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DBMS_TABLE_DATA

The `DBMS_TABLE_DATA` package provides procedures that can be used to retrieve the byte value of a single column, or a series of columns, in any table. These procedures, along with a publicly documented meta-data structure for columns, can be used to retrieve the row content for row data on which the hash or user signature is computed.

This chapter contains the following topics:

- DBMS_TABLE_DATA Overview
- DBMS_TABLE_DATA Security Model
- Summary of DBMS_TABLE_DATA Subprograms

> ✎ **See Also:**
>
> - *Oracle Database Administrator's Guide*
> - *Oracle Database Concepts*
> - *Oracle Database SQL Language Reference*
> - *Oracle Database Reference*

DBMS_TABLE_DATA Overview

The `DBMS_TABLE_DATA` package can be used to retrieve the byte value of a single column, or a series of columns, in any table.

These procedures, along with a publicly documented meta-data structure for columns, can be used to retrieve the `row content` for row data on which the hash or user signature is computed.

The procedures provide platform-neutral binary values for columns.

The procedures give you fine-grained control over the scope of a digital signature or cryptographic hash in terms of the columns you extract and the order in which you assemble the results.

DBMS_TABLE_DATA Security Model

The `DBMS_TABLE_DATA` package is owned by `SYS` and is installed as part of database installation. The routines in the package are run with invokers' rights (run with the privileges of the current user). The current user needs `SELECT` privileges on the table to extract column data.

Summary of DBMS_TABLE_DATA Subprograms

The `DBMS_TABLE_DATA` package uses `GET_BYTES_FOR_COLUMN`, `GET_BYTES_FOR_COLUMNS`, and `GET_BYTES_FOR_ROW` subprograms to perform various functions.

Table 200-1   DBMS_TABLE_DATA Package Subprograms

Subprogram	Description
GET_BYTES_FOR_COLUMN Procedure	Returns the `column_data` in bytes for the particular column with name `column_name for row_id` row in the particular table identified by `schema_name.table_name`.
GET_BYTES_FOR_COLUMNS Procedure	Returns a concatenated array of column byte values in `column_data` in the order of columns specified in the `column_names` array.
GET_BYTES_FOR_ROW Procedure	Returns a concatenated array of column byte values in `column_data` in the order of column positions for the particular row identified by `row_id`.

GET_BYTES_FOR_COLUMN Procedure

This procedure returns the `column_data` in bytes for the particular column with name `column_name` for `row_id` row in the particular table identified by `schema_name.table_name`.

Syntax

```
DBMS_TABLE_DATA.GET_BYTES_FOR_COLUMN(
    schema_name          IN VARCHAR2,
    table_name           IN VARCHAR2,
    row_id               IN ROWID,
    column_name          IN VARCHAR2,
    column_data          IN OUT BLOB);
```

Parameters

Table 200-2   GET_BYTES_FOR_COLUMN Procedure Parameters

Parameter	Description
schema_name	The name of the schema.
table_name	The name of the table.
row_id	The row id.
column_name	The column name.
column_data	The data in the column.

Usage Notes

All arguments are required.

GET_BYTES_FOR_COLUMNS Procedure

This procedure returns a concatenated array of column byte values in `column_data` in the order of columns specified in the `column_names` array.

Syntax

```
DBMS_TABLE_DATA.GET_BYTES_FOR_COLUMNS(
   schema_name          IN VARCHAR2,
   table_name           IN VARCHAR2,
   row_id               IN ROWID,
   column_names         IN VARCHAR2,
   column_data          IN OUT BLOB);
```

Parameters

Table 200-3   GET_BYTES_FOR_COLUMNS Procedure Parameters

Parameter	Description
schema_name	The name of the schema.
table_name	The name of the table.
row_id	The row id.
column_names	The names of the columns.
column_data	The data in the columns.

Usage Notes

All arguments are required.

GET_BYTES_FOR_ROW Procedure

This procedure returns a concatenated array of column byte values in `column_data` in the order of column positions for the particular row identified by `row_id`.

Syntax

```
DBMS_TABLE_DATA.GET_BYTES_FOR_ROW(
   schema_name          IN VARCHAR2,
   table_name           IN VARCHAR2,
   row_id               IN ROWID,
   column_data          IN OUT BLOB);
```

Parameters

Table 200-4   GET_BYTES_FOR_ROW Procedure Parameters

Parameter	Description
schema_name	The name of the schema.
table_name	The name of the table.
row_id	The row id.
column_data	The data in the row.

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Usage Notes

All arguments are required.