Hewlett Packard
Enterprise

HPE Application Performance Management

Software Version: 9.30

Dynamic Partitioning Tool - Best Practices

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Chapter 1: Overview

As a APM administrator, use the APM Partition Manager's Dynamic Partitioning Tool to maintain an optimal partitioning policy in the profile databases.

You run the Dynamic Partitioning Tool against your APM profile database to create partitioning configuration recommendations.

Before using the Dynamic Partitioning Tool, read the following carefully:

- **Database statistics** – The Dynamic Partitioning Tool depends on updated database statistics in the profile database. If necessary, update the database statistics in the profile database before using the tool. If the database statistics are not updated, the tool may create incorrect recommendations.
- **Ongoing tool execution** – It is recommended to run the Dynamic Partitioning Tool once a month to validate that the current partitioning configuration is relevant for the current profile database condition.
- **Lack of data** – Do not use this tool immediately after installing a profile database since a lack of data in the profile database may result in inaccurate recommendations.

Chapter 2: Running the Dynamic Partitioning Tool

The Dynamic Partitioning Tool is located in the **<HPE APM>\tools\dynamic_partitioning** folder.

To run the Dynamic Partitioning Tool, you need to create a connection to the:

- Management database (see "Connecting to the Management Database" below)
- Profile database (see "Connecting to the Profile Database" on the next page)

Connecting to the Management Database

1. Open the Dynamic Partitioning Tool:
   - In Windows, go to the Dynamic Partitioning Tool root folder and click **dynamic_partitioning.bat**
   - In Linux, go to the Dynamic Partitioning Tool root folder and click **dynamic_partitioning.sh**

2. In the Management Connection properties area, provide the following information:

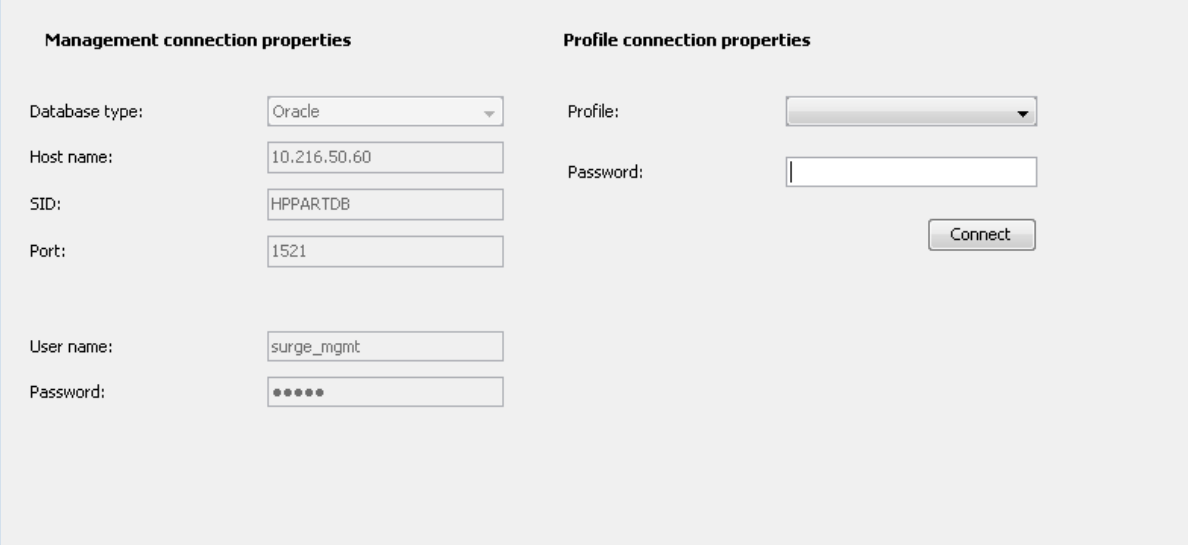
Parameter	Description
Database type	For an oracle database, select **Oracle**. For an SQL Server database, select **SQL Server**.
Host name	The host name of the database.
SID	For an Oracle database, the Service Name Identifier of the database.
Database Name	For an SQL Server database, database identifier.
Port	The port number of the database.
Connect using	For an SQL Server only. Select **Windows authentication** or **SQL Server authentication**.
User name	The user name of the database. **Note:** For an SQL Server, if you connect using Windows authentication you do not need to provide a user name.
Password	The password of the database **Note:** For an SQL Server, if you connect using Windows authentication you do not need to provide a password.

3. Click **Connect** to establish a connection to the management database.

Connecting to the Profile Database

After connecting to the Management database, choose the profile database to analyze.

1. From the **Profile** drop-down list, select the profile database to analyze.



2. In the **Password** field, enter the profile database password.
3. Click **Connect** to establish a connection to the Profile database.

Configuration Parameters

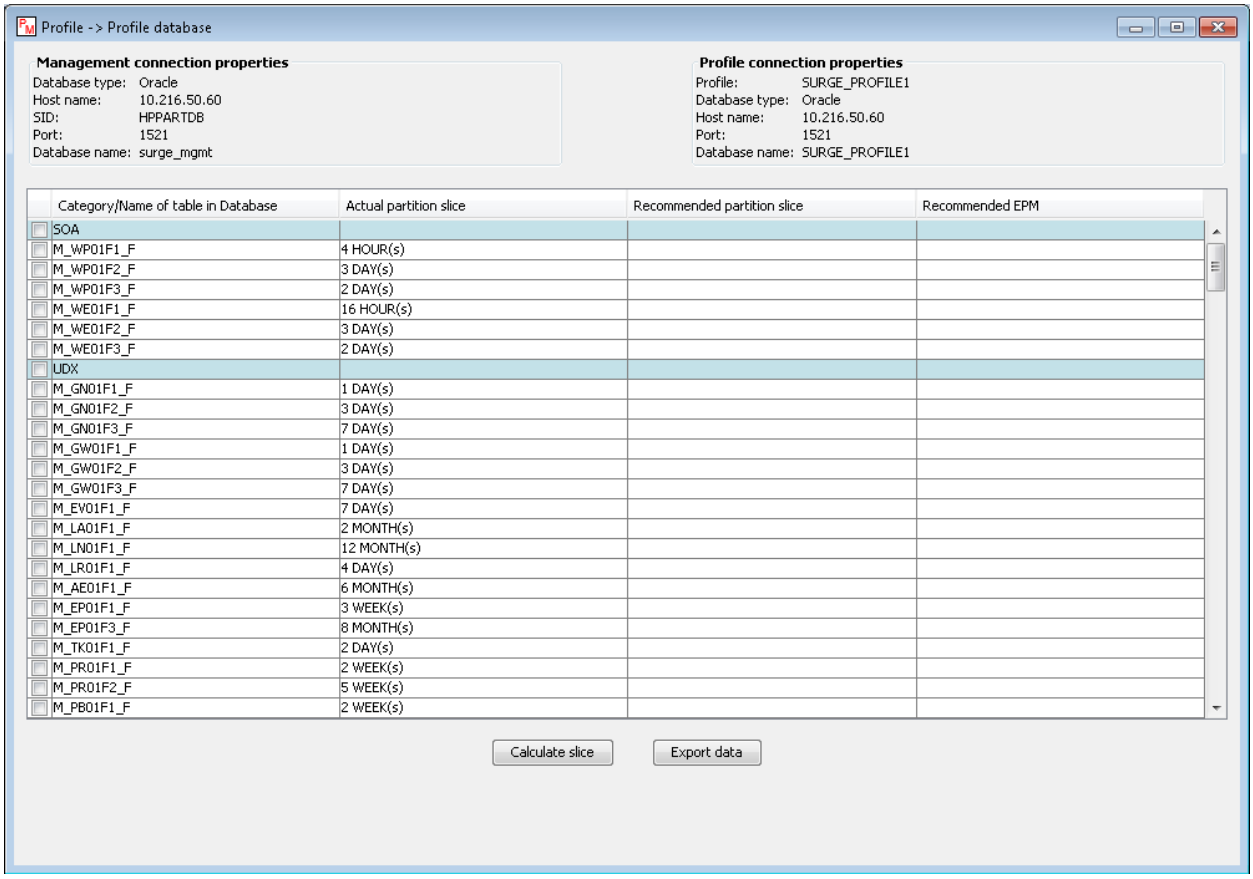
The configuration parameters are in the **configuration.properties** file which is located in the **config** directory. These parameters are read when the Dynamic Partitioning Tool starts. If you modify these parameters, you must restart the Dynamic Partitioning Tool.

The following table summarizes the parameters which can be configured:

Parameter	Description
query.timeout	The number of seconds the driver waits for a query to execute. Zero means there is no limit. Default value: 120
login.timeout	The maximum time in seconds that a driver waits while attempting to connect to a database. Zero means there is no limit. Default value: 20
partition.rows	The optimal partition size. Default value: 1000000
epm.max	The EPM (Events per Minute) high value threshold. Default value: 8800
logger.Level	Defines the minimum set of levels recognized by the system. Possible values are: OFF, FATAL, ERROR, WARN, INFO, DEBUG, and ALL Default value: INFO

Calculating Recommended Partition Slice

After connecting to the Profile database, the following screen appears displaying the Partition Manager related tables:



This screen displays the following information:

- **Category/Name of table in database** – Displays the table category and the name of the tables in that category. Table categories are highlighted with blue background.
- **Actual partition slice** – Displays the current partitioning policy for each table.
- **Recommended partition slice** – Displays the recommended partitioning policy for each table. This column is completed during the calculation process.
- **Recommended EPM** – Displays the EPM. The EPM determines the size of each partition. This column is completed during the calculation process.

To calculate the recommended partition slice:

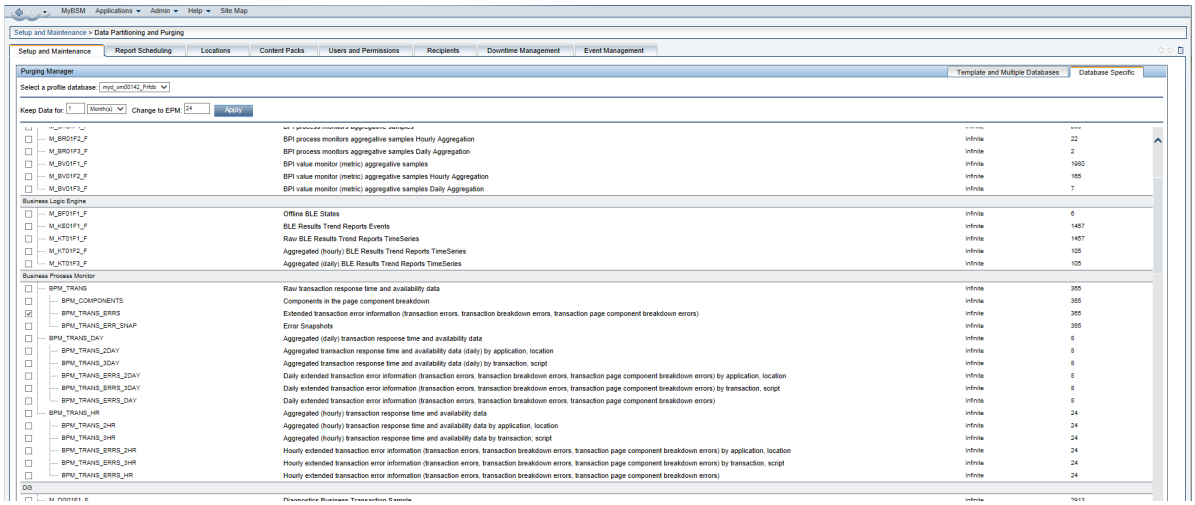
1. Select the tables to analyze. You can select an entire category or a single table.
2. Click **Calculate slice**. A progress bar shows the calculation progress.

   If no statistics are found, the table cannot be analyzed. A *no statistics* message appears in the **Recommended partition slice** and **Recommended EPM** columns.
3. To export the calculation results and actual partition size to a PDF file, click **Export data**. The generated PDF report is saved in the **Reports** directory, which is located under the installation root directory.

Chapter 3: Applying Recommendations to APM Configuration

To apply the partition recommendation to the APM configuration:

1. Click **APM > Admin > Platform > Setup and Maintenance > Data Partitioning and Purging**.



2. Click the **Database Specific** tab.
3. From the **Select a profile database** drop-down list, select the required profile database.
4. In the list of tables, select the modified tables.
5. In the **Change to EPM** field, enter the recommended EPM value.

   Note: Make sure the **Keep Data for** field matches the existing purging policy for the modified samples. Modifying this value might result in historical data loss.

6. Click **Apply**. The new configuration becomes active when the current active partition becomes inactive (when new partitions are allocated).

Chapter 4: Troubleshooting

If an error occurs when running the Dynamic Partitioning Tool, a detailed message is written to the log file. The log files are located in the **logs** directory under the installation root folder.

In addition, a detailed message is displayed.

Click the **Details** button in the error message to open an exception information dialog box.

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