

## APPENDIX C



### Common SQL Server System Objects

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SQL Server contains numerous system objects that greatly enhance the T-SQL language and your productivity. There are too many to mention here, but some of the more commonly used objects are briefly outlined, along with most of the functions/procedures we've seen throughout this book.

#### Global Variables

##### @@IDENTITY

Returns the last identity column inserted into the database. This value can come from any insert that occurred in any table from any user. Because of this you cannot guarantee the value returned to you is the value you caused to be inserted. For this reason, the `SCOPE_IDENTITY()` function is a better choice.

##### @@ROWCOUNT

Returns the number of rows affected by the last executed `INSERT`, `UPDATE`, or `DELETE` statement. This value is reset after every statement so you may need to store its output in a variable if you want to use it later in your code.

##### @@TRANCOUNT

Gives you the number of transactions currently active for the executing batch of commands.

#### System Functions

##### AVG()

Returns the average value of a set.

##### COALESCE(value1, value2, valueN)

Accepts as many parameters as you see fit, and returns the first non-null value.

##### COUNT(criteria)

Returns the total number of records for the requested criteria, based on the query requesting the count. This function is often used with `GROUP BY`.

##### DATABASEPROPERTYEX(database name, property name)

Returns the current value of a specified database property.

##### DATEADD(datepart, number to add/subtract, date)

Adds or removes a specified number of seconds, minutes, hours, days, weeks, months, or years to/from the specified date (there are a few other intervals you can use, such as quarter and millisecond). To add, supply a positive number; to subtract, supply a minus number.

##### DAY(date)

Returns the day part of the provided date.

##### DB\_ID()

Returns the ID of the currently selected database.

##### DB\_NAME(id)



Every database in SQL Server has an ID. Some system views and functions only provide the ID. Passing the ID to this function returns the name of the database.

GETDATE()

Returns the current system date and time. This is based on the locale of the server.

GETUTCDATE()

Returns the Universal Coordinated Time system date and time. This is calculated from the current date, time, and locale of the server on which SQL Server is running.

LEFT(string, number of characters)

Allows you to request a certain number of characters from the left of a supplied string. For instance, `LEFT('Dolly', 4)` would return 'Doll'.

LEN(string)

Returns the length of the supplied string.

LOWER(string)

Converts the supplied string to lower-case text.

LTRIM(string)

Removes leading spaces from the left side of the supplied string.

MAX()

Provides you with the highest value in the set.

MIN()

Provides you with the lowest value in the set.

MONTH(date)

Returns the month for the provided date.

OBJECT\_NAME(id)

Every database object is assigned an ID. If you pass such an ID to this function, it will return the corresponding object's name.

RIGHT(string, number of characters)

As you might expect, the opposite of `LEFT`. `RIGHT('Dolly', 4)` would return 'olly'.

RTRIM(string)

Removes trailing spaces from the right side of the supplied string.

SCOPE\_IDENTITY()

Returns the last inserted identity value that was inserted during the scope of the currently executing code. This is guaranteed to be the value your code inserted, and should be used instead of `@@IDENTITY`.

UPPER(string)

Converts the supplied string to uppercase text.

YEAR(date)

Returns the year for the provided date.

**System Stored Procedures**



`sp_rename (@objname, @newname, @objtype)`

Allows an object to be renamed, such as a table or column.

`sp_help (@objname)`

The `@objname` parameter is optional. If no parameter is provided, a summary of all objects in the database is returned. If a value is provided, information about that object—whether it is a stored procedure, table, or some other type of object—is returned.



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Appendix D: Exercises

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