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For the Windows and Linux operating systems

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Dynamic Partitioning Tool - Best Practices

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Chapter 1: Overview

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

You run the Dynamic Partitioning Tool against your BSM 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 <HPBSM>\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 page 7)

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	The site identifier of the database.		
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.

PM BSM Management da	tabase connection properties		
Management conne	ection properties	Profile connection	n properties
Database type:	Oracle	- Profile:	
Host name:	10.216.50.60	Password:	
SID:	HPPARTDB		
Port:	1521		Connect
User name:	surge_mgmt		
Password:	••••		

- 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.

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

The following table summarizes the parameters which can be configured:

Parameter	Description
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:

anagement connection properties abase type: Oracle t name: 10.216.50.60 : HPPARTDB t: 1521 abase name: surge_mgmt		Profile connection prop Profile: SURGE_PP Database type: Oracle Host name: 10.216.50 Port: 1521 Database name: SURGE_PP	OFILE1 .60	
Category/Name of table in Database	Actual partition slice	Recommended partition slice	Recommended EPM	
SOA				
M_WP01F1_F	4 HOUR(s)			
M_WP01F2_F	3 DAY(s)			
M_WP01F3_F	2 DAY(s)			
M_WE01F1_F	16 HOUR(s)			
M_WE01F2_F	3 DAY(s)			
M_WE01F3_F	2 DAY(s)			
UDX				
M_GN01F1_F	1 DAY(s)			
M GN01F2 F	3 DAY(s)			
M_GN01F3_F	7 DAY(s)			
M_GW01F1_F	1 DAY(s)			
M_GW01F2_F	3 DAY(s)			
 M_GW01F3_F	7 DAY(s)			
M_EV01F1_F	7 DAY(s)			
M_LA01F1_F	2 MONTH(s)			
M_LN01F1_F	12 MONTH(s)			
M_LR01F1_F	4 DAY(s)			
 M_AE01F1_F	6 MONTH(s)			
 M_EP01F1_F	3 WEEK(s)			
 M_EP01F3_F	8 MONTH(s)			
 M_TK01F1_F	2 DAY(s)			
 M_PR01F1_F	2 WEEK(s)			
M PR01F2 F	5 WEEK(s)			
 M_PB01F1_F	2 WEEK(s)			
	Calculat	e slice Export data		

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.

 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 BSM Configuration

To apply the partition recommendation to the BSM configuration:

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

- MyBSM Applications - Admin - He	elp + Site Map		
p and Mainlenance > Data Partitioning and Purging			
p and Maintenance Report Scheduling	Locations Content Packs Users and Permissions Recipients Downtime Management Event Management		
rging Manager		Template and Multiple Databases	Database Specific
lect a profile database: myd_vm00142_Prido 💙			
rep Data for: 1 Month(s) V Change to EPM: 24	Acoly		
	ыт срокония полногия аддордияеть инпереня		8.VV
M_BR01F2_F	BPI process monitors aggregative samples Hourly Aggregation	Infinite	22
M_BR01F3_F	BPI process monitors aggregative samples Daily Aggregation	Infote	2
M_BV01F1_F	BPI value monitor (metric) aggregative samples	Infinite	1980
M_BV01F2_F	BPI value monitor (metric) aggregative samples Hourly Aggregation	Infnite	165
M_EV01F3_F	BPI value monitor (metric) aggregative samples Daily Aggregation	Infinite	7
usiness Logio Engine			
M_BF01F1_F	Offine BLE States	Infinite	0
- M_KED1F1_F	BLE Results Trend Reports Events	Infinite	1457
M_KT01F1_F	Raw BLE Results Trend Reports TimeSeries	Infinite	1457
M_KT01F2_F	Aggregated (howly) BLE Results Trend Reports TimeSeries	Infinite	105
	Aggregated (daily) BLE Results Trend Reports TimeSeries	Infinite	105
usiness Process Monitor			
BPM_TRANS	Rev transaction response time and availability data	Infinite	365
BPM_COMPONENTS	Components in the page component breakdown	Infinite	365
P == PM_TRANS_ERRS	Extended transaction error information (transaction errors, transaction breakdown errors, transaction page component breakdown errors)	Infinite	305
BPM_TRANS_ERR_SNAP	Error Snapshota	Infinite	365
BPM_TRANS_DAY	Aggregated (daily) transaction response time and availability data	Infinite	
- SPM_TRANS_20AY	Aggregated transaction response time and availability data (daily) by application, location	Infinite	8
BPM_TRANS_3DAY	Aggregated transaction response time and availability data (daily) by transaction, script	Infinite	8
- BPM_TRANS_ERRS_2DAY	Daily extended transaction error information (transaction errors, transaction breakdown errors, transaction page component breakdown errors) by application, location	Infinite	8
- BPM_TRANS_ERRS_2DAY	Daily extended transaction error information (transaction errors, transaction breakdown errors, transaction page component breakdown errors) by transaction, script	Infinite	
BPM_TRANS_ERRS_DAY	Daily extended transaction error information (transaction errors, transaction breakdown errors, transaction page component breakdown errors)	Infinite	8
BPM_TRANS_HR	Aggregated (bourly) transaction response time and availability data	Infinite	24
BPM_TRANS_2HR	Aggregated (hourly) transaction response time and availability data by application, location	Infinite	24
BPM_TRANS_3HR	Aggregated (hourly) transaction response time and availability data by transaction, script	Infinite	24
BPM_TRANS_ERRS_2HR	Hourly extended transaction error information (transaction errors, transaction breakdown errors, transaction page component breakdown errors) by application, location	Infinite	24
- BPM_TRANS_ERRS_SHR	Hourly extended transaction error information (transaction errors, transaction breakdown errors, transaction page component breakdown errors) by transaction, script	Infinite	24
BPM_TRANS_ERRS_HR	Hourly extended transaction error information (transaction errors, transaction breakdown errors, transaction page component breakdown errors)	infinite	24

- 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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