Configuring PMDB process parameters

This section includes the following topic:

- About configurable process parameters

About configurable process parameters

With the Load Data process parameters you are able to filter the Load Data results better, providing you with a better overview of the actual data. After selecting this parameter, you can select the instance for which you want to make changes to the default settings.

The following parameters that can be edited in AdminPoint>Warehouse Processes. Technology is the basis for the division of the process parameters:

- DB2
- J2EE
- MS .NET
- Operating System
- Oracle
- Oracle Applications
- Other
- PMDB
- SAP
- SQL Server
- Sybase
- Sybase Replication Server
- Tuxedo
- Web
- WebSphere MQ

> PMDB processes will not be executed if any of the following collector instances is down: SQL Server, Oracle, Sybase, or DB2.

About the DB2 Explain Statements process parameters

The DB2 Explain Statements process automatically explains the top *n* statements. By default, this process is run only once a night.

The following table describes the configurable process parameter and default value in the DB2 Explain Statements process.

Table 7-1 Configurable process parameter and its default value

Parameter	Default value
Explain only Top-N Statements (based on their In DB2 time)	100
Timeout if the Explain Process takes more than n minutes	60
Explain process stops after N Statements fail to be explained	100

About the DB2 Explain New Statements process parameters

The DB2 Explain New Statements process automatically explains the top *n* statements. By default, this process is run every 15 minutes.

The following table describes the configurable process parameter and default value in the DB2 Explain Statements process.

Table 7-2 Configurable process parameter and its default value

Parameter	Default value
Explain only Top-N Statements (based on their In DB2 time)	30

About the DB2 Load Data process parameters

The following table describes the configurable process parameter and default value in the DB2 Load Data process.

Table 7-3 Configurable process parameter and its default value

Parameter	Default value
Load only Top-N Programs information	300

Load only Top-N Statements information	500

About the DB2 Purge Internal Data process parameters

The DB2 Purge Internal Data process automatically purges old internal data from the PMDB tables. By default, this process is run once a week.

The following table describes the configurable process parameter and default value in the DB2 Purge Internal Data process.

Table 7-4 Configurable process parameter and its default value

Parameter	Default value
Purge plans data older than *n* days	14
Save the last n plans for each Explain Statement	3

About the J2EE Load Data process parameters

The following table describes the configurable process parameter and default value in the J2EE Load Data process.

Table 7-5 Configurable process parameter and its default value

Parameter	Default value
Collect only Top-N records	1000
Number of executions over total service time	Low
Load Data	30

About the Microsoft .NET Perform SmarTune Analysis process parameters

The following table describes the configurable process parameters and default values in the Perform SmarTune Analysis process.

Table 7-6 Configurable process parameters and their default values

Parameter	Default value
Too many queued ASP.NET requests	Maximum request queue length *n* queued items (5).
Long wait time for ASP.NET requests	Maximum request wait time *n* milliseconds (1000).
Incorrect ASP.NET API cache usage - low hit ratio	Minimum cache hit ratio *n* percent (80).
Incorrect ASP.NET API cache usage - high turnover rate	Maximum cache turnover ratio *n* turnovers/second (100).
Incorrect ASP.NET output cache usage - low hit ratio	Minimum cache hit ratio *n* percent (80).
Incorrect ASP.NET output cache usage - high turnover rate	Maximum cache turnover ratio *n* turnovers/second (100)
Too many ASP.NET errors	Maximum errors per request ratio (5).
Too many unhandled ASP.NET exceptions	Maximum number of unhandled exceptions (0).
Too much time in garbage collection	Normal CPU utilizations *n* percent (70). Maximum time in garbage collection for low CPU utilization *n* percent (5). Maximum time in garbage collection for high CPU utilization *n* percent (10).
Object allocation problem	Maximum ratio garbage collection generations *n* percent (20).
Too many garbage collection calls by user	Maximum number of induced garbage collection calls (0)
Too many exceptions thrown	Maximum number of thrown exceptions per second (50).
Contention rate too high	Maximum number of unsuccessful locks per second (50).
Incorrect connection string usage	Maximum number of different connection strings to database (10).
Slow database open connection	Maximum database open connection time n seconds (2).
Slow database requests execution	Maximum database execution time n seconds (10).

Slow page load	Maximum page load time n seconds (5).
Slow Web service invocation	Maximum Web service invocation time n seconds (5).
Slow XML document load	Maximum XML load time n seconds (2).
Incorrect garbage collection usage	Maximum number of garbage collection calls (0).
Slow serialization	Maximum serialization time per invocation time ratio n percent (10).
Slow de-serialization	Maximum de-serialization time per invocation time ratio n percent (10).
Too many calls for serialization	Maximum number of serialization invocations per second (100).
Too many calls for de-serialization	Maximum number of de-serialization invocations per second (100).
Incorrect usage of the Finalize method	Maximum number of calls to the finalized method (0).
Too many method invocations	Maximum method time n seconds (0.3). Maximum number of method invocations (100).
Too much time in lock	Maximum time in lock n seconds (0.2).

About the Oracle Collect Bind Variables process parameter

The Oracle Collect Bind Variables process collects bind sets that were used while the statements were run (applicable for Oracle 10.1.0.4 and later). You can specify which mandatory statements to collect binds for by specifying their statement hash values, separated by a semicolon.

If this process is not run, no data is displayed in the Bind Variables view in the SQL tab and you are not able to choose a real set to run the statement with, in the Run Statement dialog box and the Bind Variables tab is disabled. By default, this process is run once an hour.

The following table describes the configurable process parameters and default values in the Oracle Collect Bind Variables process.

Table 7-7 Configurable process parameters and their default values

Parameter	Default value
Maximum number of statements to collect binds for:	20 Increasing this parameter influences resource consumption and run time.
Maximum number of bind sets per statement to collect:	3 Increasing this parameter influences resource consumption and run time.
List of mandatory statements to collect binds for:	No default value

About the Oracle Collect Instance Statistics process parameters

The Oracle Collect Instance Statistics process collects segment statistics. If you decide not to collect segment statistics, no active objects are displayed in the Objects tab.

The following table describes the configurable process parameters and default values in the Oracle Collect Instance Statistics process.

Table 7-8 Configurable process parameters and their default values

Parameter	Default value
Collect segment statistics every *n* hours	4 "0" means that the segment statistics should not be collected.
Maximum number of segments to collect *n*	500
List of mandatory segments *n* (such as EMP_TBL, EMP_DETP_IDX)	No default value

About the Oracle Explain Statements process parameters

The Oracle Explain Statements process automatically explains the top *n* statements and parses the statements that were explained. By default, this process is run once a night.

The following table describes the configurable process parameters and default values in the Oracle Explain Statements process.

Table 7-9 Configurable process parameters and their default values

Parameter	Default value
Explain only Top-N Statements (based on their In Oracle time)	1000
Parse Top-N Statements (based on their In Oracle time)	1000
Timeout if Explain takes more than *n* seconds	60
Save the last *n* Explain plans for each explained statement	3

About the Oracle Load Data process parameters

The following table describes the configurable process parameter and default value in the Oracle Load Data process.

Table 7-10 Configurable process parameter and its default value

Parameter	Default value
Load only Top-N Programs information	300
Load only Top-N Statements information	500
Load only Top-N Objects information	700

About the Oracle Object Statistics Changes process parameters

The following table describes the configurable process parameters and default values in the Oracle Object Statistics Changes process.

Table 7-11 Configurable process parameters and their default values

Parameter	Default value
Keep track on changes in column statistics	Cleared
Collect database size statistics every *n* days	1

About the Oracle Perform SmarTune Analysis on Changes process parameter

The following table describes the configurable process parameter and default value in the Oracle Perform SmarTune Analysis on Changes process.

Table 7-12 Configurable process parameter and its default value

Parameter	Default value
Analyze the impact of changes in the last *n* days	30

About the Oracle Purge Data process parameters

The following table describes the configurable process parameters and default values in the Oracle Purge Data process.

Table 7-13 Configurable process parameters and their default values

Parameter	Default value
Purge schema changes data older than *n* weeks	52
Purge database structure data older than *n* weeks	26

About the Oracle Real Execution Plans process parameter

The Oracle Real Execution Plans process collects real execution plans stored in Oracle (applicable for Oracle 9i and later) system tables. If this process is not run, no real execution plan information is displayed in the SQL tab. By default, this process is run once an hour.

The following table describes the configurable process parameter and default values in the Oracle Actual Execution Plans process.

Table 7-14 Configurable process parameter and its default value

Parameter	Default value
Maximum number of statements to collect actual execution plans for	500 Increasing this parameter influences resource consumption and run time.

About the Oracle Applications Load Data process parameters

The following table describes the configurable process parameter and default value in the Oracle Applications Load Data process.

Table 7-15 Configurable process parameter and its default value

Parameter	Default value
Collect only Top-N records	1000
Number of executions over total service time	Low

About the Operating System Load Data process parameters

The following table describes the configurable process parameters and default values in the Operating System Load Data process.

Table 7-16 Configurable process parameters and their default values

Parameter	Default value
Collect only Top-N records	1000
Size of memory over total CPU time	Low
Include Process ID details in time slice summary level	Cleared
Include Command and Process ID only got processes with CPU time greater than n seconds per time slice	10
Mask command according to	No default value

About the Other Load Data process parameters

The following table describes the configurable process parameter and default value in the Other Load Data process.

Table 7-17 Configurable process parameter and its default value

Parameter	Default value
Collect only Top-N records	1000
Number of executions over total service time	Low
Mask Client IP according to	No default value

About the PMDB Purge Data process parameters

The following table describes the configurable process parameters and default values in the PMDB Purge Data process. The following set of parameters is defined for each technology, server, and instance that is installed in the Precise system.

Table 7-18 Configurable process parameters and their default values

Parameter	Default value
Purge slice data older than	4 weeks

Purge hour data older than	4 weeks
Purge daily data older than	3 months
Purge weekly data older than	12 months
Purge monthly data older than	24 months

About the PMDB Calculate Baselines process parameters

The following table describes the configurable process parameters and default values in the PMDB Calculate Baselines process.

Table 7-19 Configurable process parameters and their default values

Parameter	Default value
Retrieve data from the *n* Summary tables	Daily
Calculate based on last *n* day(s)	64

About the PMDB Maintenance (Weekly) process parameters

The following table describes the configurable process parameters and default values in the PMDB Maintenance (Weekly) process.

Table 7-20 Configurable process parameters and their default values

Parameter	Default value
Purge data of instances that are no longer monitored	Cleared
Purge job history after *n* days	7
Defragmentation threshold after *n* percent	50 If the value is 100, no defragmentation is performed.

About the PMDB Summarize Data process parameters

The following table describes the configurable process parameters and default values in the PMDB Summarize Data process.

The following set of parameters is defined for each technology, server, and instance that is installed in the Precise system.

Table 7-21 Configurable process parameters and their default values

Parameter	Default value
Summarize to daily level, only for top *n* rows	2000 rows
Summarize to weekly level, only for top *n* rows	3000 rows
Summarize to monthly level, only for top *n* rows	3000 rows

About the PMDB Daily Purge Data process parameters

The following table describes the configurable process parameters and default values in the PMDB Daily Purge Data process.

The following set of parameters is defined for each technology, server, and instance that is installed in the Precise system.

Table 7-22 Configurable process parameters and their default values

Parameter	Default value
Purge short slice data older than *n* days	1 day

About the PMDB Load Data process parameters

The following table describes the configurable process parameters and default values in the PMDB Load Data process. The following set of parameters is defined for each technology, server, and instance that is installed in the Precise system.

Table 7-23 Configurable process parameters and their default values

Parameter	Default value
Use Defaults	30 seconds

About the SAP Load Data process parameters

The following table describes the configurable process parameter and default value in the SAP Load Data process.

Table 7-24 Configurable process parameter and its default value

Parameter	Default value
Load only transactions with service time greater than or equal to n seconds per time slice	0

About the SAP Organizational Mapping process parameters

The following table describes the configurable process parameter and default value in the SAP Organizational Mapping process.

Table 7-25 Configurable process parameter and its default value

Parameter	Default value
Maps each organization, as it appears in the SAP system, to the physical site where its employees are located. Each organization can be mapped to more than one location. This mapping data is used to show SAP workload statistics according to locations.	Daily

About the SQL Server Collect Operational Statistics process parameters

The following table describes the configurable process parameter and default value in the SQL Server Collect Operational Statistics process.

Table 7-26 Configurable process parameter and its default value

Parameter	Default value
Maximum number of objects to collect:	500

About the SQL Server Collect Schema Changes process parameters

The following table describes the configurable process parameters and default values in the SQL Server Collect Schema Changes process.

Table 7-27 Configurable process parameters and their default values

Parameter	Default value
Load instance definition changes	Selected
Load SQL Server Agent jobs definition changes	Selected
Load database schema changes	Selected
Load database schema changes in syscolumns	Selected
Load database schema changes in sysindexkeys	Selected

About the SQL Server Collect Space Utilization process parameters

The following table describes the configurable process parameters and default values in the SQL Server Collect Space Utilization process.

Table 7-28 Configurable process parameters and their default values

Parameter	Default value
Load DB files size information	Selected
Load table and indexes space information	Selected
Load partition size information (for 2005 only)	Cleared

About the SQL Server Explain Statements process parameters

The following table describes the configurable process parameters and default values in the SQL Server Explain Statements process.

Table 7-29 Configurable process parameters and their default values

Parameter	Default value
Explain only the to *n* batches (based on their In MS-SQL time)	1000
Do not explain statements that were explained in the last *n* days	14

About the SQL Server Explain New Statements process parameters

The following table describes the configurable process parameter and default value in the SQL Server Explain New Statements process.

Table 7-30 Configurable process parameter and its default value

Parameter	Default value
Explain only Top-N batches (based on their In MS-SQL time)	30

About the SQL Server Load Data process parameters

The following table describes the configurable process parameter and default value in the SQL Server Load Data process.

Table 7-31 Configurable process parameter and its default value

Parameter	Default value
Load only Top-N Statements information	500

About the SQL Server Perform SmarTune Analysis process parameters

The following table describes the configurable process parameters and default values in the SQL Server Perform SmarTune Analysis process.

Table 7-32 Configurable process parameters and their default values

Parameter	Default value
Check the following	Findings of Top-N Statements (20) Findings of Top-N Objects (10) History activity for last *n* days (7) Minimum cost of heavy operators *n* percent (1)
Top statements should have	Minimum In MS-SQL *n* minutes/hour (1)
Scalability change for top statements	Increase in total executions of *n* percent (10)
Considered problematic for top statements	In MS-SQL increased at least by *n* percent (20) Lock wait time exceeds *n* percent (10)
Top objects should have	Minimum *n* pages (100) Minimum IN MS-SQL *n* minutes per hour (15)
Major growth of an object defined by	Increase of *n* rows (10000) Increase of *n* pages (20)
Scalability change for top objects	Increase in total executions of *n* percent (10)
Considered problematic for top objects	In MS-SQL increased by at least *n* percent (10) Lock wait time exceeds *n* percent (20)
Instance is locked when	Lock wait time exceeds *n* percent (10)

Tempdb is considered a bottleneck when	Tempdb wait time exceeds *n* percent (10)
Buffer cache is considered to be too small when	Buffer cache hit ratio counter is less than *n* percent (90) Number of buffers written by lazy writer is more than *n* buffers per second (20) Data pages stay in buffer less than *n* seconds (300) SQL Server page faults is less than *n* per second (20) I/O wait time exceeds *n* percent (5)
Other applications influence SQL Server memory resources	SQL Server page faults/sec. exceeds *n* (20) Non SQL Server page faults/sec. is less than *n* (20) SQL Server memory is less than *n* percent of total memory (30)
Other applications influence SQL Server CPU resources	SQL Server CPU is less than n percent (20) Non SQL Server CPU exceeds n percent (50) Minimum CPU queue length n (2)
Transaction log is considered a bottleneck when	Log wait time exceeds n percent (10) The average log flushes/sec. is greater than n (100) The average log flush waits/sec. is greater than n (10) Log flush wait time exceeds n minutes per hour (5)
Statement Findings	The access plan of the statement contains heavy operators (selected) The access plan of the statement has issued a missing indexes warning (selected) Statements accessing the object have missing statistics warnings (selected) The average In MS-SQL time has increased due to a schema change (selected) The average In MS-SQL time increased due to a growth in statement executions (selected) The average In MS-SQL time increased due to a growth in tables (selected) The average In MS-SQL time has increased (but the increase is not due to schema changes, table size or scalability) (selected) The total In MS-SQL time of the statement is consistently high (selected) The statement's lock wait time is very high (selected)
Object Findings	Statements accessed the object using heavy operators (selected) Statements accessing the object have missing indexes warnings in their access plan (selected) Statements accessing the object have missing statistics warnings in their access plan (selected) Total In MS-SQL time has increased due to a schema change (selected) Total In MS-SQL time has increased due to a major growth in table size (selected) Total In MS-SQL time has increased due to major growth in total executions of statements (selected) Total In MS-SQL time has increased (but the increase is not due to schema changes, table size or scalability) (selected) The object has unnecessary indexes (containing many updates that are not in use by any SELECT statement) (selected) The object's lock wait time is very high (selected)

Instance Findings	Extensive lock wait time (selected) Tempdb is a bottleneck (selected) Buffer cache is too small (selected) Other applications influence SQL Server memory resources (selected) Other applications influence SQL Server CPU resources (selected) The transaction log file is a bottleneck (selected)

About the SQL Server Purge Internal Data process parameters

The following table describes the configurable process parameters and default values in the SQL Server Purge Internal Data process.

Table 7-33 Configurable process parameters and their default values

Parameter	Default value
Preserve execution plan details	6 months
Preserve access path and cost changes history	18 months
Preserve schema change log	6 weeks

About the Sybase Collect Space Utilization process parameters

The following table describes the configurable process parameters and default values in the Sybase Collect Space Utilization process.

Table 7-34 Configurable process parameters and their default values

Parameter	Default value
Load devices space information	Selected
Load table and indexes space information	Selected
Load segments space information	Selected

About the Sybase Explain Statements process parameters

The following table describes the configurable process parameters and default values in the Sybase Explain Statements process.

Table 7-35 Configurable process parameters and their default values

Parameter	Default value
Explain only Top-N Batches (based on their In Sybase time)	1000
Do not explain statements that were explained in the last *n* days	14

About the Sybase Explain New Statements process parameters

The following table describes the configurable process parameter and default value in the Sybase Explain New Statements process.

Table 7-36 Configurable process parameter and its default value

Parameter	Default value
Explain only TopN Batches (based on their In Sybase time)	10

About the Sybase Load Data process parameters

The following table describes the configurable process parameter and default value in the Sybase Load Data process.

Table 7-37 Configurable process parameter and its default value

Parameter	Default value

Load only Top-N Statements information	500

About the Tuxedo Load Data process parameters

The following table describes the configurable process parameter and default value in the Tuxedo Load Data process.

Table 7-38 Configurable process parameter and its default value

Parameter	Default value
Collect only Top-N records	1000
Number of executions over total service time	Low

About the Web Load Data process parameters

The Web Load Data process parameters dialog box contains three columns that cannot be configured. The Name (with Instance and server name or Cluster name), Type (with Instance or Cluster), and Server (with the name of the server) columns enable you to see that the row you select is an instance or a cluster. When you select a cluster, the Cluster Instances button will become active and you are able to see more information on the instances within the selected cluster in the list shown in the Cluster Instances dialog box. Setting parameters at the cluster level affects all instances in that cluster. It is impossible to set parameters for an instance within a cluster individually.

The following table describes the configurable process parameters and default values in the Web Load Data process.

Table 7-39 Configurable process parameters and their default values

Parameter	Default value
Collect only Top-N URL records	1000
Number of executions weight over average URL service +network time	Medium
Consider SLA breach when filtering data	Selected
Collect only Top-N page records	100
Number of executions over average page response time	Medium
Consider SLA breach when filtering data	Selected
Collect Client IP	Cleared
Collect country	Cleared
Collect state	Cleared
Collect city	Cleared
Mask Client IP according to	No default value
Mask Private IP according to	No default value

About the WebSphere MQ Load Data process parameters

The following table describes the configurable process parameters and default values in the WebSphere MQ Load Data process.

Table 7-40 Configurable process parameters and their default values

Parameter	Default value
Collect only Top-N records	1000
Number of executions over total service time	Low
Collection mode:	Basic
In extended collection mode, collect from the message body the first *n* bytes	250
Include only messages with service time greater than *n* seconds per time slice	1
Include only messages that pass through queues that met one of the patterns in	No default value
Include only users that met one of the patterns in	No default value

Include only messages of applications that met one of the patterns in	No default value
Include only messages that their body met one of the patterns in	No default value