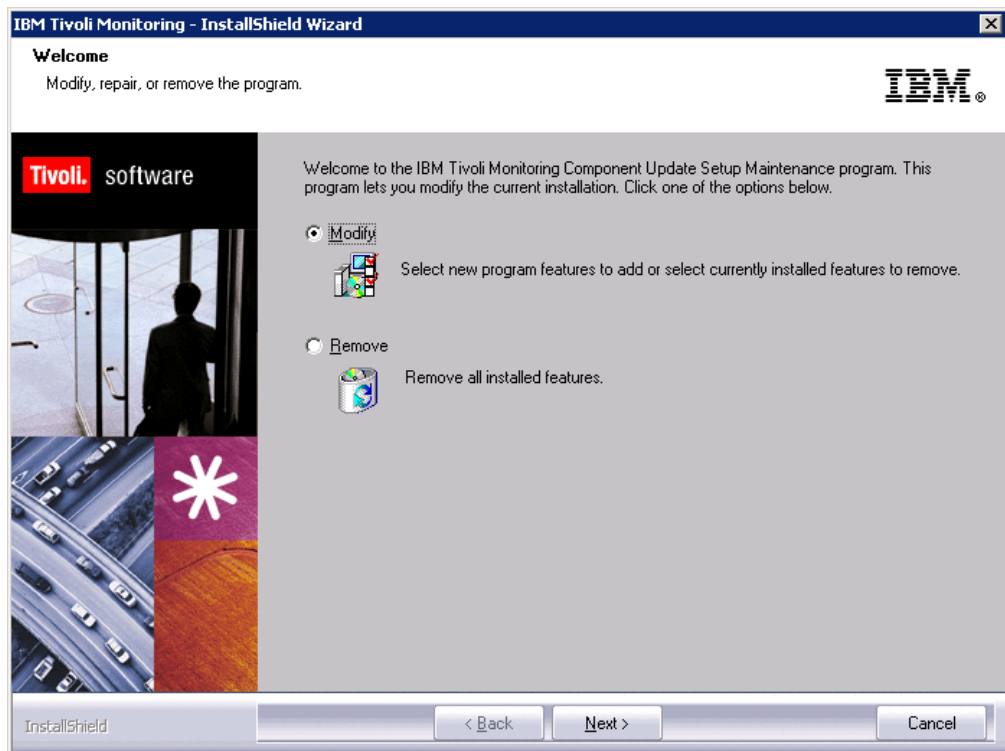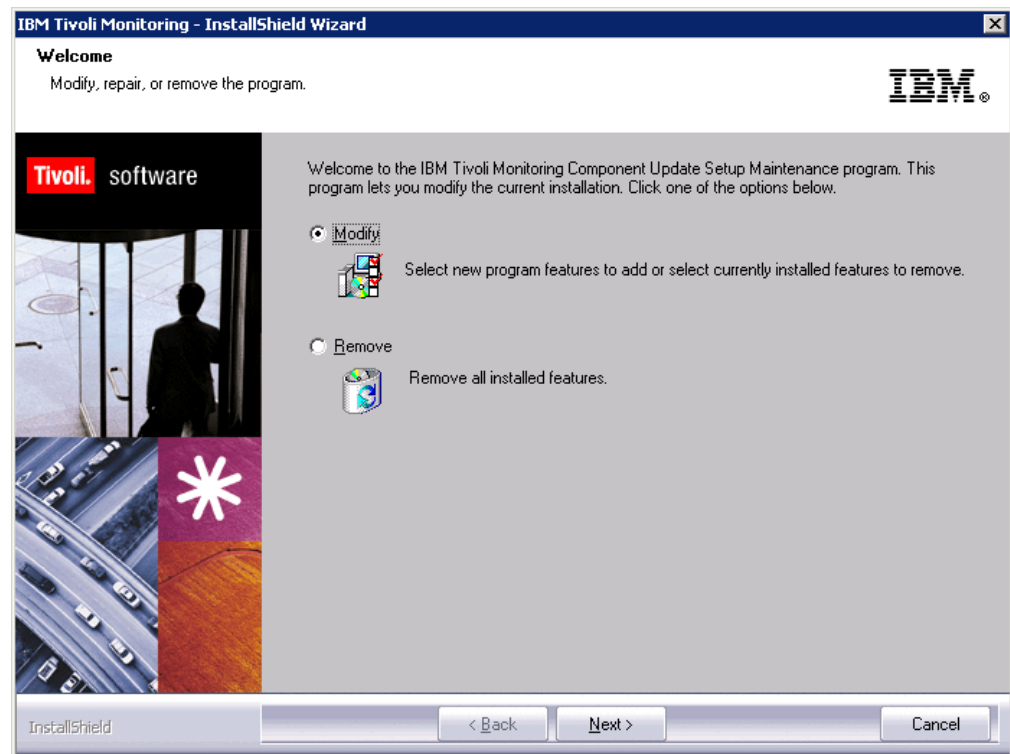

Figure 21. Installing application support

> Click **Modify** and skip to step 6.

5. Click **Accept** on the software license.
6. If you see a message regarding installed versions being newer than the agent installation, click **OK** to ignore this message.
7. Select **Tivoli Enterprise Portal Desktop Client** and click **Next**.
8. Click **Next**. Do not select any agents.
9. Review the installation summary details. Click **Next** to start the installation.

   After installation is complete, a configuration window is displayed. By default, all the components you just installed are selected for configuration. Clear any components that you have already installed and configured on this computer.
10. Click **Next** on the configuration window.
11. Type the host name for the portal server and click **Next**.
12. Click **Finish** to complete the installation wizard.

Ensure that the Eclipse server has been configured

When the installation is complete, you must check the TEP client's Eclipse help server to ensure that it has been configured. Start Manage Tivoli Enterprise Monitoring Services (**Start** > **All Programs** > **IBM Tivoli Monitoring** > **Manage Tivoli Monitoring Services**), and ensure that the **Eclipse Help Server** entry indicates Yes in the Configured column. If it is not, right-click the entry, and select

Configure Using Defaults from the pop-up menu:
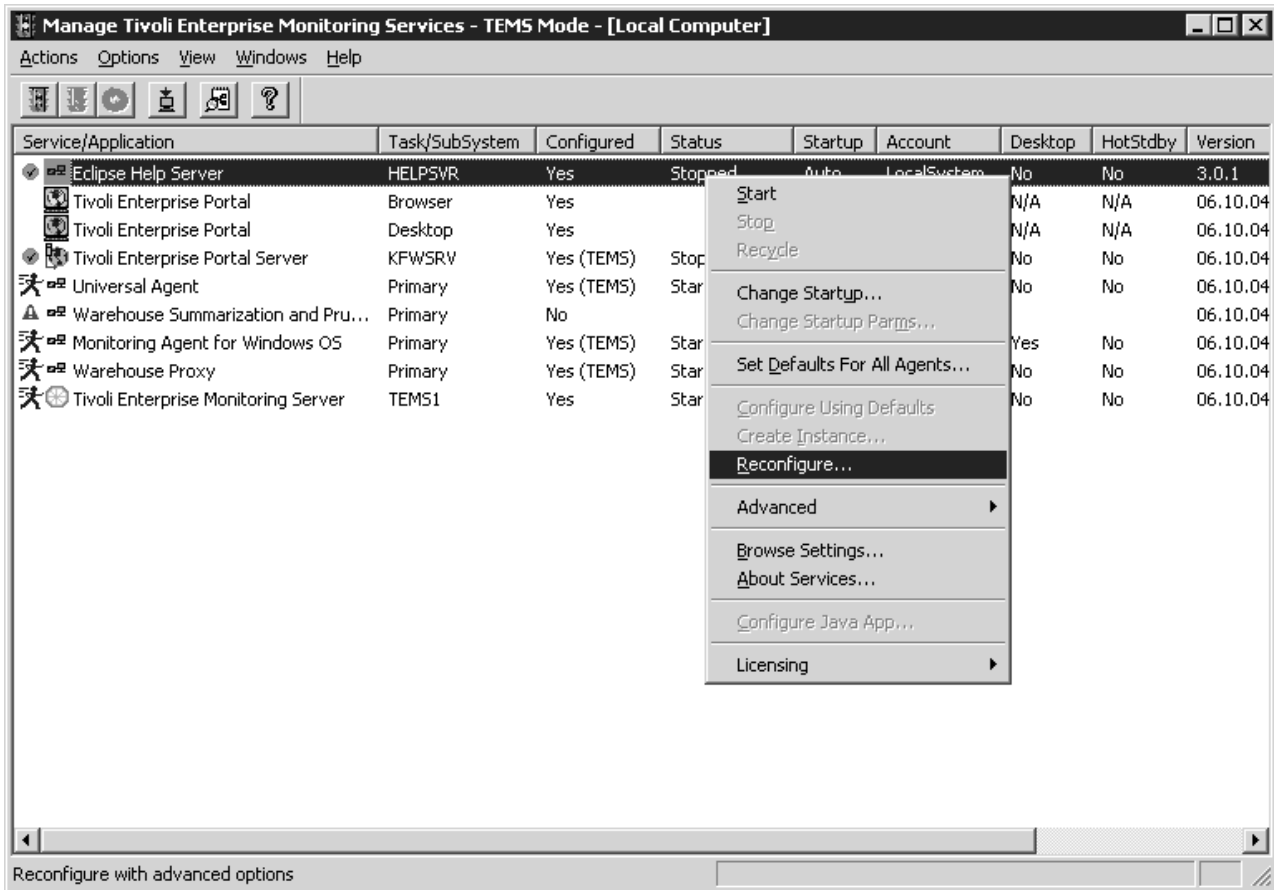
Figure 22. Configuring the Eclipse server

You are prompted for the port number that the Eclipse Help Server should use:
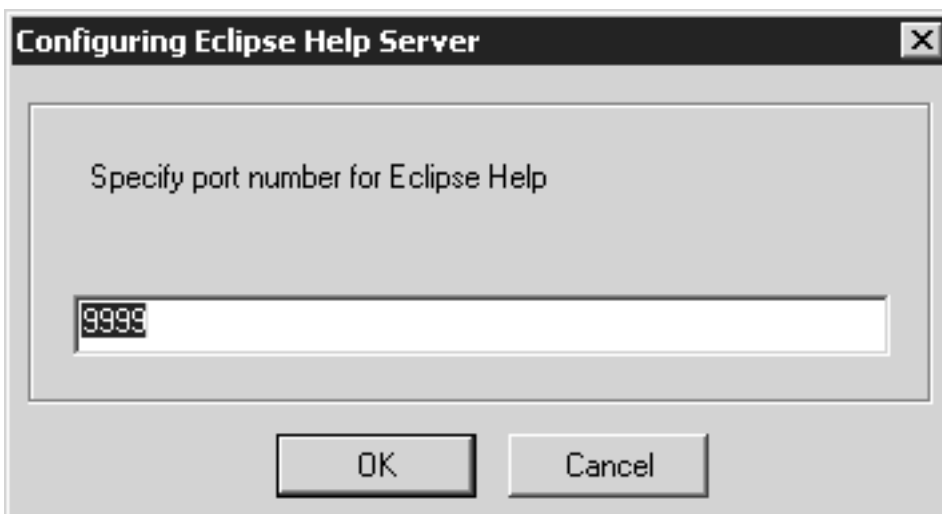
Figure 23. Defining the port number for the Eclipse Help Server

Ensure that this value is set to the same port number that you specified when installing ITM, and click **OK**.

If you want the Eclipse help server to start automatically whenever this node is started, right-click the **Eclipse Help Server** entry, and select **Change Startup** from the pop-up menu. The Eclipse server's startup parameters are displayed:
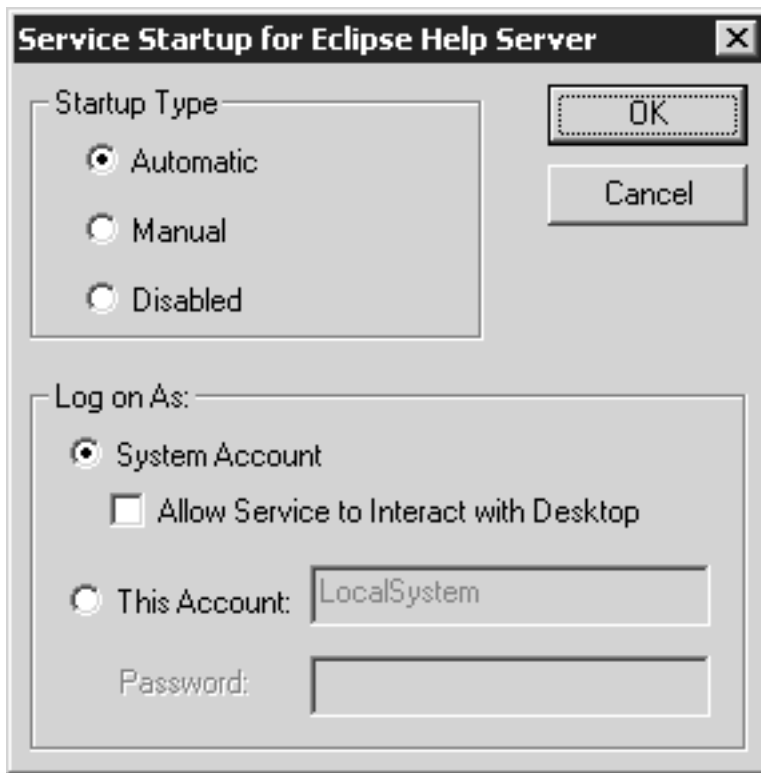
Figure 24. Specifying Eclipse help server startup type

Select **Automatic** in the **startup type** field, and click **OK**.

Performing a silent installation on Windows

The ITM installer supports a silent mode in which your predefined values are used to install the ITCAM Agent for HTTP Servers without the user interface. This option relies on an information file, silent.txt, provided on the ITCAM Agent for HTTP Servers installation CD, in which you specify necessary installation parameters. To perform a silent installation, perform the following steps:

1. Locate the silent.txt file on the product installation CD, and copy this file to a work directory on your Windows node.

2. Edit your copy of the silent.txt file, and change the parameters as appropriate for your environment and as described in this chapter. The silent.txt file includes all installation parameters and provides directions for updating them.

   You must complete all input records in this file. Each line of the file must be either a comment (containing a semi-colon in column one) or a meaningful statement that starts in column one.

   Note: Do not modify any other files that come with the installation, for example: SETUP.ISS.

3. After customizing this driver file, save your updates, and invoke the silent install using one of the following methods:

   a. Direct invocation:

- Open a command prompt, and change to the directory that contains installation files setup.exe and setup.ins.
- Invoke setup as follows. Specify the parameters in the order listed.

  ```
  start /wait setup /z"/sfC:\temp\SILENT.TXT" /s /f2"C:\temp\silent_setup.log"
  ```

  where /z"/sf" specifies the name and location of the installation driver that you customized for your site (in this example, file SILENT.TXT in the C:\temp directory). This is a required parameter. This file must exist.

  /s specifies that this is a silent install; if you specify this option, nothing is displayed during installation.

  /f2 specifies the name of the InstallShield log file. If you do not specify this parameter, the Setup.log file is created by default in the same location as setup.iss. This log is the InstallShield log but not the installation log. The installation log can be found in the installation target directory. The default directory is C:\IBM\Omegamon sub-directory, and if the installation aborts before the installation location has been identified, the directory is on the Windows Boot drive root directory. In either case, the Setup program must be able to create and write to this file.

  b. SMS invocation:
     1) Copy all the installation files to a LAN-based disk that SMS will mount on the designated servers.
     2) Replace the original SILENT.TXT file on the LAN disk with your modified version.
     3) Edit the PDF file located in the same place as the setup.exe file and change the Setup invocation as follows:

        ```
        Setup /z"/sfC:\temp\SILENT.TXT" /s /f2"C:\temp\silent_setup.log"
        ```

You can find complete information about silent ITM installation in *IBM Tivoli Monitoring: Installation and Setup Guide*.

Uninstalling the Tivoli Enterprise Monitoring Agent on Windows

Use the following procedures to remove a monitoring agent on Windows.

1. From the desktop, click **Start → Settings → Control Panel** (for Windows 2000) or **Start → Control Panel** (for Windows 2003).
2. Click **Add or Remove Programs**.
3. Select the agent you want to uninstall.
4. Click **Change/Remove**.
5. Select **Remove** and click **Next**.
6. Click **OK** to confirm the uninstallation.
7. Click **Finish** to complete the uninstallation.

Installing and uninstalling a Language Pack on Windows

A Language Pack enables user interaction with the Agent in a language other than English. For example, when a Spanish language pack is installed, the Tivoli Enterprise Portal workspaces and the internal messages of the Agent are displayed in Spanish.

To enable full support for a language, you must install the Language Pack on the Agent host and all hosts where the Agent ITM support files are installed (hub Tivoli Enterprise Monitoring Servers, all Tivoli Enterprise Portal Servers, and all Tivoli Enterprise Portal desktop clients).

If you no longer want to use a language, uninstall the language pack for it.

Before installing or uninstalling a language pack, ensure that:
- The Agent and the TEP Support Files are installed.
- The Java runtime environment (JRE) is available on every host where you are planning to install the Language Pack. (The JRE is required by ITM).

Installing a Language Pack on Windows

To install a Language Pack on Windows you need to use the installer on the Language Pack DVD. The procedure is the same on the Agent host, hub Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, and Tivoli Enterprise Portal desktop client.

Perform the following procedure:
1. Start `lpinstaller.exe` from the Language Pack DVD.
2. Select the language of the installer and click OK.

   Note: In this step, you select the language for the installer user interface, not the language pack that will be installed.
3. Click **Next** on the Introduction window.
4. Select **Add/Update** and click **Next**.
5. Select the folder where the National Language Support package (NLSPackage) files are located. This is the `nlspackage` folder on the Language Pack DVD.
6. Select **ITCAM Agent for HTTP Servers**.
7. Select the languages to install and click **Next**.

   Note: You can hold down the **Ctrl** key for multiple selections.
8. Examine the installation summary page and click **Next** to begin installation.
9. Click **Next**.
10. Click **Finish** to exit the installer.
11. If you are installing the Language Pack on a Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, or Tivoli Enterprise Portal desktop client, start the **Manage Tivoli Monitoring Services** utility, and use it to restart the server or client. If the Eclipse Help Server is running, restart it as well.

Uninstalling a Language Pack on Windows

To uninstall a Language Pack on Windows you need to use the installer on the Language Pack DVD. The procedure is the same on the Agent host, hub Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, and Tivoli Enterprise Portal desktop client.

Perform the following procedure:
1. Start `lpinstaller.exe` from the Language Pack DVD.
2. Select the language of the installer and click OK.

Note: In this step, you select the language for the installer user interface, not the language pack that will be installed.

3. Click **Next** on the Introduction window.
4. Select **Remove** and click **Next**.
5. Select **ITCAM Agent for HTTP Servers**.
6. Select the languages to uninstall and click **Next**.

   Note: You can hold down the **Ctrl** key for multiple selections.
7. Examine the installation summary page and click **Next** to begin installation.
8. Click **Next**.
9. Click **Finish** to exit the installer.
10. If you are installing the Language Pack on a Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, or Tivoli Enterprise Portal desktop client, start the **Manage Tivoli Monitoring Services** utility, and use it to restart the server or client. If the Eclipse Help Server is running, restart it as well.

Chapter 3. Installing the Tivoli Enterprise Monitoring Agent on UNIX and Linux

This chapter provides installation instructions for installing the ITCAM Agent for HTTP Servers on any UNIX or Linux® environment, including:

- Linux running on Intel®
- AIX®
- HP/UX
- Solaris

It also includes instructions for installing the language packs for users of non-English languages.

- "UNIX and Linux requirements"
- "Installing the Tivoli Enterprise Monitoring Agent on UNIX and Linux" on page 34
- "Configuring the Tivoli Enterprise Monitoring Agent on UNIX and Linux" on page 37
- "Performing a silent installation on UNIX and Linux" on page 46
- "Installing application support on Linux and UNIX" on page 47
- "Uninstalling the Tivoli Enterprise Monitoring Agent on UNIX and Linux" on page 51
- "Installing a Language Pack on Linux and UNIX systems" on page 51

UNIX and Linux requirements

The Tivoli Enterprise Monitoring Agent for ITCAM Agent for HTTP Servers can run with or without root authority on UNIX and Linux platforms. Start the agent with the same user ID used to start HTTP Servers, because it must be able to stop or start a Web server using the standard scripts.

Note: Certain features of this installation *require* that you supply a superuser password to complete; therefore your installation user ID must have root authority.

Prerequisite APAR for AIX sites

If your HTTP Servers environment is running under AIX Version 5.3, you must install APAR IY65196 before installing the Agent; see Web page http://www-1.ibm.com/support/docview.wss?uid=isg1IY65196.

Historical data collection in Linux

If your site uses Linux as its HTTP Servers operating environment, you need to synchronize historical data collection at the agent with the time zone of the Tivoli Enterprise Portal client. To do this, set a time zone variable in the Linux /etc/profile file. For example, to set the Linux time zone to the U.S. Pacific time zone:

1. Do one of the following: For Red Hat Linux, set:

   ```
   ZONE="US/Pacific"
   export ZONE
   ```

   For SuSE/Novell Linux, set:

```
TIMEZONE="US/Pacific"
export TIMEZONE
```
2. Reboot your Linux server.

Installing the Tivoli Enterprise Monitoring Agent on UNIX and Linux

This section will guide you through the installation process of ITCAM Agent for HTTP Servers on UNIX and Linux. Follow the proceeding instructions to perform the installation.

Note:

To upgrade from earlier versions of the Agent, run the installer and specify the existing Agent runtime location. Agent support files for TEP, TEPS and TEMS are upgraded in the same way.

Attention: you must install ITCAM Agent for HTTP Servers version 7.1 before installing version 7.1.0.1.

- "Step 1: Invoke the installer"
- "Step 2: Supply the name of the installation directory"
- "Step 3: Select installation option"
- "Step 4: Accept the product license agreement" on page 35
- "Step 5: Provide an encryption key" on page 35
- "Step 6: Select and install the product software" on page 36
- "Step 7: Configure the Tivoli Enterprise Monitoring Server" on page 36
- "Configure and start the Tivoli Enterprise Monitoring Agent using command line" on page 37

Step 1: Invoke the installer

After loading the ITCAM Agent for HTTP Servers disk and changing to its root directory, locate the installation script, install.sh, and invoke it:

```
./install.sh
```

Step 2: Supply the name of the installation directory

The install script prompts you for the name of the installation directory where the ITCAM Agent for HTTP Servers should be installed:

```
Enter the name of the IBM Tivoli Monitoring directory
[ default = /opt/IBM/ITM ]:
```

Specify the absolute or relative directory name, or press **Enter** to accept the default.

If the directory exists, the installer prompts you:

```
ITM home directory "/opt/IBM/ITM" already exists.
OK to use it [ 1-yes, 2-no; "1" is default ]?
```

If you do want to use this directory, press **Enter** to accept the default.

Step 3: Select installation option

The installer next displays background information about installation requirements, searches the CD for the ITM pieces available for installation, and prompts you for information about how you want those pieces installed:

```
Select one of the following:

1) Install products to the local host.
2) Install products to depot for remote deployment (requires TEMS).
3) Install TEMS support for remote seeding
4) Exit install.

Please enter a valid number:
```

Enter 1. The installer displays status messages about the installation's progress.

Note: Option 2 applies to remote agent deployment. If you want to add this agent's installation files to your site's deployment depot, return to install.sh, and invoke this option.

Step 4: Accept the product license agreement

The installer next displays the product license so you can accept or decline it:

```
Software Licensing Agreement
Press Enter to display the license agreement on your
screen. Please read the agreement carefully before
installing the Program. After reading the agreement, you
will be given the opportunity to accept it or decline it.
If you choose to decline the agreement, installation will
not be completed and you will not be able to use the
Program.


International Program License Agreement

Part 1 - General Terms

BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING
THE PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF
YOU ARE ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON
OR A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND
WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND THAT PERSON,
COMPANY, OR LEGAL ENTITY TO THESE TERMS. IF YOU DO NOT
AGREE TO THESE TERMS,

- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, OR USE THE
PROGRAM; AND

- PROMPTLY RETURN THE PROGRAM AND PROOF OF ENTITLEMENT TO

Press Enter to continue viewing the license agreement, or
enter "1" to accept the agreement, "2" to decline it, "3"
to print it, "4" to read non-IBM terms, or "99" to go back
to the previous screen.
```

If you accept the license agreement, enter 1.

Step 5: Provide an encryption key

You are prompted to provide a 32-character encryption key to secure password transmission and other sensitive data across your ITM environment:

```
Enter a 32-character encryption key, or press Enter to use the default
      Default = IBMTivoliMonitoringEncryptionKey
....+....1....+....2....+....3..
```

Supply the 32-character key, or accept the default. The key information is displayed:

```
GSkit encryption key has been set.
Key File directory: /opt/IBM/ITM/keyfiles
```

Step 6: Select and install the product software

The installer prompts you to specify which products to install from the product CD:

```
Product packages are available for this operating system and component
 support categories:

 1) IBM Tivoli Monitoring components for this operating system
 2) Tivoli Enterprise Portal Browser Client support
 3) Tivoli Enterprise Portal Desktop Client support
 4) Tivoli Enterprise Portal Server support
 5) Tivoli Enterprise Monitoring Server support
 6) Other operating systems

Type the number or type "q" to quit selection
[ number "1" or "IBM Tivoli Monitoring components for this operating system"
 is default ]:
```

Specify the correct selection; to install the Agent, specify 1. Press **Enter.**

If you have specified 1, the installer displays a list of available components:

```
The following products are available for installation:

 1) IBM Tivoli Composite Application Manager Agent for HTTP Servers
  V07.10.00.00
 2) all of the above

Type the numbers for the products you want to install, type "b" to
change operating system, or type "q" to quit selection.
If you enter more than one number, separate the numbers by a comma or a space.
```

Specify 1 or 2. Press **Enter.**

The installer displays a list of the components to be installed and prompts you to verify that the list is correct:

```
The following products will be installed:

  IBM Tivoli Composite Application Manager Agent for HTTP Servers
  V07.10.00.00

Are your selections correct [ 1=Yes, 2=No ; default is "1" ] ?
```

Specify Y. The installer displays several status messages as the product files are installed. When that installation completes, you are prompted for whether you want to install again for a different operating system:

```
Do you want to install additional products or product support packages
[ y or n; "n" is default ]?
```

Enter y or n, as appropriate. The installer completes the installation postprocessing.

Step 7: Configure the Tivoli Enterprise Monitoring Server

The installer prompts you to add the ITCAM Agent for HTTP Servers's application data to the Tivoli Enterprise Monitoring Server's database.

```
As a reminder, you should install product support on each of your
TEM servers for any agents you have just installed. This is done via the
"[ITM home]/bin/itmcmd support" command on your TEM servers.
```

Go to "Configuring the Tivoli Enterprise Monitoring Agent on UNIX and Linux" to complete the configuration. For information about integrating the agent's application support with the TEMS, see "Installing application support on Linux and UNIX" on page 47

Configuring the Tivoli Enterprise Monitoring Agent on UNIX and Linux

This section instructs you how to configure the Agent. On UNIX and Linux platforms, the software provides two methods for configuring the Agent.

- Command line configuration
- GUI configuration

Configure and start the Tivoli Enterprise Monitoring Agent using command line

Before terminating, the installer prompts you to invoke the **itmcmd** command with the **config** operand to configure this agent:

```
You may now configure any locally installed IBM Tivoli Monitoring product
via the "[ITM home]/bin/itmcmd config" command.
```

/opt/IBM/ITM is the default installation location. Change to the ITM directory's bin subdirectory, and invoke **itmcmd**:

```
./itmcmd config -A ht
```

where ht is the 2-character product code for the ITCAM Agent for HTTP Servers.

Note: For summary information about the invocation sequence for the configuration tool, enter the **itmcmd** command without parameters.

The configuration tool begins collecting configuration information specific to the ITCAM Agent for HTTP Servers. See Appendix C, "Configuration parameters for ITCAM Agent for HTTP Servers," on page 59 for details about parameter values.

```
Edit "ITCAM Agent for HTTP Servers  " settings? [ 1=Yes, 2=No ]
 (default is: 1):
Edit 'Basic' settings? (default is: Yes):
```

Press Enter at these prompts.

The configuration utility prompts you to update the Agent basic data-collection parameters:

```
Monitoring Method [ 1=Fixed Interval, 2=On Demand ] (default is: 1):
Fixed Interval between Collections (sec) (default is: 60):
On Demand Maximum Sample Age (sec) (default is: 15):
Ping the Web Sites [ 1=Disabled, 2=Enabled ] (default is: 1):
Maximum Number of Agent's Log Events (default is: 100):
Alternative Node ID for Identifying this Agent (default is: ):
```

Attention: If you install more than one copy of the Agent on a single host, you must set the Alternative Node ID parameter to different values for each of the copies. Otherwise, the multiple copies of the Agent will not work correctly with Tivoli Monitoring.

When you have defined the basic Agent parameters, The configuration utility prompts you to edit Apache aliases.

Attention: For IBM HTTP Server, use Apache configuration.

```
                    Edit 'Apache Web Server Aliases' settings? [ 1=Yes, 2=No ] (default is: 1):
```

Select 1 if you need to monitor Apache or IBM HTTP Servers; otherwise select 2.

If you have selected 1, you are prompted to configure Apache HTTP aliases:

```
No 'Apache Web Server Aliases' settings available.
Edit 'Apache Web Server Aliases' settings, [1=Add, 2=Edit,
 3=Del, 4=Next, 5=Exit] (default is: 5): 1
```

Select 1 to configure a new Apache alias, and enter information for the alias:

```
Alias Name for Apache Web Server (default is: ):
Web Server Configuration file path (default is: ):
Path to the executable (default is: ):
Arguments for the executable (default is: ):
```

Then, you are prompted to add more aliases (1) or finish adding aliases (5).

Next, you are prompted to configure Sun Web Server aliases:

```
Edit 'Sun Web Server Aliases' settings? [ 1=Yes, 2=No ]
 (default is: 1):
```

Select 1 if you need to monitor Sun HTTP Servers; otherwise select 2.

If you have selected 1, you are prompted to configure Sun Web Server aliases:

```
No 'Sun Web Server Aliases' settings available.
Edit 'Sun Web Server Aliases' settings, [1=Add, 2=Edit,
 3=Del, 4=Next, 5=Exit] (default is: 5):
```

Select 1 to configure a new Sun Web Server alias, and enter information for the alias:

```
Alias Name for Sun Web Server (default is: ):
Web Server Name (default is: ):
Web Server MIB Index (default is: ):
```

Then, you are prompted to add more aliases (1) or finish adding aliases (5).

In the next step, you are prompted for whether you want to edit the *Sun Web Server conf* parameters:

```
Edit 'Sun Web Server Conf' settings? (default is: Yes):
```

If you press Enter (or reply YES), you are prompted for the *Sun Web Server Conf* parameter values:

```
Server root (default is: C:\\Sun\\WebServer6.1):
SNMP host (default is: localhost):
SNMP port (default is: 161):
SNMP community (default is: public):
```

The configuration tool next begins to configure the Agent connection to a TEMS.

```
Will this agent connect to a TEMS? [YES or NO] (Default is: YES):
```

Accept the default (YES). The agent prompts for the location of the TEMS this agent is to communicate with:

```
TEMS Host Name (Default is: localhost):
```

If the TEMS resides on this node, press Enter to accept the default; otherwise supply the host name.

You are prompted for the network protocol used for your ITM environment:

```
Network Protocol [ip, sna, ip.pipe or ip.spipe] (Default is: ip.pipe):
```

Specify the primary communications protocol for communication with the TEMS that will communicate with this agent: IP.UDP, IP.PIPE, IP.SPIPE, or SNA.

You are prompted for your secondary network protocol. You can specify up to three communication methods; this enables backup communication methods so that, if protocol 1 fails, protocol 2 is used and then protocol 3.

```
Now choose the next protocol from one of these:
    - ip
    - sna
    - ip.spipe
    - 0 for none
Network Protocol 2 (Default is: none):
```

Next, you are prompted for communication details for the selected protocols. For example:

```
IP.PIPE Port Number (Default is: 1918):
Enter name of KDC_PARTITION (Default is: null):
```

details

Finally, you are asked if you need to configure this agent for connection to a secondary (hot standby) TEMS:

```
Configure connection for a secondary TEMS? [YES or NO] (Default is: NO):
Enter Optional Primary Network Name or "none" (Default is: none):
```

Press Enter for both prompts.

After you have completed all questions, the following text is displayed:

```
Agent configuration completed...
```

Ensure that the Eclipse server has been configured

After the installation has completed, you must check the TEP client's Eclipse help server to ensure that it has been configured.

1. Start Manage Tivoli Enterprise Monitoring Services:

   ```
   ./itmcmd manage
   ```

   The Manage Tivoli Enterprise Monitoring Services window opens.

2. Ensure that the Eclipse Help Server entry indicates Yes in the Configured column. If it does not, right-click the entry, and select **Configure** from the pop-up menu.

3. You are prompted for the port number the that Eclipse Help Server should use. Ensure that this value is set to the same port number that you specified when installing ITM, and click **OK**.

Start the Tivoli Enterprise Monitoring Agent

To start the Agent so it can pass Web Server monitoring data to your site's TEMS, invoke this command on the server:

```
./itmcmd agent start ht
```

where ht is the 2-character product code for the ITCAM Agent for HTTP Servers.

Then it displays:

```
Staring agent...
Agent Started...
```

Configure and start the Tivoli Enterprise Monitoring Agent using the GUI

This section provides information about configuring and starting the Tivoli Enterprise Monitoring Agent using the GUI.

Configuring the Agent

Change to the ITM directory's bin subdirectory and run the **itmcmd manage** command:

```
./itmcmd manage
```

The Manage Tivoli Enterprise Monitoring Services screen is displayed:
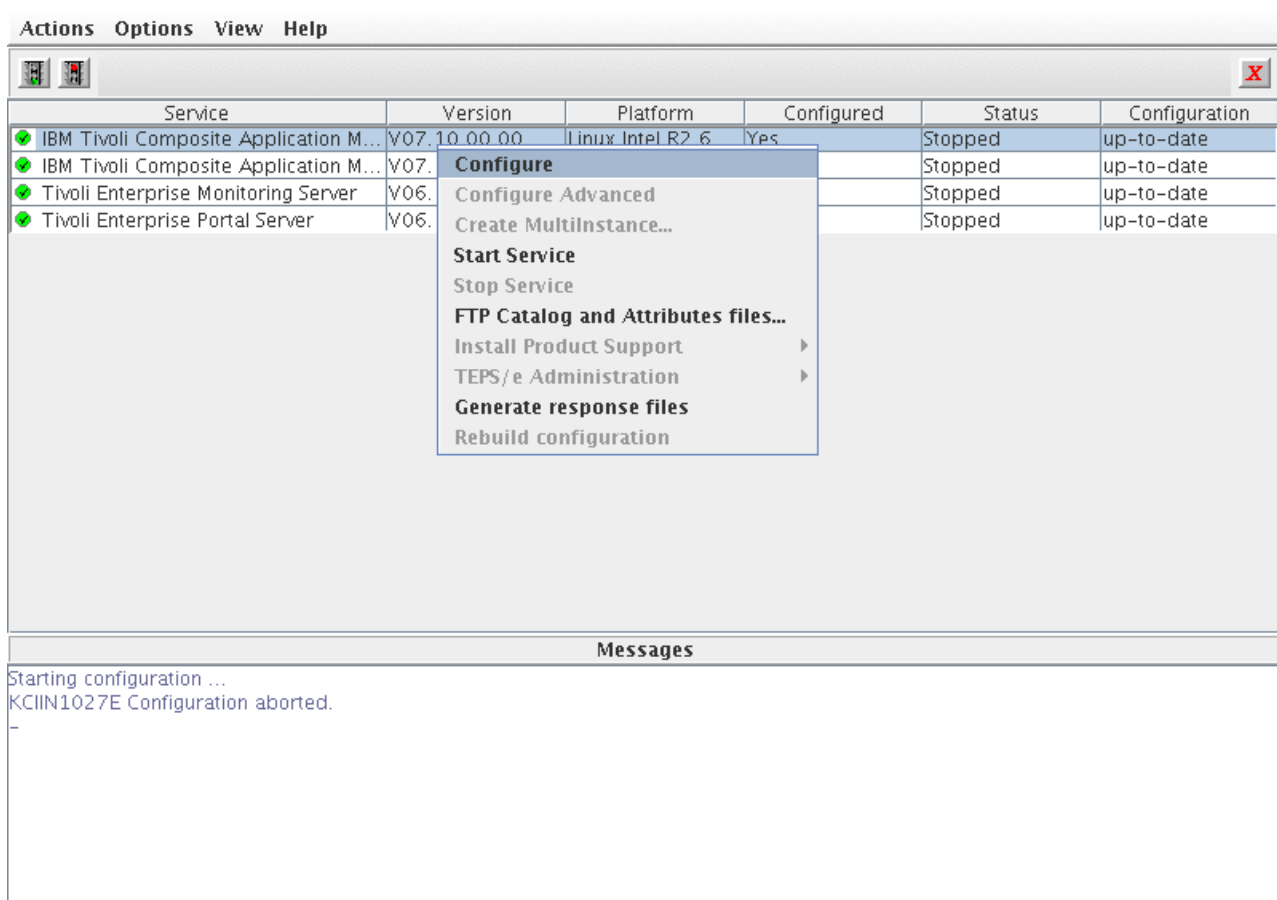
Figure 25. Manage Tivoli Enterprise Monitoring Services on UNIX and Linux

Select **Monitoring Agent for HTTP Servers** and right click the row. In the pop-up menu click **Configure**. The Configuration of Monitoring Agent for HTTP Servers notebook opens. Specify the parameters with reference to Appendix C, "Configuration parameters for ITCAM Agent for HTTP Servers," on page 59.

Attention: If you install more than one copy of the Agent on a single host, you must set the Alternative Node ID parameter to different values for each of the copies. Otherwise, the multiple copies of the Agent will not work correctly with

Tivoli Monitoring.

Figure 26. Configuration of Monitoring Agent for HTTP Servers: Basic tab on UNIX and Linux

After you specify the parameters in this page, if you want to specify an alternate Apache server that has a name of 32 character or fewer, click the **Apache Web Server Aliases** tab and click **New**. Skip this page otherwise.
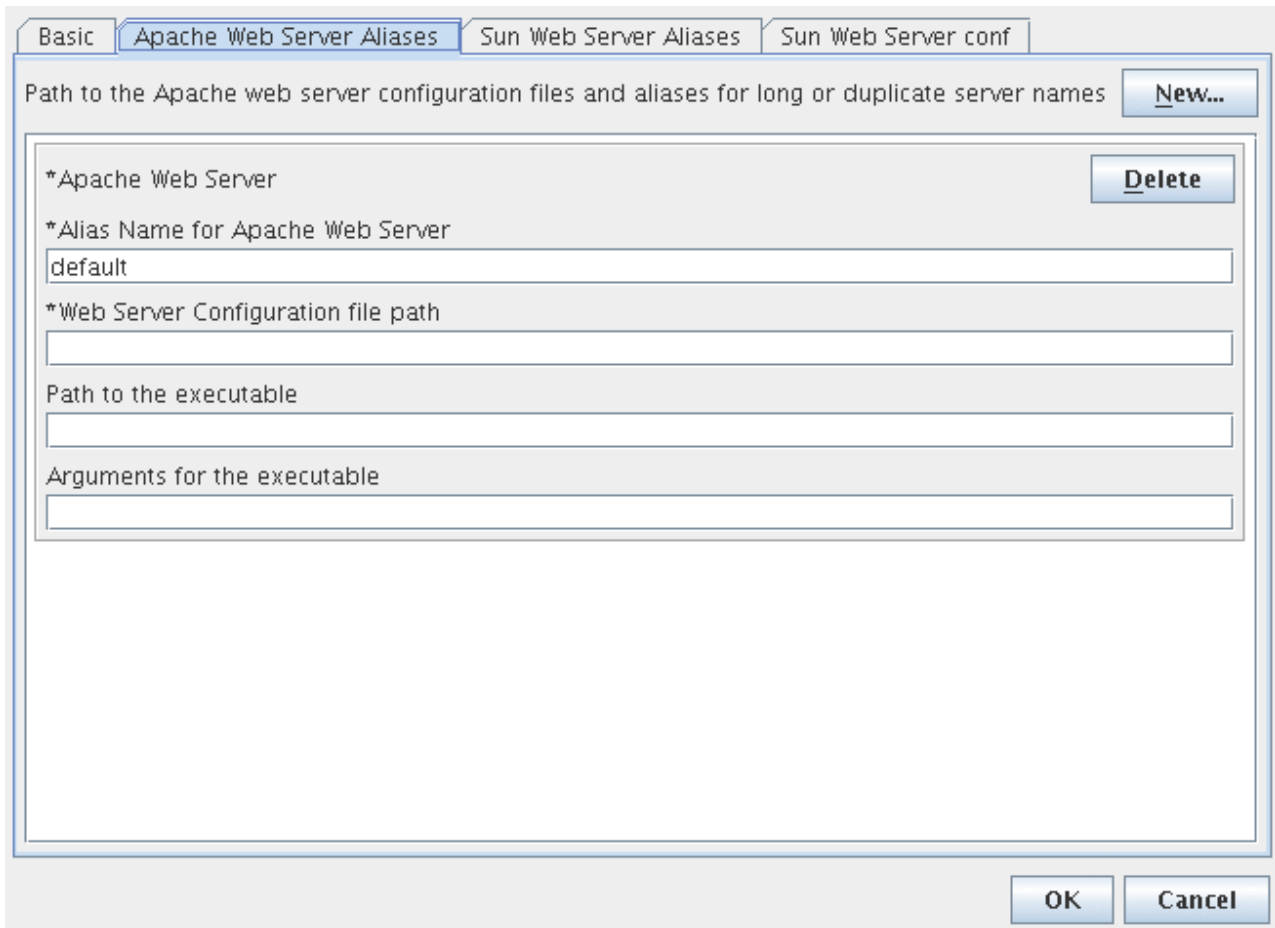
Figure 27. Configuration of Monitoring Agent for HTTP Servers: Apache Web Server Aliases tab on UNIX and Linux

Attention: For IBM HTTP Server, use Apache configuration.

After you specified the parameters in this page, if you want to specify an alternate Sun Web Server that has a name of 32 characters or fewer, click **Sun Web Server Aliases** tab and click **New**. Skip this page otherwise.
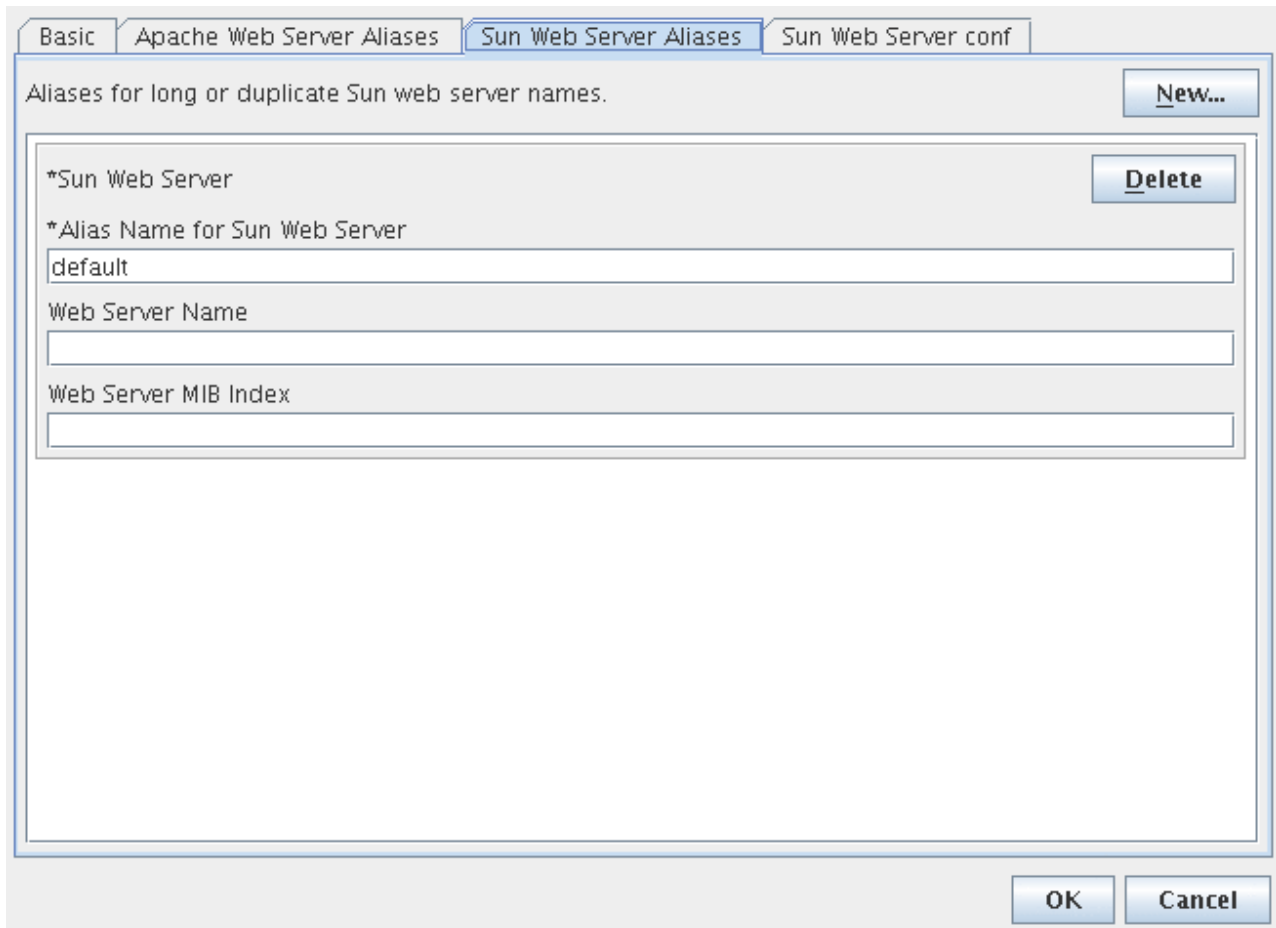
Figure 28. Configuration of Monitoring Agent for HTTP Servers: Sun Web Server Aliases tab on UNIX and Linux

After you specified the parameters in this page, click the **Sun Web Server Conf** tab.
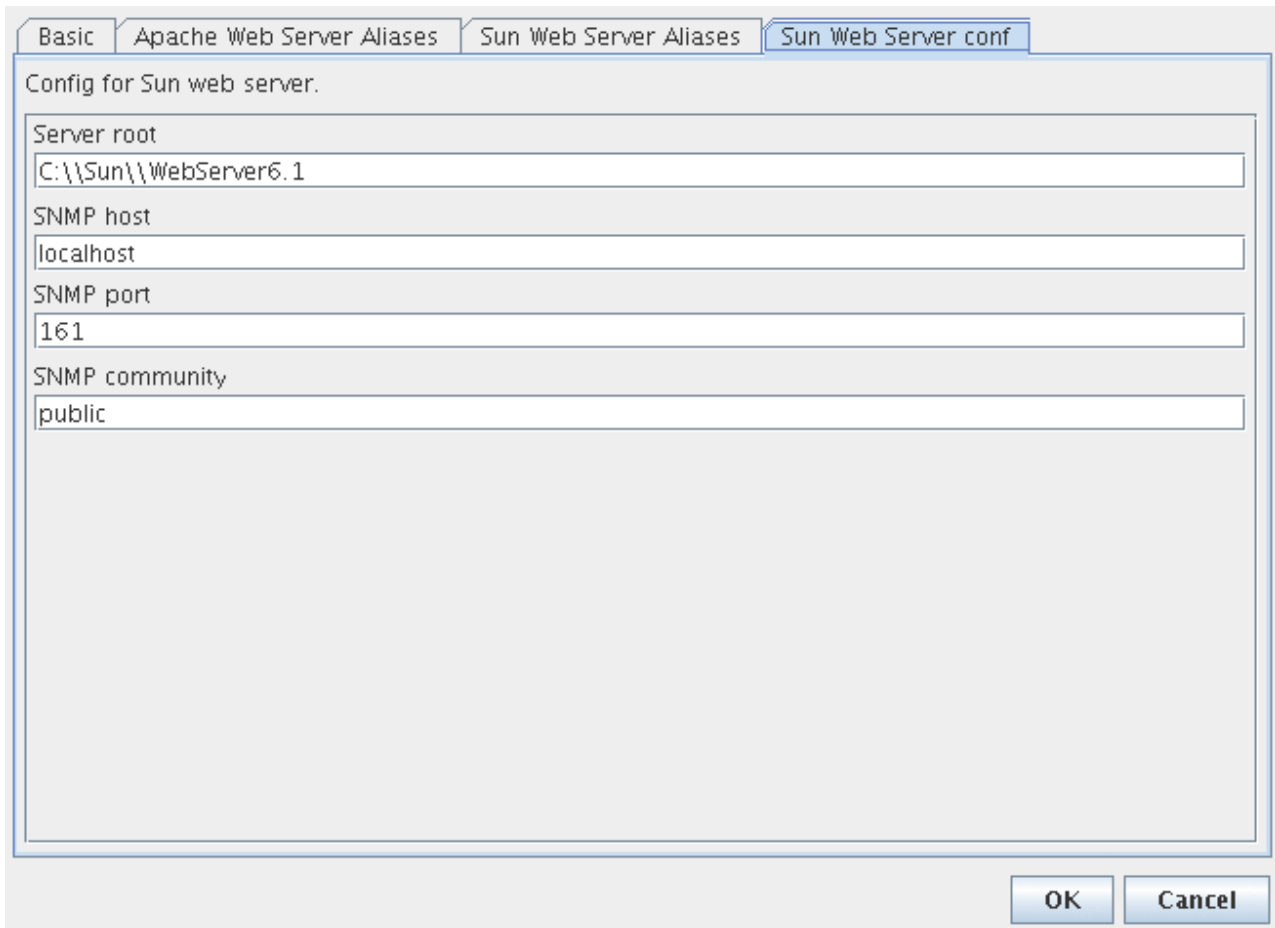
Figure 29. Configuration of Monitoring Agent for HTTP Servers: Sun Web Server Conf tab on UNIX and Linux

After you specified all the parameters in the notebook, click **OK** to display the TEMS Connection window
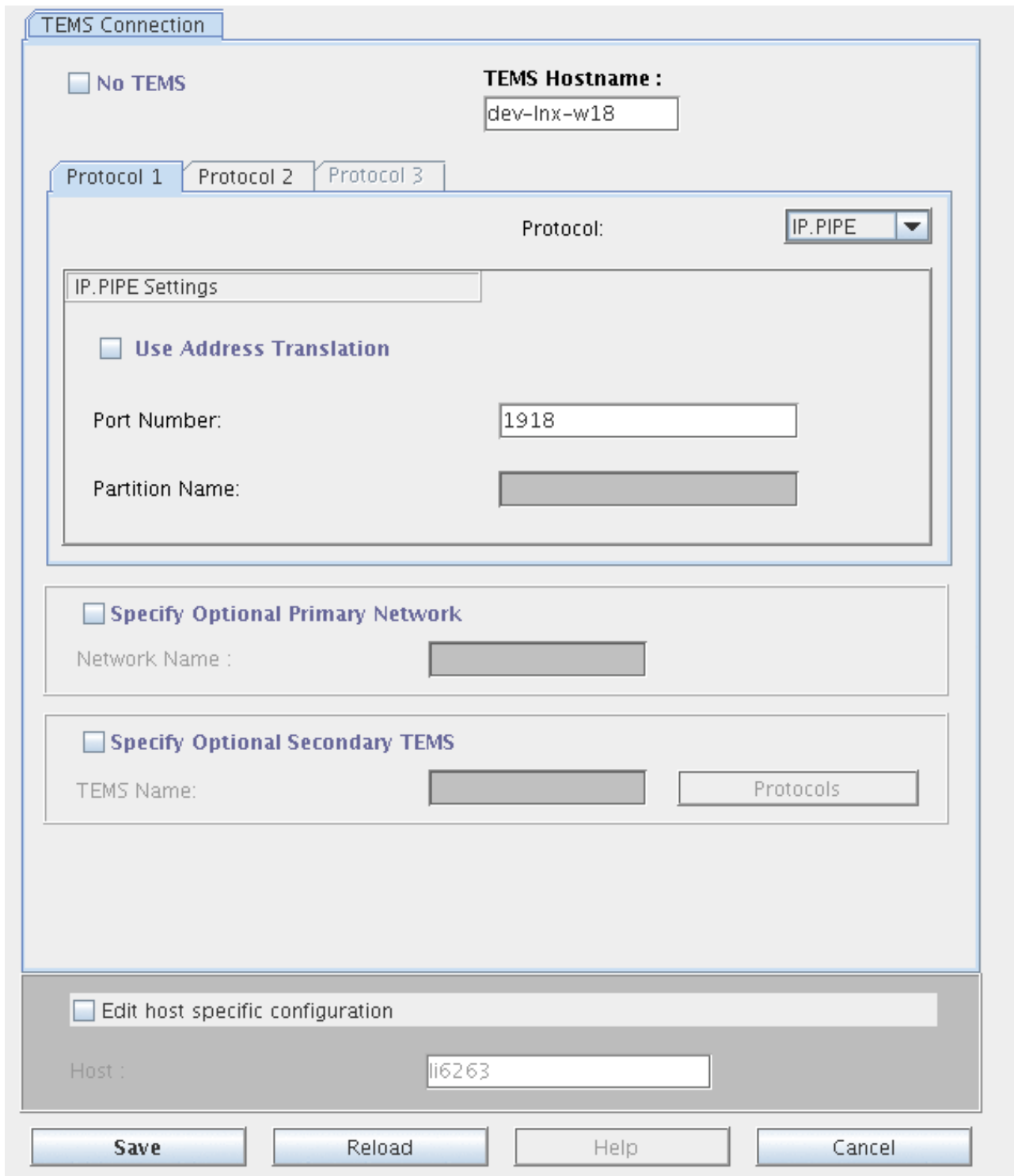
Figure 30. TEMS Connection window

See "Configure the Tivoli Enterprise Monitoring Agent's TEMS connection" on page 16 for details about the field values. Click **Save** to finish the configuration.

Configuring the Apache Web Server, IBM HTTP server, and Sun Java System Web Server

This section introduces the configuration prerequisites for Apache Web Server and Sun Java System Web Server on UNIX and Linux.

Configuration steps for Apache Web Server and IBM HTTP Server

Each Apache server and IBM HTTP Server monitored needs to be added to the **Apache Server Aliases** page. Specify the full path to the Web Server Configuration file (for example, /usr/local/apache2/conf/httpd.conf) for the **Web Server Configuration file path**. If the path to the Web Server executable or the path to Web Server configuration file differs from the default layout, you also need to specify the **Path to the executable** field. If the Web Server startup script (for example, apachectl) takes custom arguments you need to specify them in the **Arguments for the executable** field. For example, when the apachectl script is used to launch multiple server instances with different configuration each, then you can type -f /path/to/httpd.conf in the **Arguments for the executable** field.

Configuration steps for Sun Java System Web Server

Perform the following steps:

1. Install the SNMP agent, which is usually provided with the Sun Java System Web Server.

2. Install the Sun Java System Web Server.

3. Configure SNMP by performing the following steps:

   a. Set up the master agent.

   b. Configure the Sun Web Server subagent by clicking **server** > **manage** > **SNMP Subagent Configuration**. Specify the needed information. Select **on** for the **Enable SNMP Statistics Collection** field, then click **OK** and apply changes. For details, see http://docs.sun.com/source/819-0130/agsnmp.html.

   c. Start or restart master agent.

   d. Start or restart SNMP subagent.

   e. Start or restart Web Server.

   f. Start/restart configured servers from Sun Web Server web admin console.

Performing a silent installation on UNIX and Linux

The ITM installer and configurator support a silent mode in which your predefined values are used so that you can avoid using the GUI. On UNIX and Linux, silent installation is, like the standard verbose procedures, a 2-phase process in which you first install the components and then configure them.

Installation relies on an information file, silent_install.txt, supplied on the ITCAM Agent for HTTP Servers installation CD, in which you supply necessary installation parameters. Silent configuration requires a similar file, ht_silent_config.txt. Both these files are automatically updated with the parameters you supply whenever you install or configure the product.

Before invoking the silent installation or configuration, you must edit these files to ensure that their parameter settings contain values that are appropriate for your site.

When editing silent_install.txt or ht_silent_config.txt, remember these points:

- The comments explain the parameters required and valid values. Comment lines begin with a number sign (#).
- Blank lines are ignored.
- Parameter lines take the form PARAMETER=*value*. Do not insert a space before the parameter; you can, however, use a space before or after the equal sign (=).
- Remember that the product code for the ITCAM Agent for HTTP Servers is **ht**.
- Do not use any of the following characters in any parameter value:
  - Dollar sign ($)
  - Equal sign (=)
  - Pipe sign (|)

You can find complete information about silent ITM installation in the *IBM Tivoli Monitoring: Installation and Setup Guide*.

Silent installation

To start a silent installation, invoke install.sh:

`./install.sh -q -h<candlehome> -p <silent_response_file>`

The `<candlehome>` parameter specifies the directory where Agent runtime will be installed. The default value is `/opt/IBM/ITM`.

The `<silent_response_file>` value identifies the response file that you edited to specify installation parameters, usually the silent_install.txt file. Specify the absolute path to this file.

Silent configuration

To start a silent configuration, invoke the **itmcmd** command with the **config** option:

`./itmcmd config -A -p <response_file> ht`

where `<response_file>` identifies the response file that you edited to specify configuration parameters, usually the ht_silent_config.txt file. Specify the absolute path to this file.

`ht` is the product code for the ITCAM Agent for HTTP Servers.

Installing application support on Linux and UNIX

This procedure has three parts:
- Installing application support on the Tivoli Enterprise Monitoring Server
- Installing application support on the Tivoli Enterprise Portal server
- Installing application support on the Tivoli Enterprise Portal desktop client

Install application support on the Tivoli Enterprise Monitoring Server.
1. Stop the monitoring server by running the following command:
   `./itmcmd server stop tems_name`
2. Run **./install.sh** from the installation media
3. Press **Enter** to accept the default directory (`/opt/IBM/ITM`) or type the full path to the installation directory you used when the software asks for the IBM Tivoli Monitoring home directory.

   The software displays the following prompt:

```
Select one of the following:
1) Install products to the local host.
2) Install products to depot for remote deployment (requires TEMS).
3) Exit install.

Please enter a valid number:
```

4. Type **1** and press **Enter**.

5. Type the number that corresponds to the language in which you want to display the software license agreement and press **Enter**.

6. Press **Enter** to display the agreement.

7. Type *1* to accept the agreement and press **Enter**.

8. Type the 32 character encryption key that was specified during the installation of the monitoring server and press **Enter**.

   Note: If you have already installed another IBM Tivoli Monitoring component on this computer or you are installing support for an agent from an agent installation image, this step does not occur.

   A numbered list of available operating systems and installation components is displayed.

9. Type the number that corresponds to `Tivoli Enterprise Monitoring Server` support and press **Enter**.

10. Type **y** to confirm and press **Enter**.

    A list of the components to install is displayed.

11. Type the number that corresponds to `all of the above` and press **Enter**.

12. Type **y** to start the installation.

13. After all of the components are installed, the system asks if you want to install components for a different operating system. Type **n** and press **Enter**.

14. Start the monitoring server by running the following command:

    ./itmcmd server start *tems_name*

15. Run the following command to activate the application support on the monitoring server:

    ./itmcmd support -t *tems_name pc*

    where *tems_name* is the name of the monitoring server and *pc* is the product code for the agent.

    To view the product code for the application support you just installed, run the following command:

    ./cinfo

    Type 1 when prompted to display the product codes for the components installed on this computer.

    Add only the support for the agent you installed. For example, if you installed the support for the DB2® agent, run the following command:

    ```
    ./itmcmd support -t hub_itmdev17 ud
    ```

    ud is the product code for the DB2 agent.

16. Stop the monitoring server by running the following command:

    ```
    ./itmcmd server stop tems_name
    ```

17. Run the following command to restart the monitoring server:

    ```
    ./itmcmd server start tems_name
    ```

Install application support on the Tivoli Enterprise Portal Server.

Note: Stop the portal server before performing this procedure.

1. Run **./install.sh** from the installation media:

2. When prompted for the IBM Tivoli Monitoring home directory, press Enter to accept the default (/opt/IBM/ITM) or type the full path to the installation directory you used.

3. The following prompt is displayed:

   ```
   Select one of the following:
   1) Install products to the local host.
   2) Install products to depot for remote deployment (requires TEMS).
   3) Exit install.

   Please enter a valid number:
   ```

   Type 1 to start the installation and press Enter.

4. Type the number that corresponds to the language in which you want to display the software license agreement in and press Enter.

5. Press Enter to display the agreement.

6. Type 1 to accept the agreement and press Enter.

7. Type a 32 character encryption key and press Enter. This key should be the same as the key that was used during the installation of the monitoring server.

   Note: If you have already installed another IBM Tivoli Monitoring component on this computer or you are installing support for an agent from an agent installation image, this step does not occur.

   A numbered list of available operating systems and installation components is displayed.

8. Type the number that corresponds to "Tivoli Enterprise Portal Browser Client support" and press Enter.

9. Type y to confirm and press Enter.

   A list of the components to install is displayed.

10. Type the number that corresponds to "all of the above" and press Enter.

11. Type y to confirm the installation.

    The installation begins.

12. When you are asked whether you want to install components for a different operating system, type y and press Enter.

13. Type the number that corresponds to "Tivoli Enterprise Portal Server support" and press Enter.

14. Type y to confirm and press Enter.

    A list of the components to install is displayed.

15. Type the number that corresponds to "all of the above" and press Enter.

16. Type y to confirm the installation.

    The installation begins.

17. After all of the components are installed, you are asked whether you want to install components for a different operating system. Type n and press Enter.

18. Stop the portal server by running the following command:

    ```
    ./itmcmd agent stop cq
    ```

19. Run the following command to configure the portal server with the new agent information:

    ```
    ./itmcmd config -A cq
    ```

    Complete the configuration as prompted.
20. Restart the portal server by running the following command:

    ```
    ./itmcmd agent start cq
    ```

Installing application support on the desktop client

Note: Stop the desktop client before performing this procedure.

1. Run the following command from the installation media:

   ```
   ./install.sh
   ```
2. When prompted for the IBM Tivoli Monitoring home directory, press Enter to accept the default (/opt/IBM/ITM) or type the full path to the installation directory you used.
3. The following prompt is displayed:

   ```
   Select one of the following:
   1) Install products to the local host.
   2) Install products to depot for remote deployment (requires TEMS).
   3) Exit install.

   Please enter a valid number:
   ```

   Type 1 to start the installation and press Enter.
4. Type the number that corresponds to the language in which you want to display the software license agreement in and press Enter.
5. Press Enter to display the agreement.
6. Type 1 to accept the agreement and press Enter.
7. Type a 32 character encryption key and press Enter. This key should be the same as the key that was used during the installation of the monitoring server.

   Note: If you have already installed another IBM Tivoli Monitoring component on this computer or you are installing support for an agent from an agent installation image, this step does not occur.

   A numbered list of available operating systems and installation components is displayed.
8. Type the number that corresponds to "Tivoli Enterprise Portal Desktop Client support" and press Enter.
9. Type y to confirm and press Enter.

   A list of the components to install is displayed.
10. Type the number that corresponds to "all of the above" and press Enter.
11. Type y to confirm the installation.

    The installation begins.
12. After all of the components are installed, you are asked whether you want to install components for a different operating system. Type n and press Enter.
13. Run the following command to configure the portal client with the new agent information:

    ```
    ./itmcmd config -A cj
    ```

    Complete the configuration as prompted.

Uninstalling the Tivoli Enterprise Monitoring Agent on UNIX and Linux

Use the following steps to remove an agent on a UNIX or Linux computer.

1. From a command prompt, run the following command to change to the appropriate /bin directory:

   cd *install_dir*/bin

   where *install_dir* is the path for the home directory for the agent.

2. Run the following command:

   ./uninstall.sh

   A numbered list of product codes, architecture codes, version and release numbers, and product titles is displayed for all installed products.

3. Type the number for the monitoring agent. Repeat this step for each additional installed product you want to uninstall.

Installing and uninstalling a Language Pack on Linux and UNIX systems

A Language Pack enables user interaction with the Agent in a language other than English. For example, when a Spanish language pack is installed, the Tivoli Enterprise Portal workspaces and the internal messages of the Agent are displayed in Spanish.

To enable full support for a language, you must install the Language Pack on the Agent host and all hosts where the Agent ITM support files are installed (hub Tivoli Enterprise Monitoring Servers, all Tivoli Enterprise Portal Servers, and all Tivoli Enterprise Portal desktop clients).

If you no longer want to use a language, uninstall the language pack for it.

Before installing or uninstalling a language pack, ensure that:
- The Agent and the TEP Support Files are installed.
- The Java runtime environment (JRE) is available on every host where you are planning to install the Language Pack. (The JRE is required by ITM).
- You know the installation directories (ITM_home) for the Agent and all other ITM components on which you are planning to install the Agent. The default installation directory is /opt/IBM/ITM.

Installing a Language Pack on Linux and UNIX systems

To install a Language Pack on Linux and UNIX systems you need to use the installer on the Language Pack DVD. The procedure is the same on the Agent host, hub Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, and Tivoli Enterprise Portal desktop client.

Perform the following procedure:

1. Mount the Language Pack DVD. Make sure the full path to the mount directory does not include spaces.

2. Use the following commands to start the installer from the Language Pack DVD:

   cd *dir_name*
   ./lpinstaller.sh -c *ITM_home*

3. Select the language of the installer and click OK.

Note: In this step, you select the language for the installer user interface, not the language pack that will be installed.

4. Click **Next** on the Introduction window.

5. Select **Add/Update** and click **Next**.

6. Select the directory where the the National Language Support package (NLSPackage) files are located. This is the `nlspackage` directory on the Language Pack DVD.

7. Select **ITCAM Agent for HTTP Servers**.

8. Select the languages to install and click **Next**.

   Note: You can hold down the **Ctrl** key for multiple selections.

9. Examine the installation summary page and click **Next** to begin installation.

10. Click **Next**.

11. Click **Finish** to exit the installer.

12. If you are installing the Language Pack on a Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, or Tivoli Enterprise Portal desktop client, start the **Manage Tivoli Monitoring Services** utility, and use it to restart the server or client. If the Eclipse Help Server is running, restart it as well.

Uninstalling a Language Pack on Linux and UNIX systems

To uninstall a Language Pack on Linux and UNIX systems you need to use the installer on the Language Pack DVD. The procedure is the same on the Agent host, hub Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, and Tivoli Enterprise Portal desktop client.

Perform the following procedure:

1. Mount the Language Pack DVD. Make sure the full path to the mount directory does not include spaces.

2. Use the following commands to start the installer from the Language Pack DVD:

   ```
   cd dir_name
   ./lpinstaller.sh -c ITM_home
   ```

3. Select the language of the installer and click OK.

   Note: In this step, you select the language for the installer user interface, not the language pack that will be installed.

4. Click **Next** on the Introduction window.

5. Select **Remove** and click **Next**.

6. Select **ITCAM Agent for HTTP Servers**.

7. Select the languages to uninstall and click **Next**.

   Note: You can hold down the **Ctrl** key for multiple selections.

8. Examine the installation summary page and click **Next** to begin installation.

9. Click **Next**.

10. Click **Finish** to exit the installer.

11. If you are installing the Language Pack on a Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, or Tivoli Enterprise Portal desktop

client, start the **Manage Tivoli Monitoring Services** utility, and use it to restart the server or client. If the Eclipse Help Server is running, restart it as well.

Appendix A. Support information

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

Online

Go to the IBM Software Support site at http://www.ibm.com/software/support/probsub.html and follow the instructions.

IBM Support Assistant

The IBM Support Assistant (ISA) is a free local software serviceability workbench that helps you resolve questions and problems with IBM software products. The ISA provides quick access to support-related information and serviceability tools for problem determination. To install the ISA software, go to http://www.ibm.com/software/support/isa.

Troubleshooting Guide

For more information about resolving problems, see the product's Troubleshooting Guide.

Obtaining fixes

A product fix might be available to resolve your problem. To determine what fixes are available for your IBM software product, follow these steps:

1. Go to the IBM Software Support Web site at http://www.ibm.com/software/support.

2. Click **Downloads** in the **Software** section.

3. Under the **Updates, drivers, and fixes** section, select **Fixes, fixpacks and utilities**.

4. Navigate to ITCAM for WebSphere or ITCAM for J2EE to obtain a list of available fixes.

For more information about the types of fixes that are available, see the *IBM Software Support Handbook* at http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html.

Receiving support updates

To receive e-mail notifications about software support news and updates, follow these steps:

1. Go to the IBM Software Support Web site at http://www.ibm.com/software/support.

2. On the right hand side, click **My Notifications**.

3. If you have already registered for **My Notifications**, login. If you have not registered, click **register now**. Complete the registration form using your e-mail address as your IBM ID. When you have logged in, the **My notifications for IBM technical support** home page is displayed.

4. Select the **Subscribe** tab.

5. Under the **Software** list, select **Tivoli**.

6. Select **Tivoli Composite Application Manager for J2EE** and/or **Tivoli Composite Application Manager for WebSphere**. Click **Continue**.

7. In the **Options** section, enter a folder name, update notifications will be saved in this folder.

8. In the **Notify me by** section, choose if you want to me notified of updates daily or weekly.

9. In the **Notify me by** section, choose if you want to receive notifications in plain text or html.

10. In the **Document Types** section, customize the types of information you want to be updated on, for example, white papers, drivers etc. Click **Submit**.

If you experience problems with the **My Notifications** feature, you can obtain help in one of the following ways:

Online

Send an e-mail message to erchelp@ca.ibm.com, describing your problem.

By phone

Call 1-800-IBM-4You (1-800-426-4968).

Appendix B. ITCAM Agent for HTTP Servers attribute groups and sizing information for historical warehousing

You can find the record size and recording frequency information for ITCAM Agent for HTTP Servers in Table 4. This information helps you size the amount of disk space needed for any historical logging.

Table 4. Information for historical warehousing

Table Name	Object Name	Record size	Recording Frequency
KHTAWEBSR	Apache Web Server	1056	1 per interval per server
KHTAWEBST	Apache Web Sites	984	1 per interval per site
KHTEVNT	HTTP Servers Agent Events	616	depends on messages count from Agent
KHTSWEBSR	Sun Web Server	2704	1 per interval per server
KHTSWEBST	Sun Web Sites	1168	1 per interval per site
KHTWSRS	HTTP Servers Status	1028	1 per interval

Appendix C. Configuration parameters for ITCAM Agent for HTTP Servers

This appendix lists the parameters for configuring the ITCAM Agent for HTTP Servers.

Table 5. Configuration parameters

Parameter	What you should specify
Basic settings	
Monitoring Method	This parameter specifies how the agent collects data from the HTTP Servers: Select **Fixed Interval** to collect request data at a fixed interval that you specify in the **Fixed Interval between Collections (sec)** to calculate reliable rates and deltas. Select **On Demand** to collect data only when the TEP user requests it.
Fixed Interval between Collections (sec)	This parameter sets the interval (in seconds) between collections of request data when data is being collected at fixed intervals.
On Demand Maximum Sample Age (sec)	This parameter sets the maximum amount of time that on-demand request data cover.
Ping Web Sites	This parameter controls whether to enable or disable pooling to the web sites for aliveness:: Select **Disable** to disable the pooling to the Web sites. Select **Enable** to make an HTTP get request to the Web site for each sample.
Maximum Number of Agent Log Events	This parameter controls the maximum number of HTTP Servers log messages the Agent can store before overwriting them.
Alternative Node ID for Identifying this Agent	This parameter specifies an alias by which this copy of the Agent is identified within TEP. **Attention:** On Linux and UNIX systems, you can install more than one copy of the Agent on a single host. In this case, you must set this parameter to different values for each of the copies. Otherwise, the multiple copies of the Agent will not work correctly with Tivoli Monitoring.
Apache Web Server Aliases settings	
Web Server Configuration file path	Specifies the full path to the Apache configuration file to httpd.conf.

Table 5. Configuration parameters (continued)

Parameter	What you should specify
Alias Name for Apache Web Server	Specifies a server alias of 32 characters or fewer by which this server will be represented in the TEP.
Path to the executable	Specifies the path to the Apache executable file, for example: C:\Apache\bin\httpd.exe.
Arguments for the executable	Specify custom arguments for the Web Server startup script or binary in the **Arguments for the executable** field. If the Web Server binary takes custom arguments you need to specify them here. For example, when the Web Server is started as a Windows service you have to type -n *YourServiceName* in this field. On a system like Linux, for example, when the apachectl script is used to launch multiple server instances with different configuration each, then you can type -f /path/to/httpd.conf in this field.
Sun Web Server Aliases settings	
Alias Name for Sun Web Server	Specifies a server alias of 32 characters or fewer by which this server will be represented in the TEP.
Web Server Name	Specifies the true name of the Web Server.
Web Server MIB Index	Specifies the MIB index assigned by the SNMP service for Sun Web Server.
Sun Web Server conf settings	
Server Root	Specifies the full path name to the Sun Web server install directory. The default path is C:\Sun\WebServer6.1.
SNMP host	Specifies the host name that the SNMP service is configured with. The default host value is **localhost**.
SNMP port	Specifies the port where the SNMP service is configured. The default port is 161.
SNMP community	Specifies the SNMP community, which works as password to connect to SNMP service. The default community is **public**.

Appendix D. Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. These are the major accessibility features you can use with *IBM Tivoli Composite Application Manager* when accessing it via the *IBM Personal Communications* terminal emulator:

- You can operate all features using the keyboard instead of the mouse.
- You can read text through interaction with assistive technology.
- You can use system settings for font, size, and color for all user interface controls.
- You can magnify what is displayed on your screen.

For more information about viewing PDFs from Adobe®, go to the following Web site: http://www.adobe.com/enterprise/accessibility/main.html

Glossary

Apache HTTP server

An open-source Web server. IBM offers a Web server, called the IBM HTTP Server, which is based on Apache.

application server

A program in a distributed network that provides the execution environment for an application program.

attribute

Data associated with a component. For example, a Web server component might have attributes such as Web server name, WWW server status, node name, origin node, interval time, and so on.

HTTP Hypertext Transfer Protocol. A suite of protocols for the Internet that transfer and display hypertext documents.

HTTP request

A transaction initiated by a Web browser and adhering to HTTP. The server usually responds with HTML data, but can send other kinds of objects as well.

ITM platform

The software architecture and foundation that support the development and operations of Tivili Enterprise Portal and its Tivoli Enterprise Management Agents.

J2EE Java 2 Platform, Enterprise Edition. An environment for developing and deploying multitier enterprise applications. J2EE simplifies development of enterprise applications by basing them on standard, modular components; it comprises a set of services, application programming interfaces (APIs), and protocols that provide the necessary functions for developing multitiered, Web-based applications.

Java An object-oriented programming language for portable interpretive code that supports interaction among remote objects. Java was developed and specified by Sun Microsystems, Incorporated.

JSP Java server page. A Web page that specifies one or more **servlets** whose execution on the HTTP Servers modifies the page's content or appearance before it is presented to the user.

monitor

1) A transaction environment for maintaining large quantities of data in a consistent state and that controls which users and clients can access data through authorized servers. 2) A programming primitive created so that multiple program threads can share the same resource (such as an object). A program creates a monitor for a given resource by requesting it from the system; the system returns a unique ID for that monitor. After that, any thread needing the resource must use the monitor to **lock** the resource while the thread is using it. If the monitor is already locked, a thread requesting the resource is queued by the system and then given control when the monitor becomes unlocked. Also called a mutex.

monitored application

An application that interfaces with a Tivoli Privacy Manager monitor to enable access to monitored items that flow between the application and the monitored system.

node Any managed system, such as a **J2EE** server, that Tivoli Enterprise Portal is monitoring. A node can also be a managed system of subnodes, all of which are being managed as components of the primary node.

request

The entry point into an application whose processing or response time directly affects the response time the end user perceives.

server In a network, hardware or software that provides facilities to clients. Examples of a server are a file server, a printer server, or a mail server.

session
A series of requests to a servlet that originate from the same user at the same browser. Sessions enable applications running in a Web container to keep track of individual users.

URL Universal Resource Locator. The unique address for a file that is accessible on the Internet. A common way to get to a Web site is to enter the URL of its home page in your Web browser's address line. However, any file within that Web site can also be specified as the URL. Such a file might be any Web (HTML) page other than the home page, an image file, or a program such as a **Common Gateway Interface** application or Java applet. The URL contains the name of the protocol used to process the file, a domain name that identifies the specific computer on the Internet, and a pathname to the file on that computer.

virtual server
A server that shares its resources with other servers to support applications.

Web server
A software program that is capable of servicing Hypertext Transfer Protocol (HTTP) requests.

Web service
A self-contained, self-describing modular application that can be published, discovered, and invoked over a network using standard network protocols. Typically, XML is used to tag the data, SOAP is used to transfer the data, WSDL is used for describing the services available, and UDDI is used for listing what services are available.

Web site
A related collection of files available on the Web that is managed by a single entity (an organization or an individual) and contains information in hypertext for its users. A Web site often includes hypertext links to other Web sites.

workspace
A window comprised of one or more views. For example, the ASP Overview workspace in ITCAM for HTTP Servers.

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