



PipeDesigner 3D

SOFTWARE

This document provides basic information about new features and modifications in release 2017 v2 of the Trimble® PipeDesigner 3D® software. More detailed information can be found in the online help system.

- ▶ Introduction
- ▶ New Features, Enhancements, and Modifications
- ▶ Essential release information
- ▶ Update installation instructions
- ▶ Trimble Quick Link update
- ▶ Installing the PipeDesigner 3D software
- ▶ Product assistance
- ▶ Legal Notices

Introduction

What you receive with release 2017 v2

- ▶ One Trimble PipeDesigner 3D Installation DVD
- ▶ One Trimble PipeDesigner 3D *Let's Get Started* foldout

Upgrade procedure

See [Installing the PipeDesigner 3D software, page 12](#) at the end of this document for information on requirements to install this update. Trimble recommends that you print these instructions to help ensure proper operation of the software application after installation.

Trimble Quick Link licensing and communication system

The PipeDesigner 3D software includes an interface with the Trimble Quick Link system.

Note – *You must install the updated Quick Link software (included on the installation disk) in order to maintain continued licensing of your product. Refer to the [Installing the PipeDesigner 3D software, page 12](#) section of this document.*

Manufacturers' databases

Trimble provides various manufacturers' databases that you can add to the PipeDesigner 3D software using the QuickMerge utility. All available manufacturers' databases, as well as instructions for merging into the PipeDesigner 3D database, are available for download from our website.

<http://mep.trimble.com/support/resources/manufacturer-libraries>

Compatibility

Autodesk® software

This release of PipeDesigner 3D software is compatible with:

- ▶ AutoCAD® 2017
- ▶ AutoCAD Architecture 2017
- ▶ AutoCAD MEP 2017

The software will not work with any other version of these applications.

Operating systems

This version of the PipeDesigner 3D software is compatible with 64-bit Windows® 7, Windows 8 and Windows 10 operating systems. Your version of the AutoCAD software must correspond with the correct version of the PipeDesigner 3D software, as well as the operating system.

Note – *This release of PipeDesigner 3D is not compatible with 32-bit Windows operating systems.*

Trimble Connect

Trimble Connect enables designers, builders, owners, and operators to collaborate, share, and view project information. For more information go to connect.trimble.com.

Trimble Field Link for MEP

Trimble Field Link for MEP allows you to easily manage layout tasks by employing a task-based workflow featuring advanced Layout, Reporting, and Model Viewer functionality.

Trimble MEP integration

With the Trimble MEP layout solution, mechanical, electrical, and plumbing contractors can increase productivity and simplify the layout of sleeves and hangers.

Trimble MEP Estimating Software integration

The PipeDesigner 3D software enables you to export data in a format that can be imported into the following Trimble MEP estimating software applications:

- ▶ Trimble AutoBid® Mechanical software
- ▶ Trimble Accubid® Enterprise software

Refer to the online help in each of the software applications for detailed instructions.

Backward compatibility

PipeDesigner 3D entities are not backward compatible. Drawings created in Autodesk compatible products that are subsequently saved in a previous format (version) cannot be edited. Graphics are viewable as proxy graphics only. Always save drawings in the current version format.

New Features, Enhancements, and Modifications

The following enhancements have been added to the PipeDesigner 3D software in this release.

PipeDesigner 3D CAD

Autodesk Product Compatibility

This release of the PipeDesigner 3D software is compatible with the following Autodesk products:

- ▶ AutoCAD 2017
- ▶ AutoCAD Architecture 2017
- ▶ AutoCAD MEP 2017

The software will not work with any other version of these applications.

Take note of the following:

- ▶ Non-PipeDesigner 3D drawing opened and saved in PipeDesigner 3D no longer tags drawing with PipeDesigner 3D data.
- ▶ Upgrading previous version drawings with PipeDesigner 3D entities on a locked layer are upgraded to the new version without issue.
- ▶ Disassociate command includes blocks that have been deleted but are still in the block list.
- ▶ You can now enable OSNAPs using the shift right click menu when inserting a tee into a pipe.

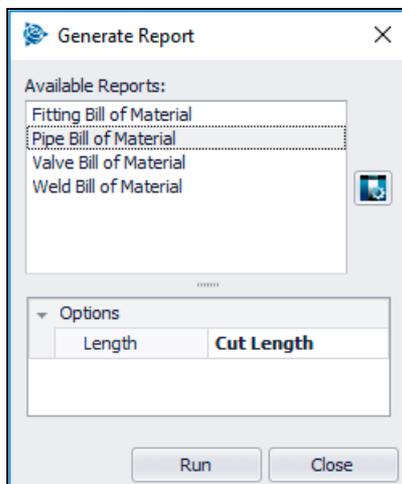
Reports

This release of the PipeDesigner 3D software includes a new report bill of materials for numerous part types that can easily be customized and saved. To access the new reports, go to the new *PD3D Tools / Reports* ribbon and select **Generate Report**.

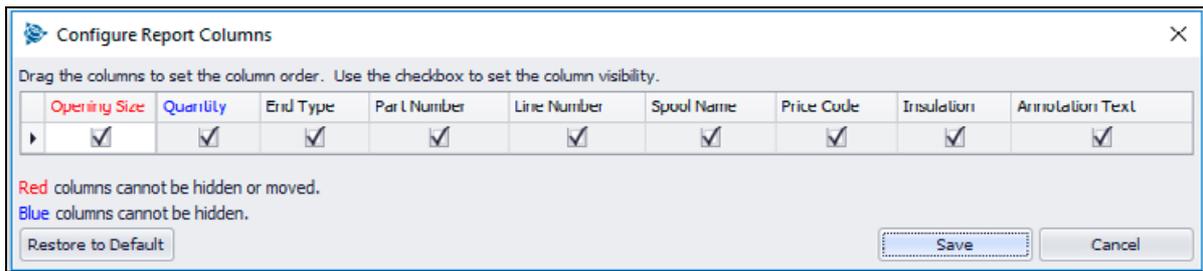


The following report types are available:

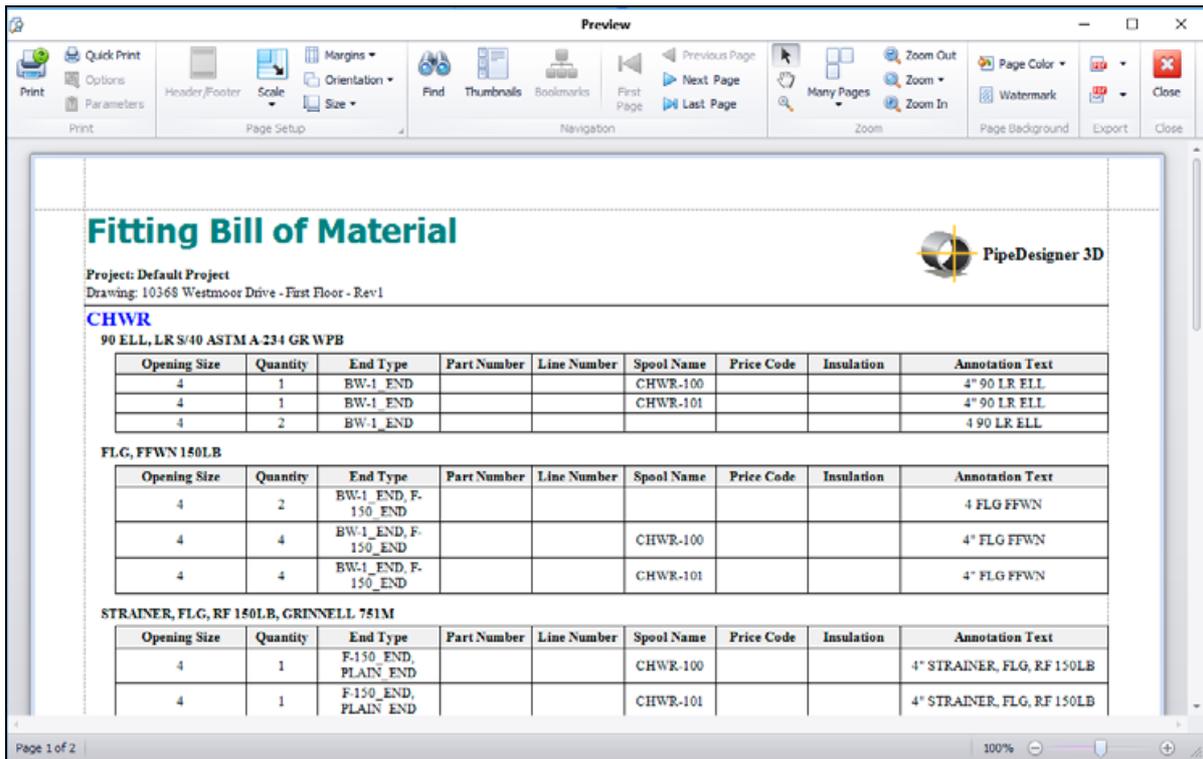
- ▶ Fitting Bill of Material
- ▶ Pipe Bill of Material (Option for Cut Length or Total Length)
- ▶ Valve Bill of Material
- ▶ Weld Bill of Material



You can customize the report columns by clicking the Configure the visibility and order of the report columns button  :



Once a report is selected, click the Run button to select PipeDesigner 3D entities in the model. Once you have done this, the report *Preview* screen appears:

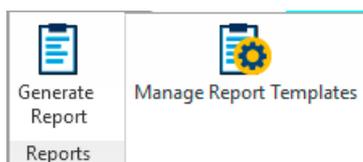


From the report *Preview* dialog there are a number of options for printing, page setup, report navigation and zoom, page background and export options.

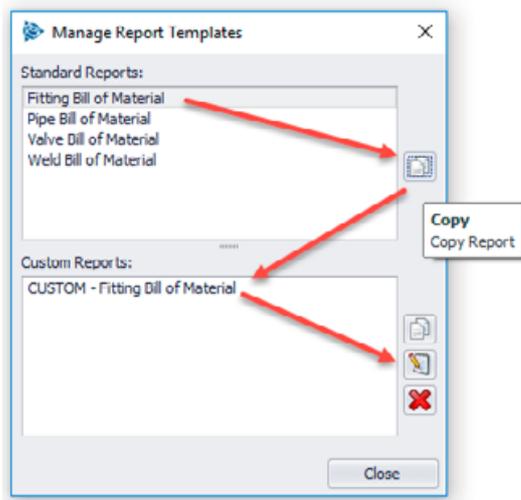
- ▶ Export format options: PDF, HTML, MHT, RTF, XLS, XLSX, CSV, Text and Image formats.
- ▶ Email format options: PDF, MHT, RTF, XLS, XLSX, CSV, Text and Image formats.

To customize reports:

1. Go to the *PD3D™ Tools / Reports* ribbon panel and select **Manage Report Templates**.

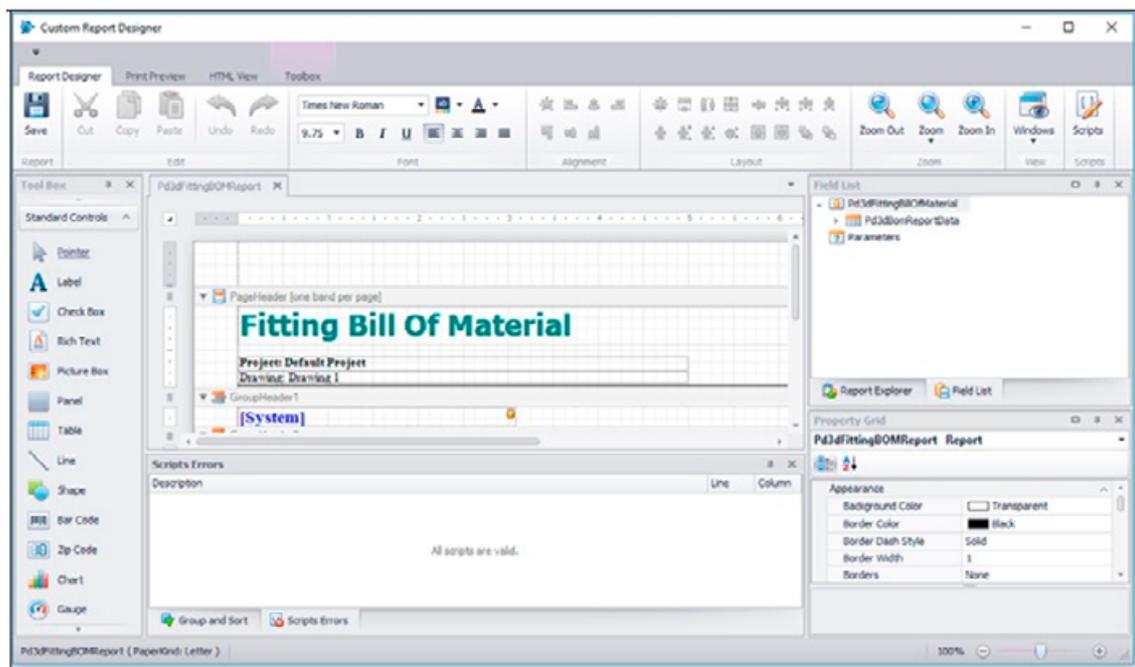


2. Select the report you want to modify and then click **Copy**.



Note – You cannot customize any one of the Standard Reports—you must make a copy of a Standard Report and rename it. Your new Custom Report will be fully editable.

3. The copy of the report appears under *Custom Reports*. To edit the report, click the Edit button  .
4. Make the required changes in the *Custom Report Designer* dialog.

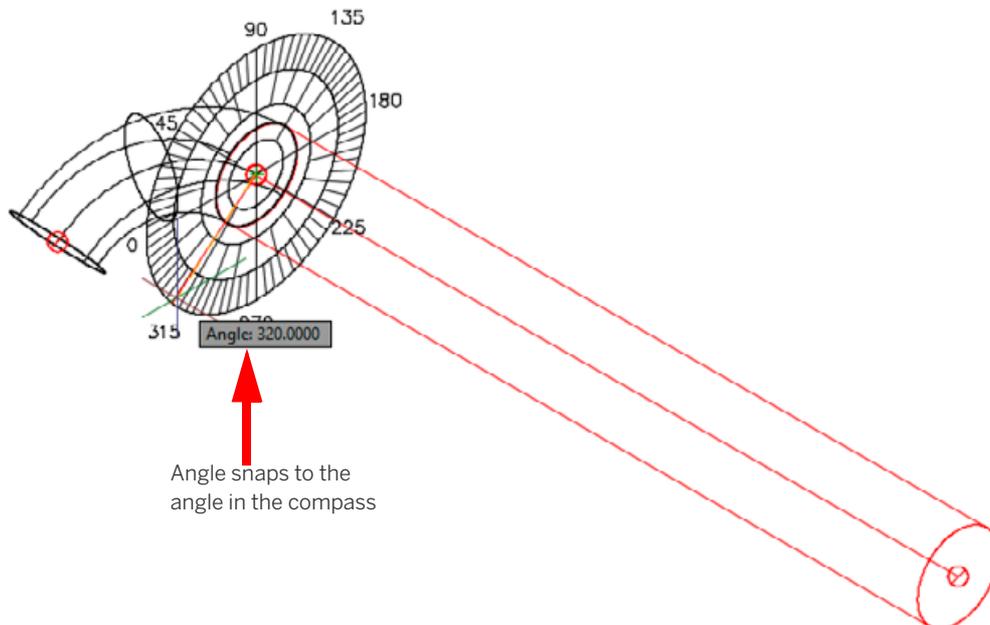


Note – Report customization is an advanced feature of the PipeDesigner 3D software and Trimble MEP Support may not be able to assist with issues on Custom Reports.

Enhanced compass

This release of the PipeDesigner 3D software includes an enhanced patent-pending compass for rotating fittings. The enhanced compass offers the following:

- ▶ **Inside compass:** When you move the part to the desired location and left-click, the PipeDesigner 3D compass displays. When you move your cursor inside the compass, you:
 - are limited to 5, 15, 45, or 90 degree increment placements.
 - can also enter a rotation angle.

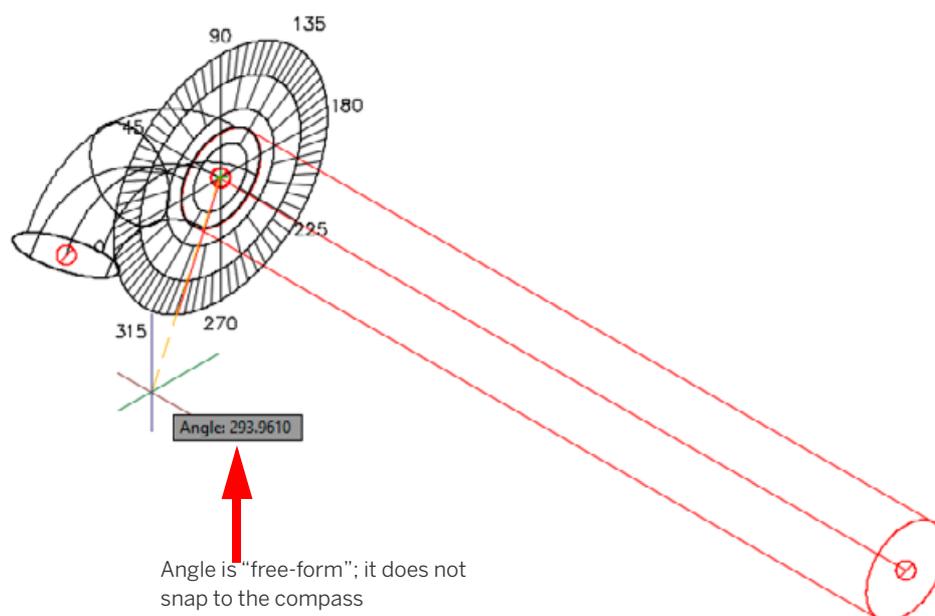


- ▶ **Outside compass:** When you move the part to the desired location and left-click, the PipeDesigner 3D compass displays. When you move your cursor outside the compass, you are not limited on placement rotation. You can now:

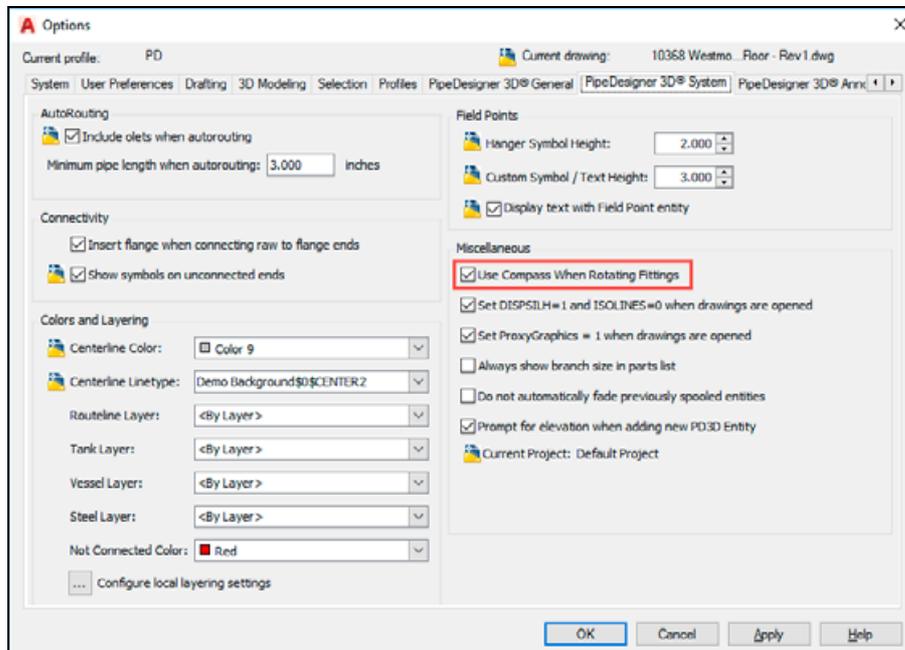
- Snap to a PipeDesigner 3D part opening, or any AutoCAD snap, to define the angle of your rotation.

Note – This may prove extremely helpful when trying to line up openings.

- Enter a rotation angle.



- ▶ **Inside/outside compass features:** The following applies to both inside and outside the compass:
 - As you move your cursor, a tooltip displays showing the current angle.
 - An angle entered at the Command Line overrides a compass angle.
- ▶ **Compass display:** In the *Options / PipeDesigner 3D System* dialog, a new *Use Compass When Rotating Fittings* check box is now available.



When you select this check box, the compass displays when connecting new fitting and/or rotating existing fittings.

Note – The check box is selected by default. You can clear it if you do not want to use the compass. This disables the compass globally.

Essential release information

Trimble Quick Link software

The Trimble PipeDesigner 3D software requires the Trimble® Quick Link licensing and communication software to be installed. This software is included on the PipeDesigner 3D Installation DVD.

Note – This installation may require you to restart your computer. Trimble recommends that you do this during a non-busy time or after hours to minimize disruptions in your company's workflow.

Known issues/work-around information

▶ Autodesk compatible products settings

- A new *Smooth Line Display* option has been added under *Options / System / Graphics Performance*. This setting can make lines on a drawing appear thicker/brighter. If desired, you can disable this option with no effect on your drawing.
- In AutoCAD versions later than 2015, a blue edging was added to selected items to highlight them. This makes items selected much more visible in your drawing.
 - The *SelectionEffect* variable determines how an item displays when it is selected.
 - The *PreSelectionEffect* variable determines how an item displays when you hover over it.
 In AutoCAD, the default is these variables are active. To turn them off, enter the command followed by 0 (zero).

- Autodesk Building Design Suite shortcuts: When either AutoCAD Architecture or AutoCAD MEP are installed as standalone products, three shortcuts are created on the desktop and in the *Start* menu. They are:
 - US Imperial
 - US Metric
 - Global

When the Autodesk Building Design Suite (a suite of Autodesk products that includes AutoCAD, AutoCAD Architecture, and AutoCAD MEP) is installed, only one shortcut is created on the desktop and on the *Start* menu for AutoCAD Architecture and for AutoCAD MEP. These shortcuts default to the **Global** profile but can be changed to the **US Imperial** or **US Metric** profile if desired.

- ▶ **Database Backup/Restore limitations:** Backup and Restore are controlled through Microsoft® SQL Server® software, which has limitations on file locations. Backup and Restore files cannot be located on the Windows® Desktop, in the My Documents folder, or in a Network location. For backups, you must select a local folder (other than those stated above) and then copy the resulting file to a network directory for safekeeping.

When restoring, you must copy the backup you want to restore to a local folder (other than those stated above) prior to beginning the process.

- ▶ **PipeDesigner 3D Update Catalog function:** The Update Catalog functionality may not behave as expected. The function may attempt to update some fittings that do not require updating.
- ▶ **Custom layouts:** PipeDesigner 3D allows customization of screen layouts in the Data Editor. Customized layouts are stored in user configuration files and are not included in backup files. Re-customizing is required any time a new installation of PipeDesigner 3D is performed. (This includes an uninstall/reinstall of the previous version.)
- ▶ **AutoCAD Visual Styles:**
 - *AutoCAD Visual Styles while placing fittings:* When the AutoCAD Visual Styles Manager is open and set to 2D Wire Frame, PipeDesigner 3D entities may move slowly. Trimble recommends one of the following options to improve speed while working in the PipeDesigner 3D software:
Set *Visual Styles* to 3D Wire Frame; **or**
Close the AutoCAD Visual Styles Manager while working in the PipeDesigner 3D software
 - *AutoCAD Visual Styles while creating sections:* To ensure that the PipeDesigner 3D section works as expected, set the Visual Style to 2D Wire Frame.
- ▶ **AutoCAD Flatshot command:** This command does not include PipeDesigner 3D software entities. If you want to use the Flatshot command with the PipeDesigner 3D software, you must first explode the PipeDesigner 3D entities, which causes these entities to lose PipeDesigner 3D intelligence. In order to preserve your PipeDesigner 3D drawing intelligence, Trimble recommends that you save your drawing under a different name prior to exploding the entities.
- ▶ **Connection issues on existing drawings:** Drawings created in previous versions of the PipeDesigner 3D software may experience connection issues due to enhancements made in the software. A command is available that allows you to verify and correct connection issues in these drawings. Open the drawing and then go to *PD3D Tools / Utilities / Miscellaneous / Verify and Fix*.
- ▶ **AutoCAD MEP—Copy/Move/Rotate/Mirror:** When using AutoCAD MEP, some scenarios where copy/move/rotate/mirror then reconnects to an existing entity, can fail when selecting entities prior to calling the command. In these cases, launch the command first and then select entities.
- ▶ **AutoCAD 3D Object Snaps:** Trimble recommends that you turn off the 3D AutoCAD Object Snaps when placing PipeDesigner 3D entities. From time-to-time, you may find that when placing a PipeDesigner 3D entity into a drawing with this AutoCAD feature turned on, pipe or fittings may temporarily disappear from the display.
- ▶ **AutoCAD System Variable setting:** At Autodesk's recommendation, the AutoCAD System Variable CACHEMAXFILES is automatically set from the default of 256 to 0 (zero). This speeds up the process of saving drawings (when using the *Save As* command). This value can be manually reset to a different value, but keep in mind that doing so will cause drawings to save much slower.

- ▶ **Microsoft SQL Server—initial PipeDesigner 3D installation:** If Microsoft SQL Server is already installed on the computer where you are installing the PipeDesigner 3D software, the database will not automatically restore/connect. Contact Technical Support for assistance in configuring Microsoft SQL Server.
- ▶ **Trimble MEP/Trimble Field Link for MEP Exports:** Exporting overlapping items to Trimble MEP for Trimble Field Link for MEP processes only one item.
- ▶ **Trimble MEP Integration:** To use the Field Points enhancements in the PipeDesigner 3D software, Trimble MEP software requires using the latest version available. For more information regarding this and other improvements to Trimble MEP, see the Trimble MEP Support Page. You can also download the latest version from this page.
- ▶ **PipeDesigner 3D Context Sensitive Help:** PipeDesigner 3D context sensitive (**F1**) help is not linked in all windows and may not work correctly when executed on a PD3D ribbon command; however, online help for both the PipeDesigner 3D drawing program and Data Editor is fully accessible from the *Help* tabs. Go to:
 - *PipeDesigner 3D CAD: PD3D™ Tools > Help*
 - *PipeDesigner 3D Data Editor: Help*
- ▶ **PipeDesigner 3D / DuctDesigner 3D® software running on the same computer:** In some cases, when PipeDesigner 3D and DuctDesigner 3D software are run in the same AutoCAD instance at the same time, you may receive unexpected results. Trimble recommends that you not run these applications in the same AutoCAD instance. You can, however, run them in separate AutoCAD instances.

Update installation instructions

PipeDesigner 3D version verification

1. Open the CAD side of PipeDesigner 3D software.
2. Click the *PD3D Tools* tab.
3. Select *Help / About*. See the information below for version specific instructions.

Releases 2013 v2 through 2017 v1

Proceed with the installation using the instructions outlined in this document.

Releases 2011 v1 through 2013 v1

If you are updating to Release 2017 v2 of the PipeDesigner 3D software from releases 2013 v1 through 2011 v1 (or any previous release), please contact MEP Client Services at (800)234-3758 for additional instructions before proceeding.

Clean computer

If you are installing the PipeDesigner 3D 2017 v2 software on a clean computer, refer to the *Installation Guide* (PD3D_Installation.pdf) available on the DVD. Go to *Explore Installation Disk* and navigate to the *Manuals* folder.

Verify Autodesk application

If you are installing the CAD side of the PipeDesigner 3D software, note that this version is compatible only with the following Autodesk suite of products:

- ▶ AutoCAD 2017
- ▶ AutoCAD Architecture 2017
- ▶ AutoCAD MEP 2017

Verify that you have a compatible version resident on your computer before attempting to install this update.

Note – *If you are installing the Data Server or PipeDesigner 3D Data Editor only, the Autodesk application is not required.*

Backing up the PipeDesigner 3D software data

Before you install any update to PipeDesigner 3D, you should always back up your data. Do the following:

1. Click **Start** and navigate to *Trimble PipeDesigner 3D*.
2. Click **Database Backup Utility**. The Microsoft SQL Backup Wizard opens. Refer to the online help system or the online *Utilities Help* for detailed instructions on creating a backup of your PipeDesigner 3D database.
3. Once you have confirmed that the backup file has been created successfully, complete the remaining preliminary steps outlined in this section.

Backing up drawings

In addition to backing up your database, Trimble recommends that you also back up all drawings to a network drive (or if already on a network, to a different location outside of the PipeDesigner 3D software folders), or another media type (such as CD- RW or other media). This ensures availability of your drawing should you experience any computer/system issues after installing this update.

Determining the installation type

The update installation routine installs PipeDesigner 3D according to its original installation (for example, Workstation, Stand-Alone, or DataServer only).

If you want to change the type of installation, you must uninstall the PipeDesigner 3D software and then reinstall it as a new user. Doing this may require relicensing your software through the Trimble Quick Link Management Studio. In this case, Trimble recommends that you contact MEP Client Services for assistance.

Enable .NET framework features

- ▶ **Server 2008 and Server 2008 R2:** You may need to enable the .NET Framework 3.0 features in the Server Manager.
- ▶ **Server 2012:** You may need to enable the .NET Framework 3.5 features in the Server Manager.



Tip – Contact your IT Professional if you need assistance with these procedures.

Windows Applications

Make sure all Windows- based applications are closed, including email software.

Note – *If you are currently using Trimble Quick Link for any other Trimble application, you will need to also close the Hub and Management Studio while updating the Quick Link software. Any Trimble application using Quick Link will not have access to licensing during this time. Trimble recommends that you install all updates during a non-busy time or after hours to minimize disruption in your company's workflow.*

Running the installation DVD

1. Insert the Trimble PipeDesigner 3D Installation DVD into the appropriate drive of the computer that is the designated stand-alone or server computer. Wait a moment. The Trimble PipeDesigner 3D installation welcome screen displays.
2. If the installation screen does not display a few seconds after you insert the installation DVD, do the following:
 - a. Double-click the Desktop Computer icon.
 - b. Locate the drive containing the PipeDesigner 3D Installation DVD. Click it to display the contents of the DVD.
 - c. Double-click **autorun.exe** to open the PipeDesigner 3D main installation screen.

Note – *Depending on your computer settings, the .exe extension may not display.*

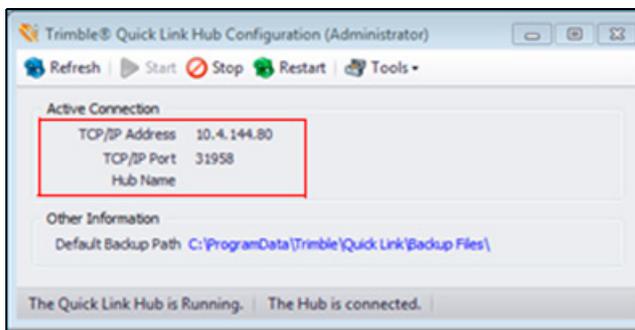
Trimble Quick Link update

From the *Software Installation Links* heading, click *Trimble Quick Link*. The *Quick Link* installation screen appears.

 **Tip** – The Quick Link Hub and Management Studio must be closed before you can install this update. If any other Trimble applications are using Quick Link, licensing will be unavailable while you are installing the updated software. Trimble recommends that you install all updates during a non-busy time or after hours to minimize disruption in your company's workflow.

Installing the hub

1. Click **Quick Link Hub**.
2. The *Welcome* screen displays. Click **Next**.
3. Click **Finish**.
4. Open the *Trimble Quick Link Hub* to obtain the IP Address and Port. You will need this information to complete the Trimble PipeDesigner 3D software update.



Management Studio

 **Tip** – You must update all computers that currently have an installation of the Management Studio software installed.

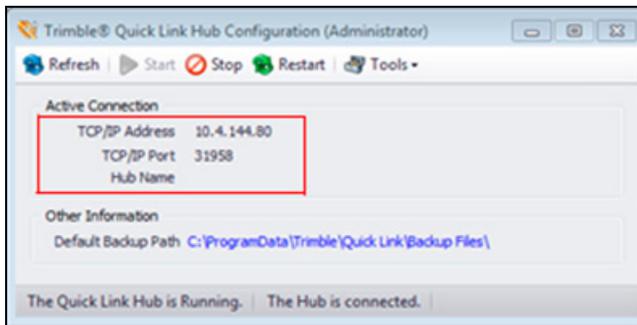
1. Click **Quick Link Management Studio**. The routine prepares the files for installation.
2. The *Welcome* screen displays. Click **Next**.
3. When the installation is complete, click **Finish**. No further action is required at this time.
4. To install the PipeDesigner 3D update, click **Back to Main screen** and then refer to the next section for instructions.

Installing the PipeDesigner 3D software

Note – Before starting this installation, the desired Autodesk 2017 compatible product(s) must also be installed on the computer.

Quick Link Hub IP Address

Before you can install the PipeDesigner 3D 2017 v2 software release, the installation routine must validate installation and communication of the Quick Link Hub. You must have this information available to proceed.



Installation/Validation

Note – The following instructions assume that the installation DVD is already in the appropriate drive of the computer and the main installation screen is open. If it is not, see [Running the installation DVD, page 10](#).

1. In the *Software Installation Links* area, click **PipeDesigner 3D**.
Trimble has built-in several validations to ensure that the Trimble Quick Link and PipeDesigner 3D applications communicate properly. Your Quick Link Hub must be validated before you can continue the installation.
 - If the validation is successful, a connection valid message displays. Click **OK**. The installation continues. Go to the *Continue installation* topic below.
 - If the validation is unsuccessful, a message displays. Click **OK** and then proceed to Step 2.
2. In the *Check Quick Link Installation* dialog, enter the following information:
 - **Hub Address:** This is the TCP/IP Address assigned to the Quick Link Hub.
 - **Port:** This is the TCP/IP Port assigned to the Quick Link Hub. **The default Port must always be 31958.**
3. Click **Continue**.
 - If the connection is validated, click **OK**. Go to the *Continue installation* topic below.
 - If you have entered the correct information and the data cannot be validated, you will need assistance from your IT professional. Trimble has provided an *Installation Checklist* to step through some troubleshooting procedures in order to make sure your environment allows the proper required communication. This document can be downloaded from the Manuals folder on the installation DVD.

Continue installation

The InstallShield Wizard prepares to install the software. Please be patient. This procedure may take a few minutes.

1. The *Welcome* screen displays. Click **Next**.
2. When the installation is complete, click **Finish** and then exit the PipeDesigner 3D software installation screen. Remove the DVD from your drive.
3. See the *Final Steps* section for additional instructions.

Final Steps

Open the PipeDesigner 3D software as you normally do.

Note – *The Trimble Quick Link Hub must be running in order to open the PipeDesigner 3D software.*

If required, upgrade the database:

1. Click **Yes** in the *Question* dialog.
2. Click **OK** in the *Warning* dialog to begin the upgrade.

The online help system contains step-by-step instructions on using many procedures.

Provided you followed all instructions in this document, you are now ready to use the PipeDesigner 3D 2017 v2 software.

Database modifications

This release contains no database modifications requiring manual merging/addition.

Product assistance

Trimble offers several avenues to obtain help using the PipeDesigner 3D software program.

Accessing the online help

The online help is easy to use and is accessible through any of the following methods:

- ▶ Press the **F1** key at any time while using the program to display help for the current PipeDesigner 3D ribbon or dialog.
- ▶ Go to the *PD3D Tools* tab and click **Help**. You can scan the Table of Contents, use the Index, or use the Search functionality to find the information you are looking for:
 - The Table of Contents is organized into categories for easy navigation.
 - Use the Index tab to locate key words throughout the help system.
 - Use the Search tab to find specific words used in the help system; for example, you might search for the word delete for instructions on deleting certain data from your system.

Trimble MEP Client Services

Before calling Client Services, we suggest you consult the online help. Many of the common procedures and questions are covered in this system.

Trimble MEP Client Services is available during regular business hours, Monday through Friday. We are not available on major holidays.

- ▶ Telephone, toll free: 1-800-234-3758
- ▶ Internet e-mail: mepsupport@trimble.com
- ▶ Website: mep.trimble.com

Legal Notices

Trimble, Inc
116 Inverness Drive East, Suite 210
Englewood, Colorado 80112
800-234-3758

Copyright and Trademarks

©1999-2017 Trimble, Inc. All rights reserved. Trimble, the Globe & Triangle logo, Accubid, AutoBid, DuctDesigner 3D, PipeDesigner 3D, and Trimble Quick Link are trademarks of Trimble, Inc, registered in the United States and in other countries. Microsoft, SQL Server, and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Other brand and product names are trademarks or registered trademarks of their respective holders.

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose, without the written consent of Trimble Inc.

Release Notice

This is the *Trimble PipeDesigner 3D Software Release Notes* (Revision A). It pertains to release 2017 v2 of the software.

The topics within this document are:

- Subject to change without written notice.
- Companies, names, and data used in any examples are fictitious.
- Screenshots included in the help topics may not be exactly as in the software application.

Edition

Trimble PipeDesigner 3D Release Notes, Release 2017 v2