# Synergy/DE™ on 64-bit Windows

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This document includes information about support for Synergy/DE 12 products on 64-bit Windows, along with information on installing and running both 32-bit and 64-bit Synergy/DE on 64-bit Windows. Additional details are available in Synergex KnowledgeBase article 2512.

# Supported products

You can run 32-bit Synergy/DE on a 32-bit system or a 64-bit system. 64-bit Synergy/DE can be run only on a 64-bit system. However, not all products are supported on a 64-bit system. The table below shows which Synergy/DE products are supported on 32- and 64-bit systems.

Product	32-bit system	64-bit system
Synergy/DE 32-bit	✓	√a
Synergy/DE 64-bit		√p
xfNetLink .NET 32-bit	✓	
xfNetLink .NET 64-bit		✓
xfNetLink Java <sup>c</sup>	✓	✓
Synergy/DE Client 32-bit	✓	✓
Synergy/DE Client 64-bit		✓
xfODBC Client 32-bit	✓	✓
xfODBC Client 64-bit		✓
Synergy DBL Integration for Visual Studio		✓
Local Synergy/DE Product Documentation <sup>c</sup>	✓	✓

- a. Some services are not installed. See below for details.
- b. Composer and Workbench are not installed; only a subset of Examples is installed.
- c. System-agnostic; there is only one version, which runs in either configuration.

#### 32-bit Synergy/DE on a 64-bit system

You may want to install the 32-bit version of Synergy/DE on a 64-bit system in addition to the 64-bit version of Synergy/DE, so that you can use Synergy DBL Integration for Visual Studio or Workbench. Both the 32-bit and the 64-bit installation must be the same version of Synergy/DE.

The 32-bit version of Synergy/DE is installed in c:\Program Files (x86)\Synergex\SynergyDE; the 64-bit version is installed in c:\Program Files\Synergex\SynergyDE.

Note the following regarding 32-bit Synergy/DE on a 64-bit system:

Although you can install xfSeries and Connectivity Series, the xfServer and SQL OpenNet services are not installed. If 64-bit Synergy/DE is also installed on the system, you can use the 64-bit version of those services. Otherwise, you will need to use a 32- or 64-bit version of the services installed on another machine. For more information about Connectivity Series, see "Connectivity Series" below.

- The License Manager service is not installed. Consequently, 32-bit Synergy/DE must be a license client when installed on a 64-bit system and cannot be a backup license server. If 64-bit Synergy/DE is already installed with server licensing, 32-bit Synergy/DE will default to being a license client to the 64-bit machine. You can change the 32-bit installation to be a client to another 32- or 64-bit machine.
- The 64-bit versions of **ctutl.exe**, **fconvert.exe**, **isutl.exe**, **ismfy.exe**, and **irecovr.exe** are installed.

# Setting up the environment

Because many customers need to run both 32- and 64-bit Synergy/DE on a 64-bit machine, neither the 32-bit nor the 64-bit installation (when installed on a 64-bit system), sets the usual Synergy environment variables or adds anything to the PATH. The Synergy/DE tools derive their environment from the executable's path.

To run applications and utilities from the command line, you can either navigate to the location of the program or execute the batch files that we distribute for setting up the environment. These files are named dblvars32.bat and dblvars64.bat and are installed in the synergyde\dbl directories for their respective installations. Run the file that corresponds to the environment you want to use.

# Running applications

Applications that are built with 64-bit Synergy/DE can be run only with 64-bit Synergy/DE; applications that are built with 32-bit Synergy/DE can be run only with 32-bit Synergy/DE (which may be installed on a 32- or 64-bit machine).

# Using the registry

On 64-bit Windows, the registry has sections specifically for 32-bit entries. These are named Wow6432Node (for example, HKEY LOCAL MACHINE\SOFTWARE\Wow6432Node). A 32-bit program can read/write only to these special 32-bit sections; a 64-bit program can read/write only to the remainder of the registry. If you are editing the registry manually, or if your applications read/write to the registry, take care to access the correct section.

#### **Connectivity Series**

You can install 32-bit Connectivity Series, 64-bit Connectivity Series, or both on 64-bit Windows. It is also possible to install 32-bit xfODBC Client on 64-bit Windows for accessing both 32-bit and 64-bit ODBC applications.

We recommend installing 64-bit Connectivity Series because it includes SQL OpenNet, supports xfODBC access for 64-bit applications (it enables you to create 64-bit DSNs), and enables you to create 64-bit SQL Connection applications. Then, if you have 32-bit applications (such as Visual Studio data wizards) that need to use Connectivity Series to access data, install 32-bit Connectivity Series as well.

#### Note the following:

32-bit Connectivity Series does not include the SQL OpenNet server when installed on 64-bit Windows; 64-bit Connectivity Series does.

- Direct connections (i.e., those that do not use SQL OpenNet) are not supported for 32-bit SQL Connection applications. This means that local connections are supported for SQL Connection only if both 32- and 64-bit Connectivity Series are installed.
- 32-bit applications require 32-bit DSNs for ODBC access. To create 32-bit DSNs, 32-bit Connectivity Series must be installed. 32-bit DSNs are created by the 32-bit ODBC administrator (odbcad32.exe), located in %windir%\SysWOW64.
- 64-bit applications require 64-bit DSNs for ODBC access. To create 64-bit DSNs, 64-bit Connectivity Series must be installed. 64-bit DSNs are created by the native 64-bit ODBC Administrator.

On 64-bit Windows machines, there is usually a mixture of 32- and 64-bit applications, especially when using Visual Studio to develop 64-bit applications. For an ODBC connection that could involve both 32and 64-bit applications, we recommend that you create both a 32-bit DSN and a 64-bit DSN that are identical in all aspects, including name.

Important: If you install both 32- and 64-bit Connectivity Series, the last version installed determines the settings for the GENESIS\_MSG\_FILE and VORTEX\_HOME environment variables. For example, if 32-bit Connectivity Series is installed after 64-bit, VOTRTEX HOME will be set to c:\Program Files(x86)\Synergex\SynergyDE\connect\synodbc, and Connectivity Series will use the **net.ini** file in this directory even for 64-bit applications. Similarly, if you install both 32- and 64- bit xfODBC Client, the environment variables CONNECTDIR, GENESIS\_MSG\_FILE, and VORTEX\_HOME will be set for the last version installed.