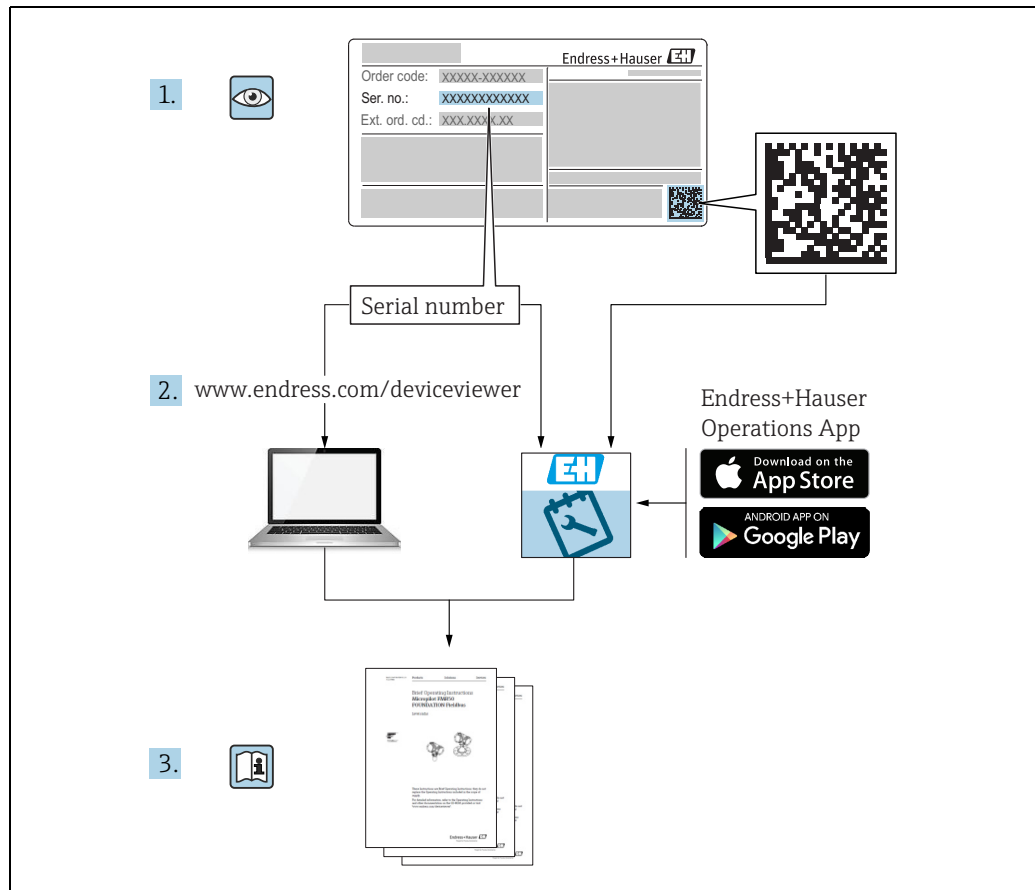


Operating Instructions

Tankvision Professional NXA85

Installation





A0023555

Make sure the document is stored in a safe place such that it is always available when working on or with the device.

To avoid danger to individuals or the facility, read the "Basic safety instructions" section carefully, as well as all other safety instructions in the document that are specific to working procedures.

The manufacturer reserves the right to modify technical data without prior notice. Your Endress+Hauser distributor will supply you with current information and updates to these Instructions.

Change history

Document version	Valid for SW version	Changes to the previous version
BA00392G_15.16	18.0.2 and 18.0.3	New features
BA00392G_16.17	18.1.1	Unification of the W&M and the non W&M software packages.
BA00392G_17.19	18.2.5	Bugfixing
BA00392G_18.20	18.3.1	Content added: SQL server connection details
BA00392G_19.22	18.3.2	SQL Server connection details updated. Server configuration details updated.

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1 About this document

1.1 Document function

This manual should support during the configuration of Tankvision Professional NXA85. Beside basic PC operating knowledge no special training is needed to perform the Tankvision Professional System operations. Nevertheless it is recommended receiving a training on the system by Endress+Hauser.





1.2 Software versions and certification







Due to the certification process with weights and measures agencies, the latest software version might only be certified at a later stage. Also some features might be incompatible with the weights and measure regulations and can therefore not be combined.

1.3 Symbols




1.3.1 Safety symbols

Symbol	Meaning
 A0011189-EN	DANGER! This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.
 A0011190-EN	WARNING! This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in serious or fatal injury.
 A0011191-EN	CAUTION! This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or medium injury.
 A0011192-EN	NOTICE! This symbol contains information on procedures and other facts which do not result in personal injury.



1.3.2 Electrical symbols

Symbol	Meaning
 A0011197	Direct current A terminal to which DC voltage is applied or through which direct current flows.
 A0011198	Alternating current A terminal to which alternating voltage is applied or through which alternating current flows.
 A0011200	Ground connection A grounded terminal which, as far as the operator is concerned, is grounded via a grounding system.
 A0011199	Protective ground connection A terminal which must be connected to ground prior to establishing any other connections.

1.3.3 Symbols for certain types of information

Symbol	Meaning
 A0011193	Tip Indicates additional information.
 A0011195	Reference to page Refers to the corresponding page number.
1. , 2. , 3. ...	Series of steps
 A0018373	Result of a sequence of actions

1.3.4 Symbols in graphics

Symbol	Meaning
1, 2, 3 ...	Item numbers
1. , 2. , 3. ...	Series of steps
A, B, C ...	Views
 A0011187	Hazardous area Indicates a hazardous area.
 A0011188	Indicates a non-hazardous location Safe area (non-hazardous area)

1.4 Documentation

The following documentation types are available in the Downloads area of the Endress+Hauser website: www.endress.com/downloads



For an overview of the scope of the associated Technical Documentation, refer to the following:

- *W@M Device Viewer*: www.endress.com/deviceviewer - Enter the serial number from the nameplate
- *Endress+Hauser Operations App*: Enter the serial number from the nameplate or scan the matrix code on the nameplate

1.5 Registered trademarks

Microsoft®, Windows® and Internet Explorer®
Registered trademarks of the Microsoft Corporation

Modbus™
Modbus is a registered trademark of Schneider Electric USA, Inc.

Java®
Registered trademark of Sun Microsystems, Inc.

Mozilla® Firefox®
Registered trademark of the Mozilla Foundation

Enraf, Honeywell, Rosemount, Emerson, Saab, L&J, VAREC, GPE are registered trademarks and trademarks of these organizations and companies.

All other marks are property of their respective owners.

2 Basic safety instructions

2.1 Requirements for the personnel

The personnel for installation, commissioning, diagnostics and maintenance must fulfil the following requirements:

- Trained, qualified specialists: must have a relevant qualification for this specific function and task
- Are authorized by the plant owner or operator
- Are familiar with federal or national regulations
- Before starting work, read and understand the instructions in the manual and supplementary documentation as well as the certificates (depending on the application)
- Follow instructions and comply with basic conditions

The operating personnel must fulfil the following requirements:

- Are instructed and authorized according to the requirements of the task by the facility's owner-operator
- Following the instructions in these Operating Instructions

2.2 Intended use

2.2.1 Application

Tankvision Professional NXA85

Tankvision Professional is specifically designed for operators of bulk storage facilities, marketing terminals, refineries and pipelines. It is designed to handle all the data acquisition, supervisory control and monitoring required in a single fully integrated solution.

Tankvision Professional integrates all major types of tank measurement instruments into one system.

All measured and calculated tank parameters are accessible to your tank farm and terminal operators as well as to connected host systems.

Multi-user operation is provided by the inbuilt Web Server offering the opportunity to access data at any connected location (local or remote) e.g. for administrative and accounting purposes.

2.3 Product safety

This measuring device is designed in accordance with good engineering practice to meet state-of-the-art safety requirements, has been tested, and left the factory in a condition in which it is safe to operate. It meets general safety standards and legal requirements.

2.4 IT security

A warranty on our part can only be provided if the software application is installed and used as specified in the operating manual. The software application contains safety mechanisms to protect it against inadvertent changes to the software settings.

IT security measures that are in accordance with the operator's safety and security standards and designed to additionally protect the software application and the transfer of data must be implemented by the operator.

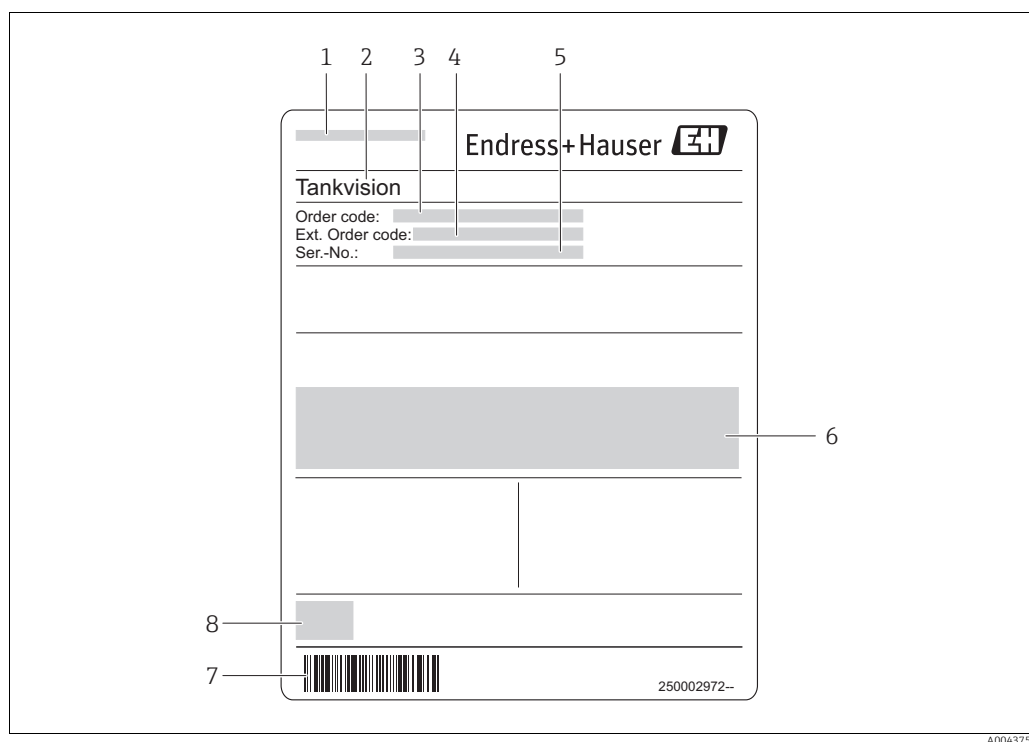
3 Identification

3.1 Product identification

The following options are available for identification of the software:

- Nameplate specifications
- Order code with breakdown of the software features on the delivery note
- Enter serial numbers from nameplates in *W@M Device Viewer*:
www.endress.com/deviceviewer - All information about the software is displayed.

3.2 Nameplate



- 1 Address of manufacturer
- 2 Product name
- 3 Order code
- 4 Extended order code (Ext. ord. cd.)
- 5 Serial number (Ser. no.)
- 6 Certificate and approval relevant data
- 7 Barcode
- 8 CE mark

3.3 Order code and device version



To find out the version of your software, enter the order code indicated on the nameplate in the search screen at the following address:
www.products.endress.com/order-ident

4 Installation General Guidelines



For this installation it is necessary that Microsoft Windows is installed on the C: drive of the PC. If it is not, do not attempt the installation and contact Endress+Hauser for further guidance.



Ensure that Microsoft Windows is completely up to date before proceeding with the installation.

Failure to do this may prevent the software running properly..

The suite of application modules making up the Tankvision Professional system are generally provided on CD.

The installation process is relatively simple and straightforward following the same procedures as almost all other Windows applications.

1.

Insert the CD into the CD ROM drive.

The system should normally auto start and begin running the set-up procedure.

2.

Follow the set-up prompts and enter the relevant data when and where requested.

3.


When the installation is finally complete remove the CD and any other media from drives.

You will normally be requested to perform a system reset before the system can be used.

On very complex systems, particularly large multi-user client server systems the installation process may be more complex requiring a separate installation for the database and other operating system components.

Furthermore, systems requiring remote access via a Remote Access Connection and/or providing a Web server will require configuration and set-up by engineers experienced in Windows Networking and related technologies.

5 Software Installation

 Refer to the release notes for your version of the software before proceeding with the installation.

This procedure assumes that you are installing Tankvision Professional onto a PC without a previous version of Tankvision Professional software. If you are intending to perform an upgrade make a backup of that system's databases and uninstall it first.

5.1 Logging onto Windows

Log onto to your computer using an account with administrative privileges.

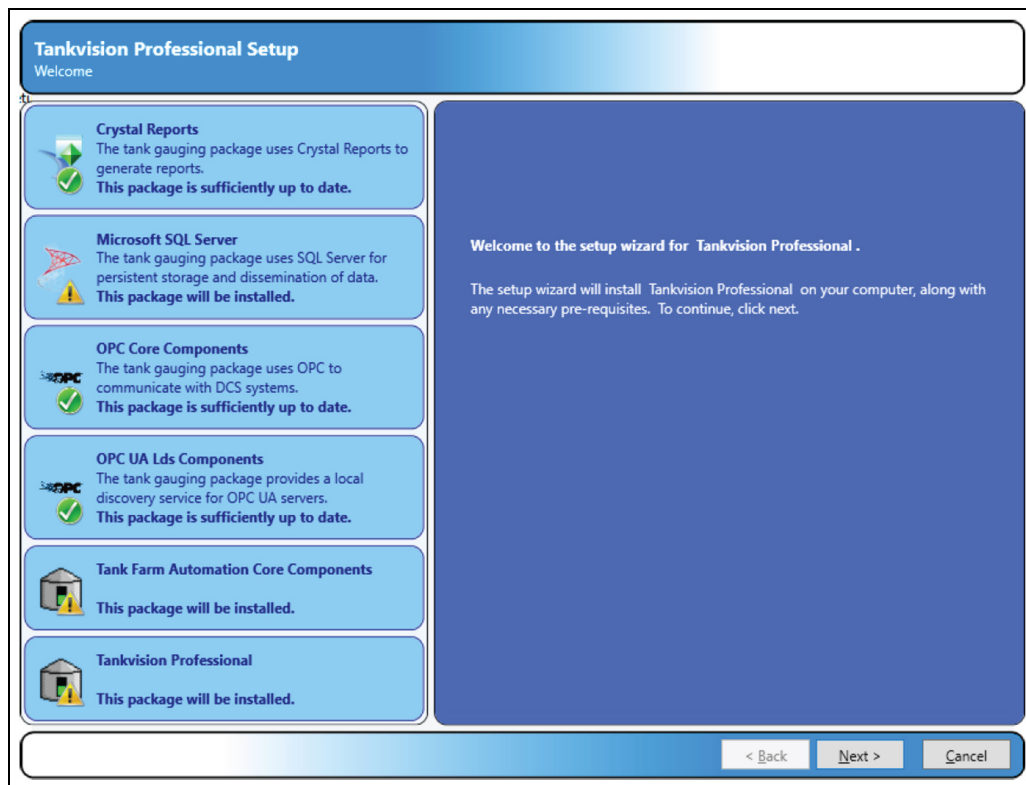
5.2 Inserting the CD

Insert the set-up CD into your CD ROM drive.

If you have **Auto Play** enabled then the installation will start automatically. If you don't, browse to the CD folder from My Computer and double click the **Setup.exe**.

5.3 Setup Welcome

Within a few seconds the main part of the application installation is started with the display of the following screen.



BA00392GEN_027

Click **Next** to continue with the installation or **Cancel** to terminate the installation procedure.





5.4 Installing the Pre-requisites

The first stage of the installation process is to check for and if necessary install the pre-requisite Windows components on your computer.

The pre-requisites installed are:

- SAP Crystal Reports
- Microsoft SQL Server (2019)
- OPC Core Components
- OPC UA Lds Components

If your computer already has these packages installed on it, the installer will detect them and check the correct versions are present, and only perform the installation if necessary. The icon displayed indicates whether the component is required or not.

Icon	Description
 Icon_Uptodate	The package is sufficiently up to date, and does not require installing.
 Icon_Missing	The package is either missing or is of an earlier version than is needed. The package will be installed.
 Icon_Incompatible	The installed package is incompatible with the Tankvision Professional software, and the installation will not proceed.
 Icon_Optional	The package is an optional requirement. See section on SQL Server, → 11.

There are no user configurable options for the installation of these Windows components, meaning that they will all occupy space on the C: drive of your computer.



If your Windows installation is not located on the C: drive, do not start the installation.

If the installation of any of the pre-requisites requires Windows to restart, then the pre-requisite installer will restart the computer before starting to install the application.

5.4.1 Microsoft SQL Server

The need to install Microsoft SQL Server is determined by the type of installation you are going to perform. Every Tankvision Professional server system must have SQL Server installed on it.

The bundled Microsoft SQL Server Express is only recommended for small single server systems. If a redundant or large system is required then you must install full Microsoft SQL Server (2016/2017/2019) prior to the tank Tankvision Professional.



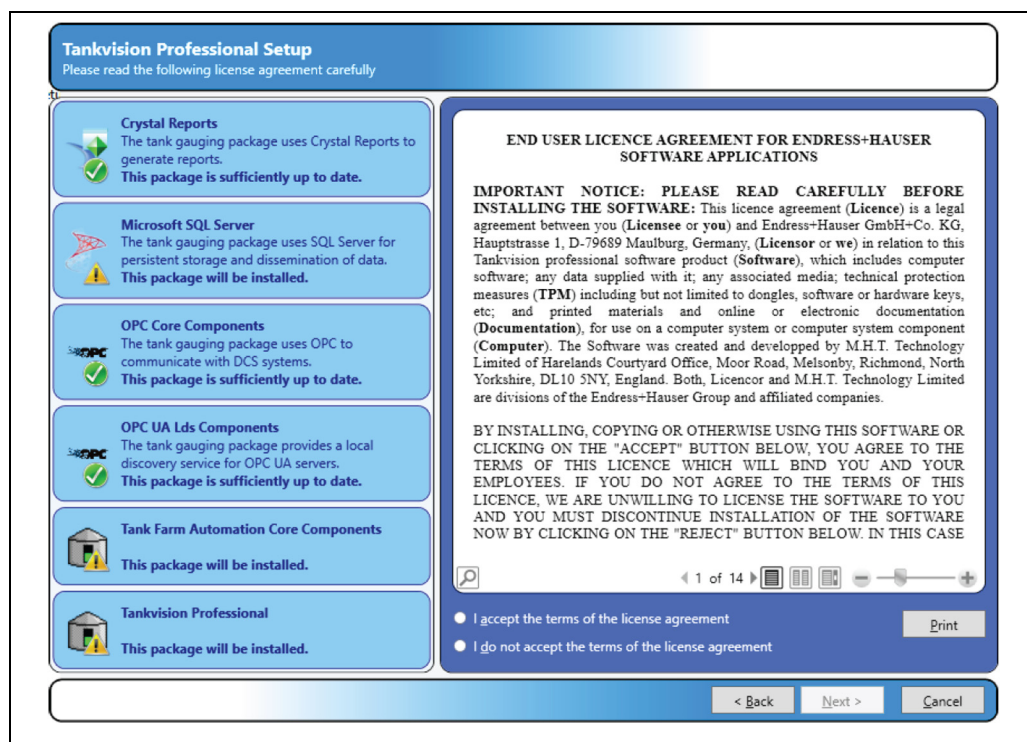
If full SQL server is installed it must be configured to use the SQL_Latin1_General_CP1_CI_AS collation.

5.5 License Agreement

This screen presents the license agreement.

- If you agree to the terms of the license agreement select **I accept the terms of the license agreement** to continue.
- If you do not agree to the terms of the license agreement, the installer will guide you to exiting the installation.

Click **Next** to continue.



BA00392GEN_028

5.6 Installation Type

The screen allows you to determine which parts of the system are to be installed on your computer. Choose:

- **Standalone System:** Installs both the GUI and the server components
- **Server:** Installs just the underlying server components
- **Client:** Installs just the graphical user interface (GUI) components

Additionally, you can select the language that will be presented in the Tankvision Professional user interface and the paper size used for printed reports.

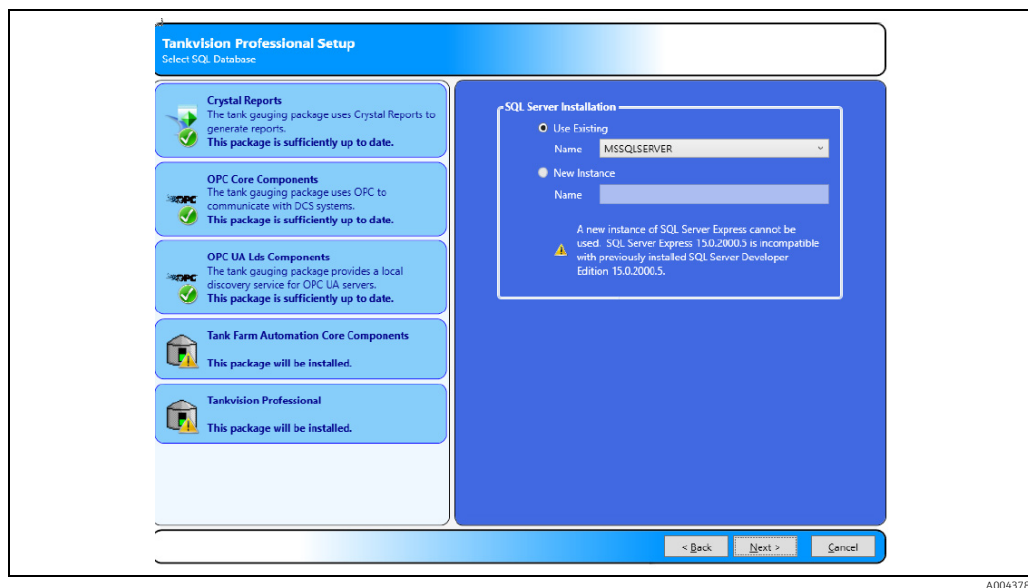
The screenshot shows the 'Tankvision Professional Setup' window with the title 'Select the installation type'. The window is divided into two main sections. The left section lists several components with their status: 'Crystal Reports' (sufficiently up to date), 'Microsoft SQL Server' (will be installed), 'OPC Core Components' (sufficiently up to date), 'OPC UA Lds Components' (sufficiently up to date), 'Tank Farm Automation Core Components' (will be installed), and 'Tankvision Professional' (will be installed). The right section contains three settings: 'Install Type' with radio buttons for 'Server and Client' (selected), 'Server', and 'Client'; 'Language' with a dropdown menu set to 'English'; and 'Reports' with radio buttons for 'A4' (selected) and 'Letter'. At the bottom, there are three buttons: '< Back', 'Next >' (highlighted), and 'Cancel'.

BA00392GEN_029

Press the **Next** button to continue with the installation.

5.7 SQL server connection details

The following screen allows you to choose the SQL Server installation you want to use to store the Tankvision Professional data.



A0043786

If a compatible version of SQL Server is already installed, then the option to **Use Existing** will be available. To use an existing instance of SQL Server, ensure that the **Use Existing** option is selected and then select the instance from the list.

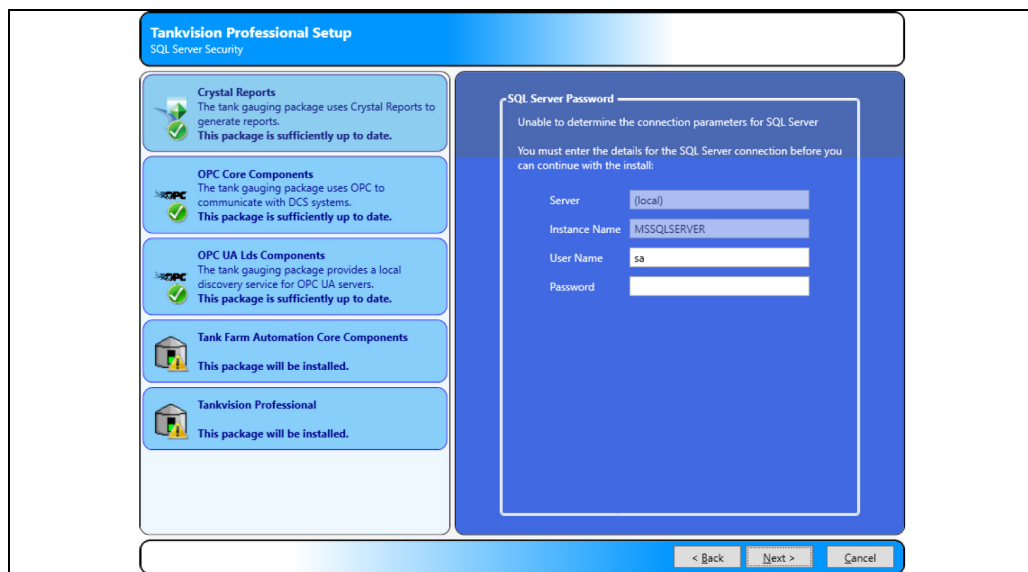
To install a new instance of SQL Server, select the **New Instance** option and then enter the instance name. To install a new default instance of SQL Server, leave the **Name** field blank.



You will not be able to install a new instance of SQL Server, if you already have a version of SQL Server installed which is incompatible with SQL Server 2019 Express.

5.8 SQL Server Password

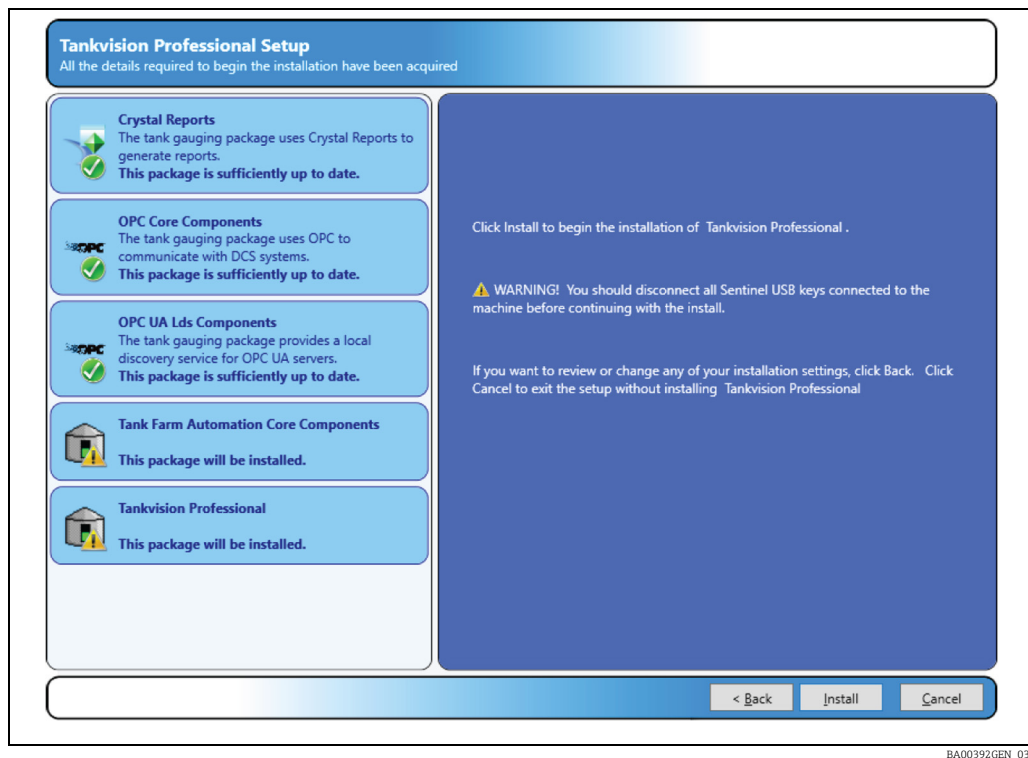
If the installer is unable to connect to an existing instance of SQL Server, then a screen will be displayed allowing the entry of the administrator user name and password:



BA00392GEN_044

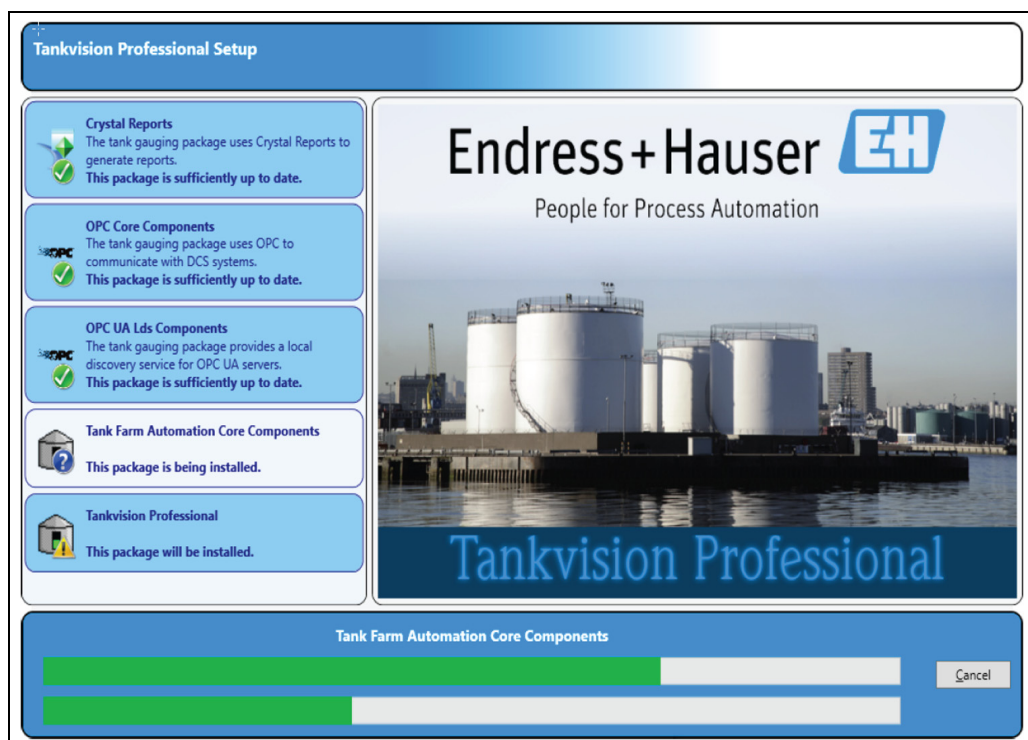
5.9 File Copying

The installation is now ready to continue. Click **Install** to start the file copying process.



BA00392GEN_030

The next screen displays a progress bar indicating the progress of the file copying and installation. The contents will change illustrating system features.



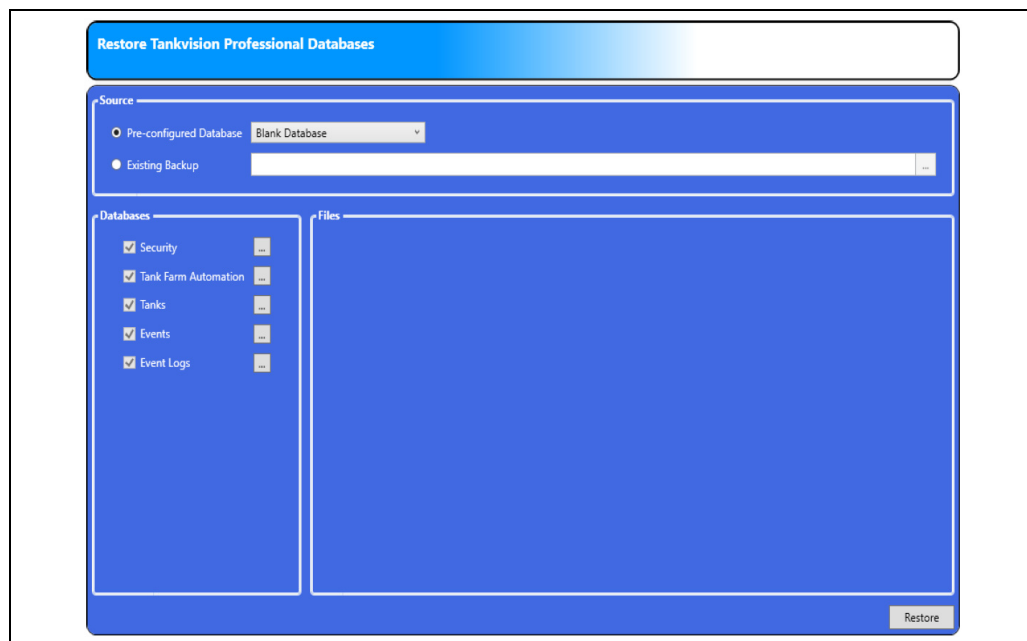
BA00392GEN_031

Press the **Cancel** button at any time during this process to abort the installation.

5.10 Server Configuration

Database Installation

You must now specify what database to restore on your computer, the choice will affect how much configuration you need to do after the installation has completed.



BA00392GEN_032

Preconfigured Databases

By default the installation includes sets of preconfigured databases which can be used to initialise the system. To use a pre-configured database, select the **Pre-configured Database** option and then choose the required database from the list. Typically this list will include an option for a **Blank Database** and one demo database.



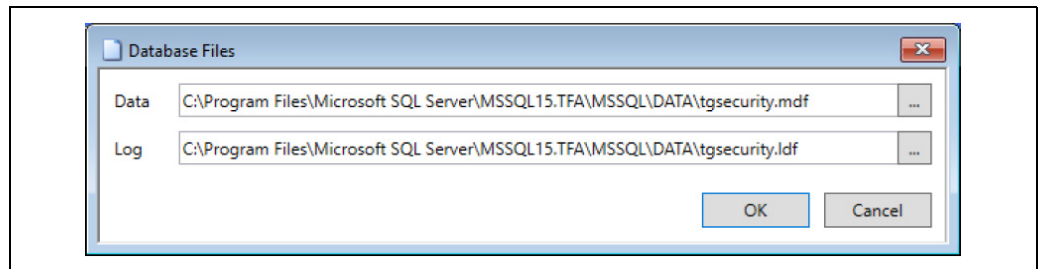
The **Blank Database** contains no initial configuration data and is suitable for starting a fresh site.

Existing Backup

To restore a compressed backup taken from an earlier version of Tankvision Professional, select the **Existing Backup** option and enter the full filename of the backup. Alternatively, click the browse [...] button to select the backup file.

5.10.1 Database Location

To change the location where the files for a database are stored, click on the browse [...] button to the right of the corresponding database name. A screen will be displayed allowing for entry of the new file locations:



5.10.2 Configuration Files

If an existing backup has been selected, then there is also the option to restore any configuration files that are contained in the backup. To select the configuration files to be restored, ensure that there is a tick next to the relevant configuration file.

5.10.3 Restore Databases or Files

To continue with the install, click on the **Restore** button. The selected databases and configuration files will be installed on the system. Whilst this is in progress the following screen will be displayed:



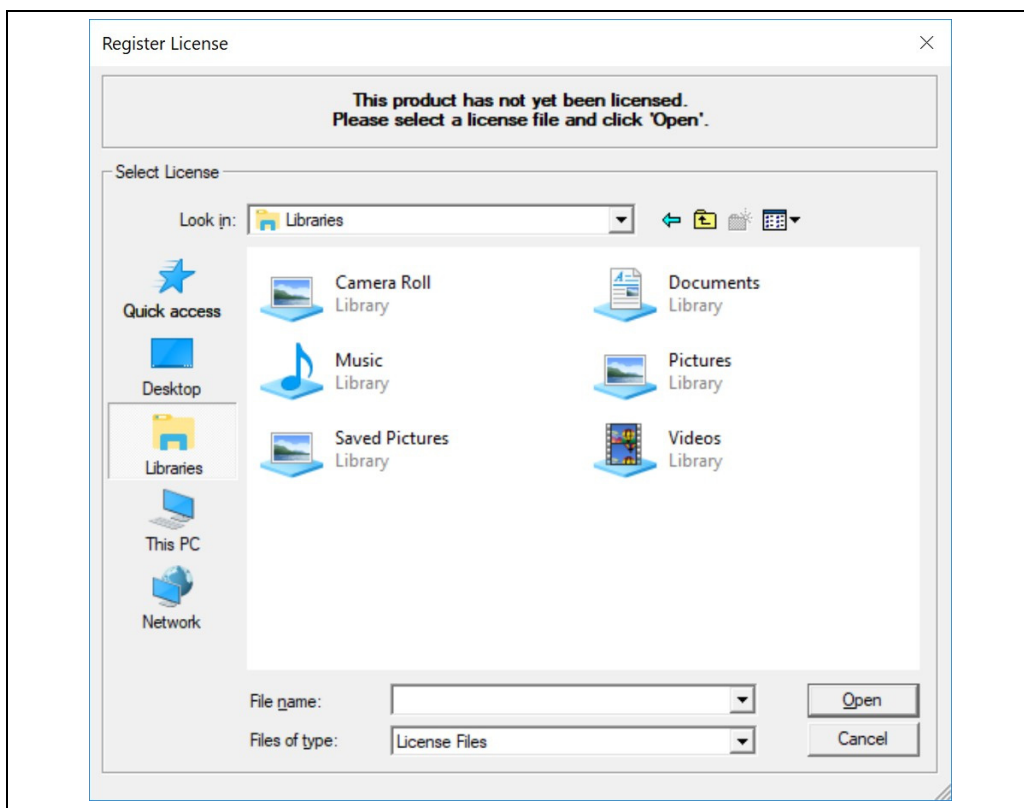
5.10.4 Enter the license

Next you are prompted to enter the Tankvision Professional server license, if this installation was a **Server and Client** or **Server** type.

The license.xml file is generally provided on a CD but can be copied to any convenient location. The file contains encrypted information that will make the file invalid if it is edited.

Insert the license hardware key provided into one of your computer's USB ports and then browse to locate the license.xml file that contains your license details.

The license file will not work unless the hardware key is present.



BA00392GEN_036

The license can be read from a shared network drive, a USB flash drive or a floppy disk.

Click **Open** to continue.

5.10.5 Set Administrator and Engineer Passwords

After restoring the database you must now provide a suitable password for the Tankvision Professional administrator account. If you previously chose to install a pre-configured data-base, then the administrator account password will be reset by the value you enter here.

BA00392GEN_037

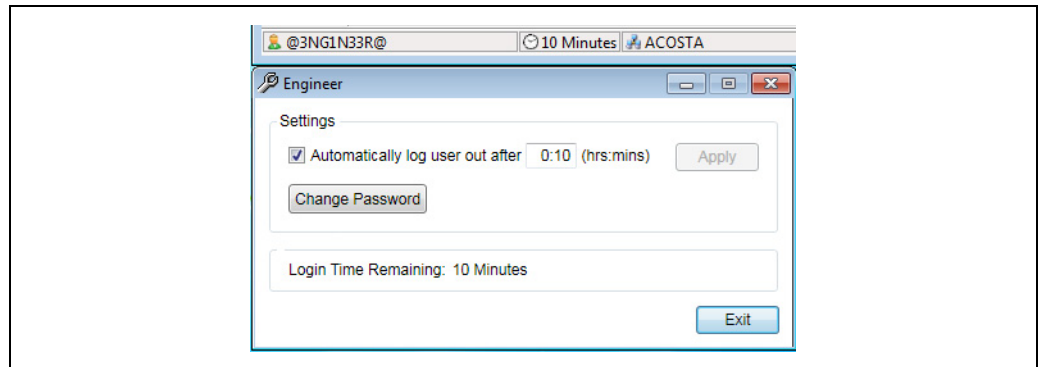
Click **Next** to continue.

The Engineer Login feature is a response to the problems caused when the Administrator password to a system is lost or the account is deleted.

The engineer login differs from the other "normal" logins in that it can't be removed and you use a special login application to utilise it. On the Windows Start Menu you will find an entry **Engineer Login**. When you start this application, you will first be prompted for your Engineer password as shown below.

BA00392GEN_017

When you login through this window a second window appears, which you should leave open all the time you wish to remain logged in as the Engineer.



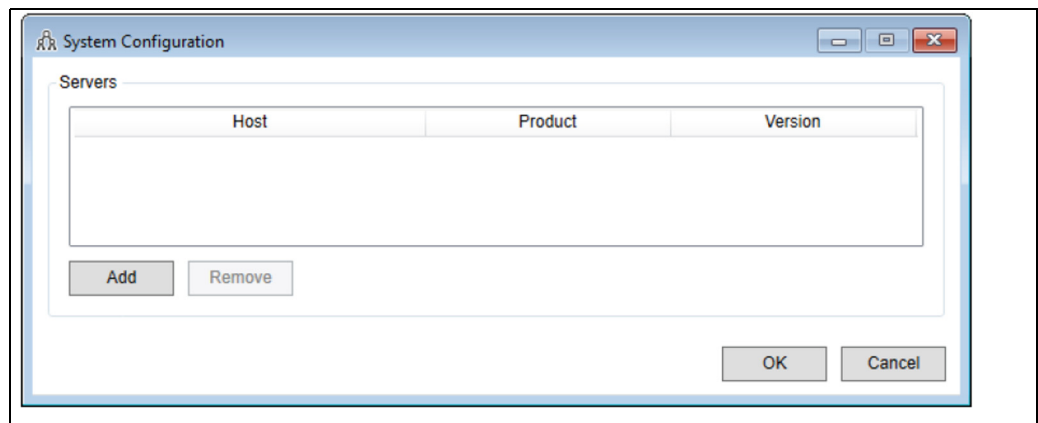
BA00392GEN_018

While this Window is open the security system is temporarily disabled so that you can reset the administrator account password, create new login accounts or change aspects of the system configuration. Exiting the application returns the system back to an unlogged in state.

Running this application will log out the current user and log in the Engineer. The Engineer always has full access rights to everything.

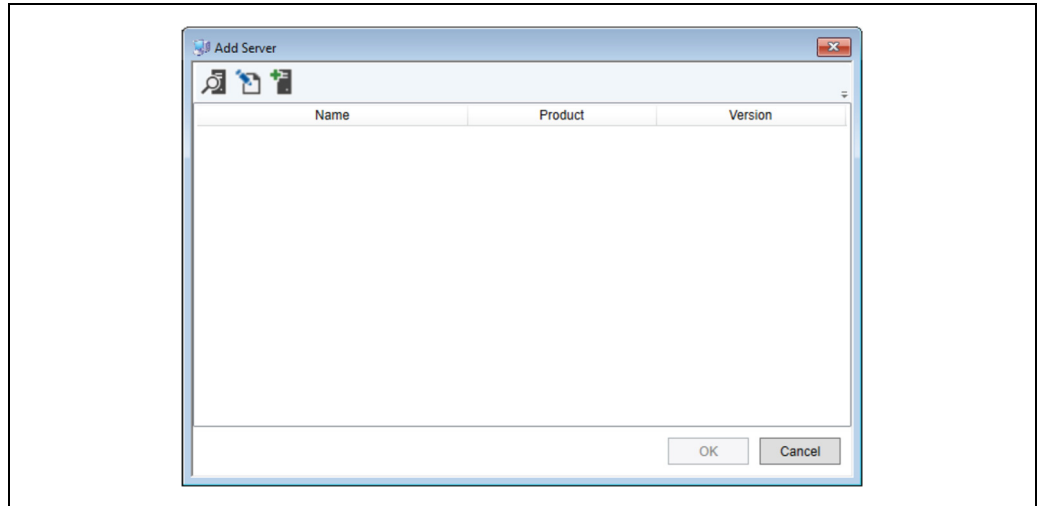
5.11 Client Configuration

If you selected a client-only install you will be presented with the **System Configuration** application in which to configure the connection to the server(s).




Terminalvision_Installation_EN_045

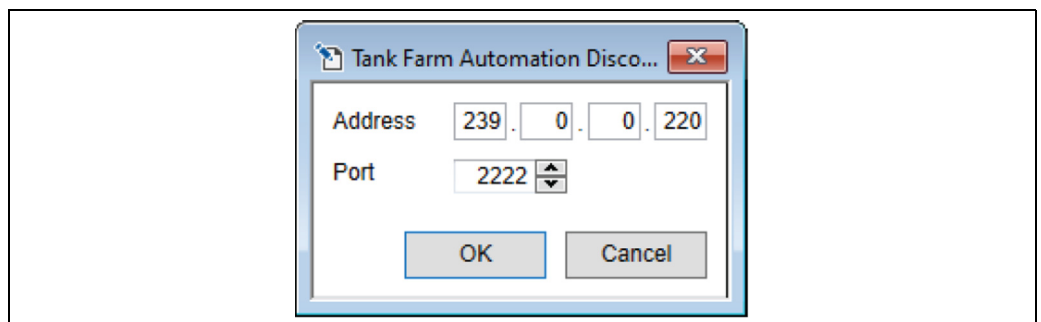
Upon clicking **Add** another screen will be displayed allowing you to choose the server(s) to be added:




Terminalvision_Installation_EN_046

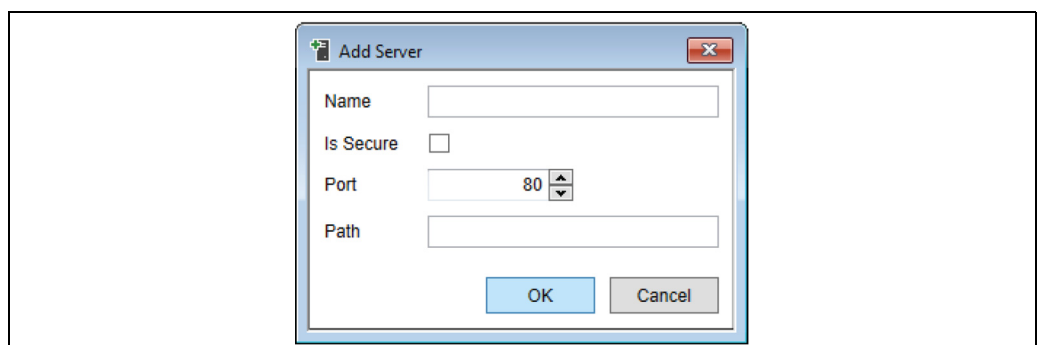
All servers which have been automatically detected by the system will be listed. To refresh the list, click the Refresh () button.

If the server has been configured to use an alternative discovery address, it will be necessary to edit the search criteria used for discovery. To do this, click the Edit Criteria button (). The following screen will be displayed:



TeVi_Edit_Discovery_Criteria

It is also possible to add a server manually. To do this, click the **Add Server** button (). The following screen will be displayed:

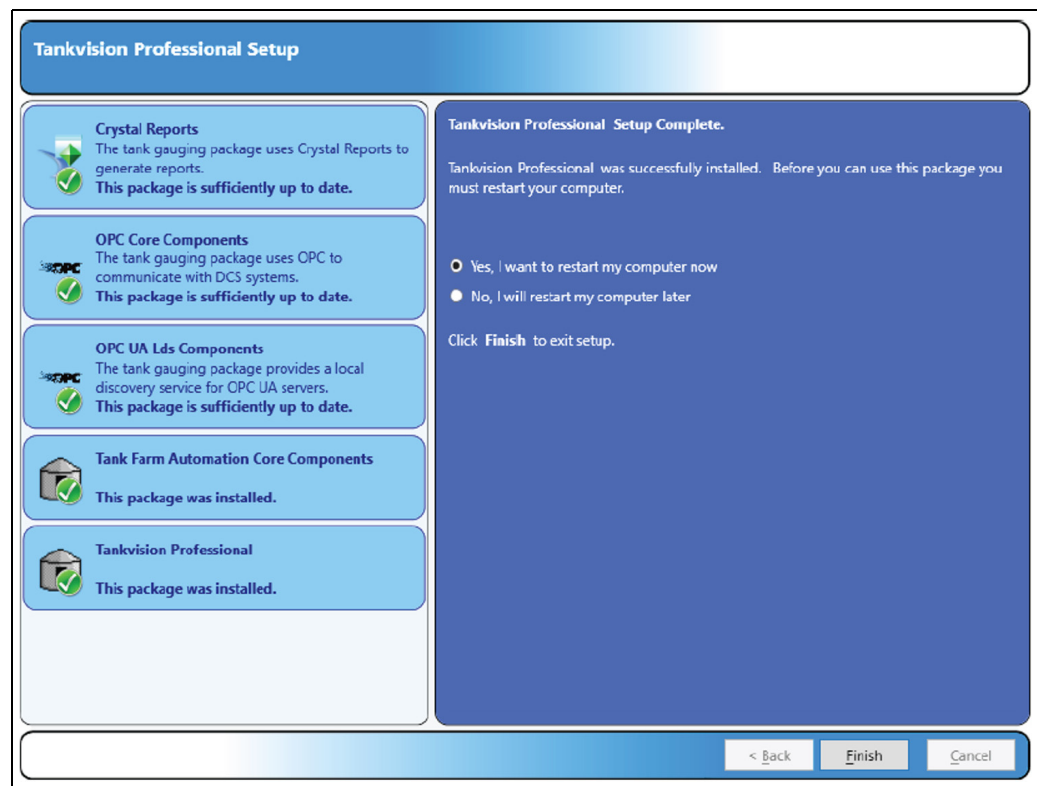


TeVi_Add_Server_manually

In most cases only the **Name** needs to be configured. The options **Is Secure**, **Port** and **Path** are for advanced configuration of the Olympus Service and can be left as preset.

5.12 Finishing the installation

The installer will now complete the installation by installing some Windows services, which should take around 30 seconds and finally present you with a completion message.

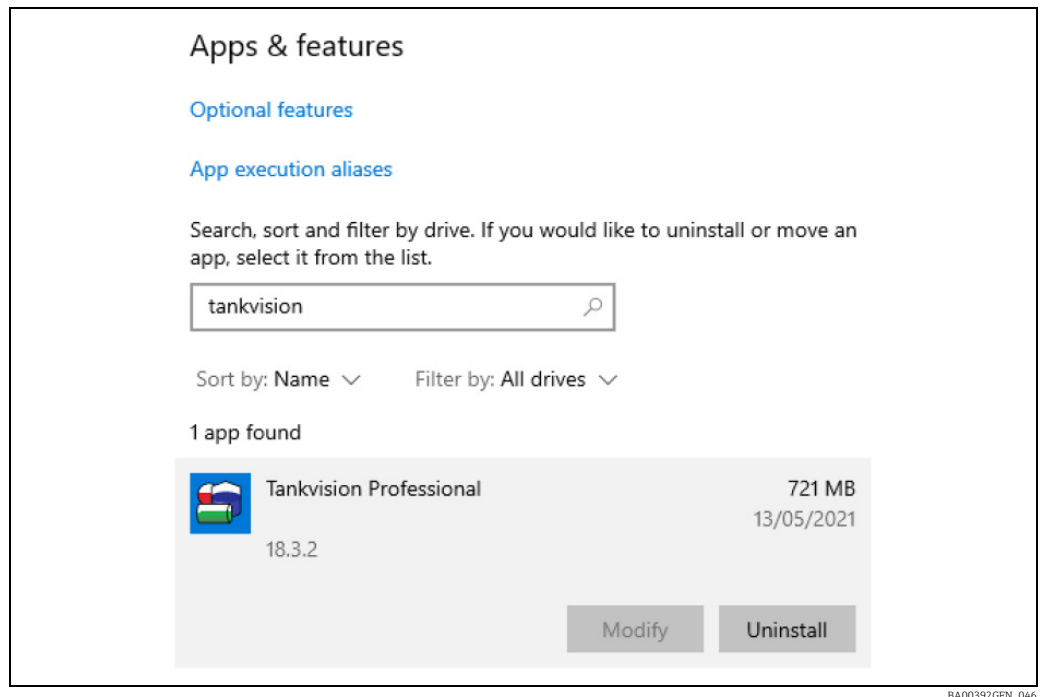


BA00392GEN_040

Press the **Finish** button to continue with a reboot of your computer to complete the installation process.

6 Uninstall

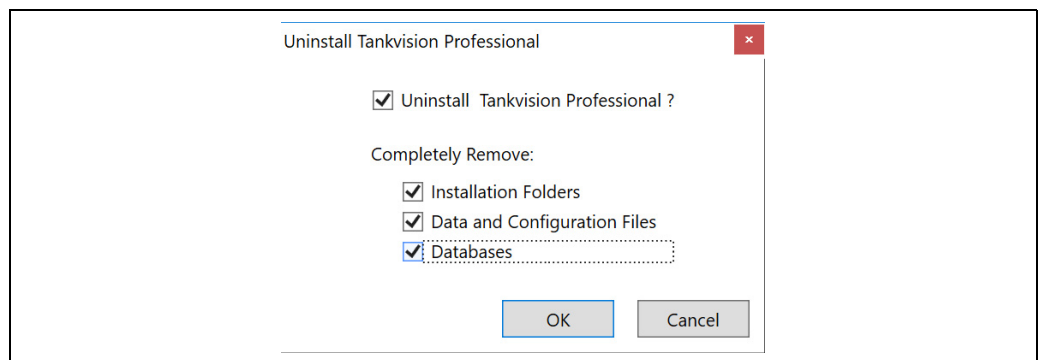
The system is uninstalled via the standard Microsoft Add or Remove Programs section applicable for your version of Windows.



BA00392GEN_046

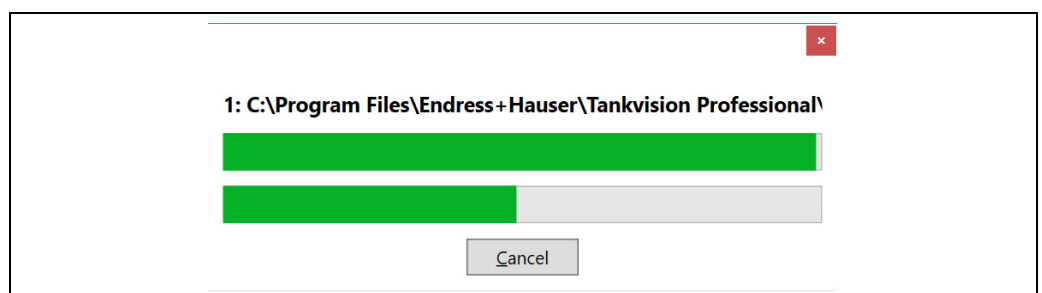
Make sure to take copies of any backups or files you may wish to restore later.

1. Select the parts of the product you would like to uninstall:



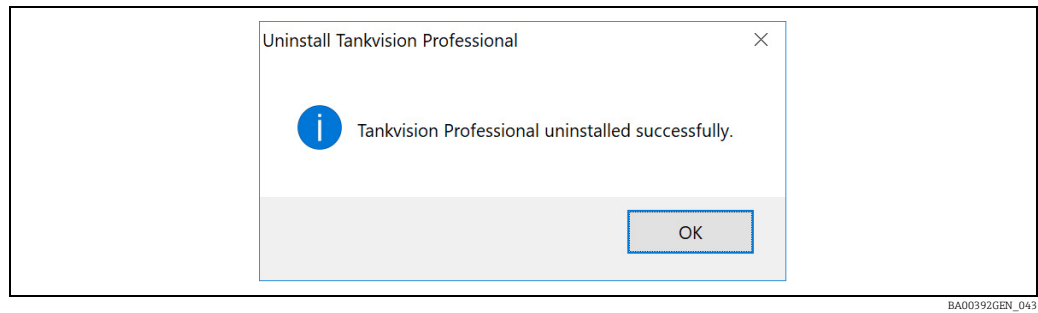
BA00392GEN_041

2. Select **Next**. The progress bar will indicate the uninstallation process.



BA00392GEN_042

3. Once uninstall is complete, you will see the finish dialog.



4. Installed Pre-Requisites are to be uninstalled manually and can be removed as required:
- Microsoft SQL Server
 - OPC Core Components
 - SAP Crystal Reports

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