

DBMS_AUTO_ZONEMAP

The `DBMS_AUTO_ZONEMAP` package provides autonomous maintenance and creation of zone map.

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DBMS_AUTO_TASK_ADMIN Security Model

The subprograms in `DBMS_AUTO_TASK_ADMIN` package can be executed by users with DBA privileges.

Summary of DBMS_AUTO_ZONEMAP Subprograms

This table lists the `DBMS_AUTO_ZONEMAP` package subprograms and briefly describes them.

Table 40-1 DBMS_AUTO_ZONEMAP Package Subprograms

Procedure	Description
ACTIVITY_REPORT Function	This function reports auto zone map activity for a given time window.
CONFIGURE Procedure	This procedure sets configuration options for auto zone map.

ACTIVITY_REPORT Function

This function reports auto zone map activity for a given time window.

Syntax

```
DBMS_AUTO_ZONEMAP.ACTIVITY_REPORT (
  start_time      IN TIMESTAMP WITH TIME ZONE DEFAULT NULL,
  end_time        IN TIMESTAMP WITH TIME ZONE DEFAULT NULL,
  type            IN VARCHAR2 DEFAULT NULL,
  section         IN VARCHAR2 DEFAULT NULL,
  level           IN VARCHAR2 DEFAULT NULL);
RETURNS CLOB
```

Parameters

Table 40-2 ACTIVITY_REPORT Function Parameters


Parameter	Description
start_time	Timestamp from which auto zone map executions are observed for the report. If the value is <code>NULL</code> , the function reports everything from the beginning of auto zone map maintenance subject to purging. The default value is <code>NULL</code> .
end_time	Timestamp until which auto zone map executions are observed for the report. If the value is <code>NULL</code> , the function reports everything to the end of auto zone map maintenance subject to purging. The default value is <code>NULL</code> .
<div>  Note: If you specify <code>NULL</code> for both <code>start_time</code> and <code>end_time</code>, the function will display the report from the last run. </div>	
type	Output type of the report. The possible values are <code>TEXT</code> , <code>XML</code> , and <code>HTML</code> . The default value is <code>TEXT</code> .
section	Particular section in the report. The possible values are: <ul style="list-style-type: none"> <code>SUMMARY</code>: Very high level numbers summary on new zone map created and maintained for the given time window. <code>DETAILS</code>: Detailed summary report on names and other details of new zone map created and maintained for the given time window. It also includes findings details. <code>ALL</code>: In addition to summary and details, it includes time series based execution / action logs. The default value is <code>ALL</code> .

Table 40-2 (Cont.) ACTIVITY_REPORT Function Parameters

Parameter	Description
level	<p>Format of the report. It represents the level of details with in each section. Possible values are:</p> <ul style="list-style-type: none"> BASIC: Represents very high level details in executive summary. You will only see numbers on zone map that were created, complete rebuilt and fast rebuilt. In new zone map details section, only new zone map name, date created and base table name re displayed. Under maintenance details section, only zone map name, previous state and current state are displayed. Under findings section, only object name and blacklist reason are displayed. Under action logs section, only important time series based log messages pertaining to zone map creation and maintenance are displayed. TYPICAL: Full overview on executive summary section. Under new zone map details section, schema name, column list, and date created are displayed. Under zone map maintenance details section, refresh type and date are displayed. In findings section, timestamp and exception message are displayed. In action logs section more comprehensive logs than basic, which will have information about candidate column list, findings information, and creation DDLs are displayed. This is the default value. ALL: On top of typical level, DOP used for each operation for creating or maintaining zone map, time took to process each DDL and other details in action logs are displayed. All log messages with details on clustering ratios of columns, exception messages and other details are also displayed.

Return Values

Report in CLOB format. The default report format is TEXT. Possible formats are TEXT, XML, and HTML.

Usage Notes

- DBMS_AUTO_ZONEMAP.ACTIVITY_REPORT(): returns report for all the execution history of last execution in TEXT format and all the sections will be displayed with typical level.
- DBMS_AUTO_ZONEMAP.ACTIVITY_REPORT(systimestamp-2, NULL): returns report for all the execution history for last two days in TEXT format and all the sections will be displayed with typical level.
- DBMS_AUTO_ZONEMAP.ACTIVITY_REPORT(NULL, systimestamp-1): returns report for all the execution history from beginning to yesterday in TEXT format and all the sections will be displayed with typical level.
- DBMS_AUTO_ZONEMAP.ACTIVITY_REPORT(NULL, NULL, 'HTML', 'DETAILS', 'BASIC'): returns last execution's report in HTML format and only details section will be displayed with only basic details in each section
- DBMS_AUTO_ZONEMAP.ACTIVITY_REPORT(systimestamp – 2, systimestmap, 'TEXT', 'ALL', 'TYPICAL'): returns report for last 48 hours in text format and all the sections will be displayed with typical details.

CONFIGURE Procedure

This procedure sets configuration options for auto zone map; specifically to enable or disable feature and to control foreground or background mode of the feature.

Syntax

```
DBMS_AUTO_ZONEMAP.CONFIGURE (
    parameter_name      IN   VARCHAR2,
    parameter_value     IN   VARCHAR2);
```

Parameters

Table 40-3 CONFIGURE Procedure Parameters

Parameter	Description
parameter_name	AUTO_ZONEMAP_MODE is the only configure parameter name that is currently allowed. If you specify any other name, an invalid argument error message is displayed.
parameter_value	<p>The four values are allowed for this parameter:</p> <ul style="list-style-type: none"> • ON: Turns on auto zone map feature completely. Both for foreground and background zone map creation and maintenance. • OFF: Turns off auto zone map feature completely. Both for foreground and background zone map creation and maintenance. • FOREGROUND: Turns on only for foreground zone map creation and maintenance. • BACKGROUND: Turns on only for background zone map creation and maintenance.