



Audience

Constructor Support Staff

I.T. Support staff, System Administrators on site for Constructor Customer

Constructor Customer and Intermediate level I.T. experience.

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Introduction

Constructor Version 3 is comprised of server and workstation components. Both can be installed using the same Constructor setup program, found on the installation media – usually distributed on DVD or USB drive.

When setting up Constructor you must identify one computer to host the server components, however this need not be a “dedicated server” in the sense of a large, enterprise scale I.T. environment.

For installations requiring only a few computers (rule of thumb is three or fewer) to be running the Constructor program, the “server” components can simply be installed on one of the computers on your network.

For large scale operations, where simultaneous connections from multiple computers are required for the best part of the working day, a dedicated server with more processing power than an average personal computer may be required.

Servers with more processing power and purpose built “server” operating systems (for example Windows Server 2012 R2 or Windows Server 2016) are purpose built for managing many connected computers and sharing data and services amongst them.

It is possible to run both server and workstation components on the same computer.

For larger scale installation, with multiple concurrently connected computers all running Constructor, it is the server that requires extra resources. The workstation requirements remain the same.

See below for a comparison of **recommended** operating environments for small to medium, and larger scale installations.



Recommended Operating Environment

| Constructor Components | Small to Medium Installation | Large Installation |
|------------------------|--|--|
| | 1 to 3 (or 4) concurrent users ¹ | 3 or 4 plus users continually connected and working with Constructor. Shared Internet, File storage, Email, or other systems requiring shared resources. |
| Server | <p>4 - 8 GB RAM. 32 or 64 bit operating system. 2.4 – 3.2GHz CPU.</p> <p>Robust (reliable) Internet Connection: ADSL2+ connections.</p> <p>Access to an SMTP Email server (either on site or cloud based) for email functionality. (If you are already running an email system this will be available.)</p> <p>Windows 7, 8.1 Pro or 10 Professional Versions.</p> <p><i>A medium to well-equipped PC, that is not running excessive amounts of other software, particularly file / music sharing, in 2016 will suffice.</i></p> | <p>8 – 16 GM RAM <i>(Where Constructor Server components is the server's only role, 8GB will suffice, beyond that an increase to 16 GB or more of RAM is recommended.)</i></p> <p>64 bit operating system <i>(this is all that is available in server operating systems.)</i></p> <p>Hosts or has access to an SMTP Email server (either on site or cloud based) for email functionality. (If you are already running an email system this will be available.)</p> <p>Windows Server 2012, 2012 R2 or 2016.</p> <p><i>Any server designed to share resources amongst users on a Windows Domain will suffice.</i></p> <p>As number of concurrent users increases, (approaches approximately 10) a server dedicated to hosting Constructor's server components should be considered.</p> |
| Workstation | <p>2 - 4 GB RAM</p> <p>Windows 7, 8 or 10 Professional Versions.</p> <p><i>Most entry level PCs in 2016 will suffice.</i></p> | |

¹ For sites with 3 or 4 users the decision to employ a dedicated server will depend on some factors specific to your particular site. Amongst these factors are, the need to continuously on Constructor and the presence of other software also requiring sharing of data and services. The existence of these needs would indicate a dedicated server is well worth the investment.



Overview

The Constructor Server Components are comprised of an Instance of SQL Server 2012, a new version of Constructor Server Manager (CSM) and a Version 2, to Version 3 migration program.

If you already have an instance of SQL server at this version, the installation process will discover it and allow you to opt to add the Version 3 database to your existing instance.

Otherwise, the installation process will add its own SQL Server 2012 instance, and name it "Constructor".

For sites that already have an older version of SQL Server, with an instance named Constructor (from previous Version 2 installations) the Version 3 installation will update that SQL Instance to Version 2012. Constructor Version 2 will continue to run against the updated SQL Server version.

When installing Version 3, the logical place to begin is with the Service Components.

Choose a computer on your network, based on the above recommended operating environments.

The Workstation Installation can then be performed on any computers on which you wish to use Constructor. In order to communicate with the server those computers will need to be connected to the same network as the computer you choose, for your server. Workstations installations can be installed at any time.

See below for detailed instructions on how to install both the Server and Workstation components of Constructor.

Once the server components installation is complete, the Constructor Server Manager is used, to register the Constructor Product, maintain system updates and automate various workflows within the system. For a detailed explanation of the Constructor Server Manager, please see the [related knowledge base article](#).



Details

Running Setup

Typically you will be performing an installation of Constructor Version 3 from the installation media, a DVD or USB drive.

To commence the installation, locate the file called setup.exe on your installation media and run it with “administrator privileges”.

The easiest way to achieve this will be to run Windows File Explorer and locate the drive containing the media.

Depending on the version of Windows you have, the technique for accessing the File Explorer will vary.

Windows 7 – Access the “Computer” option from the start menu.

Windows 8.1 or Windows 10 – Right click the Windows logo in the bottom left and choose File Explorer.

(In either version you could press the Windows Key and simply start typing “File Explorer”. Windows Search should find the right option for you.)

In the case of a DVD, the location will most likely be a D: or E: drive. In the case of USB media, your system will have designated a drive letter to that USB drive.

To run setup.exe with administrator privileges, Right Click on the file name and choose the “Run As Administrator” option on the popup menu.

Confirm your action on the User Account Control dialog that opens, and get started.

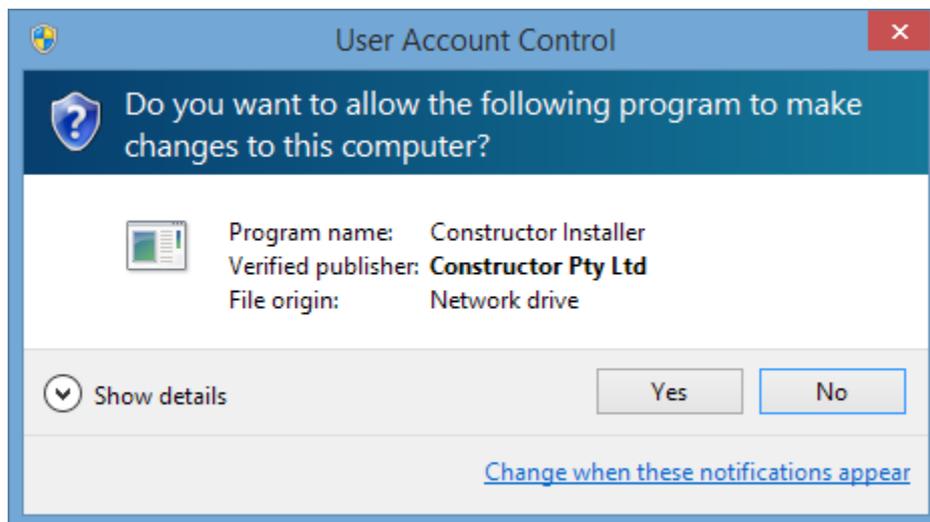


Figure 1: The setup process must run with Administrator privileges. Confirm your action on this User Account Control dialog (screen). If you do not see this, you have not started the program correctly.



Server (Components) Installation

Choose “Server” (by clicking on it).



Figure 2: To commence the installation of the Version 3 Server Components click on “Server”.

Server Installation Process

The setup process will now inspect the setup of the computer in order to determine the best way to proceed.

The following operations will be completed:

1. Prerequisite software components for SQL Server 2012 and Constructor will be checked and installed if necessary;
 - a. Windows PowerShell will be added / upgraded to the required version in the unlikely event it is not already installed.
 - b. The Windows Installer Framework will be added / upgraded to the required version in the unlikely event it is not already installed.
 - c. The Windows .Net 3.5 Framework, required by aspects of Constructor version 3 will be installed.
 - d. The Windows .Net 4 framework, required by aspects of Constructor version 3 will be installed.
2. SQL Server installed / updated
 - a. A SQL Server 2012 instance named “Constructor” will be installed, or;
 - b. An existing SQL Server 2008 / 2005 instance named Constructor will be updated, or;
 - c. No instance will be installed or updated if you have chosen an existing instance to host the Constructor data.

[See below](#) for the scenarios catered for regarding the SQL Server portion of the Server installation.

NB. This process can take quite a long time. Little feedback is available as the Constructor installation process interacts with Microsoft’s SQL Server installation process.



3. Security settings required for Constructor Version 3 will be added to the designated SQL Server instance. (Standard SQL user.)
4. A copy of the Constructor Version 3 new user database will be added to the designated SQL Server instance.
5. The Constructor Server Manger and its related service will be installed with a short cut added to the desktop of the server.
6. The Constructor Version 2 to Version 3 Migration (conversion) program will be installed with a link added in the Menu
7. Windows firewall settings will be configured to allow access to the server, from other computers on the network.
8. A Log File containing details of all these operations will be written to the hard drive of this server (its location depends on the particular operating system, however a link to this log file will be provided on the main installation screen upon completion).

SQL Server Install / Update scenarios

The following scenarios are catered for;

1. No SQL Server instances at the appropriate version (SQL 2012) are found: you will have the option to “install the Constructor Server Components on to a new instance of SQL Server”.
2. One or more instances of SQL Server are found, at the appropriate version, you will be given the option to use one of them, or alternatively, to add a new one specifically for “Constructor”.
3. An older version of SQL Server is found, and is named “Constructor” (presumably being used for Constructor Version 2). The setup process will allow you to choose to update that instance. (NB. Version 2 will continue to operate on the updated version.)

Should an existing version of SQL Server be found at the correct version, already containing a Version 3 database it will not be available for any further installation of the server components.

Where no existing SQL server instances with the “Constructor” name can be found to upgrade, the setup process will attempt to install a new one. **It will not upgrade SQL instances that are not named “Constructor”.**

If you have older versions of SQL Server, which host Constructor Version 2, but are not named using the standard “Constructor” name, you will need to upgrade these to SQL Server 2012 (Express or otherwise) before attempting this installation. Once updated to SQL 2012, those instances will be recognised by the setup process and made available for use with Constructor Version 3.

Once you have selected the appropriate option, based on what the Server Setup process has discovered about your network, the installation process will continue and no further interaction is required.



Workstation Installation

From the main setup screen, click on "Workstation".

From there you will be prompted to confirm the installation of the workstation components (the Constructor program itself).

Other than confirming the standard options required for any Windows installation, (location of files etc), no further interaction is required.



Figure 3: Click on Install Constructor Workstation and click "Next" on the following screens to confirm the standard setup options.

By default, the Constructor Workstation components (.exe and .dll files) will be installed in the "Program Files x86" folder on your local hard drive.