Installing DB2 tier collectors

This section includes the following topics:

- Pre-installation tasks
- Installing a DB2 Tier instance
- Post-installation action items

With DB2, you can perform long-term analysis of resource consumption by SQL statements, users, and programs; tune SQL statements and the access path of database objects; generate SQL statement alternatives; simulate database changes for impact analysis; and recommend indexes.

Pre-installation tasks

Most of the screens for this installation require you to input details regarding your information systems. Before performing this installation, compile a list of all required user inputs based on the screen names and tables below. Each table (in the sections below) lists the options per screen.

Before installing a DB2 Tier instance, verify that you have performed the following tasks:

- Use the Precise Framework Installer to install framework components
- If you intend to install SAP Interpoints, install the SAP Remote Function Call (RFC) client on the server that the DB2 Tier Collector is installed on. Verify that the RFC functions STUM_WP_SERVER_ACTIVITY and TH_SERVER_LIST are enabled in your application. Define an additional working process within SAP to be used by the SAP Interpoints. This additional process will help avoid a queue of working processes that may be caused by an RFC call that SAP Interpoint executes through a specially allocated SAP working process. Create an SAP user account that the SAP extension will use to access the system. If you install Precise for SAP, you can use the same user as is used by Precise for SAP.
  For more details on the required authorizations, see Pre-installation tasks on page 26.
- If you intend to associate Precise for Storage with the installed instance, verify that the Precise Listener's OS user is part of the db2adm OS group.
- When monitoring DB2 on HP, verify that the database default charset isn't roman8 (CP1051).
- Verify that a JDBC connection from the DB2 FocalPoint to the monitored instance server is enabled.
  This means that the DBA needs to configure the DB2 Listener port, otherwise only local connections will be enabled.
- Close the Services window in the Control Panel if you are installing on a Windows server.
- Verify that your DB2 version is minimum version 8.2. Precise for DB2 supports all fix packs of DB2 version 8.2.

Installing a DB2 Tier instance

This section describes the procedures that are needed to install a DB2 Tier instance. You have the option of adding a new instance, as well as adding a new application. For information on editing or removing an existing instance, see Editing or removing Tier instances or clusters on page 200.

Internationalization

- If the DB2 database uses a Chinese code page, replace the `charsets.jar` file under `<precise_root>`/java/JRE/lib/ with the one provided by IBM. If this file is not replaced, installation may fail, and the following message will appear: "`[IBM][CLI Driver] SQL0332N "SQL error while Connecting to local DB.""`
- PMDB encoding should be UTF-8.

Adding a DB2 Tier instance

On the AdminPoint Instances screen, you can add a new Tier instance.

> ⓘ Before adding a Tier instance, create a list of all required inputs based on the screen information below.

> ⓘ When starting the DB2 database Collector, the following four monitor switches are automatically activated:
>
> - SQLM_LOCK_SW - Lock information
> - SQLM_STATEMENT_SW - Statement information
> - SQLM_BUFFER_POOL_SW - Buffer Pool information
> - SQLM_SORT_SW - Sort information
>
> They are automatically deactivated when the DB2 database Collector goes down.

To add a Tier instance

1. From StartPoint, click the AdminPoint tab.
2. Click the Setup tab.
3. From the drop-down menu, select **Instances & Clusters**.
4. Click the **All instances** tree item
5. At the bottom of the Display Instances & Clusters screen, click **Add Instance**. An Add New Instance dialog box appears.
6. Select the required technology from the list.

7. Select the application from the list.
   If the desired application is not on the list, follow steps a-d:
   a. Click **Add**.
   b. In the Application Name field, type in the new application name.
   c. On the Application System field, select the system application from the list.
   d. Click **OK**.

   > ℹ️ To install an instance in an application, you must have `ADMINISTRATE.INSTALL` permission for the application in which you want to install the instance. If you only have permission for a specific technology, you will only be able to install in an application that is either empty, or is comprised of only the same technology.

8. Select a Tier from the list.
9. Click **OK** to view the next screen.

   > ℹ️ Always refresh AdminPoint after adding an instance.

Defining DB2 property settings

To enter DB2 Tier property settings

1. Click the drop-down menu and select the server with the DB2 instance.
   This is the name or IP address of the server where you want to install the DB2 Tier Collector. If you want to delete the server, you have to delete the dependent instances first before you are allowed to remove the server.
2. Click **Add** to enter the name of a server not on the list. For more information, see see Adding a new server.

   > ℹ️ If the DB2 instance is running on a Windows server, only one Precise agent can be installed for each database of the instance on the server. Installing additional agents for a database will cause both agents to shut down.

3. Click the drop-down menu and select the DB2 instance to be monitored from the list.
   This is the name of the DB2 instance you want to monitor. The list includes all instances that were detected in the chosen server.
4. Enter the TCP/IP Service port.
   The TCP/IP port number to be used by DB2 to connect to the instance. This is the value returned by db2 get dbm cfg in the SVCENAME field (If this value is not numeric use the port used by the service which appears in SVCENAME).
   To find the not numeric value, look for the service name in the services file in the following location:
   - **UNIX**
     ```
     ./etc/services
     ```
   - **Windows**
     ```
     <Windows system directory>\drivers\etc\services
     ```
5. Click the drop-down menu and select the database to be used.
   The DB2 database you want to monitor. The list includes all local DB2 databases in the selected DB2 instance. You can enter a database that does not appear in the list, but this DB2 database must be cataloged as a local database in the specified DB2 instance.
6. Click the drop-down menu and select the DB2 partition number.
   The drop-down list contains all the DB2 instance's partition located on the chosen server. For Enterprise Extended Edition (EEE), select the DB2 partition number to be monitored. In an Enterprise Edition (EE) application, the DB2 partition number should be 0 (zero).
7. Enter the name of the DB2 user. This user must have the following privileges:
   - For monitoring purposes: DBADM and SYSMON privileges or the SYSADM privilege.
   - For installing the Precise schema: It is possible to use an existing or to create a new tablespace. For creating a new tablespace, the Precise user must also have the SYSCTRL privilege in addition to the DBADM and SYSMON privileges.
8. Enter the password for the DB2 user.
9. Click **Next**.

About the AdminPoint Tier installation preview screen

The preview screen signifies that the AdminPoint Tier installer has gathered enough information to begin the installation phase.

The preview screen displays the following details before installation begins:

- Server name or IP address
- The name of the monitored server
- What actions will be performed in their respective order
- Installation folder (location)
- Required disk space
- Currently available disk space

At this screen, you can still change any of the settings displayed. Click **Back** to change any of the displayed settings. Click **Next** to continue installation. Click **Cancel** to stop the installation process.

About the AdminPoint Tier installation progress screen

This screen appears when the AdminPoint Tier installer is actually performing installation. Installation may take several minutes.

The progress screen visually displays the progress of actual installation on selected servers.

About the AdminPoint Tier installation complete screen

This screen appears when the AdminPoint Tier Installer has completed installation of all Tier instances.

If there are no action items, click **Finish** (it will be the only option available) to complete the instance installation. If there are action items, click **Next** (it will be the only option available).

About the AdminPoint Tier Action Items screen

After a Tier instance is installed, you must perform post-installation tasks as may be required. Only after completing any post-installation tasks required can you start using the Tier instances you have just installed.

Perform any tasks displayed on this screen. Click **Execute** for Precise to perform the action items. Click **Mark as done** if you have performed the action items yourself.

Post-installation action items

When the DB2 Tier is installed, post-installation tasks may be required. Follow any instructions that might appear on the Action Items screen.

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