T-SQL System Stored Procedures

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The Transact SQL language allow you to use various system stored procedures like: sp_tables, sp_table_privileges, sp_stored_procedures, sp_cursor, sp_executesql, sp_rename, sp_lock, sp_execute, sp_help.

Sp_addextendedproperty

The sp_addextendedproperty is part of Database Engine Stored Procedures and adds a new extended property to a database object.

Sp_addextendedproperty Syntax

```
sp_addextendedproperty
[ @name = 'property_name' ]
[ , [ @value = 'value' ]
  [ , [ @level0type = 'level0_object_type' ]
    , [ @level0name = 'level0_object_name' ]
      [ , [ @level1type = 'level1_object_type' ]
        , [ @level1name = 'level1_object_name' ]
          [ , [ @level2type = 'level2_object_type' ]
            , [ @level2name = 'level2_object_name' ]
] ] ] ] ;
```

Add an extended property to a table:

```
USE model;
GO
EXEC sys.sp_addextendedproperty
@name = N'Test example',
@value = N'This is an example.',
@level0type = N'SCHEMA', @level0name = 'dbo',
@level1type = N'TABLE', @level1name = 'my_table';
GO
```

Sp_columns

The sp_columns is part of Catalog Stored Procedures and return column information for the specified objects that can be queried in the database.

Sp_columns syntax:

```
sp_columns [ @table_name = 'Object name.' ] ,
[ @table_owner = 'The database user who created the table.' ] ,
[ @table_qualifier = 'Database name.' ] ,
[ @column_name = 'Column name.' ] ,
[ @ODBCVer = 'ODBC Version 2 or 3.' ] ;
```

Sp_columns example:

```
USE model;
GO
EXEC sp_columns
@table_name = 'students',
@table_owner = 'dbo';
```

Sp_column_privileges

The sp_column_privileges is part of Catalog Stored Procedures and return column privilege information for a single table in the current database.

Sp_column_privileges syntax:

```
sp_column_privileges [ @table_name = 'Table name.' ] ,
[ @table_owner = 'The database user who created the table.' ] ,
[ @table_qualifier = 'Database name.' ] ,
[ @column_name = 'Column name.' ] ;
```

Sp_column_privileges example:

```
USE model;
GO
EXEC sp_column_privileges
@table_name = 'students',
@table_owner = 'dbo';
```

Sp_special_columns

The sp_special_columns is part of Catalog Stored Procedures and return the optimal set of columns that uniquely identify a row in the table.

Sp_special_columns syntax:

```
sp_special_columns [ @table_name = 'Table name.' ] ,
[ @table_owner = 'The database user who created the table.' ] ,
[ @table_qualifier = 'Database name.' ] ,
[ @col_type = 'Column type.' ] ,
[ @scope = 'The minimum required scope of the ROWID.' ] ,
[ @nullable = 'The special columns can accept a null value.' ] ,
[ @ODBCVer = 'ODBC Version 2 or 3.' ] ;
```

Sp_special_columns example:

```
USE model;
GO
EXEC sp_special_columns
@table_name = 'students',
@table_owner = 'dbo';
```

Sp_configure

The sp_configure is part of Database Engine Stored Procedures and displays or changes global configuration settings for the current server.

Sp_configure syntax:

```
sp_configure [ [ @configname = 'option_name' ] , [ @configvalue = ] 'value' ];
```

Sp_configure example:

```
USE model;
GO
EXEC sp_configure 'show advanced option', '1';
```

Sp_databases

The sp_databases is part of Catalog Stored Procedures and return a list of databases from an instance of the SQL Server or are accessible through a database gateway.

Sp_databases syntax:

```
sp_databases ;
```

Sp_databases example:

```
USE model;
GO
EXEC sp_databases ;
```

Sp_execute

The sp_execute is part of Database Engine Stored Procedures and executes a prepared Transact-SQL statement using a specified handle and optional parameter value.

Sp_execute syntax:

```
sp_execute handle OUTPUT, [bound_param ] [,...n ];
```

Sp_execute example:

```
USE model;
GO
EXEC sp_execute 6, null;
GO
```

Sp_executesql

The sp_executesql is part of Database Engine Stored Procedures and executes a Transact-SQL statement or batch that can be reused many times.

Sp_executesql syntax:

```
sp_executesql [ @stmt = ] statement ;
```

Sp_executesql example:

```
USE model;
GO
EXECUTE sp_executesql
N'SELECT * FROM students WHERE id= @id',
N'@id int',
@id = 3;
```

Sp_fkeys

The sp_fkeys is part of Catalog Stored Procedures and return logical foreign key information for the current database.

Sp_fkeys syntax:

```
sp_fkeys [ @pktable_name = 'Table name.' ] ,
[ @pktable_owner = 'The database user who created the table.' ] ,
[ @pktable_qualifier = 'Database name.' ] ,
[ @fktable_name = 'Table name.' ] ,
[ @fktable_owner = 'The database user who created the table.' ] ,
[ @fktable_qualifier = 'Database name.' ] ;
```

Sp_fkeys example:

```
USE model;
GO
EXEC sp_fkeys
@pktable_name = 'students',
@pktable_owner = 'dbo',
@pktable_qualifier = 'model',
@fktable_name = 'students',
@fktable_owner = 'dbo',
@fktable_qualifier = 'model';
```

Sp_help

The sp_help is part of Database Engine Stored Procedures and reports information about a database object or a data type.

Sp_help syntax:

```
sp_help [ @objname = 'Object name.' ] ;
```

Sp_help example:

```
USE model;
GO
EXEC sp_help;
GO
```

```
USE model;
GO
EXEC sp_help 'students';
GO
```

Sp_helpdb

The sp_helpdb is part of Database Engine Stored Procedures and shows information about a specified database or all databases.

Sp_helpdb syntax:

```
sp_helpdb [ @dbname= 'Database name.' ] ;
```

Sp_helpdb example:

```
EXEC sp_helpdb;
GO

EXEC sp_helpdb N'model';
GO
```

Sp_helpindex

The sp_helpindex is part of Database Engine Stored Procedures and reports information about the indexes on a table or view.

Sp_helpindex syntax:

```
sp_helpindex [ @objname = 'Object name.' ] ;
```

Sp_helpindex example:

```
USE model;
GO
EXEC sp_helpindex N'Departments';
GO
```

Sp_lock

The sp_lock is part of Database Engine Stored Procedures and shows information about locks.

Sp_lock syntax:

sp_lock [[@spid =] 'session ID'] ;

Sp_lock example:

```
USE model;
GO
EXEC sp_lock;
GO
```

Sp_monitor

The sp_monitor is part of Database Engine Stored Procedures and shows statistics about Microsoft SQL Server.

Sp_monitor syntax:

sp_monitor ;

Sp_monitor example:

```
USE model;
GO
EXEC sp_monitor;
GO
```

Sp_prepare

The sp_prepare is part of Database Engine Stored Procedures and prepares a parameterized statement and returns a statement handle for execution.

Sp_prepare syntax:

sp_prepare handle OUTPUT, params, statement, options ;

Sp_prepare example:

```
USE model;
GO
DECLARE @Param1 int;
EXEC sp_prepare @Param1 output,
N'@Param1 nvarchar(250), @Param2 nvarchar(250)',
N'SELECT database_id, name FROM sys.databases
```

```
WHERE name=@Param1 AND state_desc = @Param2';
EXEC sp_execute @Param1, N'Test', N'ONLINE';
GO
```

Sp_pkeys

The sp_pkeys is part of Catalog Stored Procedures and return primary key information for a single table in the current database.

Sp_pkeys syntax:

```
sp_pkeys [ @table_name = 'Table name.' ] ,
[ @table_owner = 'The database user who created the table.' ] ,
[ @table_qualifier = 'Database name.' ] ;
```

Sp_pkeys example:

```
USE model;
GO
EXEC sp_pkeys
@table_name = 'students',
@table_owner = 'dbo',
@table_qualifier = 'model';
GO
```

Sp_rename

The sp_rename is part of Database Engine Stored Procedures and rename the name of an object (table, index, column or alias data type) in the current database.

Sp_rename syntax:

```
sp_rename
[ @objname = 'Object name' ] ,
[ @newname = 'New object name' ] [ , [ @objtype = 'Object type' ] ] ;
```

Rename a table:

```
USE model;
GO
EXEC sp_rename 'Departments', 'test';
GO
```

Rename a column:

```
USE model;
GO EXEC sp_rename 'my_table.b', 'c', 'COLUMN';
GO
```

Sp_renamedb

The sp_renamedb is part of Database Engine Stored Procedures and changes the name of a database.

Sp_renamedb syntax:

```
sp_renamedb
[ @dbname = 'Old database name' ] ,
[ @newname = 'New database name' ] ;
```

Rename a database name:

```
USE master;
GO
CREATE DATABASE myTest;
GO
EXEC sp_renamedb N'myTest', N'Test';
GO
```

Sp_tables

The sp_tables is part of Catalog Stored Procedures and return a list of objects (table or view) that can be queried in the current environment.

Sp_tables syntax:

```
sp_tables [ @table_name = 'Table name.' ] ,
[ @table_owner = 'The database user who created the table.' ] ,
[ @table_qualifier = 'Database name.' ] ,
[ @table_type = "Table, system table, or view." ] ;
```

Sp_tables example:

```
USE model;
GO
EXEC sp_tables ;
GO
```

Sp_table_privileges

The sp_table_privileges is part of Catalog Stored Procedures and return a list of table permissions for the specified table or tables.

Sp_table_privileges syntax:

```
sp_table_privileges [ @table_name = 'Table name.' ] ,
[ @table_owner = 'The database user who created the table.' ] ,
[ @table_qualifier = 'Database name.' ] ;
```

Sp_table_privileges example:

```
USE model;
GO
EXEC sp_table_privileges
@table_name = '%';
```

Sp_server_info

The sp_server_info is part of Catalog Stored Procedures and return a list of attribute names and matching values for SQL Server.

Sp_server_info syntax:

```
sp_server_info [@attribute_id = 'attribute_id'];
```

Sp_server_info example:

```
USE model;
GO
EXEC sp_server_info
@attribute_id = '1';
```

Sp_stored_procedures

The sp_table_privileges is part of Catalog Stored Procedures and return a list of stored procedures in the current environment.

Sp_stored_procedures syntax:

```
sp_stored_procedures [ @sp_name = 'Procedure name.' ] ,
[ @sp_owner = 'The schema or database user who created.' ] ,
```

[@sp_qualifier = 'Database name.'] ;

Sp_stored_procedures example:

```
USE model;
GO EXEC sp_stored_procedures ;
GO
```

Sp_unprepare

The sp_unprepare is part of Database Engine Stored Procedures and discards the execution statement created by the sp_prepare stored procedure.

Sp_unprepare syntax:

```
sp_unprepare handle ;
```

Sp_unprepare example:

```
USE model;
GO
DECLARE @Param1 int;
EXEC sp_prepare @Param1 output,
N'@Param1 nvarchar(100), @Param2 nvarchar(100)',
N'SELECT database_id, name FROM sys.databases
WHERE name=@Param1 AND state_desc = @Param2';
EXEC sp_execute @Param1, N'myDatabase', N'ONLINE';
EXEC sp_unprepare @Param1;
GO
```

Sp_updatestats

The sp_updatestats is part of Database Engine Stored Procedures and runs update statistics against all tables in the current database.

Sp_updatestats syntax:

```
sp_updatestats [ @resample = 'resample'];
```

Sp_updatestats example:

```
USE model;
GO
```

```
EXEC sp_updatestats;
GO
```

Sp_who

The sp_who is part of Database Engine Stored Procedures and shows information about current users, sessions and processes.
Sp_who syntax:

```
sp_who [ [ @loginame = ] 'login' | session ID | 'ACTIVE' ];
```

List all processes:

```
USE model;
GO
EXEC sp_who;
GO
```

List active processes:

```
USE model;
GO
EXEC sp_who 'active';
GO
```

Resources:

www.tsql.info/system-stored-procedures/sp.php