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# Introduction

Products included in Wonderware System Platform 2012 R2 (Historian/Historian Client, Wonderware Application Server, and Wonderware Information Server) support 32- and 64-bit versions of SQL Server 2012, but only for Standard Edition and Enterprise Edition. Only the 32-bit version of SQL Server 2012 Express Edition is supported.

Check the Compatibility DB Matrix on the Wonderware Developer Network for details.

This Tech Note provides step-by-step procedures to install Microsoft SQL Server 2012 on a 32- or 64-bit Operating System.

You should allow approximately 1-2 hours to complete the installation.

# **Application Versions**

- Microsoft SQL Server 2012
- All Wonderware Products that support/run with MS SQL Server 2012

Installing SQL Server 2012

1. Insert the SQL Server 2012 installation DVD into your DVD drive. If the autorun feature on your DVD drive does not launch the installation program, navigate to the root of the DVD and double-click Setup.exe. You will see the SQL Server Installation Center:



FIGURE 1: SQL SERVER INSTALLATION CENTER

Important: SQL Server 2012 is not supported for versions prior to System Platform 2012 R2. For more information, which product is supported with what SQL Server version, please see the Database Compatibility Matrix on the Wonderware Developer Network.

2. Click the Installation item and then New SQL Server stand-alone installation (Figure 2 below).



FIGURE 2: SQL Server Installation Center/Installation Options

3. This installation runs the **Setup Support Rules** operation. This operation identifies problems that might occur during the installation of SQL Server Setup Support files.

You must correct all the problems before the install can continue.

• Click the Show Details button to see the status of the rules (Figure 3 below).



FIGURE 3: COMPLETED SETUP SUPPORT RULES

- 4. Click OK.
- 5. On the **Product Key** dialog box, click the **Enter the product key** option. The embedded product key should appear in the field.

🚼 SQL Server 2012 Setup		×
<b>Product Key</b> Specify the edition of SQL Se	erver 2012 to install.	
Product Key License Terms Product Updates Install Setup Files	Validate this instance of SQL Server 2012 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server, such as Evaluation or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. To upgrade from one edition to another, run the Edition Upgrade Wizard.	
	< Back Next > Cancel	

# FIGURE 4: EMBEDDED PRODUCT KEY

6. Click Next and review the license terms. Click I Accept the License Terms and then click Next.

🏶 SQL Server 2012 Setup	
License Terms To install SQL Server 2012,	you must accept the Microsoft Software License Terms.
Product Key License Terms Product Updates Install Setup Files	<ul> <li>MICROSOFT SOFTWARE LICENSE TERMS</li> <li>MICROSOFT SQL SERVER 2012 STANDARD</li> <li>These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft</li> <li>updates,</li> <li>supplements,</li> <li>Internet-based services, and</li> <li>support services</li> <li>for this software, unless other terms accompany those items. If so, those terms apply.</li> <li>I accept the license terms.</li> <li>Send feature usage data to Microsoft. Feature usage data includes information about your hardware configuration and how you use SQL Server and its components.</li> </ul>
	See the Microsoft SQL Server 2012 Privacy Statement for more information.

FIGURE 5: ACCEPT LICENSE TERMS

7. On the Install Setup Files wizard, click Install to continue with the support files installation.

SQL Server 2012 Setup		
SQL Server Setup Files	be installed. If an update for SQL Server Setup is fo	ound and specified to be included, the update will also
Product Key License Terms	SQL Server Setup files are being installed or	n the system.
Install Setup Files	Task	Status
Install Setup Files	Scan for product updates	Completed
	Download Setup files	Skipped
	Extract Setup files	Skipped
	Install Setup files	In Progress
		< Back Install Cance

### FIGURE 6: SUPPORT FILES INSTALLATION

8. When the Support Files installation is finished, resolve any Failed Status messages and click Next.

**Note:** Using Windows Firewall is optional. If it is enabled, you must make sure the appropriate ports are open to enable remote access for SQL Server. You can proceed with the SQL Server installation and configure the ports later if desired.

🏀 SQL Server 2012 Setup		
Setup Support Rules Setup Support Rules identify pro before Setup can continue.	oblems that might occur when you install SQL Server Setup support files. Failur	res must be corrected
Setup Support Rules Setup Role Feature Selection Installation Rules Disk Space Requirements	Operation completed. Passed: 7. Failed 0. Warning 1. Skipped 0. Hide details << <u>View detailed report</u>	Re-run
Installation Configuration Rules Ready to Install Installation Progress Complete	Rule         Image: Previous releases of SQL Server 2008 Business Intelligence Develop         Image: Previous releases of SQL Server "Denali" CTP0         Image: Previous releases of SQL Server registry keys         Image: Previous releases of SQL Server	Status         Passed         Passed         Passed         Passed         Passed         Passed         Passed         Warning
	< Back	Next > Cancel Help

FIGURE 7: SETUP SUPPORT FILES INSTALLATION COMPLETED

9. Select SQL Server Feature Installation from the Setup Role screen, and click Next.

SQL Server 2012 Setup	
Setup Role	
Click the SQL Server Feature install a specific configuration.	Installation option to individually select which feature components to install, or click a feature role to
Setup Support Rules Setup Role Feature Selection Installation Rules Disk Space Requirements Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	<ul> <li>SQL Server Feature Installation         Install SQL Server Database Engine Services, Analysis Services, Reporting Services, Integration Services, and other features.     </li> <li>All Features With Defaults         Install all features using default values for the service accounts.     </li> </ul>
	< Back Next > Cancel Help

FIGURE 8: SQL SERVER FEATURE INSTALLATION SELECTION

10. Select the features shown in Figure 9 (below) and click Next.

• **Reporting Services** is optional for most Wonderware components, but may be required for use with Wonderware Information Server (WIS) integration, depending on your choices during product installation.

• SQL Server Replication, Full-Text Search, Analysis Services, and Integration Services are optional selections that do not impact functionality but may be useful under various circumstances.



FIGURE 9: SELECT FEATURES

11. Click Next. The Installation Rules windows appears.

🏶 SQL Server 2012 Setup		<u>_                                    </u>
Installation Rules Setup is running rules to determ	ine if the installation process will be blocked. For more information, c	lick Help.
Setup Support Rules Setup Role Feature Selection <b>Installation Rules</b> Instance Configuration Disk Space Requirements	Operation completed. Passed: 2. Failed 0. Warning 0. Skipped Hide detail <u>s</u> << <u>View detailed report</u>	d 0. <u>R</u> e-run
Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Rule         Image: Prior Visual Studio 2010 instances requiring update.         Image: Microsoft .NET Framework 3.5 Service Pack 1 is required	Status       Passed       Passed
	< <u>B</u> ack	<u>N</u> ext > Cancel Help

FIGURE 10: SELECTED FEATURES

- 12. On the Instance Selection dialog box, click Default instance (Figure 11 below). Wonderware Products currently do not support Named Instances.
  - Accept the default Instance ID and Instance Root Directory.

**Note:** MS SQL 2012 Express Edition is supported for some System Platform 2012 R2 components. If you are installing MS SQL 2012 Express, make sure it actually installs the Default instance. There is an issue in the Express install that even if you select the Default

instance required by the Wonderware Historian, it still results in the database engine being installed as the instance named SQLEXPRESS.

As a workaround, you can select the option to install a Named instance and provide **MSSQLSERVER** as the instance name (see the information about CR L00090827 in the Historian's Readme file).

SQL Server 2012 Setup	on				
Specify the name and instance Setup Support Rules Setup Role Feature Selection Installation Rules <b>Instance Configuration</b> Disk Space Requirements Server Configuration Database Engine Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install	<ul> <li>D for the instance of SQL S</li> <li>Default instance</li> <li>Named instance:</li> <li>Instance ID:</li> <li>Jactance cost director</li> </ul>	MSSQLSERVER MSSQLSERVER	Microsoft SQL Server	ion path.	
	SQL Server directory: Reporting Services directory: Installed instances:	C:\Program Files C:\Program Files	\Microsoft SQL Server\ \Microsoft SQL Server\N \Microsoft SQL Server\N	1SSQL11.MSSQLSI 1SRS11.MSSQLSEF	ERVER
Installation Progress	Instance Name	Instance ID	Features	Edition	Version
Complete	MSSQLSERVER	MSSQL10.MSSQLSER	SQLEngine,SQLEngin	Standard	10.3.5500.0
	<shared component<="" td=""><td></td><td>SSMS, Adv_SSMS, C</td><td></td><td>10.3.5500.0</td></shared>		SSMS, Adv_SSMS, C		10.3.5500.0
			in the second	No. 1	curl 1 rut-
			< <u>B</u> ack	ivext >	Cancel Help

FIGURE 11: DEFAULT INSTANCE

- 13. Click Next.
- 14. Confirm the Disk Space Requirements and click Next (Figure 12 below).

🍀 SQL Server 2012 Setup		
Disk Space Requireme	nts	
Review the disk space summary fo	r the SQL Server features you selected.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration <b>Disk Space Requirements</b> Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Disk Usage Summary:	
	< Back Next > Cancel	Help

FIGURE 12: DISK SPACE REQUIREMENTS

15. In the Server Configuration window, accept the defaults and click Next (Figure 13 below).

Additionally you can use a local account by clicking the drop down in the Account Name and browsing for the local system account.

Most users should choose **NT AUTHORITY\NETWORK SERVICE**. However, corporate IT policies or network configurations may require you to specify a different account.

SQL Server 2012 Setup				
Specify the service accounts and	collation configuration.			
Setup Support Rules Setup Role Feature Selection	Service Accounts Collation	use a separate account for each SQL S	erver service.	
Installation Rules	Service	Account Name	Password	Startup Type
nstance Configuration	SQL Server Agent	NT AUTHORITY WETWORK SERVICE		Manual
isk Space Requirements	SQL Server Database Engine	NT AUTHORITY WETWORK SERVICE		Automatic 💌
erver Configuration	SQL Server Reporting Services	NT AUTHORITY WETWORK SERVICE		Automatic 💌
atabase Engine Configuration	SQL Server Browser	NT AUTHORITY/LOCAL SERVICE		Automatic 💌
eporting Services Configuration			1	
nstallation Configuration Rules Leady to Install nstallation Progress Complete				
		< <u>B</u> ack	Next >	Cancel Help

FIGURE 13: SERVER CONFIGURATION

16. If you are installing MS SQL Server on an English operating system, proceed to Step 21 (below) to continue the installation.

If you are installing MS SQL Server on a non-English operating system, click the **Collation** tab and select **SQL\_Latin1\_General** for the Database Engine collation. If you are also installing **Analysis Services**, its collation setting is **Latin1\_General\_CI\_AS** 

(Figure 14 below).

🚼 SQL Server 2012 Setup		
Server Configuration Specify the service accounts and	collation configuration.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements <b>Server Configuration</b> Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Service Accounts       Collation         Database Engine:	Customize
	< Back Next > Ca	ncel Help

FIGURE 14: SERVER CONFIGURATION - COLLATION

- 17. If you find any other collation, change it to **SQL\_Latin1\_General** by clicking the **Customize** button next to Database Engine collation field.
- 18. Then, select **SQL\_Latin1\_General\_CP1\_CI\_AS** from the list (Figure 15 below).

🎊 SQL Se	rver 2012 Setup		
Serve	er Configuration		
Spe	Customize the SQL Server	2012 Database Engine Collation	
	Select the collation you woul	d like to use:	XAABBAX
Setup Su	C Windows collation design	ator and sort order	
Setup Ro	Collation designator:	Albanian	
Feature	🔲 Binary	Binary-code point	<u>+</u>
Installati	Case-sensitive	🗖 Kana-sensitive	Customize
Instance Dick Spa	C Accent-sensitive	☐ Width-sensitive	•
Server	🔲 Supplementary charac	ters	
Databas	G SOL collation used for h	ackuards compatibility	
Analysis	SOL Hundarian (CB1250, CS		Customize
Reportin	SQL_Icelandic_Pref_CP1_CI		•
Error Re	SQL_Latin1_General_CP1_C SQL_Latin1_General_CP1_C		
Installati	SOL Latin1 General CP1 C	S AS	
Ready to	Collation description:		
Completi	Latin1-General, case-insens	itive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL	
complete	Server Sort Order 52 on Co	de Page 1252 for non-Unicode Data	
		OK Cancel	
-			· •
		< Back Next >	Cancel Help

FIGURE 15: SERVER CONFIGURATION - CUSTOMIZE DATABASE ENGINE COLLATION

19. Click the **Customize** button next to Analysis Services collation and select **Latin\_General** from the list (Figure 16 below).



FIGURE 16: SERVER CONFIGURATION - CUSTOMIZE ANALYSIS SERVICES COLLATION

- 20. Click OK then Next.
- 21. On the Database Engine Configuration screen, select the Mixed Mode (SQL Server authentication and Windows Authentication) option in the Account Provisioning tab (Figure 17 below). Mixed Mode (SQL Server authentication and Windows authentication) is optional but strongly recommended.
- 22. Type a password for the built-in SQL System Administrator account (sa). You must configure the sa-level with a strong password for security purposes.

23. Click Add to add any users who you want to have administrator rights when using Windows authentication. In this example, the local computer's Administrator user is visible (Figure 17 below). You may also wish to click on the Add Current User button in order to add the user account of the person performing the installation.

🚼 SQL Server 2012 Setup		
Database Engine Confi Specify Database Engine authentic	guration cation security mode, administrators and data directories.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration <b>Database Engine Configuration</b> Analysis Services Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Server Configuration       Data Directories       FILESTREAM         Specify the authentication mode and administrators for the Database Engine.         Authentication Mode            • Windows authentication mode             • Mixed Mode (SQL Server authentication and Windows authentication)          Specify the password for the SQL Server system administrator (sa) account.         Enter password:          ••••••••          Cgnfirm password:          ••••••••          Specify SQL Server administrators          SQL Server administrators have unrestricted access to the Database Engine.          Add Current User       Add       Remove	/e
	< <u>B</u> ack <u>N</u> ext > Cancel Help	

FIGURE 17: MIXED MODE AUTHENTICATION SETTING

25. Click the Data Directories tab to review all the directories then click Next (Figure 18 below).

### 🚼 SQL Server 2012 Setup

# Database Engine Configuration

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

ecup Support Rules	Server Configuration Data Dire	ectories FILESTREAM	
etup Role			
ature Selection	<u>D</u> ata root directory:	C:\Program Files\Microsoft SQL Server\	
nstallation Rules Instance Configuration	System database directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Data	
sk Space Requirements	User database directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Dat	
erver Configuration	User database log directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Dat	
nalysis Services Configuration	Temp DB directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Dat	
eporting Services Configuration	Temp DB log directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Dat	
nstallation Configuration Rules	Backup directory:	C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Bac	
eady to Install			
omplete			

- 0 ×

FIGURE 18: DATABASE ENGINE CONFIGURATION DATA DIRECTORIES

26. If you chose to install Reporting Services, click the Install and Configure option and click Next (Figure 19 below).

# 🚼 SQL Server 2012 Setup - 0 × **Reporting Services Configuration** Specify the Reporting Services configuration mode. Reporting Services Native Mode Setup Support Rules Setup Role Install and configure. Feature Selection Installs and configures the report server in native mode. The report server is operational after setup completes. Installation Rules C Install only. Instance Configuration Installs the report server files. After installation, use Reporting Services Configuration Manager to Disk Space Requirements configure the report server for native mode. Server Configuration Reporting Services SharePoint Integrated Mode Database Engine Configuration Analysis Services Configuration C Install only. **Reporting Services Configura...** Installs the report server files. After installation use SharePoint Central Administration to complete the configuration. Verify the SQL Server Reporting Services service is started and create at least one SQL Error Reporting Server Reporting Services service application. For more information, click Help. Installation Configuration Rules Ready to Install Installation Progress Complete < Back Next > Cancel Help

#### FIGURE 19: REPORTING SERVICES CONFIGURATION

27. Accept the default settings for the rest of the installation sequence. The installation will then proceed and you will see each module install.

🎲 SQL Server 2012 Setup	
Error Reporting	
Help Microsoft improve SQL Serve	er features and services.
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration <b>Error Reporting</b> Installation Configuration Rules Ready to Install Installation Progress Complete	Specify the information that you would like to automatically send to Microsoft to improve future releases of SQL         Server. These settings are optional. Microsoft treats this information as confidential. Microsoft may provide updates through Microsoft Update to modify feature usage data. These updates might be downloaded and installed on your machine automatically, depending on your Automatic Update settings.         See the Microsoft SQL Server 2012 Privacy Statement for more information.         Read more about Microsoft Update and Automatic Update.         Send Windows and SQL Server Error Reports to Microsoft or your corporate report server. This setting only applies to services that run without user interaction.
	<pre> &lt; Back Next &gt; Cancel Help</pre>

# FIGURE 20: ERROR AND USAGE REPORTING

28. When the Installation Configuration Rules check is complete, click the **Show details** button, resolve any failures, and click **Next**.

🎲 SQL Server 2012 Setup		
Installation Configurat	ion Rules	
Setup is running rules to determine	e if the installation process will be blocked. For more information, click	< Help.
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration	Operation completed. Passed: 7. Failed 0. Warning 0. Skipped 0. Hide details << <u>View detailed report</u>	
Disk Space Requirements Server Configuration Database Engine Configuration	Rule FAT32 File System	Status Passed
Analysis Services Configuration	Existing clustered or cluster-prepared instance	Passed
Error Reporting	Same architecture installation	Passed
Ready to Install	Reporting Services Catalog Database File Existence     Reporting Services Catalog Temporary Database File Existence	Passed Passed
Installation Progress Complete	SQL Server Analysis Services Server Mode and Edition Check	Passed
	< Back	Next > Cancel Help

### FIGURE 21: INSTALLATION RULES PASSED

29. On the Ready to Install screen, click Install (Figure 22 below).

SQL Server 2012 Setup Ready to Install Verify the SQL Server 2012 fea	sures to be installed.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules <b>Ready to Install</b> Installation Progress Complete	Ready to install SQL Server 2012:         Summary         Edition: Standard         Action: Install (Product Update)         Prerequisites         Already installed:         Windows PowerShell 2.0         Microsoft .NET Framework 3.5         To be installed from media:         Microsoft .NET Framework 4.0 (may require reboot)         Microsoft studie 2010 Shell         General Configuration         Features         Database Engine Services         SQL Server Replication         Full-Text and Semantic Extractions for Search         Analysis Services         Reporting Services - Native         Client Tools Connectivity         Documentation Components         Management Tools - Basic         Management Tools - Complete         Instance configuration	
	Configuration file path: C:\Program Files\Microsoft SQL Server\110\Setup Bootstrap\Log\20130315_150708\ConfigurationFile.ini C:\Program Files\Microsoft SQL Server\110\Setup Bootstrap\Log\20130315_150708\ConfigurationFile.ini	Halp

FIGURE 22: READY TO INSTALL

30. When the setup process completes, all of the feature installations in the Installation Progress screen should show **Succeeded** in the **Status** column (Figure 23 below). Click **Close** to finish the installation.

- Actual Core Secup			
Complete			
Verm COL Commen 2012 installatio			
Your SQL Server 2012 Installatio	on completed successfully with product updates,		
Setup Support Rules	Information about the Solum approxime or passible pout	story	
Setup Role	Information about the becap operation of possible next	- steps.	
Festure Selection	Feature	Status	
	Management Tools - Complete	Succeeded	
Installation Rules	Client Tools Connectivity	Succeeded	
Instance Configuration	Management Tools - Basic	Succeeded	
Disk Space Requirements	Reporting Services - Native	Succeeded	
Server Configuration	2 Database Engine Services	Succeeded	
	Full-Text and Semantic Extractions for Search	Succeeded	
	SQL Server Replication	Succeeded	
Analysis Services Configuration	Malysis Services	Succeeded	
Reporting Services Configuration			
Error Reporting			
Installation Configuration Rules	Details:		
Deady to Tostall	Viewing Product Documentation for SQL	Server	
Installation Progress	Only the components that you use to view and	d manage the documentation for SQL Server have	
Complete	been installed. By default, the Help Viewer co	mponent uses the online library. After installing SQL	
	Server, you can use the Help Library Manager	component to download documentation to your	
	local computer. For more information, see Use	e Microsoft Books Online for SQL Server	
	<http: ?linkid="224683" fwlink="" go.microsoft.com=""> (http://go.microsoft.com/fwlink/?LinkID=</http:>		
	<u>224683</u> ).		
	Summary log file has been saved to the following locati	ion:	
	C:\Program Files\Microsoft SOL Server\110\Setup Bootstrap\Log\20130315_150708		
	Summary SQL2012INSTALL 20130315 150708.txt		

### FIGURE 23: INSTALLATION COMPLETE

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