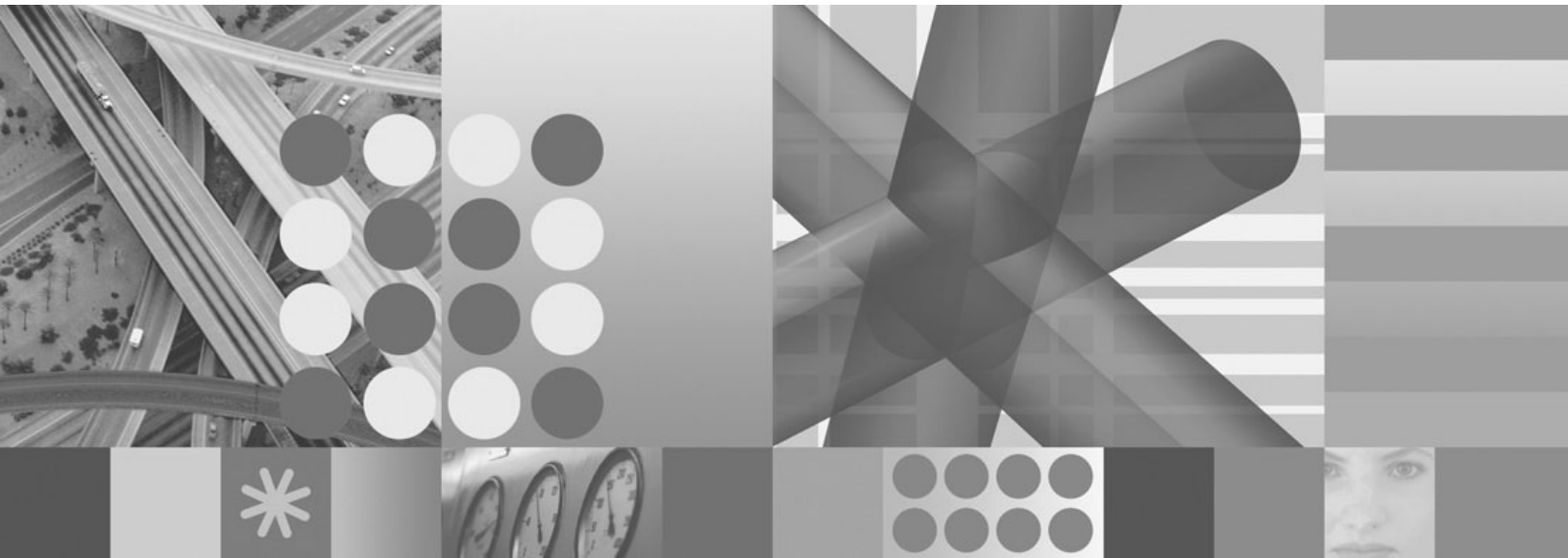




Installation and Configuration Guide



Installation and Configuration Guide

Note

Before using this information and the product it supports, read the information in "Notices" on page 47.

First Edition

This edition applies to version 6, release 2, modification 2 of IBM Tivoli Performance Analyzer and to all subsequent releases and modifications until otherwise indicated in new editions.

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Installing and configuring Tivoli Performance Analyzer

This section describes how to install and configure Tivoli® Performance Analyzer on AIX®, Linux® or Solaris, and Windows® platforms.

An overview of the installation process

Installing Tivoli Performance Analyzer includes performing some necessary configuration tasks.

1. Ensure that your computers fulfill all prerequisites and Tivoli Monitoring requirements, and that you have the necessary access privileges.
 - When installing on MS SQL, there are additional prerequisites which you need to fulfill.
2. Install Tivoli Performance Analyzer.
 - a. Install the Performance Analyzer agent.
 - b. Install the support for TEMS.
 - c. Install the support for TEPS.
 - d. Install the support for TEP.
3. Configure the agent.
4. Set up historical data collection.
5. To verify that the installation has been successful, start Tivoli Performance Analyzer.

Installing domain support

About this task

If you want to install additional domain support, after performing the steps described above:

1. Install additional domain support.
2. Set up historical data collection
3. Verify the installation.

Installing Tivoli Common Reporting

About this task

If you want to use the Tivoli Common Reporting software provided with Tivoli Performance Analyzer, perform the following actions:

1. Install Common Reporting.
2. Make sure you set up historical data collection.

Preparing to install

Follow the steps to prepare for and facilitate the installation.

Confirm you meet the system prerequisites

Tivoli Performance Analyzer is available on a range of operating systems.

Software requirements:

- IBM® Tivoli Monitoring 6.2.2

Note: For each additional Performance Analyzer domain, you need to install a specific agent. These agents and their TEMS and TEPS supports must be installed in Tivoli Monitoring before installing the Performance Analyzer domains.

DB2 domain

IBM Tivoli Monitoring for Databases: DB2 Agent

Oracle domain

IBM Tivoli Monitoring for Databases: Oracle Agent

ITCAM RT domain

ITCAM for Response Time Agent

VMware domain

IBM Tivoli Monitoring for Virtual Servers: VMware VI Agent 06.10.00.01

System pSeries

AIX and VIOS Premium Agents

- IBM Tivoli Common Reporting 1.2.0.1

Note: Common Reporting is required if you want to use the reporting function of Tivoli Performance Analyzer. Without it, Performance Analyzer will work, but reporting will be disabled.

Supported operating systems are:

- AIX version 5.3 running on Power PC platforms
- AIX version 6.1 running on Power PC platforms
- Red Hat Enterprise Linux ES/AS, 4 or 5 on x86 platform (32-bit version only)
- SuSE Linux Enterprise 9, 10 or 11 on x86 platform (32-bit version only)
- Solaris version 9 or 10 running on SPARC platforms
- Microsoft® Windows Server 2003
- Microsoft Windows Server 2008

Additionally:

- the z/OS operating system is supported for TEMS support installation.
- zLinux is supported for TEMS, TEPS, and TEP browser support installation.

Note: All Tivoli Performance Analyzer components (the agent as well as TEMS, TEPS and TEP supports included with the installer) must be installed on one of the supported operating systems.

Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured

You must install Tivoli Performance Analyzer into an IBM Tivoli Monitoring 6.2.2. The IBM Tivoli Monitoring environment can be fully distributed.

Tivoli Performance Analyzer can be installed onto a standalone workstation, onto the same workstation as the Tivoli Monitoring environment if it is installed on a single machine, or onto the same workstation as any other Tivoli Monitoring element in a distributed environment. It can be installed with any combination of the following:

- Tivoli Data Warehouse

- Tivoli Enterprise Monitoring Server
- Tivoli Enterprise Portal Server
- Summarization and Pruning Agent
- Warehouse Proxy

Note: You must only install one instance of Tivoli Performance Analyzer for each Tivoli Monitoring environment.

The analytical calculations performed by Tivoli Performance Analyzer use the data in Tivoli Data Warehouse. Your Tivoli Monitoring installation must therefore be configured for History Collection and Warehouse Summarization and Pruning.

Elements to install

There are several distinct elements that must be installed to add Tivoli Performance Analyzer into your Tivoli Monitoring environment:

- Performance Analyzer Agent
- Tivoli Enterprise Monitoring Server Support
- Tivoli Enterprise Portal Server Support
- Tivoli Enterprise Portal desktop and browser clients

Support files must be installed on the same workstation as the components they are supporting. For example, Tivoli Enterprise Monitoring Server Support should be installed on the same machine as Tivoli Enterprise Monitoring Server.

Deployment scenario

Table 1 shows an example distributed installation of Tivoli Performance Analyzer. The Tivoli Performance Analyzer agent is installed on the same workstation as Tivoli Data Warehouse.

Table 1. Example distributed installation

Machine 1	Machine 2	Machine 3
Tivoli Enterprise Monitoring Server	Tivoli Enterprise Portal Desktop Client	Tivoli Performance Analyzer Agent
Tivoli Enterprise Portal Server		IBM Tivoli Data Warehouse

Table 2 shows the support files that must be installed on each workstation in the example distributed installation shown in Table 1.

Table 2. Support files required for each machine

Machine 1	Machine 2	Machine 3
Tivoli Enterprise Monitoring Server Support	Tivoli Enterprise Portal Desktop Client Support	
Tivoli Enterprise Portal Server Support		
Tivoli Enterprise Portal Browser Client Support		

Confirm you have the required access privileges

To install Tivoli Performance Analyzer on a Windows computer, you must have Administrator privileges on that computer. You must also run the IBM Tivoli Monitoring components as a user with Administrator privileges.

Installing Tivoli Performance Analyzer overview

Follow the steps to install Tivoli Performance Analyzer:

Prerequisite: Make sure you have taken your time and prepared the installation as described in “Preparing to install” on page 1.

Note: During installation, previously installed out-of-the-box content will be overwritten. All changes made by the user to that content will be lost.

Installation prerequisites

Before installing Tivoli Performance Analyzer make sure that your Tivoli Monitoring environment includes the listed products, that they are configured and that you have administrator access:

- Tivoli Data Warehouse
- Tivoli Enterprise Monitoring Server
- Tivoli Enterprise Portal Server
- Summarization and Pruning Agent

Note: Tivoli Performance Analyzer analyzes summarized data. Therefore the Summarization and Pruning Agent must be installed and active so that there are data available for Tivoli Performance Analyzer to analyze.

- Warehouse Proxy Agent

Additionally, for each Performance Analyzer domain, you need to install a specific agent and its TEMS and TEPS support. For example, for the VMware domain, you need the IBM Tivoli Monitoring for Virtual Servers: VMware VI Agent 06.10.00.01.

In a Windows distributed Tivoli Monitoring environment, if you want to install the Tivoli Performance Analyzer agent on a separate workstation to the Tivoli Enterprise Portal Server, you must first manually create ODBC data sources for the Tivoli Enterprise Portal Server database and the Tivoli Data Warehouse database. See the *IBM Tivoli Monitoring User's Guide* for details on how to create the ODBC data sources and specify them as System DSNs using the ODBC Data Source Administrator.

Note: On 64-bit versions of Windows, data sources created by the default **ODBC Data Source Administrator** applet available from the **Control Panel** are not available for 32-bit applications. Therefore you must use the 32-bit version of the **ODBC Data Source Administrator** applet from `<WINDOWS>\SysWOW64\odbcad32.exe`.

Installing on SQL Server

In the Tivoli Monitoring environment, if the Tivoli Enterprise Portal Server database is deployed on SQL Server 2000 or 2005, additional configuration steps are required before installing Tivoli Performance Analyzer.

Before you begin

Note: The Tivoli Performance Analyzer agent when using ODBC does not change a default database associated with a user or DSN he or she is using. Therefore, when ODBC should be used to connect to the Tivoli Enterprise Portal Server database or Tivoli Data Warehouse, a default database must be selected either for a user or for DSN.

By default ITMUser (the user created by Tivoli Monitoring during installation - its name may be different) has Tivoli Data Warehouse selected as a default database, and no default databases are selected for DSNs. To use ITMUser in the Tivoli Performance Analyzer agent to connect to the Tivoli Enterprise Portal Server database, a new DSN must be manually created, and a default database in this DSN must be set to the Tivoli Enterprise Portal Server database.

For JDBC access, only Microsoft SQL Server 2005 JDBC driver is supported by Tivoli Performance Analyzer.

About this task

- For Microsoft SQL Server 2000:
 1. Use Enterprise Manager to connect to the SQL database server on which the Tivoli Enterprise Portal Server is stored.
 2. Create a new user login named **PA** (the instructions refer to the new account as the PA user).

Note: You can create the PA user with either Windows authentication or SQL Server authentication. If you choose Windows authentication, the Windows user must not belong to the Administrators group.

3. Assign the PA user `public` and `db_owner` roles in the Tivoli Enterprise Portal Server database.
- For Microsoft SQL Server 2005:
 1. Use SQL Server Management Studio application to connect to the SQL database sever on which the Tivoli Enterprise Portal Server database was deployed.
 2. Create a new schema named **PA**, and set schema owner to the user you selected in Tivoli Performance Analyzer configuration to be used to connect to the Tivoli Enterprise Portal Server database.

Installing the Tivoli Performance Analyzer agent

Install the agent to enable the analytic calculations.

Installing the Tivoli Performance Analyzer agent on Windows

You can install the Tivoli Performance Analyzer agent to a workstation which also has other Tivoli Monitoring components installed, or you can install it to a separate machine. The Tivoli Performance Analyzer agent is installed using an InstallShield Wizard. The installation procedure is similar to that for monitoring agents.

Before you begin

This procedure describes installing the agent to a separate workstation. In the example in “Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured” on page 2, this is Machine 3.

Note: Because you are installing Tivoli Performance Analyzer agent on a separate workstation to the Tivoli Enterprise Portal Server, you must first manually create JDBC or ODBC data sources for the Tivoli Enterprise Portal Server database and the Tivoli Data Warehouse database. See the *IBM Tivoli Monitoring User's Guide* for details on how to create the ODBC data sources and specify them as System DSNs using the ODBC Data Source Administrator.

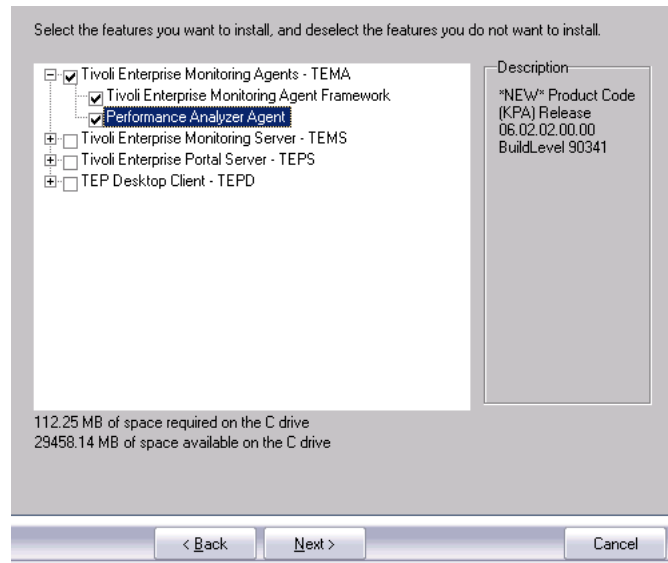
Before starting the installation, make sure that you have read the [installation prerequisites](#).

About this task

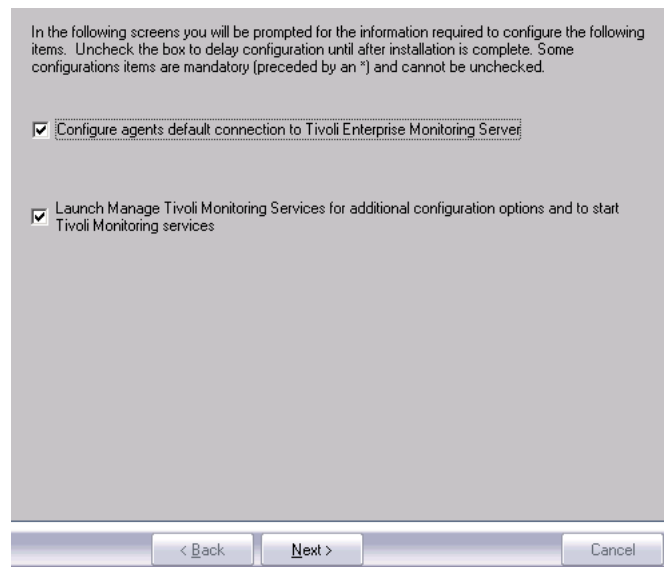
To install the Tivoli Performance Analyzer agent to a separate machine on Windows:

1. Log on as a user with administrative privileges.
2. Insert the product CD or download the product from the IBM Passport Advantage® Web site: <http://www.ibm.com/software/howtobuy/passportadvantage/>.
3. Launch the installation wizard by double-clicking the `setup.exe` file. The InstallShield Wizard starts. Also displayed, but in the background, is an **After Installation** window. Leave this background window open until the end of the installation procedure.
4. Click **Next** on the **Welcome** window.
5. On the **Software License Agreement** window, read the agreement and click **Accept**.
6. On the **Select Destination Location** window, specify the directory where Performance Analyzer will be installed. Click **Next**. The **User Data Encryption Key** window opens.
7. Enter the encryption key that will be used for SSL connections with the Tivoli Enterprise Monitoring server.
8. On the **Select Features** window, select **Tivoli Enterprise Monitoring Agents**. This selects the **Tivoli Enterprise Monitoring Agent Framework** and **Performance Analyzer Agent**. While you are installing to a separate machine, no other elements are listed.

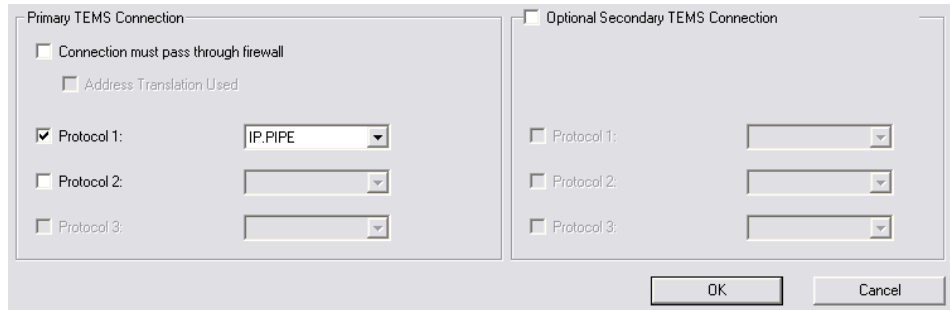
Note: **Tivoli Enterprise Monitoring Agents** may be selected if the framework or any agents are already installed. You must expand this feature and also select **Performance Analyzer Agent** to install Tivoli Performance Analyzer.



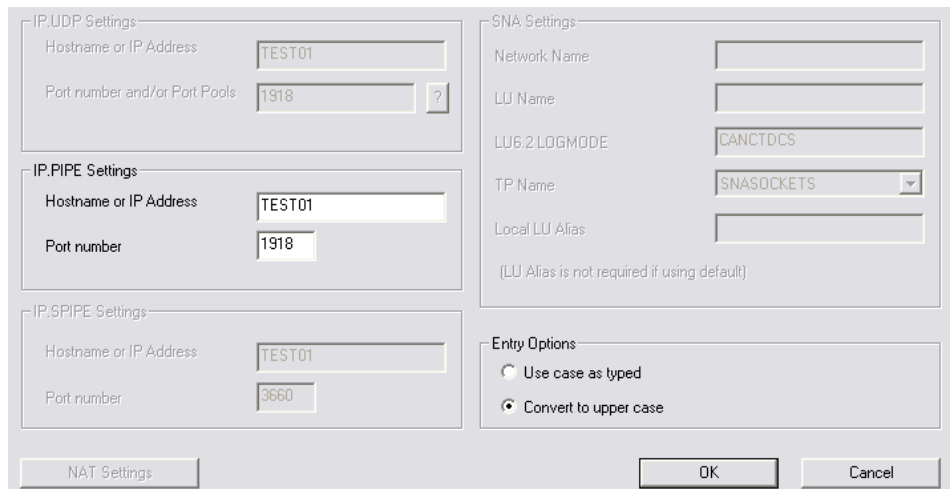
9. Click **Next**.
10. On the **Start Copying Files** window, review the settings and if correct, click **Next**.
11. The wizard asks you to confirm that you want to continue with the installation. Click **Yes** to continue or **No** to cancel. If you click **Yes**, you will not be able to cancel the installation after this point. The files are then copied. A **Setup Status** window informs you about its progress.
12. On the **Setup Type** window, accept the configuration options and click **Next**.



13. Specify TEMS information in the **Configuration Defaults for Connecting to a TEMS** window. The Performance Analyzer agent must be connected to a TEMS hub, not remote TEMS.



- a. Select **Connection must pass through firewall** if the agent and the TEMS are on different sides of a firewall.
 - b. Select **Protocol 1** and select a protocol from the drop-down list. Several types of protocols are available: IP.UDP (uses unsecured UDP communications), IP.PIPE (uses unsecured TCP communications), IP.SPIPE (uses SSL secure TCP communications), and SNA (uses SNA for mainframe components).
 - c. Select **Protocol 2** and select a second protocol if required.
 - d. Select a secondary TEMS connection and protocols if required.
14. Click **OK**. The **Configuration Defaults for Connecting to a TEMS** window is displayed showing the default settings.



The settings are automatically detected and depend on the protocol selected in the previous step. The detected settings are:

- For IP.UDP, the host name or IP address and the Port number (or Port Pools) of the hub server.
- For IP.PIPE settings, the host name or IP address and the Port number of the hub server (the default port number is 1918).
- For IP.SPIPE settings, the host name or IP address and the Port number of the hub server (the default port number is 3660).
- For SNA settings, the SNA network identifier for your location, the LU name for the monitoring server (this LU name corresponds to the Local LU Alias in your SNA Communications software), the name of the LU6.2 LOGMODE (default is CANCTDCS) and the transaction program name.

If the settings are correct, click **OK**.

15. The **Agent Configuration** window is displayed. You can configure the agent now or choose to configure the agent later. If you choose to configure the

agent later, see “Configuring Tivoli Performance Analyzer on Windows” on page 26 for further information.

The screenshot shows a configuration window titled "TEP Server" with a sub-tab "Data Warehouse". The window contains several sections with input fields and dropdown menus:

- Database Type:** A dropdown menu with "DB2" selected.
- Hostname:** A text field containing "localhost".
- Port:** A text field containing "50000".
- Database Name:** A text field containing "TEPS".
- Schema:** A text field containing "TEPS".
- Username:** An empty text field.
- Password:** An empty text field.
- Confirm Password:** An empty text field.
- Agent Database Connection Type:** A dropdown menu with "ODBC" selected.
- Agent ODBC DSN (Leave blank if JDBC is selected):** A text field containing "TEPS2".
- JDBC Driver:** A text field containing "com.ibm.db2.jcc.DB2Driver".
- JDBC Driver Path:** An empty text field.
- Initialize PA tables:** A dropdown menu with "YES" selected.
- Initialize OS domain tasks (Ignored if Initialize PA tables YES is selected):** A dropdown menu with "NO" selected.

16. Configure the agent for TEP Server in the **TEP Server** tab.

- a. On the **TEP Server** tab, set your **Database Type** to either DB2® or MS SQL, provide the **Hostname**, the **Port** number, and the **Database Name**.

Note:

- The default port numbers for the **TEP Server** are 50000 for DB2 and 1433 for MS SQL Server. Oracle is not a supported database type for the **TEP Server**. Note that the default values do not change when you change the database type in the UI.
- When TEPS uses Embedded Database (Derby) refer to “Configuring Tivoli Performance Analyzer with TEPS on Embedded Database” on page 45.

- b. Next, type the **Username** and **Password**. The entries in these fields are used to connect to the **TEP Server** database. Use one of the existing credentials authorizing you to connect to Tivoli Enterprise Portal Server and to create tables in Tivoli Enterprise Portal Server database. Confirm the password by re-typing it in the **Confirm Password** field.
- c. Type the **Schema** where TEPS database tables were created.
- d. In the **Agent Database Connection Type** select the preferred connection. Skip the next step if you connect using the JDBC and your database is a DB2 type.
- e. Enter the ODBC data source name (DSN) to use to connect to TEP Server database.

Note:

- Tivoli Performance Analyzer does not create this DSN - it must already exist. If you are installing Performance Analyzer on the same machine where TEP Server is installed, you can use the existing data source created by Tivoli Monitoring. Otherwise, you must create a new System DSN manually, prior to re-configuring Performance Analyzer.
 - On 64-bit versions of Windows, data sources created by the default **ODBC Data Source Administrator** applet available from the **Control Panel** are not available for 32-bit applications. Therefore you must use the 32-bit version of the **ODBC Data Source Administrator** applet from `<WINDOWS>\SysWOW64\odbcad32.exe`.
- f. Specify the **JDBC Driver** and **JDBC Driver Path**. The data is used to initialize the database, so it must be provided no matter which Agent Database Connection Type was selected. The driver path should be provided as a list of jar files with the full path separated by ";". An example of a Windows path is:
- ```
c:\Program Files\IBM\sqllib\java\db2jcc.jar;c:\Program Files\IBM\sqllib\java\db2jcc_license_cu.jar
```

**Note:**

- For compatibility with version 6.1.1 it is also possible to provide a single directory name containing all the jar files which should be used, although this solution is not recommended. Ensure that the directory does not contain the db2jcc4.jar file. Performance Analyzer only supports Java™ version 1.5 and requires the db2jcc.jar file. Including db2jcc4.jar in the classpath may prevent the agent from being successfully configured.
- Typical JDBC driver classes are:
  - DB2** com.ibm.db2.jcc.DB2Driver
  - MSSQL** com.microsoft.sqlserver.jdbc.SQLServerDriver

The exact class name depends on the JDBC driver that is to be used. The drivers are not provided with Performance Analyzer.

- g. When you are configuring the database for the first time, ensure that the **Initialize PA tables** field is set to Yes so that the Tivoli Performance Analyzer tables are created in the **TEP Server** database.

**Note:** The default is Yes if it is the first time that you have performed the configuration. For subsequent configurations the default is No. If you select Yes for subsequent configurations, custom content such as tasks and situations is removed and pre-defined content is reinstated.

17. Configure the agent for Data Warehouse in the **Data Warehouse** tab.



TEP Server Data Warehouse

**Database Type**  
DB2

**Hostname**  
localhost

**Port**  
50000

**Database Name**  
WAREHOUS

**Schema**  
ITMUSER

**Username**

**Password** **Confirm Password**

**Agent Database Connection Type**  
ODBC

Agent ODBC DSN (Leave blank if JDBC is selected)  
ITM Warehouse

**JDBC Driver**  
com.ibm.db2.jcc.DB2Driver

**JDBC Driver Path**

- a. Select the **Data Warehouse** tab and choose whether you use DB2, MS SQL, or Oracle as your **Database Type**.
- b. Indicate the **Agent Database Connection Type**.
- c. If you are using ODBC to connect to the warehouse, type the **Username** and **Password**. The entries in these fields are used to connect to the Tivoli Data Warehouse and are the same credentials as those used by the Tivoli Enterprise Portal Server for communication with the Summarization and Pruning Agent. Confirm the password by re-typing it in the **Confirm Password** field. Review the defaults on the **Agent ODBC DSN** tab.

**Note:** On 64-bit versions of Windows, data sources created by the default **ODBC Data Source Administrator** applet available from the **Control Panel** are not available for 32-bit applications. Therefore you must use the 32-bit version of the **ODBC Data Source Administrator** applet from `<WINDOWS>\SysWOW64\odbcad32.exe`.

- d. Type the **Schema** where WAREHOUS database tables were created.
- e. If you are using JDBC to connect to the warehouse, enter the **Hostname**, **Port**, **Database Name**, **JDBC Driver**, and **JDBC Driver Path** in addition to the information provided in step c. Default port numbers for the **Data Warehouse** are 50000 for DB2, 1521 for Oracle, and 1433 for MS SQL Server. The JDBC driver path should be provided as a list of jar files with the full path separated by ";". An example of a Windows path is:  

```
c:\Program Files\IBM\sqllib\java\db2jcc.jar;c:\Program Files\IBM\sqllib\java\db2jcc_license_cu.jar
```

**Note:**

- For compatibility with version 6.1.1 it is also possible to provide a single directory name containing all the jar files which should be used, although this solution is not recommended. Ensure that the directory

does not contain the db2jcc4.jar file. Performance Analyzer only supports Java version 1.5 and requires the db2jcc.jar file. Including db2jcc4.jar in the classpath may prevent the agent from being successfully configured.

- Typical JDBC driver classes are:

**DB2** com.ibm.db2.jcc.DB2Driver

**MSSQL**

com.microsoft.sqlserver.jdbc.SQLServerDriver

**Oracle** oracle.jdbc.driver.OracleDriver

The exact class name depends on the JDBC driver that is to be used. The drivers are not provided with Performance Analyzer.

- f. Click **OK**. The system continues the agent configuration. Upon completion you are returned to the **Manage Tivoli Monitoring Services** window.
18. Click **OK**. The system configures and starts the agent. Upon completion you are returned to the **Manage Tivoli Monitoring Services** window.

## Results

Installation of the Tivoli Performance Analyzer agent is complete. If you are installing Tivoli Performance Analyzer into a distributed Tivoli Monitoring environment, install the required components to the other machines in the environment. You can then start Tivoli Performance Analyzer.

## What to do next

You must now configure connection to the Tivoli Enterprise Portal Server and Tivoli Data Warehouse. See “Configuring Tivoli Performance Analyzer on Windows” on page 26 for further information. After that, you can install TEMS, TEPS and TEP support.

## Installing the Tivoli Performance Analyzer agent on AIX, Linux or Solaris

You can install the Tivoli Performance Analyzer agent to a workstation which also has other Tivoli Monitoring components installed, or you can install it to a separate workstation. The installation procedure for Tivoli Performance Analyzer on AIX, Linux, and Solaris is similar to that for installing monitoring agents on these platforms.

## Before you begin

This procedure describes installing the agent to a separate workstation. In the example in “Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured” on page 2, this is Machine 3.

Before starting the installation, make sure that you have read the “Installation prerequisites” on page 4.

## About this task

To install the Tivoli Performance Analyzer agent to a separate machine on Linux or UNIX®:

1. Login as the same user used for the installation of Tivoli Monitoring.

2. Insert the product CD or download the product from the IBM Passport Advantage® Web site: <http://www.ibm.com/software/howtobuy/passportadvantage>.
3. Mount the installation image.
4. In the mount directory, run the command `./install.sh` and press **Enter**.
5. When prompted for the IBM Tivoli Monitoring home directory, press **Enter** to accept the default (`/opt/IBM/ITM`) or type the full path to a different directory.
6. If the installation directory does not already exist, you are asked if you want to create it. Type 1 to create this directory and press **Enter**.
7. Type 1 and press **Enter** to stop all Tivoli Monitoring processes that are currently running. The processes need to be stopped before you can continue with the installation. Stopping the processes can take up to ten minutes.
8. Type 1 when prompted to install products to the local host and press **Enter**.
9. Press **Enter** to display the software license agreement.
10. Type 1 to accept the agreement and press **Enter**.
11. If the mandatory prerequisites IBM Tivoli Monitoring Shared Libraries V622R100 @ Linux Intel R2.6 (32 bit) and Tivoli Enterprise Services User Interface V622R100 @ Linux Intel R2.6 (32 bit) are not already installed on your machine, you need to install them now. Type 1 and press **Enter** to install the prerequisites.
12. The installer displays a numbered list of product categories with products available for installation on your system. Type 1 to select Tivoli Monitoring and press **Enter**.
13. Type 1 to confirm your selection and press **Enter**.
14. Type 1 to select the Tivoli Performance Analyzer agent and press **Enter**.
15. Type 1 to confirm the installation.
16. At the prompt Do you want to install additional products or product support packages, type 2 and press **Enter**. The installation can take up to ten minutes to complete.

### What to do next

You must now configure connection to the Tivoli Enterprise Portal Server and Tivoli Data Warehouse. See “Configuring Tivoli Performance Analyzer on AIX, Linux and Solaris” on page 31 for further information.

## Installing TEMS support

Install TEMS support that enables data storage in tables.

### Installing TEMS Support on Windows

Install TEMS Support to the same workstation on which the Tivoli Enterprise Monitoring Server is installed. TEMS Support creates tables in the Tivoli Enterprise Monitoring Server in which the data for Tivoli Performance Analyzer is stored. TEMS Support is installed using an InstallShield Wizard.

### Before you begin

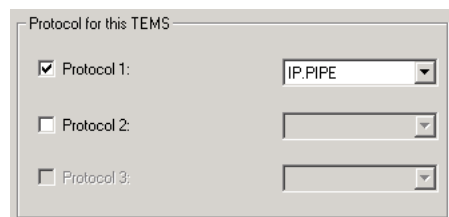
Before installing TEMS Support, make sure that you have read the “Installation prerequisites” on page 4.

In the example in “Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured” on page 2, TEMS Support is installed to Machine 1.

### About this task

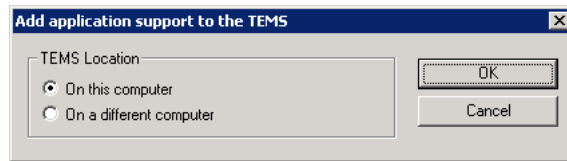
To install TEMS Support on Windows:

1. Log on as a user with administrative privileges to the machine running Tivoli Enterprise Monitoring Server.
2. Insert the product CD or download the product from the IBM Passport Advantage® Web site: <http://www.ibm.com/software/howtobuy/passportadvantage/>.
3. Open the installation wizard by double-clicking the setup.exe file. The InstallShield Wizard starts. Also displayed, but in the background, is an **After Installation** window. Leave this background window open until the end of the installation procedure.
4. Click **Next** on the **Welcome** window.
5. On the **Software License Agreement** window, read the agreement and click **Accept**.
6. On the **Select Features** window, select **Tivoli Enterprise Monitoring Server** to select TEMS Tivoli Performance Analyzer Support. Only those components installed on the workstation are listed.
7. Click **Next**.
8. On the **Start Copying Files** window, review the settings and if correct, click **Next**.
9. The wizard asks you to confirm that you want to continue with the installation. Click **Yes** to continue or **No** to cancel. If you click **Yes**, you will not be able to cancel the installation after this point. The files are then copied. A **Setup Status** window informs you about its progress.
10. On the **Setup Type** window, make sure that all setup types are selected and click **Next**. The **Tivoli Enterprise Monitoring Server Configuration** window is displayed.
11. The **Tivoli Enterprise Monitoring Server Configuration** displays default values. The **TEMS Type**, **TEMS Name** and **Protocol 1** are automatically detected. If required, you can specify a second protocol to be used as a backup. Four types of protocols are available: IP.UDP (uses unsecured UDP communications), IP.PIPE (uses unsecured TCP communications), IP.SPIPE (uses SSL secure TCP communications), and SNA (uses SNA for mainframe components).



12. Click **OK**.
13. If you have a hub TEMS, the **Hub TEMS Configuration** window is displayed. The hub settings are automatically detected and depend on the protocol selected in the previous step. The detected settings are:
  - For IP.UDP, the host name or IP address and the Port number (or Port Pools) of the hub server.

- For IP.PIPE settings, the host name or IP address and the Port number of the hub server (the default port number is 1918).
  - For IP.SPIPE settings, the host name or IP address and the Port number of the hub server (the default port number is 3660).
  - For SNA settings, the SNA network identifier for your location, the LU name for the monitoring server (this LU name corresponds to the Local LU Alias in your SNA Communications software), the name of the LU6.2 LOGMODE (default is CANCTDCS) and the transaction program name.
14. If you have a remote TEMS, the **Remote TEMS Configuration** window is displayed. Type the name of the remote Tivoli Enterprise Monitoring Server in the **Hostname or IP Address** field.
  15. In either window, click **OK**. The **Add application support to the TEMS** window is displayed.



16. Select **Performance Analyzer Support** and click **OK**.
17. Review the installation summary on the **Application support addition complete** window and click **Next**. This installs the predefined situations of Tivoli Performance Analyzer.

## Results

Installation of TEMS Support is complete. If you are installing Tivoli Performance Analyzer into a distributed Tivoli Monitoring environment, install the remaining required components. You can then start Tivoli Performance Analyzer.

## Installing TEMS Support on AIX, Linux or Solaris

Install application support to the same workstation on which the Tivoli Enterprise Monitoring Server is installed. TEMS Support creates tables in the Tivoli Enterprise Monitoring Server in which the data for Tivoli Performance Analyzer is stored.

## Before you begin

Before installing TEMS Support, make sure that you have read the “Installation prerequisites” on page 4.

In the example in “Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured” on page 2, TEMS Support is installed to Machine 1.

## About this task

To install TEMS Support on AIX, Linux or Solaris:

1. Login as the same user used for the installation of Tivoli Monitoring.
2. Insert the product CD or download the product from the IBM Passport Advantage® Web site: <http://www.ibm.com/software/howtobuy/passportadvantage>.
3. Mount the installation image.
4. In the mount directory, run the command `./install.sh` and press **Enter**.

5. When prompted for the IBM Tivoli Monitoring home directory, press **Enter** to accept the default (/opt/IBM/ITM) or type the full path to a different directory.
6. If the installation directory does not already exist, you are asked if you want to create it. Type 1 to create this directory and press **Enter**.
7. Type 1 and press **Enter** to stop all Tivoli Monitoring processes that are currently running. The processes need to be stopped before you can continue with the installation. Stopping the processes can take up to ten minutes.
8. Type 1 when prompted to install products to the local host and press **Enter**.
9. Press **Enter** to display the software license agreement.
10. Type 1 to accept the agreement and press **Enter**. The installer displays a numbered list of product categories with products available for installation on your system.
11. Type the number corresponding to TEMS support and press **Enter**.
12. Type 1 to confirm the installation and press enter.
13. Type 1 to select the Tivoli Performance Analyzer agent and press **Enter**.
14. Type 1 to confirm the installation and press **Enter**.
15. At the prompt Do you want to install additional products or product support packages, type 2 and press **Enter**.
16. Type 1 and press **Enter** to add application support to the TEMS.

## Results

The installation of TEMS Support and application support is complete.

## Installing TEMS Support on z/OS

For information on installing TEMS Support on z/OS<sup>®</sup> see Adding application support to a monitoring server in the Tivoli Monitoring infocenter.

## Installing TEPS support

Install TEPS support to provide the task definition and calculation results storage.

### Installing TEPS Support on Windows

Install TEPS Support to the same workstation on which the Tivoli Enterprise Portal Server is installed. TEPS Support is installed using an InstallShield Wizard.

### Before you begin

Before installing TEPS Support, make sure that you have read the “Installation prerequisites” on page 4.

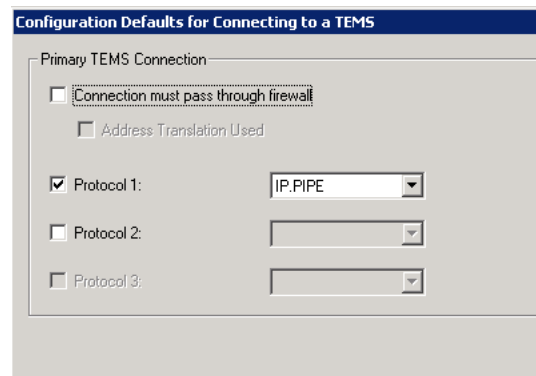
In the example in “Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured” on page 2, TEPS Support is installed to Machine 1.

### About this task

To install TEPS Support on Windows:

1. Log on as a user with administrative privileges.
2. Insert the product CD or download the product from the IBM Passport Advantage<sup>®</sup> Web site: <http://www.ibm.com/software/howtobuy/passportadvantage/>.

3. Start the installation wizard by double-clicking the setup.exe file. The InstallShield Wizard starts. Also displayed, but in the background, is an **After Installation** window. Leave this background window open until the end of the installation procedure.
4. Click **Next** on the **Welcome** window.
5. On the **Software License Agreement** window, read the agreement and click **Accept**.
6. On the **Select Features** window, expand the list and select the features that you want to install. Only those components installed on the workstation are listed.
7. Click **Next**.
8. On the **Start Copying Files** window, review the settings and if correct, click **Next**.
9. The wizard asks you to confirm that you want to continue with the installation. Click **Yes** to continue or **No** to cancel. If you click **Yes**, you will not be able to cancel the installation after this point. The files are then copied. A **Setup Status** window informs you about its progress.
10. On the **TEPS Hostname** window, enter the name of the Tivoli Enterprise Portal Server and click **Next**. The TEPS Hostname is automatically detected if the Tivoli Enterprise Portal Server is installed on the workstation to which you are installing, and a **Setup Status** window informs you of its progress. After a few minutes, the **Configuration Defaults for Connecting to a TEMS** window is displayed.
11. Specify TEMS information in the **Configuration Defaults for Connecting to a TEMS** window to reconfigure the Tivoli Enterprise Monitoring Server:
  - a. Select **Protocol 1** and select a protocol from the list. Several types of protocols are available: IP.UDP (uses unsecured UDP communications), IP.PIPE (uses unsecured TCP communications), IP.SPIPE (uses SSL secure TCP communications), and SNA (uses SNA for mainframe components).



- b. Select **Protocol 2** and select a second protocol if required.
  - c. Select a secondary TEMS connection and protocols if required.
  - d. Click **OK**.
12. The summary **Configuration Defaults for Connecting to a TEMS** window is displayed. Check the information and click **OK**. The information on this window is automatically detected and depends on the protocol selected in the previous step. The detected settings are:
  - For IP.UDP, the host name or IP address and the Port number (or Port Pools) of the hub server.

- For IP.PIPE settings, the host name or IP address and the Port number of the hub server (the default port number is 1918).

The screenshot shows a configuration window titled "Configuration Defaults for Connecting to a TEM5". It contains three main sections:

- IP.UDP Settings:** Hostname or IP Address: NC045176; Port number and/or Port Pools: 1918.
- IP.PIPE Settings:** Hostname or IP Address: NC045176; Port number: 1918.
- IP.SPIPE Settings:** Hostname or IP Address: NC045176; Port number: 3660.

At the bottom, there is a button labeled "NAT Settings".

- For IP.SPIPE settings, the host name or IP address and the Port number of the hub server (the default port number is 3660).
- For SNA settings, the SNA network identifier for your location, the LU name for the monitoring server (this LU name corresponds to the Local LU Alias in your SNA Communications software), the name of the LU6.2 LOGMODE (default is CANCTDCS) and the transaction program name.

## Results

Installation of TEPS Support is complete. If you are installing Tivoli Performance Analyzer into a distributed Tivoli Monitoring environment, install the remaining required components.

## What to do next

You must now reconfigure the Tivoli Enterprise Portal Server. See "Reconfiguring Tivoli Enterprise Portal Server on Windows" on page 36 in the *Configuration* section of the Performance Analyzer information center.

## Installing TEPS Support on AIX and Linux

Install TEPS Support to the same workstation on which the Tivoli Enterprise Portal Server is installed.

## Before you begin

Before installing TEPS Support, make sure that you have read the "Installation prerequisites" on page 4.

In the example in "Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured" on page 2, TEPS Support is installed to Machine 1.



## About this task

To install TEPS Support on AIX and Linux:

1. Login as the same user used for the installation of Tivoli Monitoring.
2. Insert the product CD or download the product from the IBM Passport Advantage® Web site: <http://www.ibm.com/software/howtobuy/passportadvantage>.
3. Mount the installation image.
4. In the mount directory, run the command `./install.sh` and press **Enter**.
5. When prompted for the IBM Tivoli Monitoring home directory, press **Enter** to accept the default (`/opt/IBM/ITM`) or type the full path to a different directory.
6. If the installation directory does not already exist, you are asked if you want to create it. Type 1 to create this directory and press **Enter**.
7. Type 1 and press **Enter** to stop all Tivoli Monitoring processes that are currently running. The processes need to be stopped before you can continue with the installation. Stopping the processes can take up to ten minutes.
8. Type 1 when prompted to install products to the local host and press **Enter**.
9. Press **Enter** to display the software license agreement.
10. Type 1 to accept the agreement and press **Enter**. The installer displays a numbered list of product categories with products available for installation on your system.
11. Type the number corresponding to TEPS support and press **Enter**.
12. Type 1 to confirm the installation and press enter.
13. Type 1 to select the Tivoli Performance Analyzer agent and press **Enter**.
14. Type 1 to confirm the installation.
15. At the prompt Do you want to install additional products or product support packages, type 2 and press **Enter**.
16. If the host is running Tivoli Enterprise Portal Server you can elect to install Tivoli Performance Analyzer browser support.
  - a. Repeat steps 4 through 10.
  - b. Type the number corresponding to TEPS support and press **Enter**.
  - c. Type 1 to confirm your selection and press **Enter**.
  - d. Type 1 to select the Tivoli Performance Analyzer agent and press **Enter**.
  - e. At the prompt Do you want to install additional products or product support packages, type 2 and press **Enter**.

## Results

Installation of TEPS Support is complete.

## What to do next

You must now reconfigure the Tivoli Enterprise Portal Server. See “Reconfiguring the Tivoli Enterprise Portal Server on AIX, Linux, and Solaris systems” on page 37 in the *Configuration* section of the Performance Analyzer information center.

## Installing TEP support

Install TEP support to obtain the configuration and viewing interface.

## Installing TEP Support on Windows

Install TEP Support to the same machine on which the Tivoli Enterprise Portal is installed. TEP Support adds Tivoli Performance Analyzer to the Tivoli Enterprise Portal desktop client. It is installed using an InstallShield Wizard.

### Before you begin

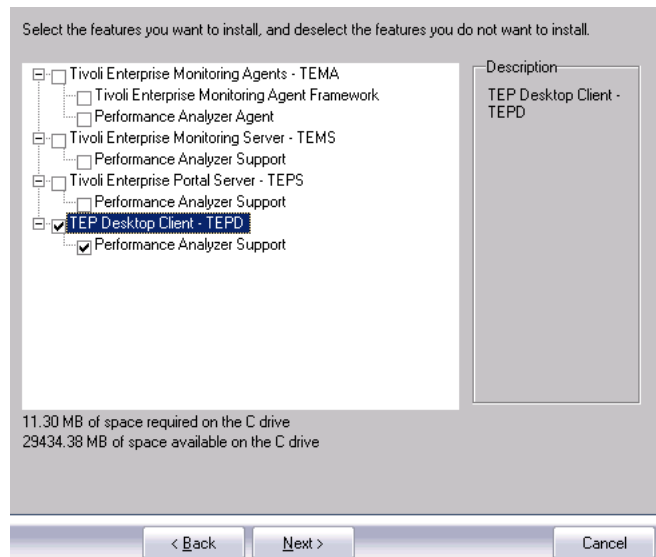
Before installing TEP Support, make sure that you have read the “Installation prerequisites” on page 4.

In the example in “Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured” on page 2, the Tivoli Enterprise Portal and TEP Support are installed to a separate machine to the rest of the Tivoli Monitoring environment, Machine 2.

### About this task

To install TEP Support on Windows:

1. Log on as a user with administrative privileges.
2. Insert the product CD or download the product from the IBM Passport Advantage® Web site: <http://www.ibm.com/software/howtobuy/passportadvantage/>.
3. Launch the installation wizard by double-clicking the setup.exe file. The InstallShield Wizard starts. Also displayed, but in the background, is an **After Installation** window. Leave this background window open until the end of the installation procedure.
4. Click **Next** on the **Welcome** window.
5. On the **Software License Agreement** window, read the agreement and click **Accept**.
6. On the **Select Features** window, select **Tivoli Enterprise Portal Desktop Client. Performance Analyzer Support** is automatically selected. Only those components installed on the current machine are listed.



7. Click **Next**.
8. On the **Start Copying Files** window, review the settings and if correct, click **Next**.

9. The wizard asks you to confirm that you want to continue with the installation. Click **Yes** to continue or **No** to cancel. If you click **Yes**, you will not be able to cancel the installation after this point. The files are then copied. A **Setup Status** window informs you about its progress.
10. On the **TEPS Hostname** window, enter the name of the Tivoli Enterprise Portal Server and click **Next**. The TEPS Hostname is automatically detected if the Tivoli Enterprise Portal Server is installed on the machine to which you are installing. The installation continues and a **Setup Status** window informs you of its progress.
11. Click **OK**. Installation is complete.
12. Click **Finish**.
13. If Tivoli Enterprise Portal was running during the installation, restart it now.

## Results

Installation of TEP Support is complete. If you are installing Tivoli Performance Analyzer into a distributed Tivoli Monitoring environment, install the remaining required components. You can then start Tivoli Performance Analyzer.

## Installing TEP Support on Linux

Install TEP Support to the same workstation on which the Tivoli Enterprise Portal is installed. TEP Support adds Tivoli Performance Analyzer to the Tivoli Enterprise Portal desktop client.

## Before you begin

Before installing Tivoli Performance Analyzer, make sure that you have read and complied with the “Installation prerequisites” on page 4.

In the example in “Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured” on page 2, the Tivoli Enterprise Portal and TEP Support are installed to a separate workstation to the rest of the Tivoli Monitoring environment, Machine 2.

Tivoli Enterprise Portal is not supported on UNIX.

1. Login as the same user used for the installation of Tivoli Monitoring.
2. Insert the product CD or download the product from the IBM Passport Advantage® Web site: <http://www.ibm.com/software/howtobuy/passportadvantage>.
3. Mount the installation image.
4. In the mount directory, run the command `./install.sh` and press **Enter**.
5. When prompted for the IBM Tivoli Monitoring home directory, press **Enter** to accept the default (`/opt/IBM/ITM`) or type the full path to a different directory.
6. If the installation directory does not already exist, you are asked if you want to create it. Type 1 to create this directory and press **Enter**.
7. Type 1 when prompted to install products to the local host and press **Enter**.
8. Press **Enter** to display the software license agreement.
9. Type 1 to accept the agreement and press **Enter**. The installer displays a numbered list of product categories with products available for installation on your system.
10. Type the number corresponding to TEP support and press **Enter**.

11. Type 1 to confirm the installation and press enter.
12. Type 1 to select the Tivoli Performance Analyzer agent and press **Enter**.
13. Type 1 to confirm the installation and press **Enter**.
14. At the prompt Do you want to install additional products or product support packages, type 2 and press **Enter**.
15. Use the itmcmd config command to reconfigure the Tivoli Enterprise Portal.

## Results

Installation of TEP Support is complete.

## What to do next

If you are installing Tivoli Performance Analyzer into a distributed Tivoli Monitoring environment, install the remaining required components. You can then start Tivoli Performance Analyzer.

## Installing the support for the DB2, Oracle, System p Series, ITCAM for RT, and VMware domains

Install the domain support to enable performance analytics for a broader set of systems including DB2, Oracle, System p<sup>®</sup> Series, ITCAM for RT, and VMware. Domains are being installed with the help of Domains Activation Tool.

### About this task

Choose one of the following ways to install the domain support:

#### Note:

Install the domains on the server which has TEMS hub, TEPS and TPA installed. In a distributed environment, you have to perform domain installation on each server where at least one of these components is installed: TEMS hub, TEPS, TPA Agent.

The logs for the domain installation can be found at:

- For Windows: <ITM DIR>\logs\itpa\_domain.log
- For UNIX: <ITM DIR>/logs/itpa\_domain.log

### Installing domain support in GUI mode

Use the GUI to install the domain support automatically and check if all the required programs for configuration are in place.

### About this task

To install the required domain support:

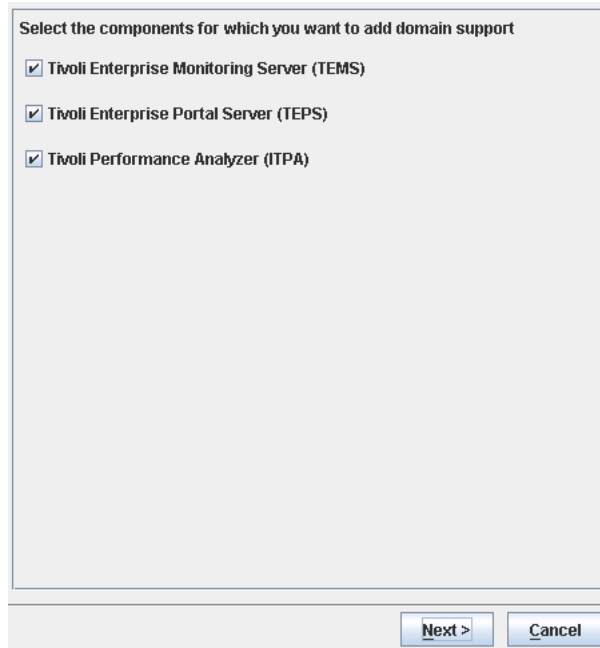
1. From the product CD click CD:\domains and launch the:
  - domaintool.bat for Windows
  - domaintool.sh for AIX, Linux or Solaris

The Domains Activation Tool opens.

2. Enter the location of your IBM Tivoli Monitoring on the first window and click **Next**.

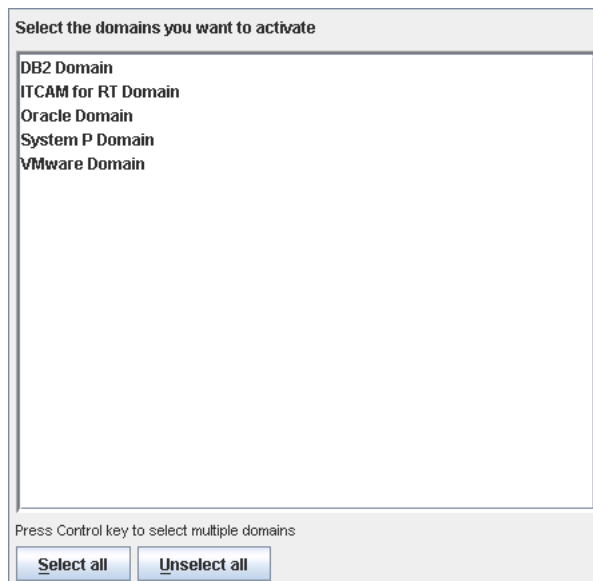
**Note:** At the same time, the installer will try to find Java. If it does not succeed, you can provide Tivoli Monitoring location, or the access path to Java by typing in -j.

3. Select the components for which you want to add domain support and click **Next**.



**Note:** If you unmark a given component, there can be a lack of coherence between the selected components. This is an advanced option, useful in some complex Tivoli Monitoring environments. In most cases the default values are good and should not be changed.

4. Select the domains you want to install support for and click **Next**. For multiple selection use **Ctrl** key.



5. Review the installation details and confirm by clicking **Finish**.

## Results

You have now automatically broadened the Tivoli Performance Analyzer domain support.

## What to do next

**Important:** Restart Tivoli Monitoring components after the installation. The tool shows which components need to be restarted.

## Installing the domain support in console mode

Use the console mode to install the domain support in an interactive manner.

## About this task

To install the required domain support:

1. Start the installer from the command line by typing in:
  - `domaintool.bat -console` for Windows
  - `domaintool.sh -console` for AIX, Linux or Solaris
2. Enter your IBM Tivoli Monitoring location, for example: `\IBM\ITM`.

**Note:** At the same time, the installer will try to find Java. If it does not succeed, you can provide Tivoli Monitoring location, or the access path to Java by typing in `-j`.

3. Select the components for which you want to add domain support.

**Note:** If you don't mark all the components, there may be a lack of coherence between the selected ones.

4. Next, select the domains you want to install support for by typing in the selection numbers. Select the appropriate numbers to take the following actions:
  - 1 for DB2 domain
  - 2 for ITCAM for RT domain
  - 3 for System p Series domain
  - 4 for Oracle domain
  - 5 for VMware domain
  - 6 for all domains
  - 7 to exit the command line

## Results

You have now installed the required domain support and exited the console mode.

## Installing Tivoli Performance Analyzer reports for Tivoli Common Reporting (TCR)

Expand your system performance and forecast visualization by installing and using the performance reports.

## Before you begin

**Prerequisite:** You must have IBM Tivoli Common Reporting installed and running.

## About this task

Install the reports on the same server as the Tivoli Common Reporting.


1. From the product CD\reports choose and launch the:
  - setup.bat for Windows
  - setup.sh for AIX, Linux or Solaris

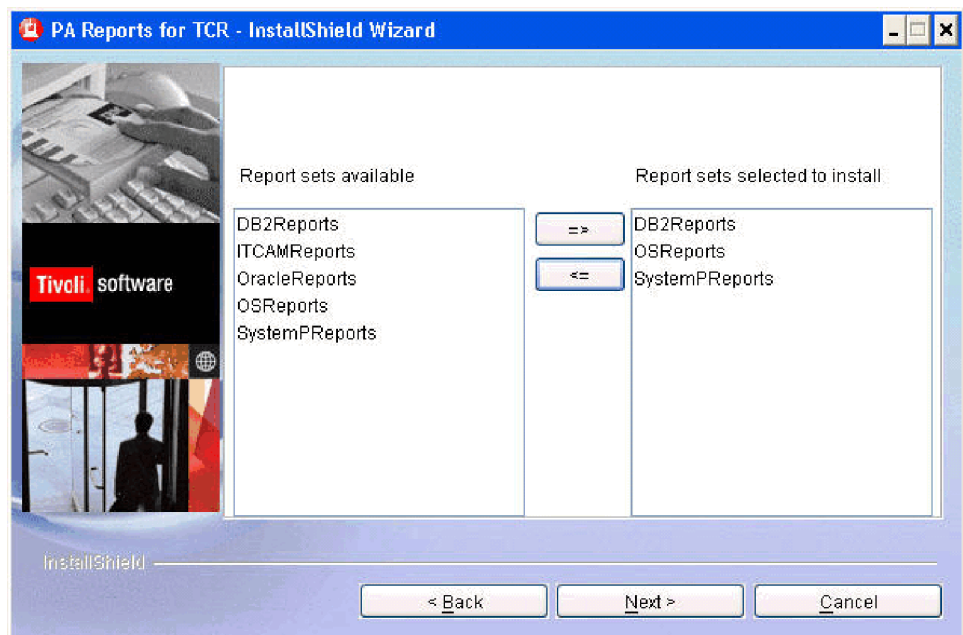
The PA Reports for TCR installer window opens.

**Note:** The installer will try to find Java. If it does not succeed, you must provide Tivoli Common Reporting location as the first command line parameter.

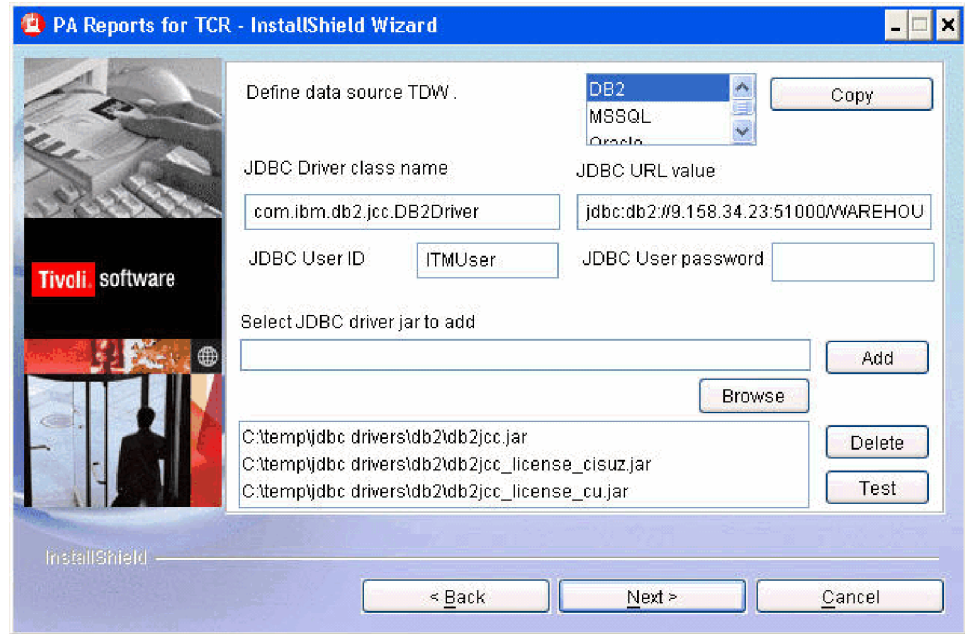
2. Click **Next** on the installer welcome page.
3. Choose the location for the reports and confirm by clicking **Next**.

**Note:** The default location is c:\IBM\tivoli\tip (Windows) or /opt/IBM/tivoli/tip (other platforms).

4. Enter TCR administrator credentials by providing **Name** and **Password**. The installer validates the Common Reporting authentication.
5. Next, add the reports to be installed by using  and click **Next**.



6. Define the data source for the reports by filling in the **JDBC Driver class name**, **JDBC URL value**, **JDBC User ID**, **JDBC User password** (this is the same as the credentials used for Tivoli Data Warehouse configuration for TPA), and selecting the **JDBC driver jar to add**. Add and remove the files by using the **Add** and **Delete** buttons and test the connection after having specified all the driver jars by clicking **Test**. If the connection test is passed, click **Next** to continue with the report installation.



**Note:** You can also define the data source for the reports by choosing the template from the scroll list, and clicking **Copy**.

7. Verify the installation details, and click **Install**. The reports sets and the database sources definition are being installed.
8. Click **Finish** to exit the installer. You have now installed the performance and forecast reports.

### What to do next

You can now view your reports in the Tivoli Common Reporting application. For the purpose of viewing all the relevant data in the reports, configure the historical data collection for all Performance Analyzer attribute groups.

---

## Configuring Tivoli Performance Analyzer

The Tivoli Performance Analyzer agent depends on summarized data and therefore it is essential that you have configured data properly and that the Warehouse Proxy Agent and Summarization and Pruning Agent are successfully executing. This section describes how to configure Tivoli Performance Analyzer after you have installed it.

### Configuring Tivoli Performance Analyzer on Windows

You can configure Tivoli Performance Analyzer as part of the installation procedure or reconfigure it at a later stage. During installation of the Tivoli Performance Analyzer agent you configure connection to the TEP Server and Data Warehouse. You can reconfigure this information at any time by starting the configuration procedure manually.

#### Before you begin

**Prerequisite:** Ensure that the Tivoli Enterprise Portal Server is running before you perform a manual configuration.



A log file is generated for each configuration. You can use this file to diagnose any problems. The file is located at:

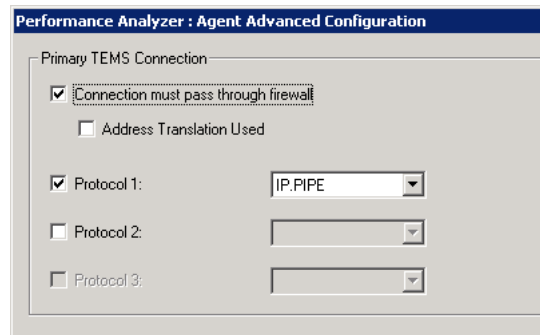
c:\IBM\ITM\Install\ITM\plugin\executionEvents\logs\install\_plugin\_comp-pa\_n

where *n* is a number increasing by one for each configuration.

## About this task

To manually configure:

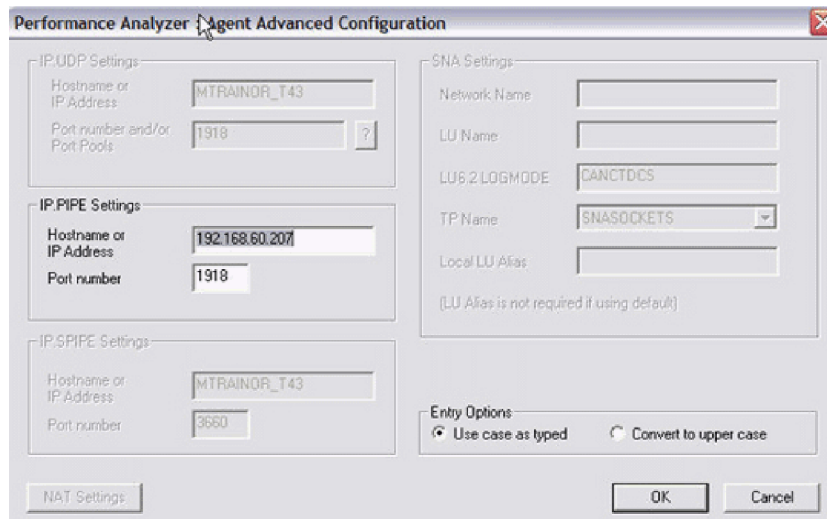
1. Select **Start** → **Programs** → **IBM Tivoli Monitoring** → **Manage Tivoli Monitoring Services**.
2. Configure the TEMS connection:
  - a. Right click **Performance Analyzer** and select **Reconfigure**. The Agent Advanced Configuration window opens. This window is titled Configuration Defaults for Connecting to a TEMS if accessed during the installation process.



- b. If applicable, select **Connection must pass through firewall**.
    - c. Select the backup protocol (if required). Four types of protocols are available: IP.UDP (uses unsecured UDP communications), IP.PIPE (uses unsecured TCP communications), IP.SPIPE (uses SSL secure TCP communications), and SNA (uses SNA for mainframe components).

**Note:** Leave the check box for **Optional Secondary TEMS Connection** blank. You can set up the failover support for the Tivoli Performance Analyzer after installation, as described in the *Tivoli Monitoring User's Guide* in the Tivoli Monitoring information center.

- d. Click **OK**.
  3. Define the communications between the Tivoli Performance Analyzer and the monitoring server in the next window. The Performance Analyzer agent must be connected to a TEMS hub, not remote TEMS.



- a. Accept the protocol settings which are automatically detected and specify the required port number (default port number for IP.PIPE is 1918 and for IS.SPIPE this is 3660).
  - b. Click **OK**. The system stops the Tivoli Monitoring Services, and configures and starts the agent. Status messages inform you to wait for completion of these steps.
  - c. Click **OK** when a status message informs you that the steps are completed.
4. Configure the agent for TEP Server by filling in the following fields in Agent configuration window displayed:

- a. On the **TEP Server** tab, set your **Database Type** to either DB2 or MS SQL, provide the **Hostname**, the **Port** number, and the **Database Name**.

**Note:**

- The default port numbers for the TEPs database are 50000 for DB2 and 1433 for MS SQL Server. Oracle is not a supported database type for the **TEP Server**. Note that the default values do not change when you change the database type in the UI.
  - When TEPs uses Embedded Database (Derby) refer to “Configuring Tivoli Performance Analyzer with TEPs on Embedded Database” on page 45.
- b. Next, type the **Username** and **Password**. The entries in these fields are used to connect to the **TEP Server** database. Use one of the existing credentials authorizing you to connect to Tivoli Enterprise Portal Server and to create tables in Tivoli Enterprise Portal Server database. Confirm the password by re-typing it in the **Confirm Password** field.
  - c. Type the **Schema** where TEPs database tables were created.
  - d. In the **Agent Database Connection Type** select the preferred connection. Skip the next step if you connect using the JDBC and your database is a DB2 type.
  - e. Enter the ODBC data source name (DSN) to use to connect to TEP Server database.

**Note:**

- Tivoli Performance Analyzer does not create this DSN - it must already exist. If you are installing Performance Analyzer on the same machine where TEP Server is installed, you can use the existing data source created by Tivoli Monitoring. Otherwise, you must create a new System DSN manually, prior to re-configuring Performance Analyzer.
  - On 64-bit versions of Windows, data sources created by the default **ODBC Data Source Administrator** applet available from the **Control Panel** are not available for 32-bit applications. Therefore you must use the 32-bit version of the **ODBC Data Source Administrator** applet from `<WINDOWS>\SysWOW64\odbcad32.exe`.
- f. Specify the **JDBC Driver** and **JDBC Driver Path**. The data is used to initialize the database, so it must be provided no matter which Agent Database Connection Type was selected. The driver path should be provided as a list of jar files with the full path separated by “;”. An example of a Windows path is:

```
c:\Program Files\IBM\sql1lib\java\db2jcc.jar;c:\Program Files\IBM\sql1lib\java\db2jcc_license_cu.jar
```

**Note:**

- For compatibility with version 6.1.1 it is also possible to provide a single directory name containing all the jar files which should be used, although this solution is not recommended. Ensure that the directory does not contain the db2jcc4.jar file. Performance Analyzer only supports Java version 1.5 and requires the db2jcc.jar file. Including db2jcc4.jar in the classpath may prevent the agent from being successfully configured.
- Typical JDBC driver classes are:

**DB2** com.ibm.db2.jcc.DB2Driver

**MSSQL**  
com.microsoft.sqlserver.jdbc.SQLServerDriver

The exact class name depends on the JDBC driver that is to be used. The drivers are not provided with Performance Analyzer.

- g. When you are configuring the database for the first time, ensure that the **Initialize PA tables** field is set to Yes so that the Tivoli Performance Analyzer tables are created in the **TEP Server** database.

**Note:** The default is Yes if it is the first time that you have performed the configuration. For subsequent configurations the default is No. If you select Yes for subsequent configurations, custom content such as tasks and situations is removed and pre-defined content is reinstated.

- 5. Configure the agent for Data Warehouse by filling in the following fields in Agent configuration window displayed:

- a. Select the **Data Warehouse** tab and choose whether you use DB2, MS SQL, or Oracle as your **Database Type**.
- b. Indicate the **Agent Database Connection Type**.
- c. If you are using ODBC to connect to the warehouse, type the **Username** and **Password**. The entries in these fields are used to connect to the Tivoli Data Warehouse and are the same credentials as those used by the Tivoli Enterprise Portal Server for communication with the Summarization and Pruning Agent. Confirm the password by re-typing it in the **Confirm Password** field. Review the defaults on the **Agent ODBC DSN** tab.

**Note:** On 64-bit versions of Windows, data sources created by the default **ODBC Data Source Administrator** applet available from the **Control Panel** are not available for 32-bit applications. Therefore you must use the 32-bit version of the **ODBC Data Source Administrator** applet from `<WINDOWS>\SysWOW64\odbcad32.exe`.

- d. Type the **Schema** where WAREHOUS database tables were created.

- e. If you are using JDBC to connect to the warehouse, enter the **Hostname**, **Port**, **Database Name**, **JDBC Driver**, and **JDBC Driver Path** in addition to the information provided in step c. Default port numbers for the **Data Warehouse** are 50000 for DB2, 1521 for Oracle, and 1433 for MS SQL Server. The JDBC driver path should be provided as a list of jar files with the full path separated by ";". An example of a Windows path is:

```
c:\Program Files\IBM\sqllib\java\db2jcc.jar;c:\Program Files\IBM\sqllib\java\db2jcc_license_cu.jar
```

**Note:**

- For compatibility with version 6.1.1 it is also possible to provide a single directory name containing all the jar files which should be used, although this solution is not recommended. Ensure that the directory does not contain the db2jcc4.jar file. Performance Analyzer only supports Java version 1.5 and requires the db2jcc.jar file. Including db2jcc4.jar in the classpath may prevent the agent from being successfully configured.
- Typical JDBC driver classes are:

**DB2** com.ibm.db2.jcc.DB2Driver

**MSSQL**

com.microsoft.sqlserver.jdbc.SQLServerDriver

**Oracle** oracle.jdbc.driver.OracleDriver

The exact class name depends on the JDBC driver that is to be used. The drivers are not provided with Performance Analyzer.

- f. Click **OK**. The system continues the agent configuration. Upon completion you are returned to the **Manage Tivoli Monitoring Services** window.

## What to do next

You can now start “Configuring the historical data collection” on page 38.

## Configuring Tivoli Performance Analyzer on AIX, Linux and Solaris

Before you can use Tivoli Performance Analyzer on AIX, Linux or Solaris, it must be configured to work with Tivoli Monitoring.

### Before you begin

**Prerequisite:** Ensure that the Tivoli Enterprise Portal Server is running before you configure Tivoli Performance Analyzer.

Perform the configuration as the same user that was used when Tivoli Monitoring was installed. You can update your configuration at any time. A log file is generated for each configuration. Use this file to diagnose any problems. The file is located at:

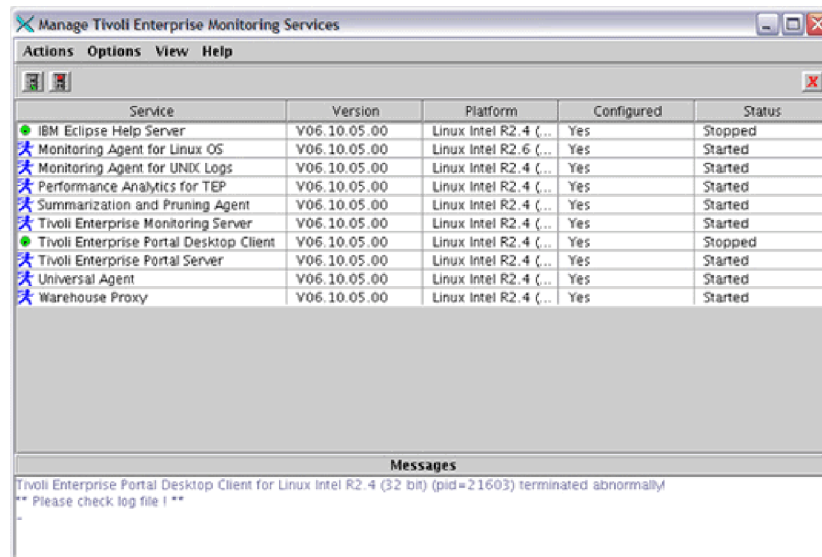
```
/opt/IBM/ITM/InstallITM/plugin/executionEvents/logs/
install_plugin_comp_pa_n
```

where *n* is a number increasing by one for each configuration.

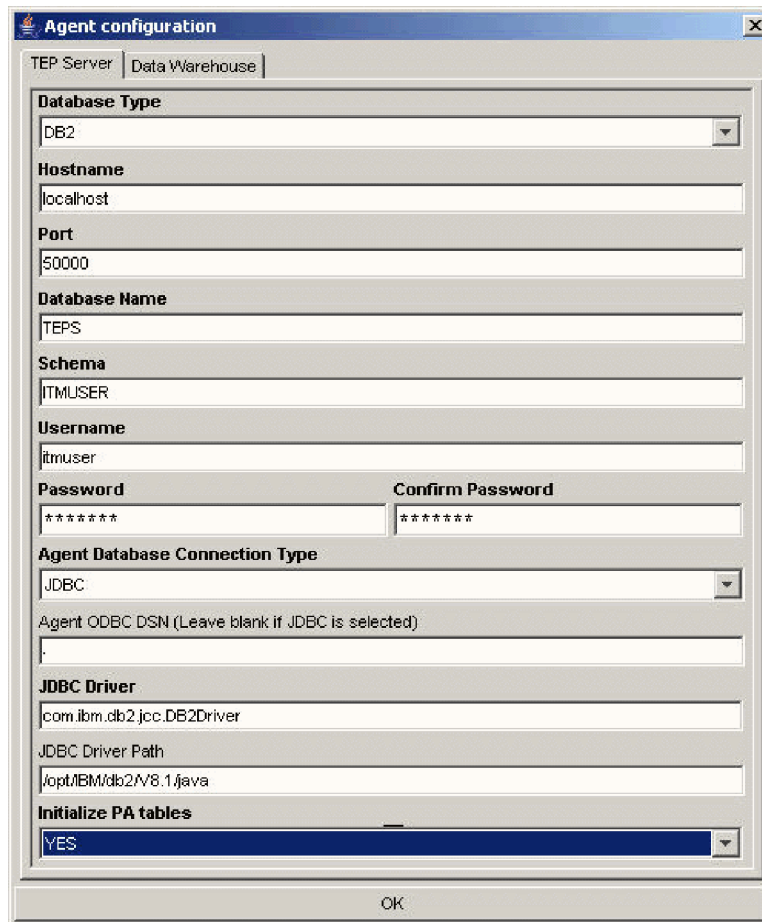
## About this task

To configure Tivoli Performance Analyzer:

1. Change directory to /opt/IBM/ITM/bin.
2. Run the command: ./itmcmd manage. The **Manage Tivoli Enterprise Monitoring Services** window is displayed.



3. Right click **Performance Analytics for TEP** and select **Configure**.
4. Configure the agent for the **TEP Server** by filling in the following fields of the Agent configuration window:



- a. On the **TEP Server** tab, type the **Username** and **Password**. The entries in these fields are used to connect to the **TEP Server** database. Use one of the existing credentials authorizing you to connect to Tivoli Enterprise Portal Server. Confirm the password by re-typing it in the **Confirm Password** field.
- b. Type the **Schema** where TEPS database tables were created.
- c. Review the defaults on the **TEP Server** tab and change as required.

**Note:** Supported database types for the TEPS database are DB2 (default port number 50000) and MSSQL (default port number 1433). When TEPS uses Embedded Database (Derby) refer to chapter “Configuring Tivoli Performance Analyzer with TEPS on Embedded Database” on page 45.

- d. Specify the **JDBC Driver** and **JDBC Driver Path**. The data is used to initialize the database, so it must be provided no matter which Agent Database Connection Type was selected. The driver path should be provided as a list of jar files with the full path separated by ":". An example of a UNIX path is:

```
/opt/IBM/db2/V8.1/java/db2jcc.jar:/opt/IBM/db2/V8.1/
java/db2jcc_license_cu.jar
```

**Note:**

- For compatibility with version 6.1.1 it is also possible to provide a single directory name containing all the jar files which should be used, although this solution is not recommended. Ensure that the directory does not contain the db2jcc4.jar file. Performance Analyzer only supports Java

version 1.5 and requires the db2jcc.jar file. Including db2jcc4.jar in the classpath may prevent the agent from being successfully configured.

- Typical JDBC driver classes are:

**DB2** com.ibm.db2.jcc.DB2Driver

**MSSQL**

com.microsoft.sqlserver.jdbc.SQLServerDriver

The exact class name depends on the JDBC driver that is to be used. The drivers are not provided with Performance Analyzer.

- e. Ensure that the **Initialize PA tables** field is set to Yes so that the Tivoli Performance Analyzer tables will be created in the **TEP Server** database.

**Note:** The default is Yes if it is the first time that you have performed the configuration. For subsequent configurations the default is No. If you select Yes for subsequent configurations, custom content such as tasks and situations is removed and replaced by pre-defined content.

5. Set the agent configuration for the **Data Warehouse** by providing the following information:

The screenshot shows the 'Agent configuration' dialog box with the 'Data Warehouse' tab selected. The fields are as follows:

- Database Type:** DB2
- Hostname:** localhost
- Port:** 50000
- Database Name:** WAREHOUS
- Schema:** ITMUSER
- Username:** itmuser
- Password:** masked with asterisks
- Confirm Password:** masked with asterisks
- Agent Database Connection Type:** JDBC
- Agent ODBC DSN:** (Leave blank if JDBC is selected)
- JDBC Driver:** com.ibm.db2.jcc.DB2Driver
- JDBC Driver Path:** jopt/IBM/db2/V8.1/java

An 'OK' button is located at the bottom center of the dialog.

- a. On the **Data Warehouse** tab, type the **Username** and **Password**. The entries in these fields are used to connect to the Tivoli Data Warehouse. Confirm the password by re-typing it in the **Confirm Password** field.
- b. Type the **Schema** where WAREHOUS database tables were created.
- c. Review the defaults on the **Data Warehouse** tab and change as required.



**Note:** Supported database types for the **Data Warehouse** are DB2 (default port number 50000), MSSQL (default port number 1433) and Oracle (default port number 1521).

- d. Specify the **JDBC Driver** and **JDBC Driver Path**. The driver path should be provided as a list of jar files with the full path separated by ":". An example of a UNIX path is:

```
/opt/IBM/db2/V8.1/java/db2jcc.jar:/opt/IBM/db2/V8.1/
java/db2jcc_license_cu.jar
```

**Note:**

- For compatibility with version 6.1.1 it is also possible to provide a single directory name containing all the jar files which should be used, although this solution is not recommended. Ensure that the directory does not contain the db2jcc4.jar file. Performance Analyzer only supports Java version 1.5 and requires the db2jcc.jar file. Including db2jcc4.jar in the classpath may prevent the agent from being successfully configured.

- Typical JDBC driver classes are:

**DB2** com.ibm.db2.jcc.DB2Driver

**MSSQL**

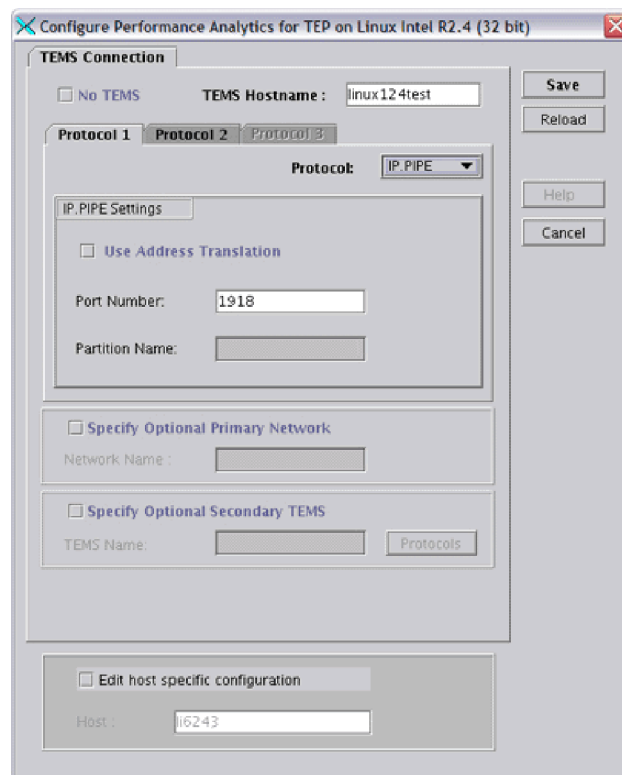
com.microsoft.sqlserver.jdbc.SQLServerDriver

**Oracle** oracle.jdbc.driver.OracleDriver

The exact class name depends on the JDBC driver that is to be used. The drivers are not provided with Performance Analyzer.

- e. Click **OK**.

6. Continue to Configure Performance Analytics for TEP. To do so:



- a. Clear the check box for **No TEMS** and type the **TEMS Hostname**.

**Note:** The Performance Analyzer agent must be connected to a TEMS hub, not remote TEMS.

- b. Select the **Protocol 1** tab and choose the required protocol you want to use to communicate with the monitoring server. You can specify two protocols, one to be the standard protocol and one to be used as a backup. Four types of protocols are available: IP.TCP, IP.PIPE (uses unsecured TCP communications), IP.SPIPE (uses SSL secure TCP communications), and SNA (uses SNA for mainframe components).
- c. Enter the settings or accept the defaults for the selected protocol and click **Save**.

**Note:** Default port number for IP.PIPE is 1918, for IP.SPIPE this is 3660.

## Results

You can now start “Configuring the historical data collection” on page 38.

## Reconfiguring Tivoli Enterprise Portal Server on Windows

After you have installed Tivoli Enterprise Portal Server Support on Windows you must reconfigure the Tivoli Enterprise Portal Server.

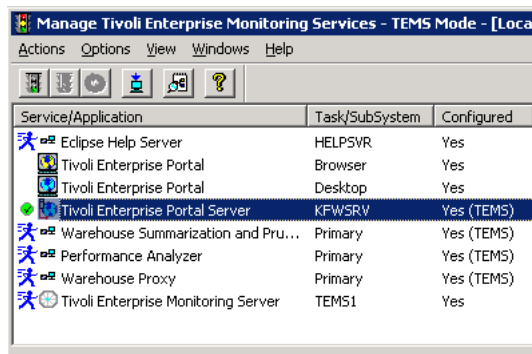
### Before you begin

You can reconfigure Tivoli Enterprise Portal Server after you have completed the installation of TEPS Support (described in “Installing TEPS Support on Windows” on page 16) using **Manage Tivoli Enterprise Monitoring Services**.

### About this task

To reconfigure the Tivoli Enterprise Portal Server using **Manage Tivoli Enterprise Monitoring Services**:

1. Select **Start** → **Programs** → **IBM Tivoli Monitoring** → **Manage Tivoli Enterprise Monitoring Services**.
2. Select **Tivoli Enterprise Portal Server**.



3. Right click **Tivoli Enterprise Portal Server** and select **Reconfigure**.
4. In the **Reconfigure** dialog box, click **OK** for all windows (no changes are required).
5. Start Tivoli Enterprise Portal Server. (It is stopped after reconfiguration.)

## Results

You can now start and log into the Tivoli Enterprise Portal desktop client and work with Tivoli Performance Analyzer.

## Reconfiguring the Tivoli Enterprise Portal Server on AIX, Linux, and Solaris systems

After you have installed Tivoli Enterprise Portal Server Support on Linux or UNIX you must reconfigure the Tivoli Enterprise Portal Server.

### Before you begin

This procedure refers to the example deployment described in “Confirm you installed the required components of Tivoli Monitoring and that they are correctly configured” on page 2.

You can reconfigure Tivoli Enterprise Portal Server after you have completed the installation of TEPS Support (described in “Installing TEPS Support on AIX and Linux” on page 18) using the command line or **Manage Tivoli Enterprise Monitoring Services**.

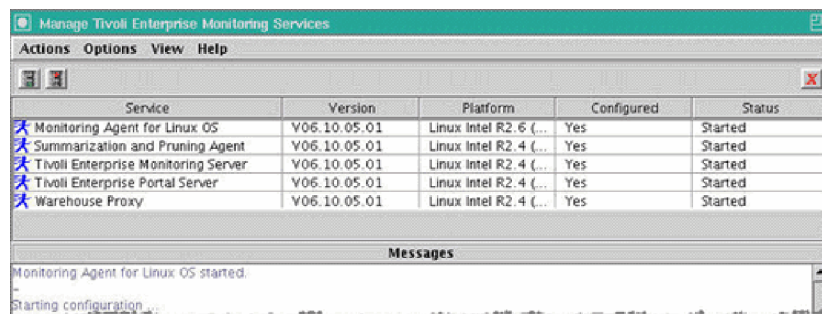
To reconfigure Tivoli Enterprise Portal Server from the command line:

1. Run the following command on the workstation which has the Tivoli Enterprise Portal Server installed (Machine 1): `./itmcmd config -A cq`.
2. (Linux only) Run the following command on the workstation which has the Tivoli Enterprise Portal desktop client installed (Machine 2): `./itmcmd config -A cj`.

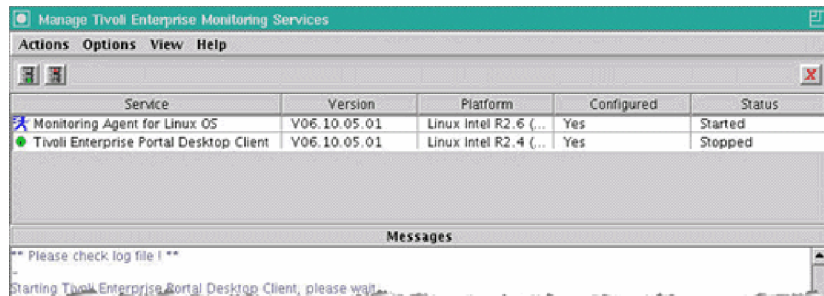
### About this task

To reconfigure the Tivoli Enterprise Portal Server using **Manage Tivoli Enterprise Monitoring Services**:

1. Open the **Manage Tivoli Enterprise Monitoring Services** window on the machine which has the Tivoli Enterprise Portal Server installed (Machine 1).



2. Right click **Tivoli Enterprise Portal Server** and select **Configure**.
3. In the **Configure** dialog box, select **Save** (no changes are required).
4. (Linux only) Open the **Manage Tivoli Enterprise Monitoring Services** window on the workstation which has the Tivoli Enterprise Portal desktop client installed (Machine 2).



5. Right click **Tivoli Enterprise Portal Desktop Client** and select **Configure**.
6. In the **Configure** dialog box, select **Save** (no changes are required).

## Results

You can now start and log into the Tivoli Enterprise Portal desktop client and work with Tivoli Performance Analyzer.

## Adding application support to the TEMS on AIX, Linux or Solaris

After you have installed TEMS Support to AIX, Linux or Solaris, you must add application support.

### Before you begin

You can add application support from the command line or from the **Manage Tivoli Enterprise Monitoring Services** window.

To add application support from the command line, run the command: `./itmcmd support -t <temsname> pa.`

### About this task

To add application support using the **Manage Tivoli Enterprise Monitoring Services** window:

1. Right click Tivoli Enterprise Monitoring Server in the **Manage Tivoli Enterprise Monitoring Services** window.
2. Select **Install Product Support** → **Advanced** and then select **Performance Analytics for TEP**.

## Configuring the historical data collection

In order to track historical performance and do trend analysis, you must configure the Performance Analyzer warehouse agent, the Windows, Linux, and UNIX operating system agents, and the DB2, Oracle, System pSeries®, and ITCAM for RT agents to retain and summarize data samples in historical data files. Otherwise, no historical data is saved for the domain views and reports to display.

### Before you begin

#### Prerequisites:

- Install and configure the appropriate Tivoli Monitoring agents.
- Install and configure the summarization and pruning agent together with warehouse proxy agent for Tivoli Monitoring.

- Install the support for the required domains.

Historical data files roll over to the Tivoli Data Warehouse. Historical data collection is explained in more detail in the *Tivoli Monitoring User's Guide*, in the Tivoli Monitoring information center.

1. Start Tivoli Enterprise Portal.
2. In the portal toolbar, click **History Configuration**. The History Collection Configuration window opens.
3. Then, to obtain the calculation data, configure the historical data collection for each of your operating system agents, and for your domains by referring to the Table 3 table, which shows which attribute groups you will change next:

Table 3. Attribute groups that must be configured

| Product           |            | Attribute groups                                                                                                                                                                                                                                                       |
|-------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating systems | Windows OS | <ul style="list-style-type: none"> <li>• Network Interface (Superseded)</li> <li>• Logical Disk</li> <li>• Memory (Superseded)</li> <li>• Processor</li> <li>• System</li> </ul>                                                                                       |
|                   | Linux      | <ul style="list-style-type: none"> <li>• Linux CPU Averages (Superseded)</li> <li>• Linux Disk (Superseded)</li> <li>• Linux Network (Superseded)</li> <li>• Linux System Statistics (Superseded)</li> <li>• Linux VM Stats (Superseded)</li> </ul>                    |
|                   | UNIX OS    | <ul style="list-style-type: none"> <li>• Disk</li> <li>• Network</li> <li>• System</li> </ul>                                                                                                                                                                          |
| DB2               |            | <ul style="list-style-type: none"> <li>• Database</li> <li>• System Overview</li> <li>• Tablespace</li> </ul>                                                                                                                                                          |
| Oracle            |            | <ul style="list-style-type: none"> <li>• Oracle Cache Totals</li> <li>• Oracle Database</li> <li>• Oracle Library Cache Usage</li> <li>• Oracle Server</li> <li>• Oracle Session Summary</li> <li>• Oracle Statistics Summary</li> <li>• Oracle Tablespaces</li> </ul> |

Table 3. Attribute groups that must be configured (continued)

| Product         | Attribute groups                                                                                                                                                                                                                  |                                                                        |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| ITCAM for RT    | Client response time                                                                                                                                                                                                              | • CRT Transaction Over Time                                            |
|                 | Robotic response time                                                                                                                                                                                                             | • RRT Transaction Over Time                                            |
|                 | Web response time                                                                                                                                                                                                                 | • WRT Transaction Over Time                                            |
| System p Series | VOIS Premium                                                                                                                                                                                                                      | • KVA LOGICAL PARTITION<br>• KVA DISKS<br>• KVA NETWORK ADAPTERS RATES |
|                 | AIX Premium                                                                                                                                                                                                                       | • KPX LOGICAL PARTITION                                                |
| VMware          | <ul style="list-style-type: none"> <li>• KVM SERVER</li> <li>• KVM SERVER DATASTORE</li> <li>• KVM SERVER NETWORK</li> <li>• KVM VM CPU</li> <li>• KVM VM PARTITION</li> <li>• KVM VM NETWORK</li> <li>• KVM VM MEMORY</li> </ul> |                                                                        |

For each agent, do the following steps:

- a. In the navigation pane, right-click the product whose agent you want to configure, and select **Create new collection settings**. The **Create New Collection Settings** window opens.
  - b. Select an attribute group for that agent, as listed in Table 3 on page 39, and click **OK**.
  - c. In the **Basic** tab, specify the following settings:
    - In the **Collection Interval** field, set the polling interval, for example to **1 hour**.
    - In the **Warehouse Interval** field, set the frequency at which data is written to the database.
  - d. In the **Distribution** tab, specify for which nodes the data should be collected and click **OK**.
  - e. Select the product again, and set its **Summarization** interval to at least **Hourly** and **Daily**. You can also select additional summarization intervals.
  - f. Set the **Pruning** interval to what is most appropriate for your system, and click **OK**.
  - g. Repeat the preceding steps for each agent support agent in your environment. Use collection, summarization, and pruning values that are appropriate to your system. You have now completed configuring the support agents for your environment.
4. Next, configure the historical data collection for Performance Analyzer Warehouse Agent to enable trend calculation visualization on the workspaces and reports:
    - a. In the navigation pane, click Performance Analyzer Warehouse Agent.
    - b. Select the first attribute group for the agent.
    - c. In the **Basic** tab, specify the following settings:

- In the **Collection Interval** field, set the polling interval to **1 day**.
  - In the **Warehouse Interval** field, set the interval to **1 day**.
- d. In the **Distribution** tab, start collection for the **AFF\_PERF\_ANALYZER\_WHSE\_AGENT** group.
  - e. Repeat steps c and d for all attribute groups.
  - f. Select the Performance Analyzer Warehouse Agent application and set **Pruning** for detailed data for all attribute groups to **1 day**.
  - g. Finally, click **Close** when you have completed configuring the historical data collection for the agents.

**Note:**

- a. The out-of-the-box OS domain uses 32-bit attribute groups only – the metrics used in this domain are expressed in units that never exceed maximum value available for 32-bit numbers. There is no additional value in switching OS domain tasks, workspaces and reports to use 64-bit attribute groups.
- b. Instead of using History Collection Configuration dialog in TEP to set up warehousing and pruning of Tivoli Performance Analyzer attribute groups (step 4 above), it is possible to achieve the same with tacmd command. Sample scripts to automate this task can be found in `histcol` subdirectory of `domains` directory located in Tivoli Performance Analyzer installation image. Run `histcol.cmd` or `histcol.sh` scripts to get the usage instruction.

---

## Upgrading from previous versions of Tivoli Performance Analyzer

Perform the upgrading procedure if you are running previous version of Tivoli Performance Analyzer and are planning to extend the analytic capabilities for your systems.

### About this task

For the software upgrade from a previous released version, follow the typical installing procedure without uninstalling its previous versions. If you want to upgrade from a beta version, you will need to uninstall it before installing the new version.

**Note:** During installation, previously installed out-of-the-box content will be overwritten. All changes made by the user to that content will be lost.

**Important:** Tivoli Enterprise Portal must not be running during the upgrade.

### What to do next

After upgrading you will need to run the Domains Activation Tool to upgrade the previously installed domains. For more information about this task see “Installing the support for the DB2, Oracle, System p Series, ITCAM for RT, and VMware domains” on page 22

---

## Starting Tivoli Performance Analyzer and verifying its installation

Tivoli Performance Analyzer is integrated into the Tivoli Enterprise Portal.

## Before you begin

You need to configure Performance Analyzer before starting the Tivoli Enterprise Portal. For a detailed description of the configuration procedures, see the “Configuring Tivoli Performance Analyzer” on page 26 section.

## About this task

Depending on your installation, you can either use a desktop or browser of the Tivoli Enterprise Portal client. The desktop client is not supported on UNIX systems.

To start the Tivoli Enterprise Portal desktop client on Windows:

1. Select **Start** → **Programs** → **IBM Tivoli Monitoring** → **Tivoli Enterprise Portal**. Alternatively, if you created a desktop icon, click the icon. The **Logon** window is displayed.
2. Enter your user name and password and click **OK**.

To start the desktop client on Solaris or Linux:

1. From the command shell type `./itmcmd start cj` to start the Tivoli Enterprise Portal.
2. Enter your user name and password and click **OK**.

To start the browser client:

1. In the **Address** field in Internet Explorer, enter the IP address of Tivoli Enterprise Portal Server suffixed with port 1920, for example, `http://192.168.60.22:1920`.
2. In the IBM Tivoli Monitoring Service Index list, select **IBM Tivoli Enterprise Portal Web Client**.
3. When prompted, confirm you trust the applet distributed by IBM, click **Yes**.
4. Enter your user name and password and click **OK**.

## Results

The Tivoli Performance Analyzer application is indicated in the toolbar of the

Tivoli Enterprise Portal by the icon . To verify that Tivoli Performance Analyzer has been installed, check that the icon appears in the toolbar, and that the Performance Analyzer configuration tool starts when you click it. To ensure that there were no errors during the installation, open the Performance Analyzer Agent Statistics workspace in Tivoli Enterprise Portal.

---

## Uninstalling Tivoli Performance Analyzer

You can remove the Tivoli Performance Analyzer application without affecting the Tivoli Monitoring system.

## About this task

To uninstall Tivoli Performance Analyzer:

- On Windows:
  1. Drop the Performance Analyzer tables.
    - a. Open the system command prompt console.



- b. Change the current working directory to the following ITM agent directory:
 

```
<itm_installdir>\tmaitm6
```
- c. Issue the following command:
 

```
<itm_installdir>\java\java50\jre\bin\java -cp paconf.jar;kjrall.jar;
 <DB_driver_path> com.ibm.tivoli.pa.config.PAConfigMain -destroyDB
```
2. Select **Start** → **Settings** → **Control Panel** → **Add and Remove Programs**.
3. Navigate to **IBM Tivoli Monitoring** and click **Change**.
4. Select the Tivoli Performance Analyzer components from the list.
5. On the **Welcome** window of the Tivoli Monitoring installation wizard, select **Modify** and click **Next**.
6. On the **Add or Remove Features** window, expand the options, deselect **Performance Analyzer Support** and click **Next**.
7. Follow the prompts to complete the uninstall process and click **Finish**.
8. Restart the computer.
- On AIX, Linux or Solaris:
  1. Drop the Performance Analyzer tables.
    - a. Open a shell console.
    - b. Change the current working directory to the following ITM agent directory:
 

```
<itm_installdir>/<arch>/pa/bin
```
    - c. Issue the following command:
 

```
<itm_installdir>/JRE/<arch>/bin/java -cp paconf.jar:
 <itm_installdir>/classes/kjrall.jar:<DB_driver_path>
 com.ibm.tivoli.pa.config.PAConfigMain -destroyDB
```
  2. From a command shell, type `cd /opt/IBM/ITM/bin` to change to the appropriate directory.
  3. Type the command `./uninstall.sh`. A list of products is displayed.
  4. Type the number corresponding to Tivoli Performance Analyzer.
  5. Restart the computer.

**Note:** If you have a distributed installation, ensure that you also uninstall Tivoli Enterprise Portal Desktop Client and Tivoli Enterprise Portal Desktop Client Support from the remote machines.

## Removing Tivoli Performance Analyzer from Tivoli Enterprise Portal

### About this task

On all platforms, uninstalling Tivoli Performance Analyzer deactivates it, but does not remove it from the Tivoli Enterprise Portal. You must do this manually.

To remove Tivoli Performance Analyzer:

1. In the Tivoli Enterprise Portal, select **Enterprise** in the navigator.
2. Right click on **Enterprise** and select **Workspace** → **Managed System Status**.
3. In the **Managed System Status** view, right click Tivoli Performance Analyzer (PA) which has a status of **Offline** and select **Clear offline entry**. The application is removed from the Tivoli Enterprise Portal.
4. Click **Refresh** to update the Tivoli Enterprise Portal display.

---

## Moving the Tivoli Performance Analyzer configuration database

In some situations you may want to move the TEPS database to a different computer or RDBMS. The migration procedure described in TEPS manuals does not cover Performance Analyzer configuration data, so you need to migrate it in a specific way.

1. On Windows systems, perform the following actions:
  - a. Go to the sever where the Performance Analyzer agent was installed and change the current working directory to the Performance Analyzer agent directory:

```
<itm_installdir>\tmaitm6
```

- b. Issue the following command to export the configuration data:

```
<itm_installdir>\java\java5\jre\bin\java -cp paconf.jar;kjrall.jar;
<DB_driver_path> com.ibm.tivoli.pa.config.PAConfigMain -export
```

For example, the command might look like this:

```
C:\ibm\itm\java\java5\jre\bin\java -cp paconf.jar;kjrall.jar;c:\jdbc\mssql\
sqljdbc.jar com.ibm.tivoli.pa.config.PAConfigMain -export
```

If the command succeeds, the file `kpa_tasks.sql` is created in the current directory, otherwise error messages are displayed. The `kpa_tasks.sql` file contains the complete Performance Analyzer task data.

- c. Reconfigure the Performance Analyzer agent to use the new TEPS database.
    - d. Issue the following command to create Performance Analyzer tables in a new database:

```
<itm_installdir>\java\java5\jre\bin\java -cp paconf.jar;kjrall.jar;
<DB_driver_path> com.ibm.tivoli.pa.config.PAConfigMain -cleanInitDB
```

- e. Issue the following command to import previously exported data:

```
<itm_installdir>\java\java5\jre\bin\java -cp paconf.jar;kjrall.jar;
<DB_driver_path> com.ibm.tivoli.pa.config.PAConfigMain -execSQL
kpa_tasks.sql
```

2. On UNIX and Linux systems, perform the following actions:

- a. Go to the sever where the Performance Analyzer agent was installed and change the current working directory to the Performance Analyzer agent directory:

```
<itm_installdir>/<arch>/pa/bin
```

- b. Issue the following command to export the configuration data:

```
<itm_installdir>/JRE/<arch>/bin/java -cp paconf.jar:../.././
classes/kjrall.jar:<DB_driver_path> com.ibm.tivoli.pa.config.PAConfigMain
-export
```

For example, the command might look like this:

```
/opt/IBM/ITM/JRE/aix523/bin/java -cp paconf.jar:../.././classes/
kjrall.jar:/opt/jdbc/db2jcc.jar:/opt/jdbc/db2jcc_license_cu.jar
com.ibm.tivoli.pa.config.PAConfigMain -export
```

If the command succeeds, the file `kpa_tasks.sql` is created in the current directory, otherwise error messages are displayed. The `kpa_tasks.sql` file contains the complete Performance Analyzer task data.

- c. Reconfigure the Performance Analyzer agent to use the new TEPS database.
      - d. Issue the following command to create Performance Analyzer tables in a new database:

```
<itm_installdir>/JRE/<arch>/bin/java -cp paconf.jar:../../classes/
kjrall.jar:<DB driver path> com.ibm.tivoli.pa.config.PAConfigMain
-cleanInitDB
```

- e. Issue the following command to import previously exported data:

```
<itm_installdir>/JRE/<arch>/bin/java -cp paconf.jar:../../classes/
kjrall.jar:<DB driver path> com.ibm.tivoli.pa.config.PAConfigMain
-execSQL kpa_tasks.sql
```

---

## Configuring Tivoli Performance Analyzer with TEPS on Embedded Database

Tivoli Performance Analyzer creates configuration tables in TEPS database by default. However, when Embedded Database is used as TEPS database, it is possible to set up Tivoli Performance Analyzer schema in Tivoli Data Warehouse.

### Before you begin

This procedure cannot be performed when Tivoli Data Warehouse is set up on Oracle.

### About this task

To configure Tivoli Performance Analyzer:

1. From Manage Tivoli Monitoring Services window, right click **Performance Analyzer**, and select **Reconfigure**.
  - a. On the TEP Server tab, enter the configuration details for Tivoli Data Warehouse. Leave **Schema** value as default.
  - b. Ensure that database user specified in **Username** has privilege to create tables in Tivoli Data Warehouse.
  - c. Ensure that **Initialize PA tables** is set to **Yes**, so that the Tivoli Performance Analyzer tables are created in the database.
  - d. Click **OK**.

The system continues to configure the agent. Upon completion you are returned to the Manage Tivoli Monitoring Services window.

2. Configure settings for Performance Analyzer configuration GUI:
  - on Windows:
    - a. Edit the `<itm_installdir>\CNPS\sqllib\kpa_generic_kcj.sql` file.
    - b. Replace `$KFW_DSN` with `$KFW_WH`.
    - c. Save the file.
    - d. Issue the following command:

```
<itm_installdir>\CNPS\InstallPresentation.bat kpa_generic
```
  - on AIX, Linux, and Solaris:
    - a. Edit the `<itm_installdir>/<arch>/cq/sqllib/kpa_generic_kcj.sql` file.
    - b. Replace `$KFW_DSN` with `$KFW_WH`.
    - c. Save the file.
    - d. Issue the following command:

```
<itm_installdir>/bin/itmcmd execute cq InstallPresentation.sh kpa_generic
```
3. When installing Tivoli Common Reporting you will need to configure TEPS data source with Tivoli Data Warehouse. If you have already installed the reports, right-click a report from VMware domain and select **Data Sources...** →

**TEPS data source** and reconfigure it to point to your Tivoli Data Warehouse. If no VMware domain reports have been installed, nothing has to be reconfigured.

4. Verify that the task succeeded:
  - a. In Tivoli Enterprise Portal, select the Performance Analyzer Warehouse Agent node in the Navigator pane. Performance Agent Analyzer Statistics window opens.
  - b. In DB Configuration section, verify that **TEPSDB** connection points to **TDW** and its state is **OK**.
  - c. Open Performance Analyzer Configuration window by clicking **Edit** → **Performance Analyzer Configuration**.
  - d. Verify that the tasks on the left pane are loaded.
  - e. If the tasks are not loaded, repeat step 2 on page 45.
  - f. If VMware domain reports have been installed, in Tivoli Common Reporting, display any report from VMware domain and drill down to details. Verify that the chart is displayed and that thresholds are shown.

---

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