

LOGIC TECH SERVICES

Wonderware's SQL Server Express 2014 R2 SP1

Revision: 1.0

Status: Public

Published:
February 28, 2017



Wonderware System Platform 2014 R2 SP1 includes SQL Server Express 2014 SP1 with Tools 32-bit (12.0.4100.1). This document covers the results from testing the installation and from verifying the components that get installed.

Summary

- The installation process is similar to installing SQL Server Standard, with a few differences.
- SQL Server Management Studio is available.
- SQL Server Profiler is available.
- Extended Events (a relatively new alternative to SQL Server Profiler) is available.
- SQL Server Reporting Services is not available.
- TCP/IP is not enabled by default, so use SQL Server Configuration Manager to enable it.
- SQL Server Agent gets installed but it will not run.

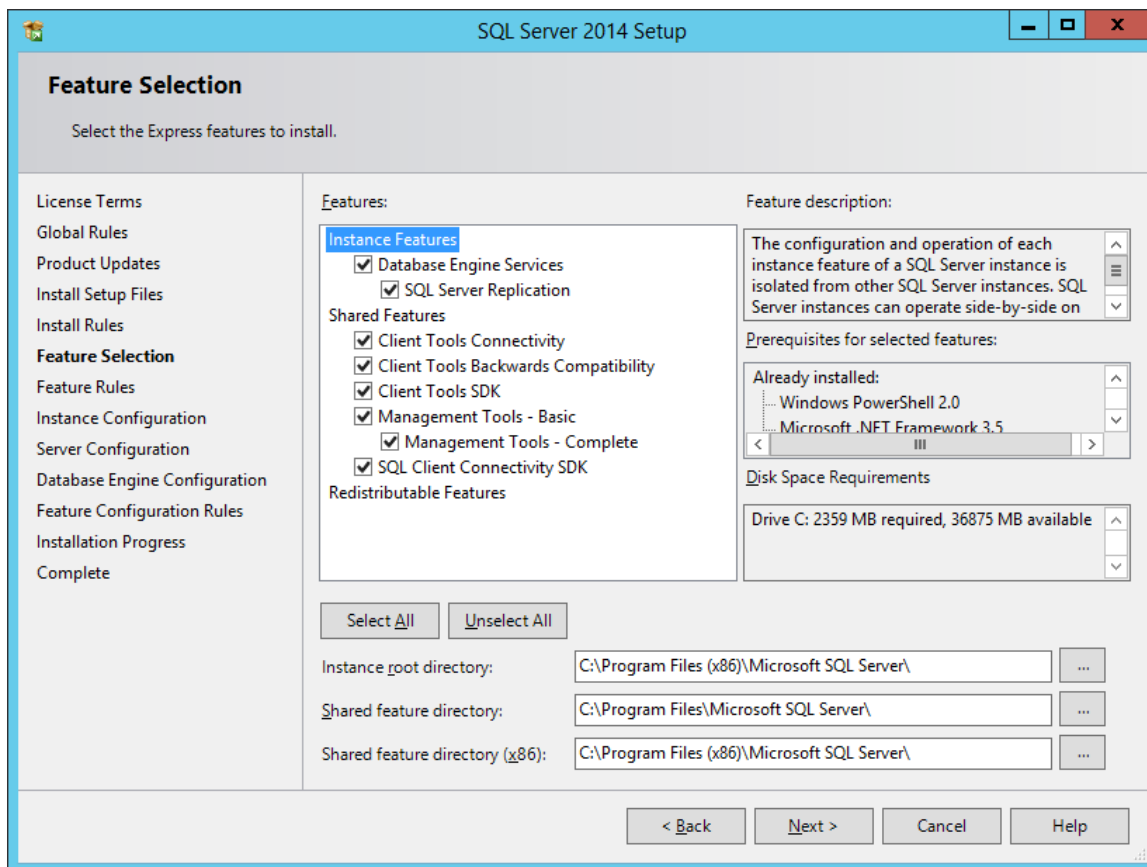
Installation

The installation runs you through an installation similar to what you see in Wonderware's TN548 "Installing Microsoft SQL Server 2012 for Wonderware Products". Of course this is SQL Server 2014 and also the Express edition so it's a little different. This section covers some of the differences.

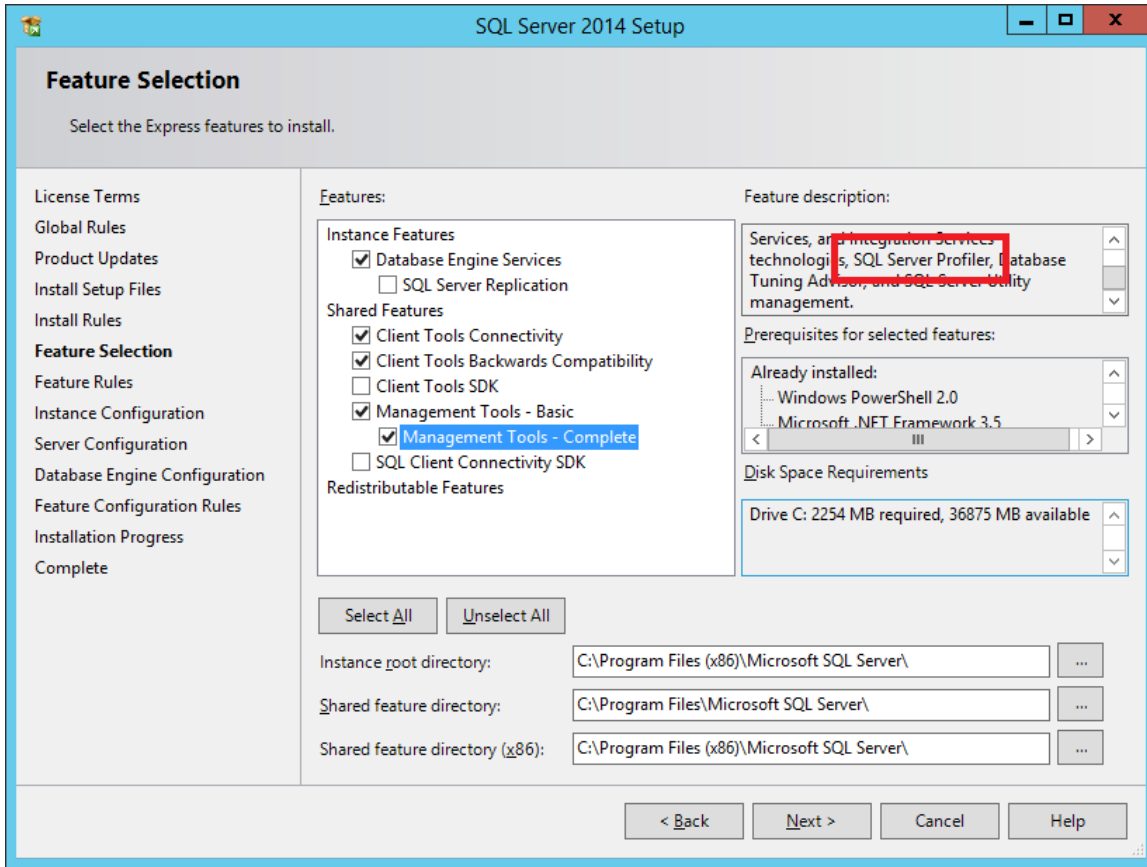
The installer for SQL Server 2014 SP1 with Tools is found in the Wonderware System Platform installation media under InstallFiles\Redist\SQL2014EXPRSP1.

Run SQLEXPRT_x86_ENU.exe to extract the installation files to a folder of your choosing. Once extracted, go to the folder containing the extracted files and run SETUP.EXE to begin the installation.

There are relatively few features available for installation compared to the Standard edition:

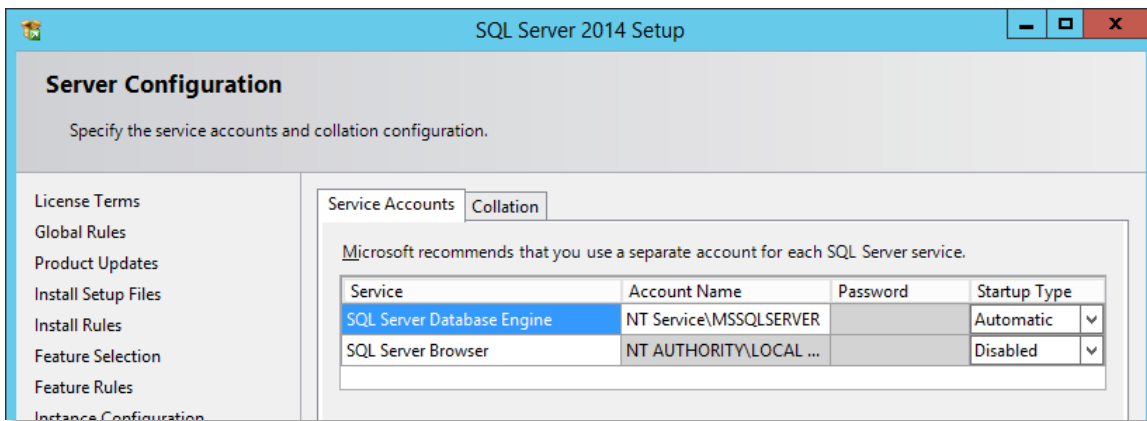


For a minimal install, you can uncheck SQL Server Replication, Client Tools SDK, and SQL Client Connectivity SDK. Be sure to select Management Tools – Complete in order to get SQL Server Profiler.



The installer will want to install SQL Server Express as a named instance called "SQLEXPRESS" by default. When used with Wonderware software, you should opt to have it install as the default instance instead.

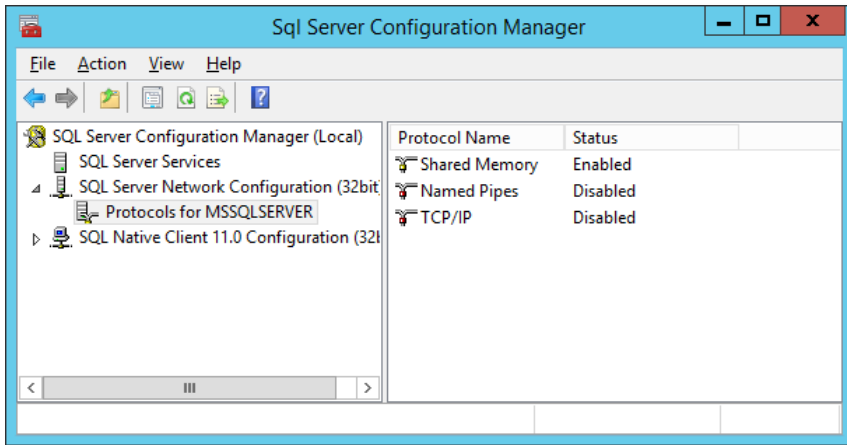
There is no SQL Agent listed as a service. In fact, it does get installed, but it will not run.



Otherwise, the installation is similar to the Standard edition's installation.

TCP/IP is Not Enabled

The TCP/IP protocol needs to be enabled for connectivity. After installation, launch SQL Server Configuration Manager and select SQL Server Configuration Manager > SQL Server Network Configuration > Protocols for MSSQLSERVER. TCP/IP is Disabled by default. Change it to Enabled, then restart the SQL Server service for the change to take effect.



SQL Server Agent Will Not Run

SQL Server Agent is often used for scheduled tasks, such as automated database backups. With this version of SQL Server Express, SQL Server Agent gets installed but it will not run. Therefore it cannot be used for backups and the like.

See [How to Schedule and Automate Backups of SQL Server Databases in SQL Server Express](#) for Microsoft's recommendation on how to automate backups for SQL Server Express databases. Alternatively, there are other methods and 3rd party utilities available that can be found by Internet search.

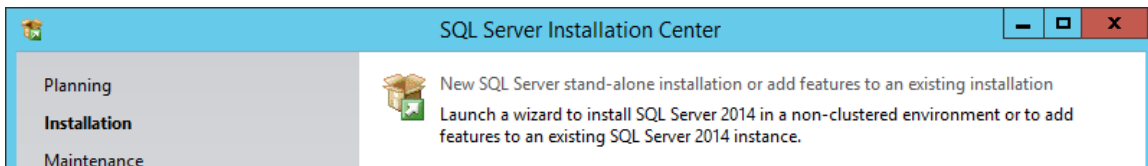
SQL Server Reporting Services is Not Installed

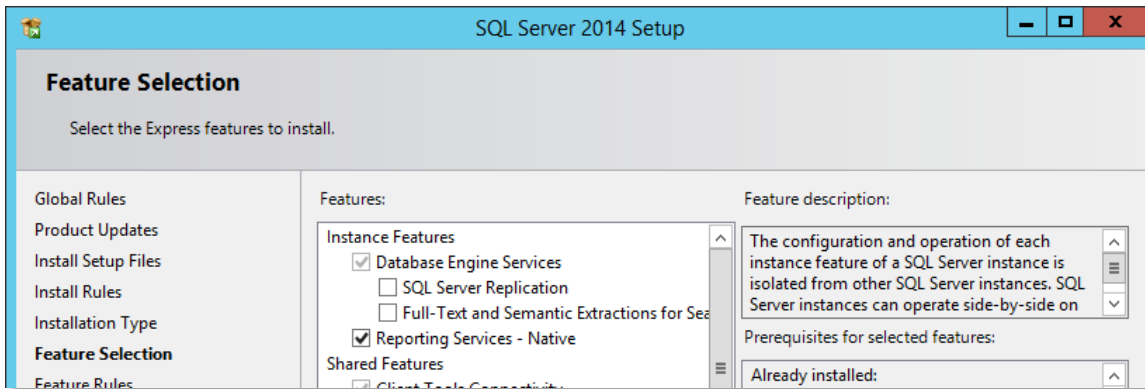
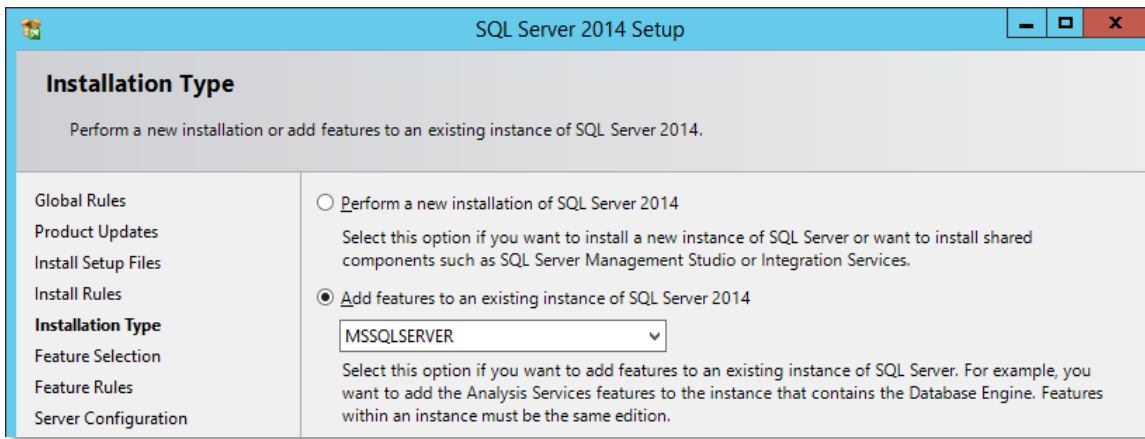
SQL Server Reporting Services (SSRS) is required for the Wonderware Information Server Archedra Reporting feature and for Wonderware MES Reports.

The "with Tools" version of SQL Server Express that comes with Wonderware System Platform does include the SQL Server Reporting Services Configuration utility, but that is a bit misleading. It does not come with SSRS itself.

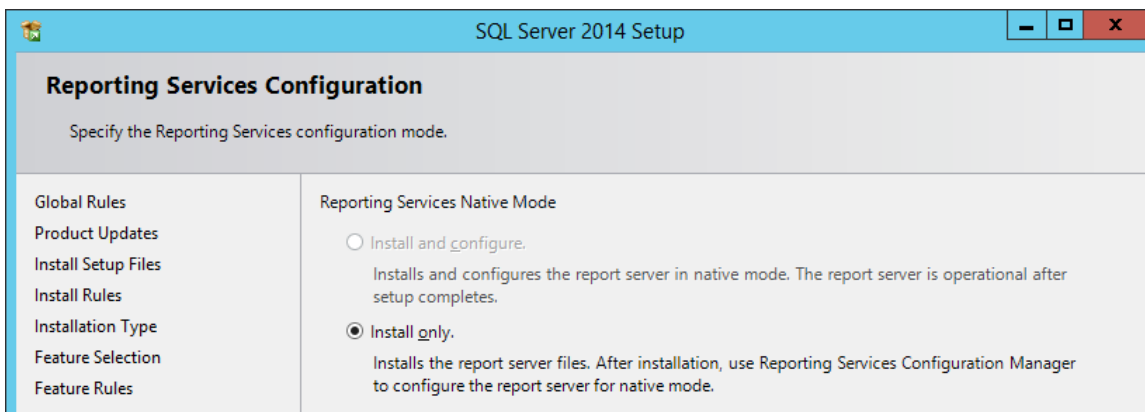
If SSRS is needed, thankfully the SQL Server Express with Advanced Services (SQLEXPADV) version includes an Express version of SSRS. Naturally it is not as fully-featured as the version of SSRS that comes with the Standard and Enterprise editions of SQL Server, but it is quite capable.

If you already have SQL Server 2014 SP1 with Tools installed, you can download the Advanced Services version and use it to add SSRS to the existing installation.





When adding SSRS to an existing installation, the installation wizard will only allow the "Install only" option.



SSRS will have to be configured using the Reporting Service Configuration Manager separately. Doing so is outside the scope of this document. [Microsoft's website](#) has documentation on how to configure SSRS.

The various versions of SQL Server Express 2014 SP1, including the Advanced Services version, from [Microsoft's website](#).

Business Intelligence Development Studio is Not Installed

Previous versions of SQL Server used to include an option to install Business Intelligence Development Studio (BIDS). It is quite useful if you need to work on SSRS reports, SQL Server Integration Services projects, and the like.

BIDS is not included with any of the editions of SQL Server, Express or otherwise. Nor do they call it BIDS anymore.

Now Microsoft provides [SQL Server Data Tools](#) (SSDT) for development work. You can download and install SSDT in order to get the tools need to work on SSRS reports and other SQL Server development projects.

References

Features Supported by the Editions of SQL Server 2014

[https://msdn.microsoft.com/en-us/library/cc645993\(v=sql.120\).ASPX](https://msdn.microsoft.com/en-us/library/cc645993(v=sql.120).ASPX)

Downloads of various types of SQL Server 2014 SP1 Express (With Tools, With Advanced Services, etc.)

<https://www.microsoft.com/en-us/download/details.aspx?id=46697>

How to Schedule and Automate Backups of SQL Server Databases in SQL Server Express – Microsoft's official recommendation

<https://support.microsoft.com/en-us/help/2019698/how-to-schedule-and-automate-backups-of-sql-server-databases-in-sql-server-express>

Automate SQL Server Express Backups and Purge Old Backups – an alternative using PowerShell

<https://www.mssqltips.com/sqlservertip/3458/automate-sql-server-express-backups-and-purge-old-backups/>

Reporting Services Configuration Manager (Native Mode)

[https://technet.microsoft.com/en-us/library/ms156305\(v=sql.120\).aspx](https://technet.microsoft.com/en-us/library/ms156305(v=sql.120).aspx)

Download SQL Server Data Tools (SSDT)

<https://docs.microsoft.com/en-us/sql/ssdt/download-sql-server-data-tools-ssdt>

SQL Server Reporting Services Report Manager Site Permissions Error after Installation – potentially useful if you get permission errors in the SSRS Report Manager website

<https://www.mssqltips.com/sqlservertip/3144/sql-server-reporting-services-report-manager-site-permissions-error-after-installation/>