sqlcmd SQL Server shell

CONCEPTS

Typed lines collect in a batch; nothing runs until GO on a line of its own. GO and :commands belong to sqlcmd, not T-SQL, and must start the line.

Connect -S -U -E -d
↓ type / :r
Batch lines, $(var) expanded
↓ GO
Server runs the batch
↓ results
Output screen, -o, :out

Two variants share the name: go-sqlcmd (standalone, has sqlcmd --version and create) and ODBC sqlcmd from mssql-tools18. sqlcmd -? shows the version on both.

ODBC sqlcmd 18 encrypts by default (-Nm) and validates the certificate, so a local server with a self-signed cert needs -C.

CONNECT

sqlcmd -S *<host>*,*<port>* **-U** *<user>*
Connect with a SQL login

sqlcmd -E
Use integrated (Windows/Kerberos) auth

SQLCMDPASSWORD=*<pw>* **sqlcmd -U** *<user>*
Pass the password via environment

sqlcmd -d *<db>*
Start in a database

sqlcmd -C
Trust the server certificate

:connect *<host>* **-U** *<user>*
Switch server inside a session

RUN SQL

sqlcmd -Q "*<sql>***"**
Run a query and exit

sqlcmd -i *<file.sql>*
Run a script file

sqlcmd -i *<in.sql>* **-o** *<out.txt>*
Write all output to a file

RUN SQL (cont.)

GO
Run the buffered batch

:r *<file>*
Read a file into the batch

:quit
Leave sqlcmd

VARIABLES

:setvar *<var>* **"***<value>***"**
Define a scripting variable

$(*<var>***)**
Insert a variable's value

sqlcmd -v *<var>*="*<value>*"
Set a variable from the shell

OUTPUT

sqlcmd -W
Trim trailing spaces from columns

sqlcmd -s "*<sep>***"**
Set the column separator

sqlcmd -h -1
Omit column headers

ERRORS & EXIT CODES

sqlcmd -b
Stop and exit 1 on an error

GO-SQLCMD CONTAINERS

sqlcmd create mssql --accept-eula
Start SQL Server in a container

T-SQL HELPERS

SELECT name FROM sys.databases;
List databases

USE *<db>***;**
Switch database

SELECT name FROM sys.tables;
List tables in this database

EXEC sp_help '*<table>***';**
Describe a table

SELECT TOP (10) * FROM *<table>***;**
First rows (no LIMIT in T-SQL)

SELECT @@VERSION;
Server version