

SQL Server Installation and Configuration

SQL Server 2014

Install and configure SQL Server

- Installation decisions
- Design the storage for new databases
- Plan for growth and capacity
- Service account configuration

Installation Decisions

- Determine the appropriate hardware
- Select the appropriate windows operating system edition
- Select the appropriate edition of SQL Server
- Determine if a separate instance is required
- Select the appropriate collation

Appropriate hardware

- To [virtualize](#) or [not](#) to virtualize?
- CPU sockets and cores
- Memory
 - Memory support is a function of the Windows operating system or the chosen edition
- Storage considerations

Appropriate OS

- Specific editions of SQL Server are supported on specific versions and editions of Windows Client and Windows Server
- One way or another, the following operating systems are [supported](#):
 - Windows Server 2012
 - Windows Server 2008 R2 and Windows Server 2008 SP2
 - Windows Vista, Windows 7, and Windows 8
- SQL Server 2012 core is supported on Windows Server 2012 core and Windows Server 2008 R2 core

Editions of SQL Server 2014

- [Editions](#) to choose from are:
 - Principal Editions
 - Enterprise
 - Business Intelligence
 - Standard
 - [Evaluation](#)
 - Specialized Edition(s)
 - Web
 - Breadth Editions
 - [Express](#)
 - [Developer](#)

Server instances

- Each instance will have its own set of services and service settings
 - Separate administration requirements
 - Separate instance-level configuration settings
 - Support for multiple versions of SQL Server
 - Know which features can be installed as instances

SQL Server 2012 RC0 Setup

Instance Configuration

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

- Setup Support Rules
- Product Key
- License Terms
- Setup Role
- Feature Selection
- Installation Rules
- Instance Configuration**
- Disk Space Requirements
- Server Configuration
- Database Engine Configuration
- Analysis Services Configuration
- Reporting Services Configuration
- Distributed Replay Controller
- Distributed Replay Client
- Error Reporting
- Installation Configuration Rules
- Ready to Install
- Installation Progress
- Complete

Default instance

Named instance: BerlinDevInstanz

Instance ID: BERLINDEVINSTANZ

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

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL11.BERLINDEVINSTANZ

Analysis Services directory: C:\Program Files\Microsoft SQL Server\MSAS11.BERLINDEVINSTANZ

Reporting Services directory: C:\Program Files\Microsoft SQL Server\MSRS11.BERLINDEVINSTANZ

Installed instances:

Instance Name	Instance ID	Features	Edition	Version
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Files and Filegroups

- Three types of files
 - Primary
 - contains the startup information for the database and points to the other files in the database
 - Every database has one primary data file
 - The recommended file name extension for primary data files is .mdf
 - Secondary
 - optional, user-defined, and store user data
 - recommended file name extension for secondary data files is .ndf
 - Log
 - hold the log information that is used to recover the database. There must be at least one log file for each database
 - Recommended file name extension for transaction logs is .ldf

Database Engine Configuration

Specify Database Engine authentication security mode, administrators and data directories.

- Setup Support Rules
- Product Key
- License Terms
- Setup Role
- Feature Selection
- Installation Rules
- Instance Configuration
- Disk Space Requirements
- Server Configuration
- Database Engine Configuration**
- Analysis Services Configuration
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- Distributed Replay Controller
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Server Configuration | **Data Directories** | FILESTREAM

Data root directory:	<input type="text" value="C:\Program Files\Microsoft SQL Server\"/>	...
System database directory:	<input type="text" value="C:\Program Files\Microsoft SQL Server\MSSQL11.BERLINDEVINSTANZ\MSSQL\Data"/>	
User database directory:	<input type="text" value="C:\Program Files\Microsoft SQL Server\MSSQL11.BERLINDEVINSTANZ\MSSQL\Data"/>	...
User database log directory:	<input type="text" value="C:\Program Files\Microsoft SQL Server\MSSQL11.BERLINDEVINSTANZ\MSSQL\Data"/>	...
Temp DB directory:	<input type="text" value="C:\Program Files\Microsoft SQL Server\MSSQL11.BERLINDEVINSTANZ\MSSQL\Data"/>	...
Temp DB log directory:	<input type="text" value="C:\Program Files\Microsoft SQL Server\MSSQL11.BERLINDEVINSTANZ\MSSQL\Data"/>	...
Backup directory:	<input type="text" value="C:\Program Files\Microsoft SQL Server\MSSQL11.BERLINDEVINSTANZ\MSSQL\Backup"/>	...

System Databases

- Master – records all system level information
- Model – contains templates for creating new objects in the server
- MSDB - used by SQL Server Agent for scheduling alerts and jobs
- TempDB – automatically created and hold temporary data

Working with database properties

- Database growth
- Database auto growth
- Database shrinking
- Other database properties