

DBMS_AUTOIM

This API provides functions to manage the execution of the AIM feature.

Using DBMS_AUTOIM

Automatic In-Memory Management (AIM) is an In-Memory column store feature that optimizes the column store through actions such as evicting cold data, populating frequently accessed data, and compressing cold columns.

The DBMS_AUTOIM package provides APIs to manage the execution of the AIM feature. These are procedures to get and set AIM parameters as well as a reporting function.

Summary of DBMS_AUTOIM Subprograms

The table in this topic lists and describes the DBMS_AUTOIM subprograms.

Table 19-1 DBMS_AUTOIM Subprograms

Subprogram	Description
SET_PARAMETER	Sets the value of one of the available parameters: <code>AUTO_IM_PERF_TASK</code> , <code>INTERVAL</code> , or <code>AIM_STATWINDOW_DAYS</code> .
ACTIVITY_REPORT	Reports AIM task activity within the specified time interval for the given feature or for all features.

SET_PARAMETER Procedure

Use this DBMS_AUTOIM procedure to set configuration parameter values for AIM features.

Syntax

```
DBMS_AUTOIM.SET_PARAMETER( parameter_name IN VARCHAR2, parameter_value IN
VARCHAR2 );
```

Parameters

The parameters for DBMS_AUTOIM.SET_PARAMETER are as follows.

Table 19-2 SET_PARAMETER Procedure Parameters

Parameter	Description
<code>aim_task</code>	Turns the automatic IM automatic performance feature creation task on or off. Values: <code>enable</code> , <code>disable</code> .

Table 19-2 (Cont.) SET_PARAMETER Procedure Parameters

Parameter	Description
interval	Controls the statistics time window used by AIM to compute decisions. Value: Any positive integer representing the time window in seconds. The default is 900 seconds.

ACTIVITY_REPORT Function

Use this function to generate a report on the automatic creation of IM performance features. These features include Autonomous Join Groups, Autonomous Bloom Filter Optimization, Autonomous Optimized Arithmetic, and Autonomous Vector Optimization.

Syntax

```
DBMS_AUTOIM.ACTIVITY_REPORT( feature_id IN NUMBER, start_time IN TIMESTAMP,
end_time IN TIMESTAMP, type IN VARCHAR2, level IN VARCHAR2 )
```

Table 19-3 ACTIVITY_REPORT Function Parameters

Parameter	Type	Description
feature_id	integer	A NULL <code>feature_id</code> generates report on all AIM features. The default is NULL. You can get the <code>feature_id</code> for each feature from the view <code>V\$AIM_FEATURES</code> .
start_time	timestamp	Start of the time window in which AIM activities are considered for the report. A NULL <code>start_time</code> returns the report for last execution. Default is NULL.
end_time	timestamp	End of time window in which AIM activities are considered for the report. A NULL <code>end_time</code> returns the report for last execution. Default is NULL.
type	varchar2	Type of the report. Possible values are: 'TEXT', 'HTML', 'XML'. Default is 'TEXT'.
level	varchar2	Level of verbosity. Possible values are 'BASIC' and 'DETAILED'. Default is 'BASIC'.

Example 19-1 ACTIVITY_REPORT function

Create an AIM activity report for the previous day in TEXT format. The return type is CLOB.

```
declare
  report clob := null;
begin
  report := DBMS_AUTOIM.activity_report();
end;
```



Note:

See the view V\$AIM_FEATURES to obtain the `feature_id` for each feature.