



# Installing SQL Server Express Edition (**SSE**) (Windows platform, English)

<https://www.microsoft.com/en-us/sql-server/sql-server-downloads>

By: Meyer Tanuan (2022), David Turton (2020)



# SQL Server 2019 Editions

- **Express Edition** – Free (recommended for PROG8080)
  - Max memory 1GB, max database size: 10GB
  - Free and legal for development and production desktop & web apps
- Enterprise & Standard Edition – complex licensing cost
  - Scalable, secure, high performance, clustered
- Developer Edition – Free
  - Same as SQL Server Enterprise, less integration, analysis, & reporting services
  - ... for development & test only, not production
- (localDb)\MsSqlLocalDb – Free, with SQL Express
  - Minimal subset of SQL Express, runs in user (individual) mode (not a server service)
- Azure SQL Server – Microsoft's cloud service



# Uninstalling SQL Server

(only for incorrect and older installations)

- Un-installing SQL Server in an incorrect sequence...
  - → will permanently lock it up ... can't use it, can't get rid of it
  - ... easiest fix: format the drive & re-install Windows (not ideal)
- **Correct procedure:**
  - Navigate to **Settings** from the **Start** menu and choose **Apps**.
  - Select version of **Microsoft SQL Server** to remove.
  - Select **Uninstall**.
  - Select "**Remove**" on the dialog pop-up to launch the **Microsoft SQL Server installation wizard**.

# Installing SQL Server Express (SSE)

- Set region settings to **U.S.**
- **Save** all work and **restart** computer
- Download the **Express Edition**
  - <https://www.microsoft.com/en-us/sql-server/sql-server-downloads>
  - Save **SQL2019-SSEI-Expr.exe** to your local C: drive & then execute it
- Asks you where to save the uncompressed install files
  - You need this later to add/ remove features
    - ... and to uninstall SQL Server
  - Put it in the same folder as your download (e.g., **C:\SQL2019**)
    - Change the file-name to something pertinent

Region

Country or region

United States

Windows and apps might use your country or region to give you local content.

Regional format

Current format: English (United States)

Recommended [English (United States)]

Windows formats dates and times based on your language and regional preferences.

Regional format data

Select Change data formats to switch among calendars, date, and time formats supported by the region.

Calendar:	Gregorian Calendar
First day of week:	Sunday
Short date:	8/2/2022
Long date:	Tuesday, August 2, 2022
Short time:	4:27 PM
Long time:	4:27:10 PM

[Change data formats](#)



**Express**

SQL Server 2019 Express is a free edition of SQL Server, ideal for development and production for desktop, web, and small server applications.

[Download now >](#)

SQL Server 2019



# Express Edition

Select an installation type:

## Basic

Select Basic installation type to install the SQL Server Database Engine feature with default configuration.

## Custom

Select Custom installation type to step through the SQL Server installation wizard and choose what you want to install. This installation type is detailed and takes longer than running the Basic install.

## Download Media

Download SQL Server setup files now and install them later on a machine of your choice.

SQL Server transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about data processing and privacy controls, and to turn off the collection of this information after installation, see the [documentation](#)

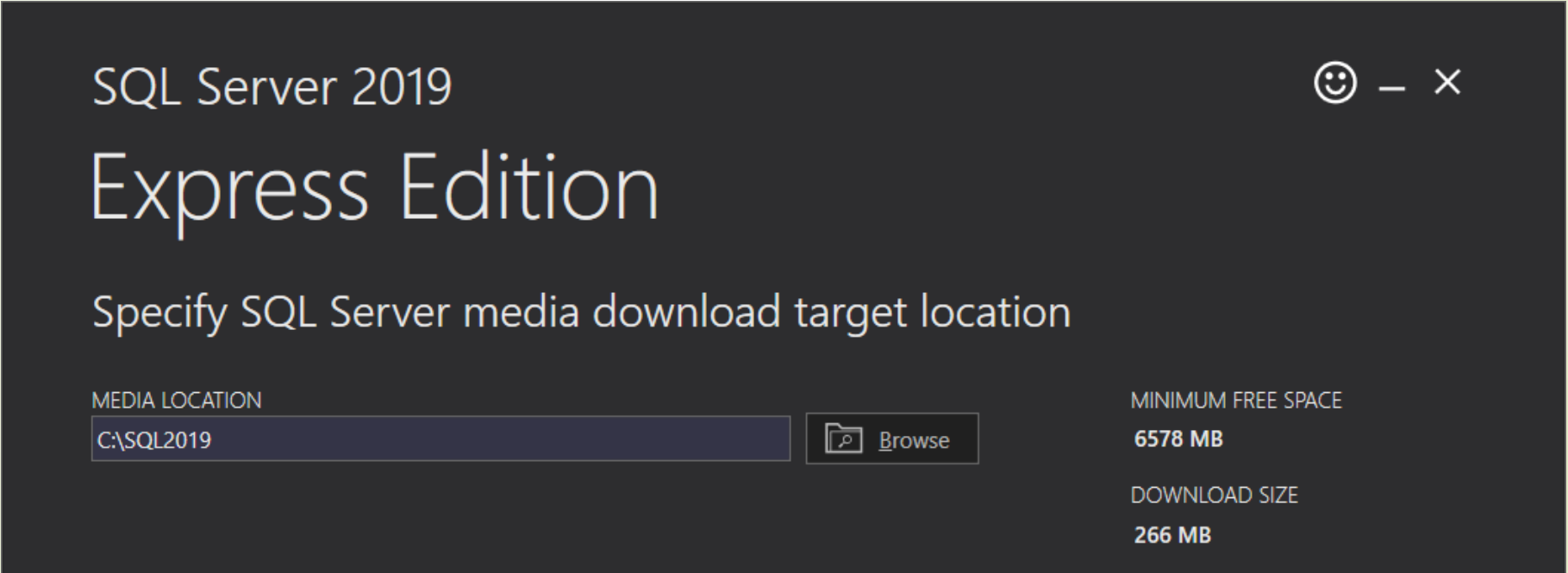
15.2204.5490.2

## Start the Installation

- Select **Custom**
- This option will allow changing the instance name to **SQLEXPRESS19** later.

# Location to download uncompressed files

- ▶ Media Location: **C:\SQL2019**
  - ▶ Click **Install**
- ▶ This downloads and un-compresses the real 800MB install
  - ▶ Option to copy the resulting folder to a USB drive
    - ▶ needed later to add/remove features or to uninstall SQL Server



SQL Server 2019  
Express Edition

Specify SQL Server media download target location

MEDIA LOCATION  
C:\SQL2019

Browse

MINIMUM FREE SPACE  
6578 MB

DOWNLOAD SIZE  
266 MB

SQL Server 2019



# Express Edition

Downloading install package...



Acquiring setup files... 258.469 MB / 796.286 MB 65.571 Mbps

## Getting Started with SQL Server

Thank you for installing Microsoft SQL Server. If you are connecting to SQL Server from a remote machine, then you need to complete the prerequisites mentioned in the "Before you get started" file located in the Resources folder.

Pause

Cancel

15.2204.5490.2



Planning

**Installation**

Maintenance

Tools

Resources

Options

Microsoft SQL Server 2019

**New SQL Server stand-alone installation or add features to an existing installation**

Launch a wizard to install SQL Server 2019 in a non-clustered environment or to add features to an existing SQL Server 2019 instance.

**Install SQL Server Reporting Services**

Launch a download page that provides a link to install SQL Server Reporting Services. An internet connection is required to install SSRS.

**Install SQL Server Management Tools**

Launch a download page that provides a link to install SQL Server Management Studio, SQL Server command-line utilities (SQLCMD and BCP), SQL Server PowerShell provider, SQL Server Profiler and Database Tuning Advisor. An internet connection is required to install these tools.

**Install SQL Server Data Tools**

Launch a download page that provides a link to install SQL Server Data Tools (SSDT). SSDT provides Visual Studio integration including project system support for Microsoft Azure SQL Database, the SQL Server Database Engine, Reporting Services, Analysis Services and Integration Services. An internet connection is required to install SSDT.

**Upgrade from a previous version of SQL Server**

Launch a wizard to upgrade a previous version of SQL Server to SQL Server 2019.

[Click here to first view Upgrade Documentation](#)

Click “**New SQL Server stand-alone installation ...**”

Check the “**I accept the license terms...**” checkbox

Click **Next**

must accept the Microsoft Software License Terms.

**MICROSOFT SOFTWARE LICENSE TERMS****MICROSOFT SQL SERVER 2019 EXPRESS**

These license terms are an agreement between you and Microsoft Corporation (or one of its affiliates). They apply to the software named above and any Microsoft services or software updates (except to the extent such services or updates are accompanied by new or additional terms, in which case those different terms apply prospectively and do not alter your or Microsoft's rights relating to pre-updated software or services). **IF YOU COMPLY WITH THESE LICENSE TERMS, YOU HAVE THE RIGHTS BELOW. BY USING THE SOFTWARE, YOU ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWARE.**

**IMPORTANT NOTICE: AUTOMATIC UPDATES TO PREVIOUS VERSIONS OF SQL SERVER.** If this software is installed on servers or devices running any supported editions of SQL Server prior to SQL Server 2019 (or components of any of them) this software will automatically

Copy Print

☒ I accept the license terms and [Privacy Statement](#)

SQL Server transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about data processing and privacy controls, and to turn off the collection of this information after installation, see the [documentation](#).

&lt; Back

Next &gt;

Cancel



SQL Server 2019 Setup

Microsoft Update

Use Microsoft Update to check for important updates

Global Rules

Microsoft Update

Product Updates

Install Setup Files

Install Rules

License Terms

Feature Selection

Feature Rules

Feature Configuration Rules

SQL Server 2017 Setup

Install Setup Files

If an update for SQL Server Setup is found and specified to be included, the update will be installed.

License Terms

Global Rules

Microsoft Update

Product Updates

Install Setup Files

Install Rules

Feature Selection

Task	Status
Scan for product updates	Completed
Download Setup files	Skipped
Extract Setup files	Skipped
Install Setup files	Skipped

SQL Server 2019 Setup

Install Rules

Setup rules identify potential problems that might occur while running Setup. Failures must be corrected before Setup can continue.

Install Rules

Feature Selection

Feature Rules

Instance Configuration

Java Install Location

Server Configuration

Database Engine Configuration

Consent to install Microsoft R ...

Consent to install Python

Feature Configuration Rules

Installation Progress

Complete

Operation completed. Passed: 3. Failed: 0. Warning: 1. Skipped: 0.

Hide details <<

View detailed report

Re-run

Result	Rule	Status
✓	Consistency validation for SQL Server registry keys	Passed
✓	Computer domain controller	Passed
⚠	Windows Firewall	Warning
✓	SQL 2019 minimum CTP for Upgrade and Side by Side Support	Passed

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Next >

Cancel

SQL Server 2019 Setup

Feature Selection

Select the Express features to install.

Install Rules

Feature Selection

Feature Rules

Instance Configuration

Server Configuration

Database Engine Configuration

Feature Configuration Rules

Installation Progress

Complete

Looking for Reporting Services? [Download it from the web](#)

Features:

Instance Features

- ☒ Database Engine Services
  - ☒ SQL Server Replication
  - ☐ Machine Learning Services and Language Extensions
    - ☐ R
    - ☐ Python
    - ☐ Java
  - ☒ Full-Text and Semantic Extractions for Search
  - ☐ PolyBase Query Service for External Data
    - ☐ Java connector for HDFS data sources

Shared Features

- ☒ Client Tools Connectivity
- ☒ Client Tools Backwards Compatibility
- ☒ Client Tools SDK
- ☒ SQL Client Connectivity SDK
- ☐ LocalDB

Redistributable Features

Select All

Unselect All

Instance root directory: C:\Program Files\Microsoft SQL Server\

Feature description:

The configuration and operation of each instance feature of a SQL Server instance is isolated from other SQL Server instances. SQL Server instances can operate side-by-side on the same computer.

Prerequisites for selected features:

Already installed:

- Windows PowerShell 3.0 or higher
- Microsoft Visual C++ 2017 Redistributable

Disk Space Requirements

Drive C: 1735 MB required, 146658 MB available

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Cancel

Select All and unselect Machine Learning, PolyBase and LocalDB (if allowed to unselect) - LocalDB is the default instance used by Visual Studio (not recommended as it may have limitations that will affect other courses)

SQL Server 2019 Setup

## Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Install Rules  
Feature Selection  
Feature Rules  
**Instance Configuration**  
Server Configuration  
Database Engine Configuration  
Feature Configuration Rules  
Installation Progress  
Complete

☐ Default instance

☒ Named instance:

Instance ID:

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL15.SQLEXPRESS19

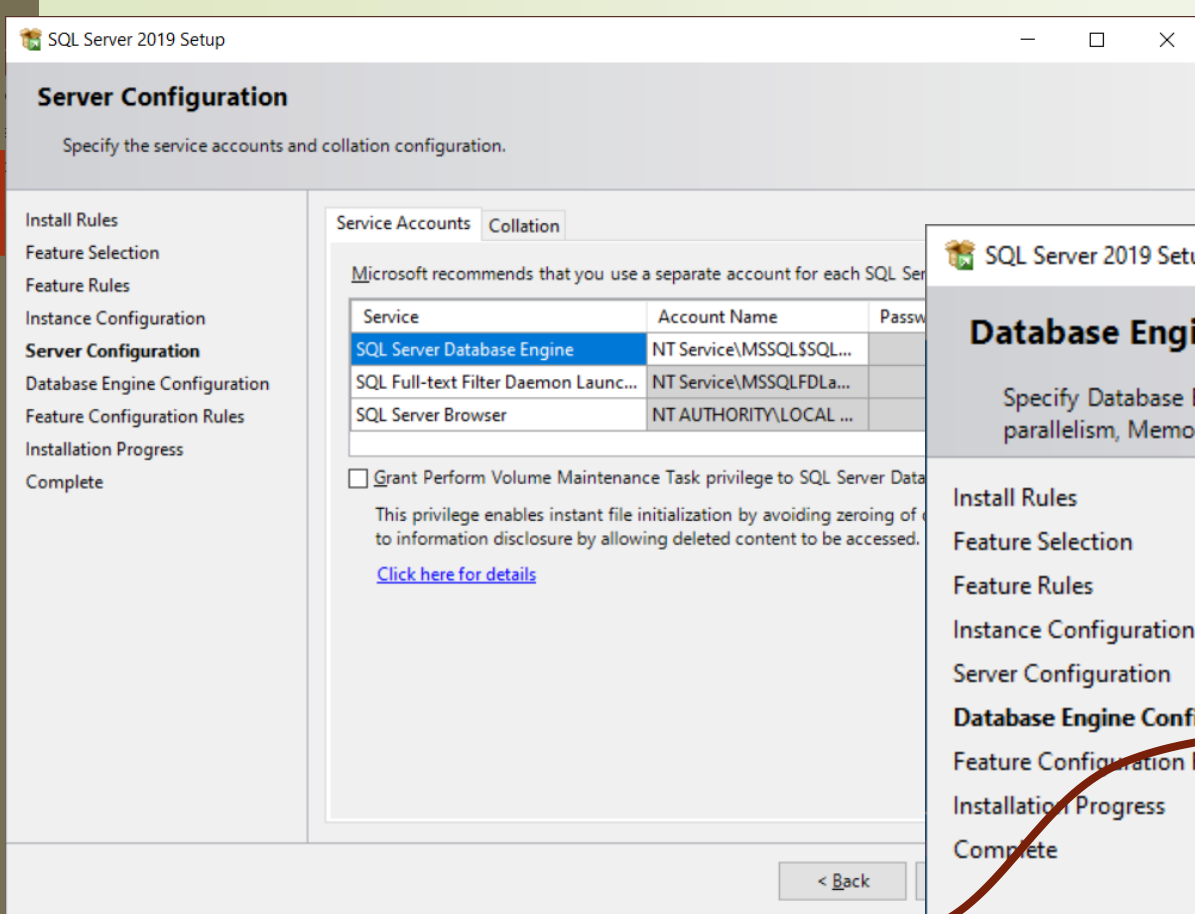
Installed instances:

Instance Name	Instance ID	Features	Edition	Version
---------------	-------------	----------	---------	---------

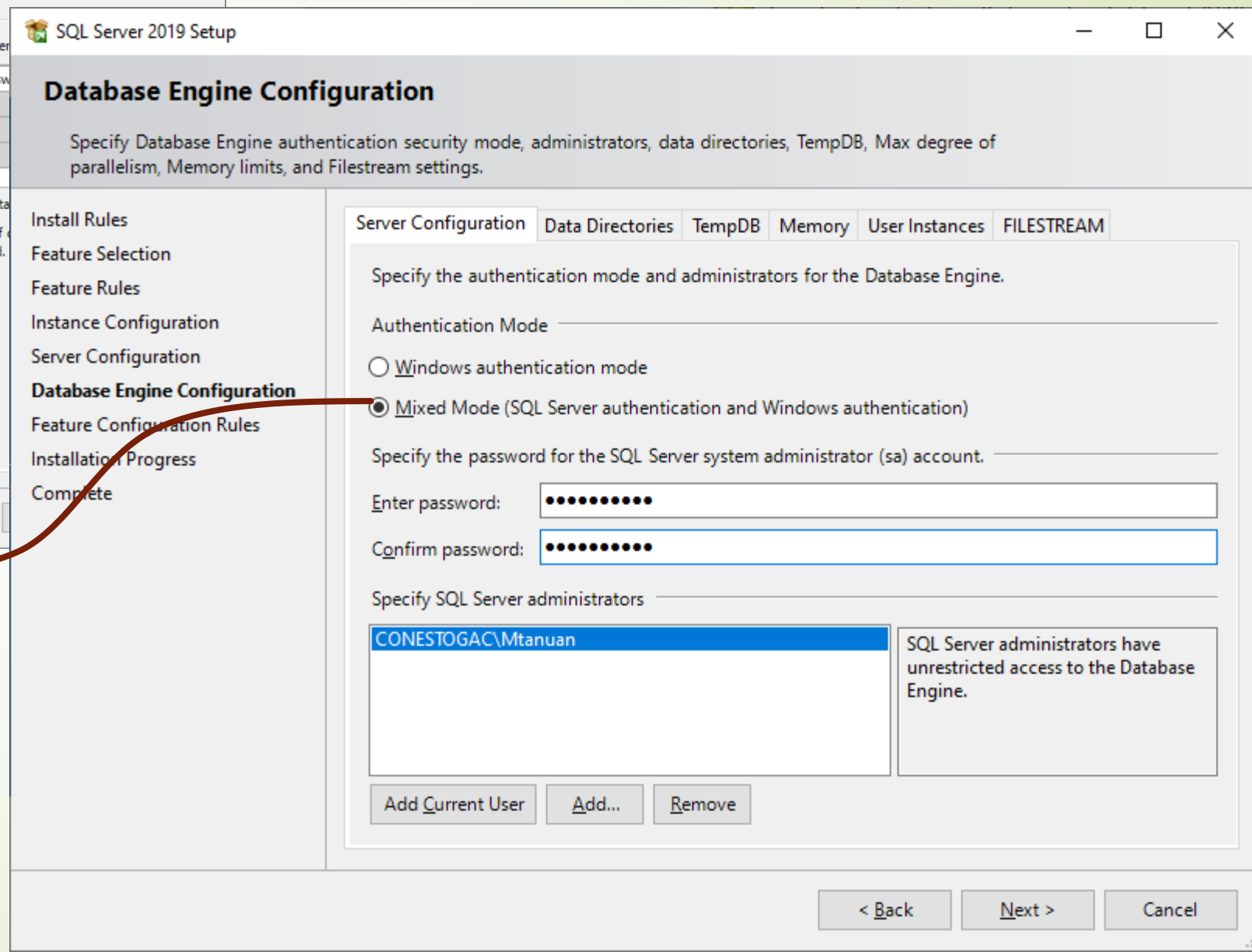
< Back   Next >   Cancel

Append the version year (e.g., "19") to the default "SQLExpress" so that future versions of SQL Server Express will not have a name conflict.

- If possible, use **ALL CAPS** (e.g., **SQLEXPRESS19**)
- The **Instance ID** automatically gets updated



Default stuff...



Why **mixed-mode**?

When I deploy to production, I can hard-code a userid (**sa**) and password (**Conestoga1**) managed by SQL Server

## Complete

Your SQL Server 2019 installation completed successfully with product updates.

Install Rules  
Feature Selection  
Feature Rules  
Instance Configuration  
Server Configuration  
Database Engine Configuration  
Feature Configuration Rules  
Installation Progress  
**Complete**

Information about the Setup operation or possible next steps:

Feature	Status
✓ Full-Text and Semantic Extractions for Search	Succeeded
✓ Database Engine Services	Succeeded
✓ SQL Server Replication	Succeeded
✓ SQL Browser	Succeeded
✓ SQL Writer	Succeeded

Details:

Install successful.

Summary log file has been saved to the following location:

[C:\Program Files\Microsoft SQL Server\150\Setup Bootstrap\Log\20200512\\_103724\Ssummary Gopher 20200512\\_103724.txt](C:\Program Files\Microsoft SQL Server\150\Setup Bootstrap\Log\20200512_103724\Ssummary Gopher 20200512_103724.txt)

Close

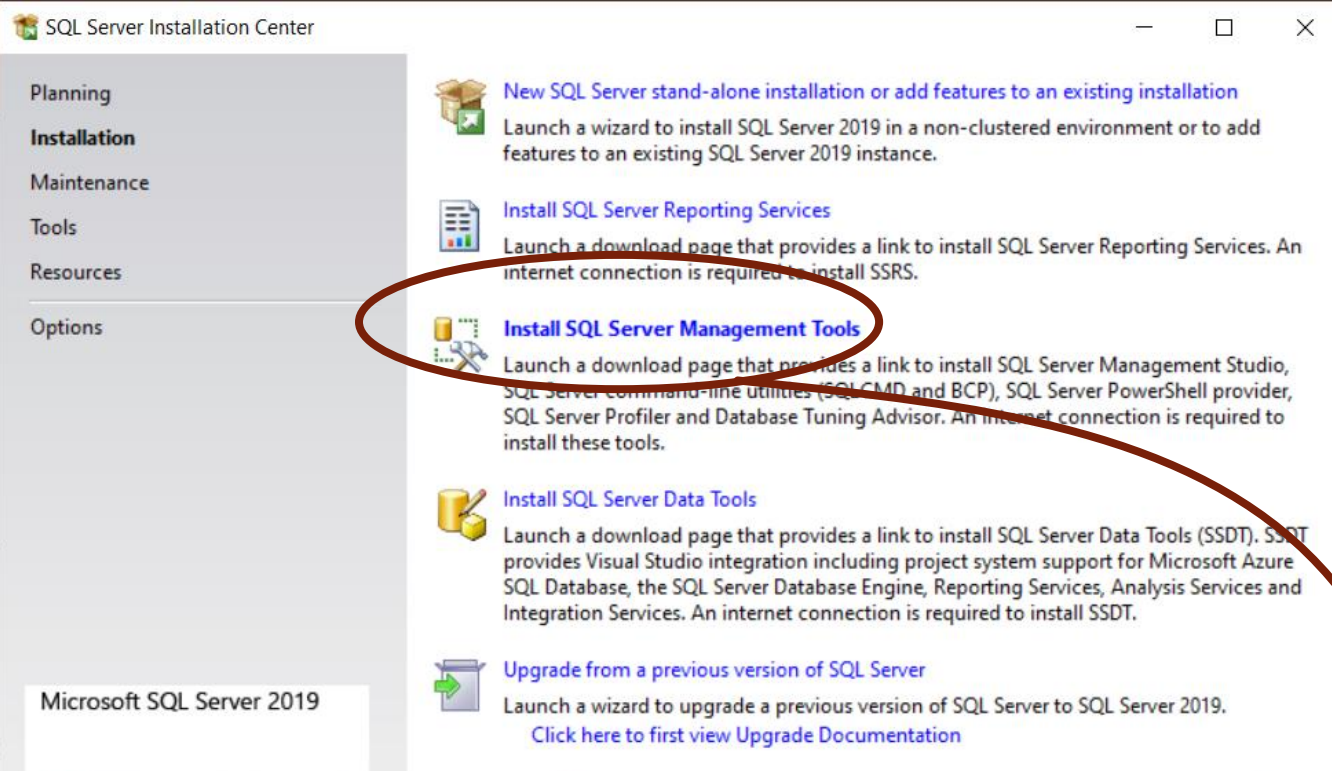


# SQL Server Management Studio (SSMS)

Used to create, modify & install databases

Can also be used to manage databases on Microsoft's **Azure cloud**





## Run **SETUP.EXE**

- **C:\SQL2019\ExpressAdv\_ENU**

Select **Install SQL Server Management Tools** link

## Download and execute the latest 18.x...

- **SSMS-Setup-ENU.exe**  
- They support all versions of SQL Server since 2008 and all editions ... Enterprise, Standard, Express & LocalDB

- > Installation
- > Migrate & load data
- > Manage, monitor, & tune
- > Query data
- > Reporting & Analytics
- > Security
- > Tools
  - Overview
  - Azure Data Studio >
  - > Command prompt utilities
  - > Database Tuning Advisor (DTA)
  - > Distributed Replay
  - Go-SQLCMD
  - > SQL Server Configuration Manager

Develop ▾ Administer ▾ Analyze ▾ Reference ▾

Docs / SQL / Tools /

# Download SQL Server Management Studio (SSMS)

Article • 06/21/2022 • 7 minutes to read • 42 contributors

**Applies to:** ✓ SQL Server (all supported versions) ✓ Azure SQL Database ✓ Azure SQL Managed Instance ✓ Azure Synapse Analytics

SQL Server Management Studio (SSMS) is an integrated environment for managing any SQL infrastructure, from SQL Server to Azure SQL Database. SSMS provides tools to configure, monitor, and administer instances of SQL Server and databases. Use SSMS to deploy, monitor, and upgrade the data-tier components used by your applications, and build queries and scripts.

Use SSMS to query, design, and manage your databases and data warehouses, wherever they are on your local computer, or in the cloud.

## Download SSMS

To download SSMS 19 Preview 2, visit [Download SSMS 19](#).

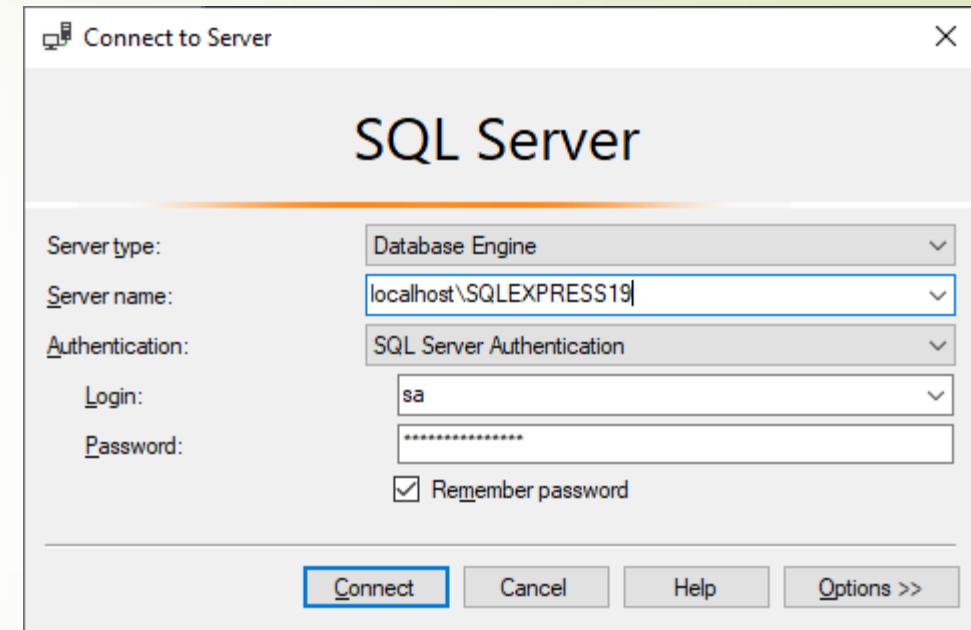
📥 [Free Download for SQL Server Management Studio \(SSMS\) 18.12.1](#)

SSMS 18.12.1 is the latest general availability (GA) version. If you have a previous GA version of SSMS 18 installed, installing SSMS 18.12.1 upgrades it to 18.12.1.

- Release number: 18.12.1
- Build number: 15.0.18424.0
- Release date: June 21, 2022

# Test Connect to SQL Server Express 2019

- At the end of the **SSE** install process, install SQL Server Management Studio (**SSMS**) by clicking the button in the dialog
- Once all is installed, you can type **ssms** into the Windows 10 search text to start the Management Studio application
- Once running, it will show a connection dialog.
  - Server type: **Database Engine**
  - Server name: **localhost\SQLEXPRESS19**
  - Authentication: **SQL Server Authentication**
  - Login/Password: **sa/Conestoga1**
    - **Check:** Remember password
  - Click **Connect**
  - SQL Server Management Studio window appears



Connect to Server

SQL Server

Server type: Database Engine

Server name: localhost\SQLEXPRESS19

Authentication: SQL Server Authentication

Login: sa

Password: \*\*\*\*\*

☒ Remember password

Connect Cancel Help Options >>