Installation and Upgrade of SQL Server

English V1.2

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1 General

This manual describes the process of Upgrading and Updating the Sql Server Express database engine, which forms the underlying database management system of the BatchXpert Process control system.

The update and Upgrade Process basically is not specific to the BatchXpert system, but rather specific to the Microsoft SQL server Version currently used, and the Upgraded Version that is being upgraded to. The SQL Server Version is an standard SQL Server Express installation with an Named instance called “GRAPHPIC”, which holds all the data of the Process control system. If further information about installation, Changelogs or Troubleshooting are required, please refer to the respective Help provided directly by the vendor of the Database server, Microsoft.

This manual tries to guide through the Upgrade process when an newer major version of SQL Server is being installed. Servicepacks can be safely installed by following the instructions provided by Microsoft. However if an new version is to be installed, a few considerations have to be taken into account.

Generally speaking, there are two options for updating the Database to an newer version. The first and recommended method is to Uninstall the currently installed version of the Local SQL Server, and then reinstall the new version as a new installation. The other option is to use the “Upgrade” option of the SQL-Server Installer.

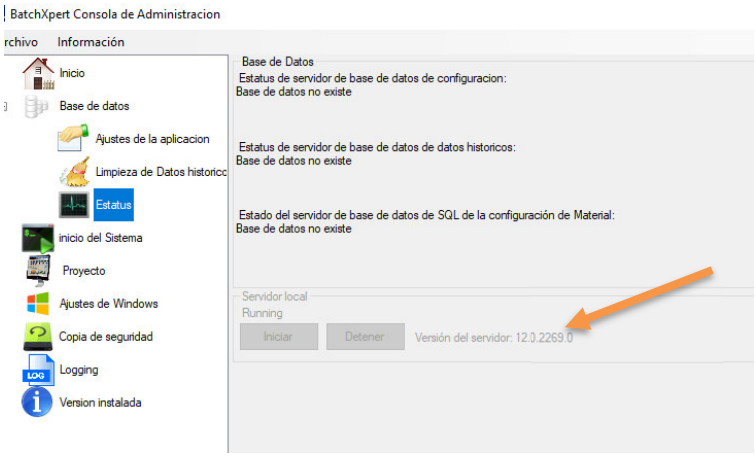
1.1 Important Considerations

IT IS IMPORTANT TO NOTE THAT THE DATABASE VERION CAN ONLY BE UPGRADED, AND NEVER BE DOWNGRADED. ALSO ALL DATABASE VERSION ON ALL STATIONS MUST BE THE SAME VERSION OF SQL SERVER. The reason for this limitation is that once an project is being started or an backup is restored on an newer version of SQL Server, an automatic Upgrade process of the database files is being performed, which can not be reverted.

This means, once an database file has been upgraded (either by starting an BatchXpert Project or by restoring an Database backup), the backup can then not be started anymore by any BatchXpert server that has an older version of the Microsoft SQL Server installed.

Generally the speaking, the database files maintain their compatibility between Service Pack updates, but are not compatible between major version of SQL Server. This means that you can generally safely install servicepacks, but if you upgrade the Server to an newer version (for example from SQL Server 2014 to 2022), then compatibility can not be maintained. In this case, all stations of the system should be upgraded.

1.2 Finding the current SQL Server Version



The current installed version of SQL server can be easiely found with help of the “BatchXpert Management Console” in the “Status” node under “Database”.

The current version can be found in this field and correspond to the following list

Release	RTM (no SP)	Latest CU			
SQL Server 2022	16.0.1000.6				
SQL Server 2019	15.0.2000.5	CU18 (15.0.4261.1, September 2022)			
SQL Server 2017	14.0.1000.169	CU31 (14.0.3456.2, September 2022)			
		SP1	SP2	SP3	SP4
SQL Server 2016	13.0.1601.5 + CU9	13.0.4001.0 or 13.1.4001.0 + CU15	13.0.5026.0 or 13.2.5026.0 + CU17	13.0.6300.2 or 13.3.6300.2	
SQL Server 2014	12.0.2000.8 + CU14	12.0.4100.1 or 12.1.4100.1 + CU13	12.0.5000.0 or 12.2.5000.0 + CU18	12.0.6024.0 or 12.3.6024.0 + CU4	
Obsolete versions – out of support					
SQL Server 2012	11.0.2100.60 + CU11	11.0.3000.0 or 11.1.3000.0 + CU16	11.0.5058.0 or 11.2.5058.0 + CU16	11.0.6020.0 or 11.3.6020.0 + CU10	11.0.7001.0 or 11.4.7001.0
SQL Server 2008 R2	10.50.1600.1	10.50.2500.0 or 10.51.2500.0	10.50.4000.0 or 10.52.4000.0	10.50.6000.34 or 10.53.6000.34	
SQL Server 2008	10.0.1600.22	10.0.2531.0 or 10.1.2531.0	10.0.4000.0 or 10.2.4000.0	10.0.5500.0 or 10.3.5500.0	10.0.6000.29 or 10.4.6000.29

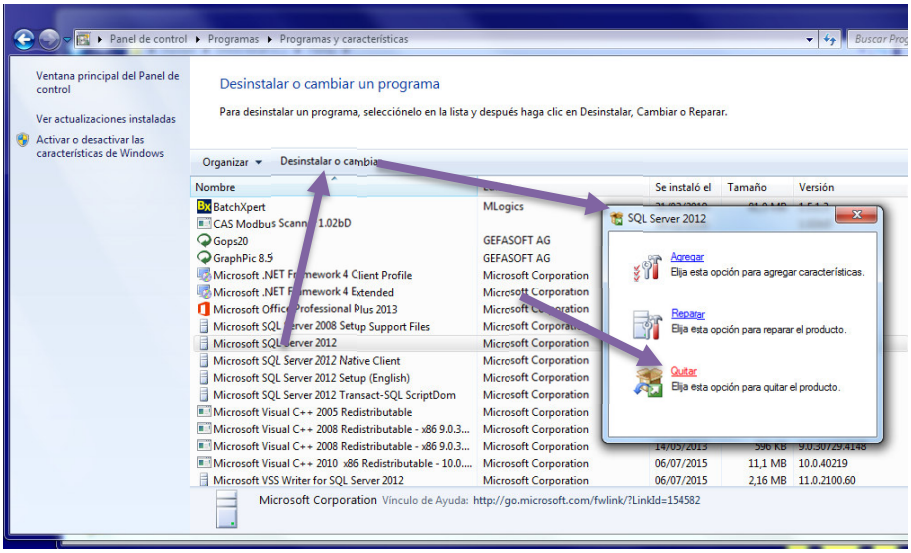
SQL Server 2005	9.0.1399.06	9.0.2047	9.0.3042	9.0.4035	9.0.5000
SQL Server 2000	8.0.194	8.0.384	8.0.532	8.0.760	8.0.2039
SQL Server 7.0	7.0.623	7.0.699	7.0.842	7.0.961	7.0.1063
SQL Server 6.5	6.50.201	6.50.213	6.50.240	6.50.258	SP4 6.50.281 SP5 6.50.416
SQL Server 6.0	6.00.121	6.00.124	6.00.139	6.00.151	

1.3 Prequesites

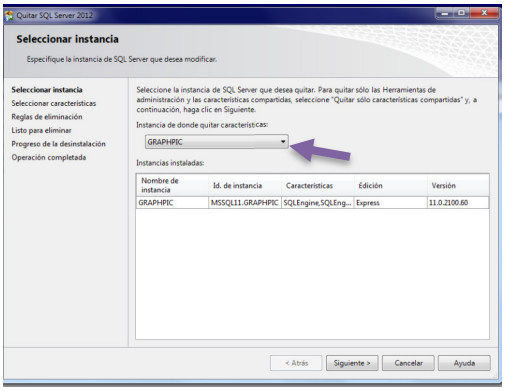
Before installation, some prequsites must be met to proceed. First one has to consider, that the BatchXpert station must not execute any project while installation is running. Furthermore the software prequesites of the new sql server version must be met. These requirement can be obtained on the homepage of the software vendor Microsoft.

2 Reinstallation (recomended)

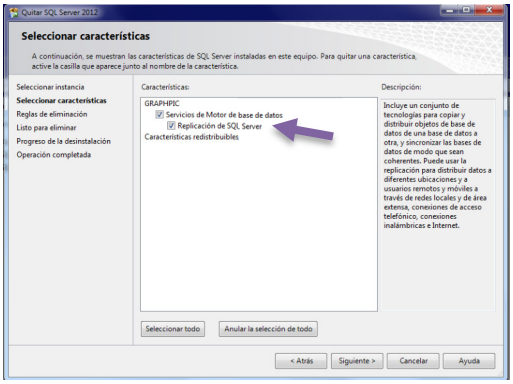
2.1 First the existing installation must be uninstalled



2.2 Select BatchXpert named instance to uninstall (GRAPHPIC)



2.3 Select all installed options

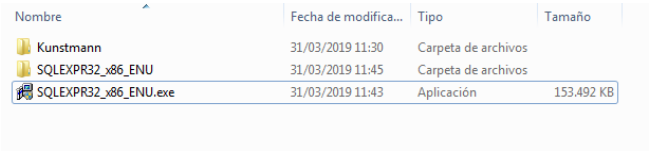


2.4 Reinstall server by use of the Installation Server

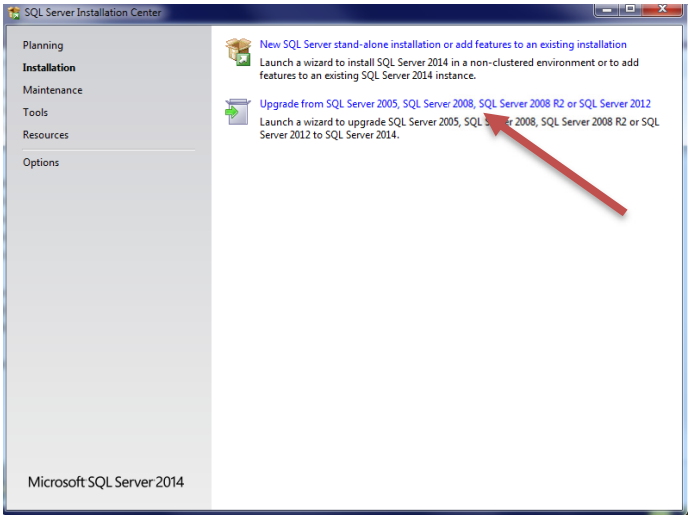
Use the standard Installer to install an new Instance of you desired SQL Server version and follow the On-Screen Instructions. It is recommended to use the “BatchXpert Installation Center” to install the Server

3 Upgrading SQL Server (not recommended)

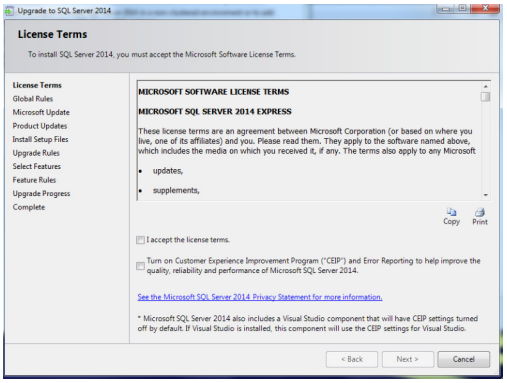
3.1 Start Installer



3.2 Select the Upgrade Option



3.3 Accept License agreement and others



3.4 Select Named instance to Upgrade (GRAPHPIC)