109
DBMS_IOT

The DBMS_IOT package creates a table into which references to the chained rows for an index-organized table can be placed using the ANALYZE command. DBMS_IOT can also create an exception table into which references to the rows of an index-organized table that violate a constraint can be placed during the enable_constraint operation.

DBMS_IOT is not loaded during database installation. To install DBMS_IOT, run dbmsiotc.sql, available in the ADMIN directory.

This chapter contains the following topics:

- Summary of DBMS_IOT Subprograms

> **Note:**
>
> With the introduction of logical-rowids for IOTs with Oracle Database Release 8.1, you no longer need to use the procedures contained in this package which is retained for backward compatibility only. It is however required for servers running with Oracle Database Release 8.0.

Summary of DBMS_IOT Subprograms

This table lists and briefly describes the DBMS_IOT subprograms.

Table 109-1 ***DBMS_IOT Package Subprograms***

Subprogram	Description
BUILD_CHAIN_ROWS_TABLE Procedure	Creates a table into which references to the chained rows for an index-organized table can be placed using the ANALYZE command
BUILD_EXCEPTIONS_TABLE Procedure	Creates an exception table into which rows of an index-organized table that violate a constraint can be placed

BUILD_CHAIN_ROWS_TABLE Procedure

This procedure creates a table into which references to the chained rows for an index-organized table can be placed using the ANALYZE command.

Syntax

```
DBMS_IOT.BUILD_CHAIN_ROWS_TABLE (
   owner               IN VARCHAR2,
   iot_name            IN VARCHAR2,
   chainrow_table_name IN VARCHAR2 default 'IOT_CHAINED_ROWS');
```

Parameters

Table 109-2 BUILD_CHAIN_ROWS_TABLE Procedure Parameters

Parameter	Description
owner	Owner of the index-organized table.
iot_name	Index-organized table name.
chainrow_table_name	Intended name for the chained-rows table.

Usage Notes

You should create a separate chained-rows table for each index-organized table to accommodate its primary key.

Examples

```
CREATE TABLE l(a char(16),b char(16), c char(16), d char(240),
PRIMARY KEY(a,b,c)) ORGANIZATION INDEX pctthreshold 10 overflow;
EXECUTE DBMS_IOT.BUILD_CHAIN_ROWS_TABLE('SYS','L','LC');
```

A chained-row table is created with the following columns:

```
Column Name                    Null?    Type
------------------------------ -------- ----
OWNER_NAME                              VARCHAR2(30)
TABLE_NAME                              VARCHAR2(30)
CLUSTER_NAME                            VARCHAR2(30)
PARTITION_NAME                          VARCHAR2(30)
SUBPARTITION_NAME                       VARCHAR2(30)
HEAD_ROWID                              ROWID
TIMESTAMP                               DATE
A                                       CHAR(16)
B                                       CHAR(16)
C                                       CHAR(16)
```

BUILD_EXCEPTIONS_TABLE Procedure

This procedure creates an exception table.

Rows of an index-organized table that violate a constraint can be placed into this table during the execution of the following SQL statements:

- ALTER TABLE ... ENABLE CONSTRAINT ... EXCEPTIONS INTO
- ALTER TABLE ... ADD CONSTRAINT ... EXCEPTIONS INTO

Syntax

```
DBMS_IOT.BUILD_EXCEPTIONS_TABLE (
   owner                IN VARCHAR2,
   iot_name             IN VARCHAR2,
   exceptions_table_name IN VARCHAR2 default 'IOT_EXCEPTIONS');
```

Parameters

Table 109-3 BUILD_EXCEPTIONS_TABLE Procedure Parameters

Parameter	Description
owner	Owner of the index-organized table.
iot_name	Index-organized table name.
exceptions_table_name	Intended name for exception-table.

Usage Notes

You should create a separate exception table for each index-organized table to accommodate its primary key.

Examples

```
EXECUTE DBMS_IOT.BUILD_EXCEPTIONS_TABLE('SYS','L','LE');
```

An exception table for the preceding index-organized table with the following columns:

```
Column Name                    Null?    Type
------------------------------ -------- ----
ROW_ID                                  VARCHAR2(30)
OWNER                                   VARCHAR2(30)
TABLE_NAME                              VARCHAR2(30)
CONSTRAINT                              VARCHAR2(30)
A                                       CHAR(16)
B                                       CHAR(16)
C                                       CHAR(16)
```