
SQL Server / Express 2008 Migration Frequently Asked Questions

Contents

Introduction.....	2
Summary	2
What will the process be?	3
SQL Express Installation Prerequisites	3
The SQL Express Installer	4
Appendix I – password Strong name Criteria	6
Appendix 2 – Instance Naming Guidelines.....	6

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Introduction

SIMS will be supported on the SQL2008 family of database servers from October 2009 and support for SIMS on the SQL2005 family of servers is scheduled to be phased out by October 2010.

SIMS will provide an Installation routine to Install and configure a SQL Express 2008 installation suitable to host a SIMS database in this timeframe.

Customers, who already have or plan to deploy SQL2008 in advance to host SIMS, should configure that server such that it is suitable to host a SIMS database. This document will provide these users with information required to configure their own database server.

For further information on the features of SQL server editions can be found at

<http://www.microsoft.com/sqlserver/2008/en/us/editions.aspx>

SIMS will provide tools to Move an existing SIMS database either directly from a SQL2005 host or database file, to a nominated SQL2008 host. It will also be possible for new customers to install a new blank database directly onto SQL 2008 database server.

The approach SIMS is taking to migrate the SIMS databases from SQL2005 to SQL2008 is a side by side installation (as opposed to an in place upgrade, which upgrades both the Database engine and all the database files of a particular SQL2005 Database server to SQL2008). This is because not all databases on a server are SIMS databases. Other databases may cause the installation to fail, or may cease to function if we migrated them. Customers will need to manually uninstall their SQL2005 database Server, if they wish to do so, once they are happy that their SIMS System is functioning correctly on their SQL2008 system.

Although the customer can install SQL Express on any machine they choose, the SIMS database migration routine will only function in a fully automated manner if both the SQL2005 host and the SQL2008 host exist on the same machine.

The purpose of this FAQ sheet is to give Local Authorities and Schools notice on the impacts of this SQL Server 2008 migration.

This document will be updated as and when more information becomes available and in response to questions raised by Users.

Summary

- ◆ Capita SIMS and FMS databases will be supported on SQL Server / SQL Express 2008 with effect from SIMS October 2009 Main release.
- ◆ Capita will provide an installation tool for SQL Express 2008 and distribute to all customers
- ◆ Capita will provide a tool to migrate existing databases from 2005 to 2008
- ◆ The installation and Migration tool will be available from 17th October 2009.

What will the process be?

Our early investigations show that the Migration of a SQL Server / Express 2005 database to a SQL Server / Express 2008 database is less complex than the equivalent SQL Server 2000 to SQL Server 2005 database migration carried out by schools and LAs during 2007.

The Migration process of a SIMS database from SQL Server / Express 2005 to SQL Server / Express 2008 is identical to the SIMS migration from SQL Server / MSDE 2000 to SQL Server / Express 2005.

What you can expect from Capita SIMS:

- ◆ We will supply the SQL Server 2008 Express Installation
- ◆ We will supply a Migration Utility to move the database from 2005 to 2008 (both full SQL and Express)
- ◆ We will provide a back up operation and supply the ability to rollback to a working SIMS system as part of the migration
- ◆ We will support a side by side installation of Microsoft Server / Express 2008 our routines will not remove the 2005 version as Capita cannot assume that SIMS is the only database on the customer's machine using this software.

SQL Express Installation Prerequisites

Customers who are intending to use the SQL express Installer provided by SIMS should note the prerequisites. Software prerequisites will be supplied by the installer where it is possible for us to do so.

Hardware and software specifications (Express Edition)

Complete hardware and software requirements are provided at the following location

<http://msdn.microsoft.com/en-us/library/ms143506.aspx>

When considering these specifications please also consult the SIMS minimum hardware and software requirements which may exceed the SQL Express requirements in some respects.

From a SIMS perspective the salient requirements for using installing and using SQL Express are:

- **Processor** 1.5GHz Pentium III compatible or faster processor
- **Memory** 1 GB of RAM or more
- **Hard disk** Approximately 1GB of working space + 1/4GB for SQL Express.
Customers should allow approximately 5 MB per pupil/student. For example a 1000 pupil/student school would be advised to have 5GB free space for SIMS. (please note this is for SQL Express Installation only, the migration of the SIMS database will require additional Hard disk space)
- **.Net Framework** 2.0 SP2 or higher

- **Operating System¹** Microsoft Windows XP Pro (SP2 or higher, 32bit)
Microsoft Windows Vista Business (for small Peer to peer networks only).
Microsoft Windows Server 2003 (SP1 or higher, 32 and 64 Bit)
Microsoft Windows Server 2008 (32 and 64 Bit)
- **Other** Internet Explorer 6.0 SP1 or greater

Provided prerequisites

- **.net framework 2.0** SP2 the SIMS Installer will provide this if it is not currently installed
- SQL Express and .net framework 2.0 installations require **Windows installer version 3.1** or higher - the SIMS Installer will provide this if not currently Installed
- Note that if you will be using your own installation of SQL Server (not Express) the .net Framework requirements are 3.5 SP1

Information Prerequisites

During Installation the user will be asked for information that must be supplied to the installer. The users should be prepared to supply this information and will probably wish to keep this information securely for later reference.

- SQL Express Instance Name
 - This needs to be a Unique SQL instance name on the machine (all SQL versions i.e. If you already have an SQL Express 2005 instance called SIMS then you cannot choose SIMS as the Instance name for SQL Express). SIMS would recommend that a meaningful identifier is used for the instance name, and perhaps the LA or support unit may have a naming policy in force. (see Appendix 2)
- A new SQL 'sa' (System Administrator) Password for the new SQL Express Instance. (see Appendix 1)
- The root directory for Data Files and Binary files to be installed. The user is at liberty to change from the supplied default to any valid location on the target machine.

The SQL Express Installer

This is an optional component of the overall migration process, for customers who have not already prepared a SQL2008 product to host SIMS. The objective of this component is to deliver and configure a Microsoft SQL Express Database Server instance to act as a host for SIMS.

The SQL Express will be serviced packed to the greatest service pack supported by SIMS at the time of initial distribution (at time of writing Service Pack 2).

SIMS will install **SQL Server Express edition**, please note that there are other versions of the express edition which provide advanced services and tools². Customers who need these extra features should either manually download and install the appropriate version from the Microsoft website, or install the tools as additions at a later date.

SIMS will provide an Installer for supported 32 Bit and 64 Bit operating systems.

SIMS will install SQL Server Express as an (non-default) Instance on the local machine from where the installation is run. The Instance name supplied must be unique (cannot be the same as any other SQL Server (any version) Instance name on the machine)

Feature Selection - Only Database services (Data Files and Shared Tools) will be installed (Sample databases will not be included)

Services – The SQL Server Service and the SQL Browser will be configured to use the built in System Account ' Local System ' The service will be set to Auto start on machine start up, and will be started immediately after installation.

Authentication Mode – The SQL Instance will be configured to accept both Windows authentication and SQL Server Authentication (Mixed Mode). This setting is required at present, but SIMS would encourage users to take advantage of improved security integration by the use of Windows Authentication for the SIMS system, which is available as part of **System Manager 6.9**

sa Login Password – Will be supplied by the User who is carrying out the installation see (appendix 1 Strong password criteria) Again SIMS would recommend that all Users passwords be regularly reviewed using this and similar criteria.

Collation Order – The installation will select

Dictionary Order, case Insensitive, for use with 1252 character set

This is the same setting that SIMS have always recommended

Each database can have its own collation order, when migrating your SIMS database to SQL2008 from SQL2005 its original collation order will not be changed.

Enable User Instances – This option is set to Disabled. If enabled a private isolated Instance will be created when a user logs on to the server machine. This could cause incorrect behaviour of your SIMS system. The SIMS database is not supported on instances which have User instances enabled.

Add user to the SQL Server Administration role (SQL Express SP2 option) – should be set to true, only significant when installing on Vista (only supported in a small peer to peer network environment). By default in Windows XP, 2003 and 2008 installations the User who is installed will be added as a SQL Server Administrator. Subsequent operations in the SIMS SQL2008 migration process will require the logged on user to either be a member of the SQL Server Administration role (or know a SQL credentials which are eg: sa).

Error and usage report settings – The SIMS installation will disable automatic error and usage reporting to Microsoft or others.

² <http://msdn.microsoft.com/vstudio/express/sql/compare/default.aspx>

Appendix I – password Strong name Criteria

Strong Password Guidelines

Strong passwords are not readily guessed by a person, and are not easily hacked using a computer program. Strong passwords cannot use prohibited conditions or terms, including:

- A blank or NULL condition
- "Password"
- "Admin"
- "Administrator"
- "sa"
- "sysadmin"

A strong password cannot be the following terms associated with the installation computer:

- The name of the user currently logged onto the machine.
- The machine name.

A strong password must be more than 8 characters in length and satisfy at least three of the following four criteria:

- It must contain uppercase letters.
- It must contain lowercase letters.
- It must contain numbers.
- It must contain non-alphanumeric characters; for example, #, %, or ^.

Appendix 2 – Instance Naming Guidelines

Multiple SQL Server 2008 Express installations can coexist on the same machine along with other installations of SQL Server 2005/2008 or SQLEXPRESS 2005/2008. The maximum limit to the number of SQL Server instances is 16 on the same machine. These instances must be uniquely named for the purpose of identifying them.

- Instance names are not case sensitive.
- Instance names cannot contain the terms Default, MSSQLServer, or other reserved keywords. If a reserved keyword is used in an instance name, an error will occur.
- Instance names are limited to 16 characters.
- The first character in the instance name must be a letter or an underscore (_). Acceptable letters are those defined by the Unicode Standard 2.0, including Latin characters a-z and A-Z, and letter characters from other languages.
- Subsequent characters can be letters defined by the Unicode Standard 2.0, decimal numbers from Basic Latin or other national scripts, the dollar sign (\$), or an underscore (_).
- Embedded spaces or other special characters are not allowed in instance names, nor are the backslash (\), comma (,), colon (:), semi-colon (;), single quotation mark ('), ampersand (&), number sign (#), or at sign (@).

