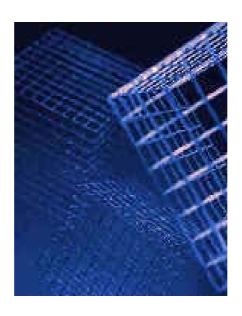
# **Evaluating System Tables: SAP DB**



Version 7.4



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## Icons

| lcon        | Meaning        |
|-------------|----------------|
| $\triangle$ | Caution        |
|             | Example        |
| $\wp$       | Note           |
| <b>@</b>    | Recommendation |
| (US)        | Syntax         |

# **Typographic Conventions**

| Type Style                  | Description  |  |
|-----------------------------|--|--|
| Example text                | Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths and options.   |  |
|                             | Cross-references to other documentation.   |  |
| Example text                | Emphasized words or phrases in body text, titles of graphics and tables.   |  |
| EXAMPLE TEXT                | Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example, SELECT and INCLUDE. |  |
| Example text                | Screen output. This includes file and directory names and their paths, messages, source code, names of variables and parameters as well as names of installation, upgrade and database tools.                                  |  |
| EXAMPLE TEXT                | Keys on the keyboard, for example, function keys (such as ${\tt F2}$ ) or the ${\tt ENTER}$ key.   |  |
| Example text                | Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.  |  |
| <example text=""></example> | Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries.   |  |

| Evaluating System Tables: SAP DB 7.4 | 6  |
|--------------------------------------|----|
| General Information                  | 6  |
| Database Terms                       | 7  |
| A-C                                  | 7  |
| D-H                                  | 8  |
| I-R                                  | 8  |
| S                                    | 9  |
| Т                                    | 9  |
| U-Z                                  | 10 |
| System Tables                        | 10 |
| COLUMNS                              | 11 |
| CONNECTEDUSERS                       | 12 |
| CONNECTPARAMETERS                    | 13 |
| CONSTRAINTS                          | 13 |
| DBPROCEDURES                         | 13 |
| DBPROCPARAMS                         | 14 |
| DOMAINCONSTRAINTS                    | 14 |
| DOMAINS                              | 14 |
| FOREIGNKEYCOLUMNS                    | 15 |
| FOREIGNKEYS                          | 15 |
| INDEXCOLUMNS                         | 15 |
| INDEXES                              | 16 |
| LOCKS                                | 16 |
| MAPCHARSETS                          | 17 |
| ROLEPRIVILEGES                       | 17 |
| ROLES                                | 18 |
| SEQUENCES                            | 18 |
| SESSION_ROLES                        | 18 |
| SYNONYMS                             | 19 |
| TABLEPRIVILEGES                      | 19 |
| TABLES                               | 20 |
| TRIGGERS                             | 21 |
| USERS                                | 21 |
| VERSIONS                             | 22 |
| VIEWCOLUMNS                          | 22 |
| VIEWDEFS                             | 22 |
| VIEWS                                | 23 |

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#### Evaluating System Tables: SAP DB 7.4

The SAP DB database system contains a series of system tables that contain information about the database objects and their connection to each other. A number of examples are given below to explain how these system tables can be evaluated.

- When you specify SELECT statements for the system tables, you should bear in mind some general information [Page 6].
- If you want to find out which system table contains information for a particular database term, consult the list of database terms [Page 7].
- If you want to find out which information a particular system table can provide, consult the <u>list of system tables [Page 10]</u>.



You can find a complete definition of the system tables in the <u>Reference Manual:</u> SAP DB 7.4 [See SAP DB Library] → System Tables [See SAP DB Library].

You will find general information on the SAP DB database system in the <u>User Manual: SAP DB [See SAP DB Library]</u>.



## **General Information**

If you want to evaluate system tables [Page 1], please bear in mind the following information:

- When system tables are evaluated, the system only outputs information for objects of
  which the current user is the <u>owner [See SAP DB Library]</u>, or for which the user has at
  least a <u>privilege [See SAP DB Library]</u> (the user therefore knows the object). This
  authorization concept may mean that the table definition visible for the current user differs
  from the actual definition.
  - The definition of a view table is only visible for the owner of the view table.
- When you query the system table(s), you should enter conditions that describe the required object as precisely as possible. Entering the object owner considerably speeds up the search for the relevant information.
- When you specify search commands, you should specify equivalence conditions where possible. Specifying LIKE conditions is less effective.
- For performance reasons, when you query information from system tables, you should use not only the SQL statement SELECT \* but also limit the number of output columns to those columns that you actually require.
  - When you query statistical information from system tables, in particular, additional actions are performed to determine column values in the database system when certain output columns are requested. As a result, you should only have the system determine this column information if you really need it.
- <u>Simple identifiers [See SAP DB Library]</u> are always created in the database instance in capital letters, regardless of how they were entered during definition of the data.
   If you use simple identifiers in a search condition, you must enter the single quotes typically used when specifying literals.
  - For performance reasons, you should not leave the conversion of the simple identifier to capital letters to the database system at the execution of the SQL statement; you should enter the simple identifier directly in capital letters in the search condition.

```
CREATE TABLE mytab (...)
SELECT ... FROM ... WHERE ... = 'MYTAB'
```

 Special identifiers [See SAP DB Library] are always specified in double quotes in the data definition. In the database instance, these are stored as they were entered, meaning they are not converted to capital letters.

If you use special identifiers in a search condition, you must enter the single quotes typical for specifying literals.



```
CREATE TABLE "this is mytab" (...)
SELECT ... FROM ... WHERE ... = 'this is mytab'
```



# **Database Terms**

In order to determine information about your SAP DB database system, its objects, structures, status information, and so on, you must <u>evaluate the relevant system tables [Page 1]</u>.

A list of database terms and references to the system tables that can provide the information on the terms is provided below. The terms are listed in alphabetical order.

A-C [Page 7] D-H [Page 8] I-R [Page 8] S [Page 9] T [Page 9] U-Z [Page 10]



#### Database terms [Page 7] from A-C

|   | Term                     | Explanation   | System table   |
|---|--------------------------|---|--|
| С | char set (character set) | MapChar set   | MAPCHARSETS [Page 17]  |
|   | column                   | definition domain for definition default value inverted primary key privilege in referential constraint of a table in view definition | COLUMNS [Page 11] COLUMNS [Page 11] COLUMNS [Page 11] INDEXCOLUMNS [Page 15] COLUMNS [Page 11] COLUMNS [Page 11] FOREIGNKEYCOLUMNS [Page 15] VIEWCOLUMNS [Page 22] |
|   | constraint               | of a column or table<br>of a domain<br>referential<br>NOT-NULL columns<br>primary key<br>UNIQUE                                       | CONSTRAINTS [Page 13] DOMAINCONSTRAINTS [Page 14] FOREIGNKEYS [Page 15] COLUMNS [Page 11] COLUMNS [Page 11] INDEXES [Page 16]                                      |



#### Database terms [Page 7] from D-H

|   | Term                                       | Explanation  | System table   |
|---|--|--|--|
| D | database instance                          | in the current database session                              | USERS [Page 21]  |
|   | database procedure                         | database procedure parameter                                 | DBPROCEDURES [Page 13] DBPROCPARAMS [Page 14]                                |
|   | database session                           | own all active active roles in the current database session  | CONNECTPARAMETERS [Page 13] CONNECTEDUSERS [Page 12] SESSION ROLES [Page 18] |
|   | default value                              | of a column<br>of a value range<br>default role              | COLUMNS [Page 11] DOMAINS [Page 14] ROLES [Page 18]                          |
|   | domain                                     | domain<br>constraint of a domain<br>during column definition | DOMAINS [Page_14] DOMAINCONSTRAINTS [Page_14] COLUMNS [Page_11]              |
| F | foreign key<br>(referential<br>constraint) | referential constraint columns in the referential constraint | FOREIGNKEYS [Page 15] FOREIGNKEYCOLUMNS [Page 15]                            |



#### Database terms [Page 7] from I-R

|   | Term            | Explanation  | System table   |
|---|-----------------|--|--|
| I | identification  | internal identification of a table internal identification of a user | TABLES [Page 20]<br>USERS [Page 21]                        |
|   | index           | indexes<br>column<br>UNIQUE  | INDEXES [Page 16] INDEXCOLUMNS [Page 15] INDEXES [Page 16] |
|   | isolation level | of the current database session                                      | CONNECTPARAMETERS [Page 13]                                |
| M | MapChar set     | MapChar set  | MAPCHARSETS [Page 17]                                      |
| Р | parameter       | of a database procedure  | DBPROCPARAMS [Page 14]                                     |

|   | privilege              | of a role<br>of a column<br>of a table  | ROLEPRIVILEGES [Page 17] COLUMNS [Page 11] TABLES [Page 20] TABLEPRIVILEGES [Page 19] |
|---|------------------------|---|---|
| R | server node            | in the current database session   | USERS [Page 21]   |
|   | referential constraint | referential constraint columns  | FOREIGNKEYS [Page 15] FOREIGNKEYCOLUMNS [Page 15]                                     |
|   | release (version)      | of the database software  | VERSIONS [Page 22]  |
|   | role                   | role, default role<br>role privilege<br>active roles in the current database<br>session | ROLES [Page 18] ROLEPRIVILEGES [Page 17] SESSION ROLES [Page 18]                      |



#### Database terms [Page 7]

| Term        | Explanation  | System table   |
|-------------|--|--|
| sequence    | current value  | SEQUENCES [Page 18]  |
| server node | server node used in the current database session   | USERS [Page 21]  |
| session     | own all active active roles in the current database session  | CONNECTPARAMETERS [Page 13] CONNECTEDUSERS [Page 12] SESSION_ROLES [Page 18] |
| SQL mode    | of the current database session  | CONNECTPARAMETERS [Page 13]  |
| statistics  | time of last update-statistics run for<br>a table<br>sample values of the update-<br>statistics run of a table | TABLES [Page 20]   |
| synonym     | synonyms<br>existence  | SYNONYMS [Page 19] TABLES [Page 20]  |



Database terms [Page 7]

| Term    | Explanation  | System table   |
|---------|--|--|
| table   | tables, existence table definition synonym privilege in view definition constraint referential constraint index view table primary key secondary key trigger | TABLES [Page 20] COLUMNS [Page 11] SYNONYMS [Page 19] TABLES [Page 20], TABLEPRIVILEGES [Page 19] VIEWCOLUMNS [Page 22] CONSTRAINTS [Page 13] FOREIGNKEYS [Page 15] INDEXES [Page 16] VIEWS [Page 23] COLUMNS [Page 21] FOREIGNKEYCOLUMNS [Page 15] TRIGGERS [Page 21] |
| timeout | of the current database session  | CONNECTPARAMETERS [Page 13]  |
| trigger | trigger  | TRIGGERS [Page 21]   |



#### Database terms [Page 7] from U-Z

|   | Term       | Explanation   | System table   |
|---|------------|---|--|
| U | UNIQUE     | index   | INDEXES [Page 16]  |
|   | user       | defined currently active  | USERS [Page 21] CONNECTEDUSERS [Page 12]   |
| ٧ | version    | of the database software  | VERSIONS [Page 22]   |
|   | view table | view tables definition text existence synonym underlying tables and columns | VIEWS [Page 23] VIEWDEFS [Page 22] TABLES [Page 20] SYNONYMS [Page 19] VIEWCOLUMNS [Page 22] |



You can find a complete definition of the system tables in the *Reference Manual: SAP DB 7.4*  $\rightarrow$  <u>System Tables [See SAP DB Library]</u>.

You can find information about how you <u>evaluate the information in the system tables [Page 1]</u> in the following sections:

COLUMNS [Page 11]

**CONNECTEDUSERS** [Page 12]

**CONNECTPARAMETERS** [Page 13]

**CONSTRAINTS** [Page 13]

**DBPROCEDURES** [Page 13]

**DBPROCPARAMS** [Page 14]

**DOMAINCONSTRAINTS** [Page 14]

**DOMAINS** [Page 14]

FOREIGNKEYCOLUMNS [Page 15]

**FOREIGNKEYS** [Page 15]

**INDEXCOLUMNS** [Page 15]

**INDEXES** [Page 16]

LOCKS [Page 16]

MAPCHARSETS [Page 17]

**ROLEPRIVILEGES [Page 17]** 

ROLES [Page 18]

SEQUENCES [Page 18]

SESSION ROLES [Page 18]

SYNONYMS [Page 19]

TABLEPRIVILEGES [Page 19]

TABLES [Page 20]

TRIGGERS [Page 21]

USERS [Page 21]

VERSIONS [Page 22]

**VIEWCOLUMNS** [Page 22]

VIEWDEFS [Page 22]

VIEWS [Page 23]



#### **COLUMNS**

Using the <u>system table [Page 10] COLUMNS [See SAP DB Library]</u>, you can determine the following database information, among other things:

 Columns of table RESERVATION in the sequence in which they were defined, together with the relevant comments

```
SELECT columnname, comment
FROM DOMAIN.COLUMNS
WHERE tablename = 'RESERVATION' ORDER BY pos
```

Data types of all columns of table CUSTOMER

```
SELECT columnname, datatype, len, dec, codetype
FROM DOMAIN.COLUMNS
WHERE tablename = 'CUSTOMER'
```

All columns of your own Basis tables that have the data type DATE

```
SELECT tablename, columnname FROM DOMAIN.COLUMNS
```

```
WHERE owner = user
AND tabletype = 'TABLE'
AND datatype = 'DATE'
```

All columns of your own table HOTEL for which a default value was defined, plus this
default value

```
SELECT columnname, default
FROM DOMAIN.COLUMNS
WHERE owner = user
AND tablename = 'HOTEL'
AND default IS NOT NULL
```

 All primary table columns of table ROOM, sorted according to their sequence in the primary key

```
SELECT columnname
FROM DOMAIN.COLUMNS
WHERE tablename = 'ROOM' AND mode = 'KEY' ORDER BY keypos
```

All columns defined with NOT NULL of table CUSTOMER

```
SELECT columnname
FROM DOMAIN.COLUMNS
WHERE tablename = 'CUSTOMER' AND mode = 'MAN'
```

All columns of table RESERVATION that can be changed by the current user

```
SELECT columnname
  FROM DOMAIN.COLUMNS
  WHERE tablename = 'RESERVATION' AND columnprivileges LIKE
'*UPD*'
```

 All columns of table RESERVATION that can be changed by the current user and for which the user can pass on this privilege

```
SELECT columnname
  FROM DOMAIN.COLUMNS
   WHERE tablename = 'RESERVATION' AND columnprivileges LIKE
'*UPD+*'
```

All table columns that were specified as MYDOMAIN during definition of the domain

```
SELECT owner, tablename, columnname FROM DOMAIN.COLUMNS
WHERE domainname = 'MYDOMAIN'
```



Columns in the index: see INDEXCOLUMNS [Page 15]

Columns in the referential constraint: see FOREIGNKEYCOLUMNS [Page 15]

Primary table or view table columns in the view table: see <u>VIEWCOLUMNS [Page</u> 22]



Using the <u>system table [Page 10] CONNECTEDUSERS [See SAP DB Library]</u>, you can determine the following database information, among other things:

 All currently logged-on users and the terminal used by the user in question SELECT username, termid

```
FROM DOMAIN.CONNECTEDUSERS
```

Name of the terminal that the user logged on to

```
SELECT termid

FROM DOMAIN.CONNECTEDUSERS cu, DOMAIN.CONNECTPARAMETERS [See
```

# SAP DB Library] cp WHERE cu.session = cp.session



All defined users: see USERS [Page 21]



## **CONNECTPARAMETERS**

Using the <u>system table [Page 10] CONNECTPARAMETERS [See SAP DB Library]</u>, you can determine the following database information, among other things:

Parameters of your own database session [See SAP DB Library]

SELECT sqlmode, isolevel, timeout, session FROM DOMAIN.CONNECTPARAMETERS



#### **CONSTRAINTS**

Using the <u>system table [Page 10] CONSTRAINTS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All conditions of the columns of table CUSTOMER that represent explicit value checks

SELECT definition
FROM DOMAIN.CONSTRAINTS
WHERE tablename = 'CUSTOMER'

Constraints (integrity conditions) that relate to NOT NULL definitions, primary keys, UNIQUE definitions or referential constrains are not found with this SELECT statement.



NOT-NULL columns: see <a href="COLUMNS">COLUMNS</a> [Page 11]

Primary keys: see COLUMNS

UNIQUE columns: see **INDEXES** [Page 16]

Referential constraint: see FOREIGNKEYS [Page 15]

Columns in a referential constraint: see FOREIGNKEYCOLUMNS [Page 15]

Constraint of a domain: see DOMAINCONSTRAINTS [Page 14]



#### **DBPROCEDURES**

Using the <u>system table [Page 10] DBPROCEDURES [See SAP DB Library]</u>, you can determine the following database information, among other things:

All <u>database procedures [See SAP DB Library]</u> and their comments generated in the last 10 days

SELECT owner, dbprocname, comment FROM DOMAIN.DBPROCEDURES
WHERE createdate >= subdate(date,10)



Parameters of a database procedure: see DBPROCPARAMS [Page 14]



Using the <u>system table [Page 10] DBPROCPARAMS [See SAP DB Library]</u>, you can determine the following database information, among other things:

 All input parameters of your own <u>database procedure [See SAP DB Library]</u> MYPROC and the following parameter information: data type, length and specification of which number in the sequence the parameter has within the database procedure

```
SELECT parametername, datatype, len, dec, pos
FROM DOMAIN.DBPROCPARAMS
WHERE owner = user
AND dbprocname = 'MYPROC'
AND "IN/OUT-TYPE" = 'IN'
```

Total number of parameters in your own database procedure MYPROC

```
SELECT COUNT(*)
FROM DOMAIN.DBPROCPARAMS
WHERE owner = user
AND dbprocname = 'MYPROC'
```



Database procedures: see <a href="DBPROCEDURES">DBPROCEDURES</a> [Page 13]



#### **DOMAINCONSTRAINTS**

Using the <u>system table [Page 10] CONNECTPARAMETERS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All <u>domains [See SAP DB Library]</u> for which a restriction of the permitted values was defined, and this definition

```
SELECT domainname, definition FROM DOMAIN.DOMAINCONSTRAINTS
```



All domains: see **DOMAINS** [Page 14]



Using the <u>system table [Page 10] DOMAINS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All <u>domains [See SAP DB Library]</u> and their comments defined for data type DATE

```
SELECT owner, domainname, comment FROM DOMAIN.DOMAINS
datatype = 'DATE'
```

• All your own domains in which a default value was agreed

```
SELECT domainname, datatype, len, dec, default
FROM DOMAIN.DOMAINS
WHERE owner = user
AND default IS NOT NULL
```



Constraint of a domain: see <a href="DOMAINCONSTRAINTS">DOMAINCONSTRAINTS</a> [Page 14]

Domain for column definition: see <a href="COLUMNS">COLUMNS [Page</a> 11]



# FOREIGNKEYCOLUMNS

Using the <u>system table [Page 10] FOREIGNKEYCOLUMNS [See SAP DB Library]</u>, you can determine the following database information, among other things:

 All <u>referential constraints [See SAP DB Library]</u> in which the column CNO of table CUSTOMER is the referenced column

```
SELECT owner, tablename, columnname, fkeyname, rule
FROM DOMAIN.FOREIGNKEYCOLUMNS
WHERE reftablename = 'CUSTOMER'
AND refcolumnname = 'CNO'
```

 All referential constraints in which the column HNO of table RESERVATION is the referencing column

```
SELECT fkeyname, rule
FROM DOMAIN.FOREIGNKEYCOLUMNS
WHERE tablename = 'RESERVATION'
AND columnname = 'HNO'
```

 All referential constraints in which the referencing columns come from table RESERVATION

```
SELECT DISTINCT fkeyname, rule, refowner, reftablename
FROM DOMAIN.FOREIGNKEYCOLUMNS
   WHERE tablename = 'RESERVATION'
```



All referential constraints: see FOREIGNKEYS [Page 15]



#### **FOREIGNKEYS**

Using the <u>system table [Page 10] FOREIGNKEYS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All <u>referential constraints [See SAP DB Library]</u> in which table CUSTOMER is the referenced table

```
SELECT columnname, fkeyname, rule
FROM DOMAIN.FOREIGNKEYS
WHERE tablename = 'CUSTOMER'
```



Columns in referential constraints: see FOREIGNKEYCOLUMNS [Page 15]



Using the <u>system table [Page 10] INDEXCOLUMNS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All inverted columns (those assigned an index [See SAP DB Library]) of table HOTEL

```
SELECT DISTINCT columnname
FROM DOMAIN.INDEXCOLUMNS
WHERE tablename = 'HOTEL'
```

 All inversions for table RESERVATION, sorted by index, and then by the column sequence specified during index definition

```
SELECT indexname, type, columnname, sort
FROM DOMAIN.INDEXCOLUMNS
WHERE tablename = 'RESERVATION' ORDER BY indexname, columnno
```

 Information about the columns that make up the index MYINDEX of your own table MYTABLE

```
SELECT columnname, sort, datatype, len
FROM DOMAIN.INDEXCOLUMNS
WHERE tablename = 'MYTAB'
AND indexname = 'MYINDEX' ORDER BY columnno
```

All indexes: see **INDEXES** [Page 16]

# INDEXES

Using the <u>system table [Page 10] INDEXES [See SAP DB Library]</u>, you can determine the following database information, among other things:

 All <u>indexes [See SAP DB Library]</u> of the table ROOM and specification of which of the indexes currently has the status disabled

```
SELECT indexname, disabled
FROM DOMAIN.INDEXES
WHERE tablename = 'ROOM'
```

 All UNIQUE indexes (regardless of which of the possible SQL statements was used to generate these indexes: <u>CREATE INDEX statement [See SAP DB Library]</u> or <u>UNIQUE</u> definition [See SAP DB Library])

```
SELECT owner, tablename, indexname FROM DOMAIN.INDEXES
WHERE type = 'UNIQUE'
```



Columns of an index: see <a href="INDEXCOLUMNS">INDEXCOLUMNS</a> [Page 15]



Using the <u>system table [Page 10] LOCKS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All <u>locks [See SAP DB Library]</u> that are currently held on the table ROOM
 SELECT lockmode, lockstate, rowidlength, rowidhex, rowid
 FROM DOMAIN.LOCKS
 WHERE tablename = 'ROOM'

 All locks that the current user is holding in the <u>database session [See SAP DB Library]</u> on table ROOM

```
SELECT lockmode, lockstate, rowidlength, rowidhex, rowid FROM DOMAIN.LOCKS 1 DOMAIN.CONNECTPARAMETERS [See SAP DB Library]
```

```
cp
  WHERE tablename = 'ROOM'
  AND l.session = cp.session
```

 All locks that are currently being held on the table with the hexadecimal internal identification 000000000D34BA8

```
SELECT lockmode, lockstate, rowidlength, rowidhex, rowid
FROM DOMAIN.LOCKS
   WHERE tableid = X'0000000000034BA8'
```

If the current user belongs to <u>database user class [See SAP DB Library] DBA [See SAP DB Library]</u> or <u>SYSDBA [See SAP DB Library]</u>, all locks that are held are displayed.

Users that belong to other user class only see the locks held by that one user.



Using the <u>system table [Page 10] MAPCHARSETS [See SAP DB Library]</u>, you can determine the following database information, among other things:

Name of all <u>MapChar sets [See SAP DB Library]</u>

```
SELECT DISTINCT mapcharsetname FROM DOMAIN.MAPCHARSETS
```

Conversion of hexadecimal value D6 in MapChar set DEFAULTMAP

```
SELECT map_code, map_character
FROM DOMAIN.MAPCHARSETS
WHERE mapcharsetname = 'DEFAULTMAP'
AND intern = X'D6'
```



Using the <u>system table [Page 10] ROLEPRIVILEGES [See SAP DB Library]</u>, you can determine the following database information, among other things:

All <u>privileges [See SAP DB Library]</u> that have been given to <u>role [See SAP DB Library]</u>
 NEW\_ROLE directly for your own table MYTABLE. Privileges granted indirectly, that is, granted for table MYTABLE via a different role, are not displayed.

```
SELECT privileges
FROM DOMAIN.ROLEPRIVILEGES
WHERE grantee = 'NEW_ROLE'
AND owner = user
AND tablename = 'MYTABLE'
```

All roles that were granted to role NEW ROLE. Specification of who granted the role.

```
SELECT role, grantor
FROM DOMAIN.ROLEPRIVILEGES
WHERE grantee = 'NEW_ROLE'
AND role IS NOT NULL
```



All roles: see ROLES [Page 18]

All roles that are used as a default value: see ROLES

All roles that are active in the current database session: see ROLES [Page 18]



Using the <u>system table [Page 10] ROLES [See SAP DB Library]</u>, you can determine the following database information, among other things:

 All roles [See SAP DB Library] that require a password to be specified before they can be activated

```
SELECT owner, role
  FROM DOMAIN.ROLES
  WHERE password required = 'YES'
```

All roles that the current user uses as a default value

```
SELECT role
FROM DOMAIN.ROLES
WHERE defaultrole = 'YES'
```



All roles that are active in the current database session: see <a href="ROLES">ROLES</a> [Page 18]

Role privilege: see ROLEPRIVILEGES [Page 17]



Using the <u>system table [Page 10] SEQUENCES [See SAP DB Library]</u>, you can determine the following database information, among other things:

 All <u>sequences [See SAP DB Library]</u> with an incremental value that is not +1 and the value limits of the sequences

```
SELECT owner, sequence_name, increment_by, min_value, max_value
FROM DOMAIN.SEQUENCES
WHERE increment_by <> 1
```

 All sequences with a positive incremental value. The values are not assigned cyclically, and there are, at most, only 1000 free values remaining.

```
SELECT owner, sequence_name, last_number, max_value
FROM DOMAIN.SEQUENCES
WHERE increment_by > 0
AND cycle_flag = 'N'
AND max value - last number <= 1000</pre>
```

Current value of your own sequence MYSEQ

```
SELECT last_number
FROM DOMAIN.SEQUENCES
WHERE owner = user
AND sequence name = 'MYSEQ'
```

 Last value assigned by the current database session to the own sequence MYSEQ SELECT user.myseq.currval
 FROM DUAL



Using the <u>system table [Page 10] SESSION\_ROLES [See SAP DB Library]</u>, you can determine the following database information, among other things:

All <u>roles [See SAP DB Library]</u> that are active in the current <u>database session [See SAP DB Library]</u>

```
SELECT role FROM DOMAIN.SESSION_ROLES
```



All roles: see ROLES [Page 18]

All roles that are used as a default value: see ROLES

Role privilege: see ROLEPRIVILEGES [Page 17]



Using the <u>system table [Page 10] SYNONYMS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All tables (Basis tables, view tables) for which the PUBLIC <u>synonym [See SAP DB Library]</u> SHORT-TAB was defined

```
SELECT tableowner, tablename
FROM DOMAIN.SYNONYMS
WHERE public = 'YES'
AND synonymname = 'SHORT TAB'
```

Private synonym for table HIS TAB of user USER2

```
SELECT synonymname
FROM DOMAIN.SYNONYMS
WHERE owner = user
AND tableowner = 'USER2'
AND tablename = 'HIS_TAB'
```



Existence of a synonym: see TABLES [Page 20]

# TABLEPRIVILEGES

Using the <u>system table [Page 10] TABLEPRIVILEGES [See SAP DB Library]</u> you can determine the following database information, among other things:

All tables for which the current user has been given a <u>privilege [See SAP DB Library]</u>.
 Own tables are not output.

```
SELECT owner, tablename, privileges
FROM DOMAIN.TABLEPRIVILEGES
WHERE grantee = user
```

 All tables for which the current user has been given the SELECT privilege and is allowed to pass this on. Own tables are not output.

```
SELECT owner, tablename
FROM DOMAIN.TABLEPRIVILEGES
WHERE grantee = user
AND privileges LIKE '*SEL*'
AND is_grantable = 'YES'
```

• All privileges that the current user has passed on to user USER2

```
SELECT owner, tablename, privileges
FROM DOMAIN.TABLEPRIVILEGES
WHERE grantor = user
AND grantee = 'USER2'
```



All tables: see <u>TABLES [Page 20]</u>
Existence of a table: see TABLES

Table definition: see <a href="#">COLUMNS [Page 11]</a>

Synonym for a table: see <a href="SYNONYMS">SYNONYMS</a> [Page 19]

Table privilege: see TABLES

Table in a view definition: see VIEWCOLUMNS [Page 22]



Using the <u>system table [Page 10] TABLES [See SAP DB Library]</u>, you can determine the following database information, among other things:

 All <u>tables [See SAP DB Library]</u>, view tables and <u>synonyms [See SAP DB Library]</u> for which the current user can execute SELECT statements

```
SELECT owner, tablename
FROM DOMAIN.TABLES
WHERE privileges LIKE '*SEL*'
```

All result tables of the current user

```
SELECT tablename
FROM DOMAIN.TABLES
WHERE type = 'RESULT'
```

 All the user's own tables for which the last update statistics run is more than 30 days in the past

```
SELECT tablename, updstatdate
FROM DOMAIN.TABLES
WHERE updstatdate <= subdate (DATE, 30)
```

 Information on which sample values are used to carry out an update statistics run on table CUSTOMER

```
SELECT sample_percent, sample_rows
FROM DOMAIN.TABLES
WHERE tablename = 'CUSTOMER'
```

Internal identification of table HOTEL

```
SELECT tableid
FROM DOMAIN.TABLES
WHERE tablename = 'HOTEL'
```

If this relates to a Basis table, the internal identification of a table can be used, for example, during the lock query (see <u>LOCKS [Page 16]</u>).



Table definition: see <a href="#">COLUMNS [Page</a> 11]

Primary key: COLUMNS

Synonym for a table: see <a href="SYNONYMS">SYNONYMS</a> [Page 19]
Table privilege: see TABLEPRIVILEGES [Page 19]

Table in a view definition: see <u>VIEWCOLUMNS [Page 22]</u>
Constraint of a column or table: see <u>CONSTRAINTS [Page 13]</u>

Referential constraint: see FOREIGNKEYS [Page 15]

Index: see INDEXES [Page 16]

View table: VIEWS [Page 23]

Secondary key: see FOREIGNKEYCOLUMNS [Page 15]

Trigger: see TRIGGERS [Page 21]



Using the <u>system table [Page 10] TRIGGERS [See SAP DB Library]</u>, you can determine the following database information, among other things:

Insert trigger for the table HOTEL

```
SELECT triggername, definition

FROM DOMAIN.TRIGGERS

WHERE tablename = 'HOTEL'

AND INSERT = 'YES'
```

Table and action for which the trigger MYTRIGGER was defined

```
SELECT owner, triggername, insert, update, delete
FROM DOMAIN.TRIGGERS
WHERE triggername = 'MYTRIGGER'
```



Using the <u>system table [Page 10] USERS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All defined users with the <u>database user class [See SAP DB Library] STANDARD [See SAP DB Library]</u>

```
SELECT username, groupname
FROM DOMAIN.USERS
WHERE usermode = 'STANDARD'
```

All users who have not changed their password for over six months

```
SELECT username, pwcreatedate, pwcreatetime
FROM DOMAIN.USERS
WHERE pwcreatedate <= subdate (date,183)</pre>
```

All users who are members of a user group and are allowed to log on to the <u>database</u> instance [See SAP DB Library] several times simultaneously

```
SELECT groupname, username, usermode FROMDOMAIN.USERS

WHERE groupname <> username

AND connectmode = 'MULTIPLE'
```

Name of the database instance on which the current <u>database session [See SAP DB Library]</u> was opened. Name of the server on which this database instance is running.

```
SELECT DISTINCT serverdb, servernode FROM DOMAIN.USERS
```



Currently active user: see CONNECTEDUSERES [Page 12]



Using the <u>system table [Page 10] VERSIONS [See SAP DB Library]</u>, you can determine the following database information, among other things:

Version of the software with which the current <u>database instance [See SAP DB Library]</u> is running, and the operating system that the instance is running on

```
SELECT *
FROM DOMAIN.VERSIONS
```



Using the <u>system table [Page 10] VIEWCOLUMNS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All tables or view tables that form the basis for your own view table MYVIEW

```
SELECT tableowner, tablename
FROM DOMAIN.VIEWCOLUMNS
WHERE owner = user
AND viewname = 'MYVIEW'
```

 Column of the table or view table that forms the basis for column V\_COL of your own view table

```
SELECT tableowner, tablename, columnname
FROM DOMAIN.VIEWCOLUMNS
WHERE owner = user
AND viewname = 'MYVIEW'
AND viewcolumnname = 'V COL'
```

 Determine whether the column TITLE of table CUSTOMER forms the basis of a view table

```
SELECT owner, viewname, viewcolumnname
FROM DOMAIN.VIEWCOLUMNS
WHERE tablename = 'CUSTOMER'
AND columnname = 'TITLE'
```

All views: see VIEWS [Page 23]

Definition of a view: see <u>VIEWDEFS [Page 22]</u> Existence of a view: see <u>TABLES [Page 20]</u>



Using the <u>system table [Page 10] VIEWDEFS [See SAP DB Library]</u>, you can determine the following database information, among other things:

Text that was entered for the definition of your own view table MYVIEW

```
SELECT definition
FROM DOMAIN.VIEWDEFS
WHERE owner = user
AND viewname = 'MYVIEW'
```

Only the <u>owner [See SAP DB Library]</u> of a view table can select the definition. No output is provided for any other users.



All view tables: see VIEWS [Page 23]

Existence of a view table: see TABLES [Page 20]

Tables and columns forming the basis for a view table: see <u>VIEWCOLUMNS</u> [Page 22]



Using the <u>system table [Page 10] VIEWS [See SAP DB Library]</u>, you can determine the following database information, among other things:

All <u>privileges [See SAP DB Library]</u> of your own view table MYVIEW

```
SELECT privileges
FROM DOMAIN.VIEWS
WHERE owner = user
AND viewname = 'MYVIEW'
```

 All view tables and their comments that the current user can see without being the <u>owner</u> [See SAP DB Library]

```
SELECT owner, viewname, comment FROM DOMAIN.VIEWS
WHERE owner <> user
```



Definition text of a view table: see <a href="VIEWDEFS">VIEWDEFS</a> [Page 22]

Existence of a view table: see TABLES [Page 20]

Synonym for a view table: see <a href="SYNONYMS">SYNONYMS</a> [Page 19]

Tables and columns forming the basis for a view table: see <u>VIEWCOLUMNS</u> [Page 22]