Trimble® 4D Control™ Software Suite
(Version 4.1)

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**Introduction**

This document describes a new single server installation of the Trimble® 4D Control™ software, version 4.1.

To upgrade an existing installation of the Trimble 4D Control software, version 2.0, 3.0, or 4.0, you must first back up your registry and database and then remove the old installation: select Control Panel - Program and Features.

For more information about the necessary backups before you update the software, go to [http://trl.trimble.com/docushare/dsweb/](http://trl.trimble.com/docushare/dsweb/) and then search for the TechTip Trimble 4D Control: Upgrading to Version 4.0.

Version 4.1 of the Trimble 4D Control software supports the following:

- Windows® 7 Professional (32 and 64 bit versions) and Windows Server® 2008 R2 operating systems
- Microsoft® SQL Server® 2008, 2008 R2, and 2012


**Installation suite**

Trimble 4D Control software version 4.1 has an installation suite that makes normal single server installation easier. Start the installation suite directly by clicking the link on the splash screen:
Accept the license agreement and then decide if you want to start a complete or a custom installation:

- Complete (Server and Client): Automatically installs all Trimble 4D Control components.
- Custom: Installs the different applications separately. Use this option for distributed environments or for special setups (for example, when installing the web interface on a different computer).
  - Server applications: SQL Server, Trimble 4D Server, SNPCom
  - Client applications: Trimble 4D Desktop, Web interface

For more information about distributed installations, email Infrastructure support at infrastructure_support@trimble.com.

Installing the system

**Note** – Read this guide carefully and make sure the requirements are met before starting the installation.

The installation suite installs the necessary components one after another. Some components are optional, depending on the installation.

Use the installation wizard to install the following:

- **Optional.** Installing Microsoft SQL Server 2008 R2 Express, page 4
- Installing the Trimble 4D Control databases, page 5
- **Optional.** Installing the optical positioning communication components, page 7
- Installing the Trimble 4D Control Server, page 9
- Installing the Trimble 4D Control Desktop, page 13

Once you’ve installed the system, open the software to check that all services are running. See Checking the installation, page 17.
Installing Microsoft SQL Server 2008 R2 Express

With every installation, decide if you want to install the Microsoft SQL Server or if you want to continue using an existing SQL Server:

Trimble 4D Control software version 4.1 is delivered with SQL Server 2008 R2 Express. However, the software supports SQL Server 2008, 2008 R2, and 2012. If you are currently running a system with SQL Server 2005, you must first upgrade SQL Server to SQL Server 2008 R2.

Express version

SQL Server 2008 R2 Express is free. It has a limited database size (10 GB) and can use only 1 GB RAM. If you plan a system that includes many sensors and high-frequency data, Trimble recommends that you use the standard version of the SQL Server.

The suite installation installs the correct version for your operating system (32 or 64 bit version) with the default settings and the following SQL Server logins:

- Current Windows user
- Login T4D; Password Logging
- Login Sa; Password trimble

The password trimble that is used for the SQL Server system administrator account (Sa) does not satisfy Windows strong password requirements. The following message appears if strong password requirements are enabled on your computer, prompting you to install the SQL Server manually:

For more information, go to http://trl.trimble.com/docushare/dsweb/ and then search for the TechTip Trimble 4D Control Software: Installing SQL Server with Strong Password Requirements Enabled.
Installing the Trimble 4D Control databases

The Trimble 4D Control Database installation creates the T4DDB and MonitoringDB databases with the required tables in the specified SQL Server.

1. To start the installation, click **Next**.

2. Accept the license agreement and then click **Next**.

3. Define the T4DDB settings and then click **Next**.

   Trimble recommends using the standard settings. Change the settings only if you are familiar with SQL Server databases and users. You must enter the changed settings in all other installation procedures.
4. Define the MonitoringDB connections and then click **Next**:
Trimble recommends using the standard settings. Change the settings only if you are familiar with SQL Server databases and users. You must enter the changed settings in all other installation procedures.

5. Define the MonitoringDB Owner and then click **Next**.
Trimble recommends using the standard settings. Change the settings only if you are familiar with SQL Server databases and users. You must enter the changed settings in all other installation procedures.

6. To create the T4DDB and MonitoringDB with the required tables, click **Install**.

7. Click **Finish**. If you are running the Complete install, the next installation procedure starts automatically.
Installing the optical positioning communication components

Trimble optical position communication components are necessary to control the Trimble S8 total station. You do not have to install them if you do not want to connect to a total station, but they are installed automatically if you are running the Complete install.

1. To start the installation, click **Next**:

2. Define the location of the installation and then click **Next**:
3. To start the installation, click **Install**.

4. Click **Finish**. If you are running the **Complete** install, the next installation procedure starts automatically.
Installing the Trimble 4D Control Server

The Trimble 4D Control Server provides core functionality. It connects to the sensors, imports and processes the data, and stores it in the T4DDB database.

1. Click **Yes** to accept the license agreement:

2. For a single server installation, select all the Trimble 4D Control Server components and then click **Next**:

   **Trimble Distributed Environment**: Installs containers and the controller that runs all the data input, processing, and communication.

   **Trimble Report Generator**: Creates reports from T4DDB.
**Trimble 4D Control Server DB Server:** Logs data into the T4DDBB.

**Trimble 4D Control Server UI:** Graphical user interface for Trimble 4D Control Server.

3. Select the appropriate sensor size type and then click **Next**:

- If you are setting up a small system with only one sensor, select the corresponding sensor type.
- If you have more than one sensor type, many sensors of one kind, or you might add more sensors later, select **All Sensors**.

This selection defines the containers to be installed.

4. Select the setup type and then click **Next**:
– **Default setup**: Select this option to set up a single server installation.

– **Advanced setup**: Select this option to set up a single server with shared folders. If you select this option, define the user account with access to the shared folder in the following dialog.

5. Using an MS SQL Server package, the database server can reside on any participating computer in the network. In this dialog, specify the SQL Server connection and then click **Next**. Change these settings only if you have defined something else in the database installation.

6. Define the SQL Server connection to the T4DDB for the DBServer and then tap **Next**. Change these settings only if you have defined something else in the database installation.
7. Define the SQL Server connection to the MonitoringDB for the MonitoringDBService module and then tap **Next**. Change these settings only if you have defined something else in the database installation.

8. The **Start Copying Files** dialog summarizes the settings you have provided:

   - To review or change any settings, click **Back**.
   - To start copying files, click **Next**. The setup will now copy files, install services and the necessary Microsoft packages, and update the T4DDB database to the current schema.
9. Click **Yes** if you want to start the services immediately:

You may be required to restart your computer. Once the computer restarts, the setup should start automatically. If not, start it manually.

**Installing the Trimble 4D Control Desktop**

Trimble 4D Control Desktop is used to manage, create, and configure monitoring projects and sensors that will be visualized in Trimble 4D Control Web.

1. To start the installation, click **Next**:

2. Accept the license agreement and then click **Next**:
3. Define the location of the installation and then click Next:

4. Click Install:

5. Click Finish. If you are running the Complete install, the next installation procedure starts automatically
Installing Trimble 4D Control Web

The Trimble 4D Control Web application is used to visualize, analyze, and alarm the data in a monitoring project and provides remote access to your monitoring system. The web application communicates only with the MonitoringDB database. It does not interact with the Trimble 4D Control Desktop or Trimble 4D Control Server.

**Alarm Client**—this is a Windows service that is installed with Trimble 4D Control Web. The Alarm Client runs at defined intervals and checks the MonitoringDB database for alarms.

For more information about the procedure to set up the Trimble 4D Control Web, refer to the *Trimble 4D Control Web Installation Guide*.

1. To start the installation, click **Next**:  

![Screenshot of the installation process]

2. Accept the license agreement and then click **Next**:  

![Screenshot of the license agreement]
3. Enter your user name and organization and then click **Next**.

4. Set up the SQL Server connection and then click **Next**.
   
   Only change these settings if you defined something else in the database installation.

5. Select **Complete** to install the Trimble 4D Control Web and the Alarm Client and then click **Next**.
6. Click **Install**.

7. Click **Finish**. This completes the installation of the Trimble 4D Control software.

Trimble recommends that you spend some time in familiarizing yourself with the *Trimble 4D Control Web Installation Guide* for installation verifications and the first steps in using the Trimble 4D Control Web.

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### Checking the installation

Once the installation is complete, open TSA to make sure that all services are running.

1. Click the TSA icon in the notification area and then select **Configure**:

   ![Configure TSA](image)

   **Note** – *If the TSA icon does not show in the notification area, Windows has locked it. To start the TSA user interface manually, select Start / All programs / Trimble 4D Control / Trimble 4D Control Server:*
2. Check if all services are running—if any service is not running, start it. If any service does not start, check the event viewer and, if required, email infrastructure_support@trimble.com.

3. Once you have verified that everything is running, open the Trimble 4D Control Server user interface and connect it to the controller:

4. Check the notification area to verify that everything is working correctly:

5. If the license status shows that the license is not valid, update the dongle using the License Activator.

6. You can now open the tree view and start configuring the modules in the Trimble 4D Control Server.

After you have configured the data import, processing, and storage modules in the Trimble 4D Control Server, use the Trimble 4D Control Desktop to configure the monitoring projects for publishing the data in Trimble 4D Control Web. For more information on how to create projects and sensors in Trimble 4D Control Desktop, refer to the Trimble 4D Control Desktop Software Quick Start Guide.
Legal Notices

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Release Notice
This is the January 2013 release (Revision A) of the Trimble 4D Control Software - Single Server Installation Guide It applies to version 4.1 of the Trimble 4D Control software.

Product Warranty Information
For applicable product warranty information, please refer to the Warranty Card included with this Trimble product, or consult your Trimble dealer.