Help Guide

Trimble®
Field Points
Software

![Trimble]

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Trimble® Field Points

The Trimble Field Points software application provides a CAD solution to designers needing to pinpoint various design objects in the field. Field points can be created in a drawing and then exported for layout use in the field. Field points can be created, recorded, and modified for import into the originating drawing to document exact project data.

Created by industry specialists, this software is compatible with various compatible Autodesk® applications to enable you to design, create and "round-trip" field points quickly and efficiently.

Refer to the information on the following pages to learn more about the features in Trimble Field Points.

Software Navigation

The Trimble Field Points uses a ribbon technology to provide easy access the functions available.
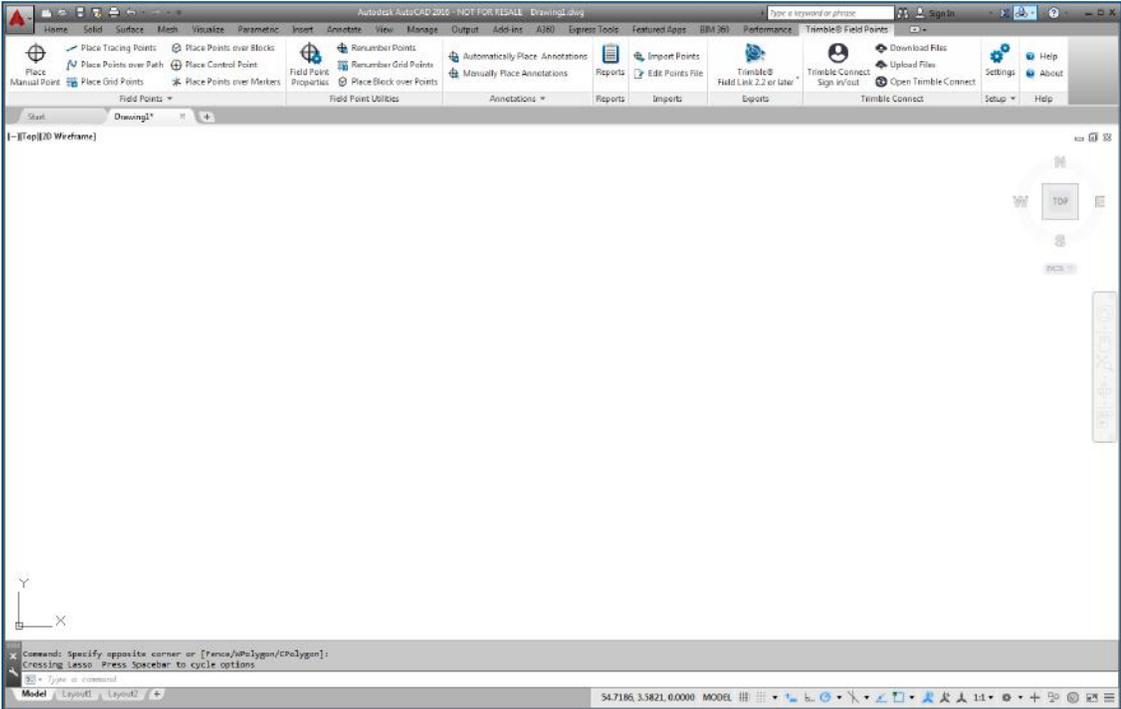
The general layout of the window corresponds to the AutoCAD® application.

Trimble Field Points Ribbon

The Trimble Field Points tab provides easy access to the program commands. The tab includes groups and panes. The tab is part of the software ribbon and runs along the top of the AutoCAD software screen.
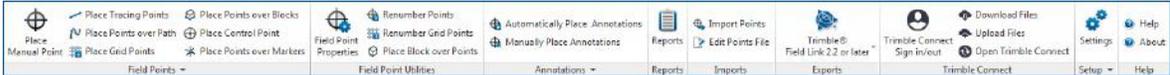
💡 **Tip** - All Instructions in this help system use the commands on the Trimble Field Points tab. When you start AutoCAD, the display of the Trimble Field Points ribbon tab is dependent on your AutoCAD settings. If the ribbon is closed, you will need to reopen it to properly follow the procedures outlined.

Ribbon Features

The ribbons include commands needed when working with the field points software.

Dock/Undock panes

You can dock or undock panes. The graphic below illustrates an undocked tab.

1. When the Control is open, click on the pane below the ribbon you want to move.

2. Drag the pane to the desired location and release your mouse.

To dock the pane back on the ribbon, click the handle and drag it the location where you want to place it on the ribbon. Release your mouse when the pane is in the appropriate location.

Show/Hide Tools

Controls can be displayed in several ways as seen in the menu below.

If the display menu is set to **Cycle through All**, Continue to click to view the different display types and decide on the display that is best for you.

Buttons/Toolbars

Your Autodesk application provides several methods to open modules within the Trimble Field Points software.

 Application Button

The Application Button provides access to various tasks, such as printing, saving, exporting your drawing to other formats, and so on. When you click on the Application Button, a menu opens. Click on the procedure you need.

Quick Access Toolbar

The Quick Access Toolbar is located, by default, at the top of the AutoCAD window. You can add more commonly used commands to the Quick Access Toolbar.

1. Go to the **Quick Access** toolbar in the upper left corner of the main window.

2. Click ▼. The list of options opens.

   - Items with a checkmark are present on the Quick Access toolbar.
   - Item without a checkmark can be added to the toolbar by clicking on the option. The item is added to the toolbar. The next time you open the option list, a checkmark displays next to the item.

OR

1. If the item is not available in the options list, you can right-click anywhere in the toolbar area and then click **Customize Quick Access Toolbar**.

Customize Quick Access Toolbar

✔ New

✔ Open

✔ Save

✔ Save As...

✔ Plot

✔ Undo

✔ Redo

✔ Workspace

  Match Properties

  Batch Plot

  Plot Preview

  Properties

  Sheet Set Manager

  Render

  More Commands...

  Show Menu Bar

  Show Below the Ribbon
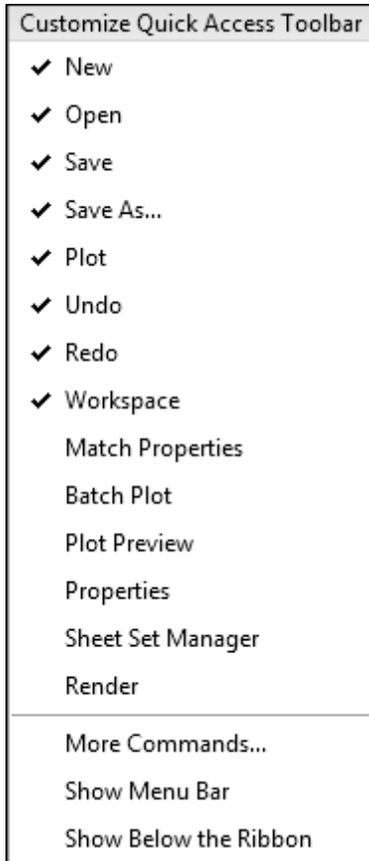
2. In the Customize User Interface dialog, click on the appropriate toolbar command and drag it to the Quick Access Toolbar.

Preliminary Steps

With Trimble Field Points, the preliminary steps to use the software are easy.

- Create your AutoCAD drawing.
- Using the Trimble Field Points software, begin to layout field points.

Important Notes

Please note that some AutoCAD drawing variables are important to consider when using the Trimble Field Points software:

- **Dimension Style (DIMSTYLE)**
  The current dimension style controls the appearance.
- **Units (UNITS)**
  The units for imperial or metric will populate the Trimble Field Points dialogs.

Trimble recommends that you go to the Setup module before using the Trimble Field Points software. This module allows you to create Field Point defaults that will be used throughout the system.

3

Setup

The Setup panel allows you to set default parameters for field points and field point entities, as well as rebuild the CUI (Customize User Interface).

Quick Steps: Trimble® Field Points / Setup

On the **Trimble® Field Points** tab, go to **Setup**.
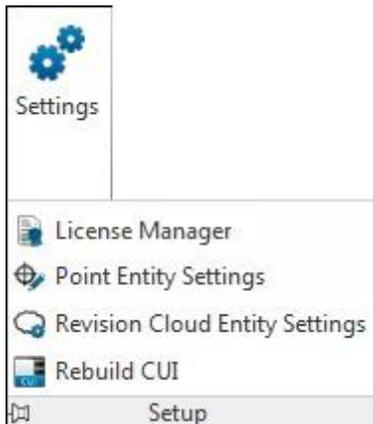
Click on the appropriate link below depending on what you want to do.

Field Point Settings

The Field Point Settings module allows you to set defaults that will be used system-wide. You can change these settings for specific point types; however, any change you make outside of the Field Point Settings window will not change your default settings. Trimble recommends that you create defaults as this will make creating your field points much easier.

Tip - If you make changes and want to go back to the defaults, click **Restore Defaults**. Keep in mind that all customization will be lost by restoring the default settings.

Quick Steps: Setup / Settings
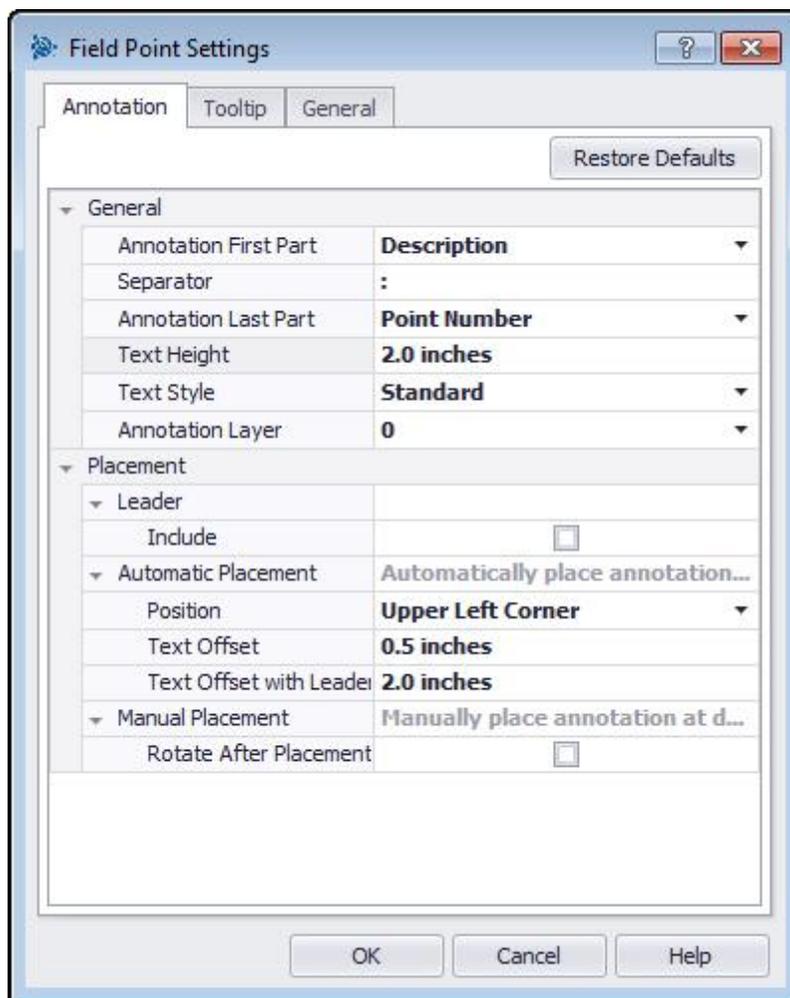
1. On the **Setup** panel, click **Settings**. The Field Point Settings window opens.

2. Click the tab you want to work with.

Annotation

The Field Point Settings Annotation tab allows you to define how the software handles Annotations when setting your points.

Quick Steps: [Field Point Settings](#)[18] **/ Annotation tab**
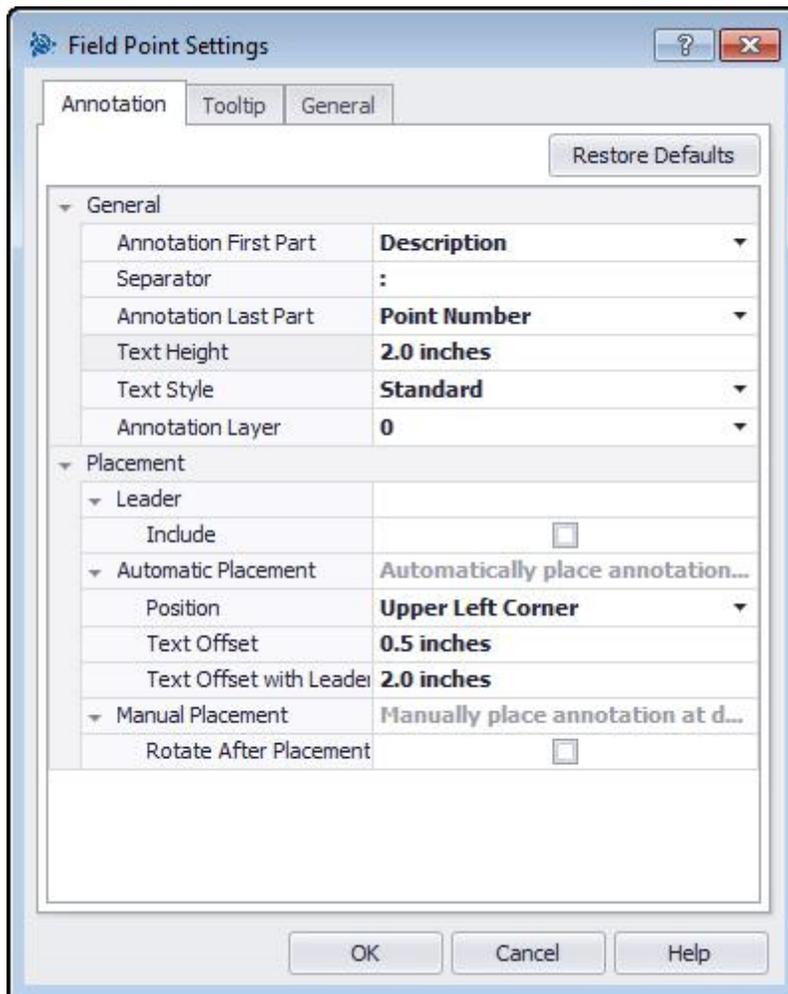
Annotation defaults can be set for the content, the look, and the placement of the annotations. These defaults remain in effect until edited or until the Restore Defaults button is used to revert to factory defaults. Annotations already placed in the drawing are not affected by changes to the annotation defaults.

▶ **General**

In the **General** pane, set the following properties:

Annotation First Part
Click ▼ and select a setting for the annotation prefix.

Separator

This setting designates the separator between the annotation prefix and suffix. Examples of visually effective separators are:

- Colon :

- Period .

- Dash -

Note: If is not required that you use these characters. You can use a separator of your choice.

Annotation Last Part

Click ▼ and select a setting for the annotation suffix.

Text Height

Enter the text height (in inches/millimeters, depending on your settings).

Text Style

Click ▼ and select a text style from the list.

Annotation Layer

Click ▼ and select the annotation layer.

▶ **Placement**

In the **Placement** pane, set the following properties:

Leader / Include

a. if applicable, select the checkbox ☑ to include a leader line as part of the annotation.

> 💡 **Tip** - The appearance of the leader is determined by the current DIMSTYLE.

b. If you select the Include checkbox ☑, the **Arrow Head Offset** field displays. Enter a value (in inches/millimeters, depending on your settings) to designate the placement distance of the arrow head from the field point.

Automatic Placement

> 💡 **Tip** - This setting is applied when you are inserting points and the annotation is set to *Automatic*.

In the Automatic Placement pane, proceed as follow:

a. **Position**
Click ▼ to select the placement of the annotation in relation to the field point.

b. **Text Offset**
Enter this property value (in inches/millimeters, depending on your settings) to designate the placement distance of the text from the field point.

c. **Text Offset with Leader**
Enter this property value (in inches/millimeters, depending on your settings) to designate the placement distance of the text leader from the field point.

Manual Placement

In the Manual Placement pane, select the **Rotate after placement** checkbox ✔, This allows manual rotation of an annotation after placement.

## ▶ Complete Annotation Settings

When done, click **OK**.
OR
Click the Tooltip⌐22 or General⌐23 tab.

Tooltip

The Field Point Settings Annotation tab allows you to define how the software handles Annotations on your points.

Quick Steps: **Field Point Settings**[18] **/ Tooltips tab**
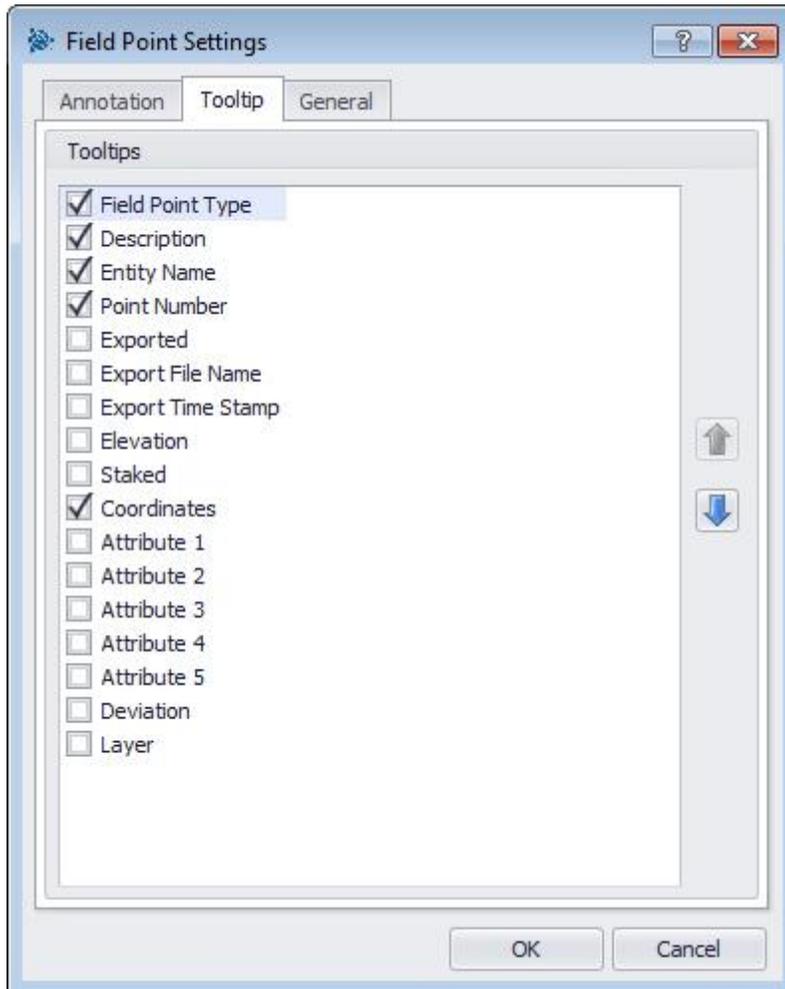
- Click the appropriate checkboxes ☑ for the tooltips that you wish to view in the **Field Point** tooltip.

- You can change the order of the Tooltip list by clicking on the item and then clicking ⬆ or ⬇. This allows you to place more commonly used tips closer to the top of the list.

💡 **Tip -** The Field Point tooltip can be viewed by hovering over the field point with your mouse.

General

Attributes guide your field crew by providing more appropriate information about a field point, such as hanger, bolt, or sleeve. The attribute names show in each of the field point insertion and also in the property setting windows.

Quick Steps: **Field Point Settings**[18] **/ Tooltips tab**
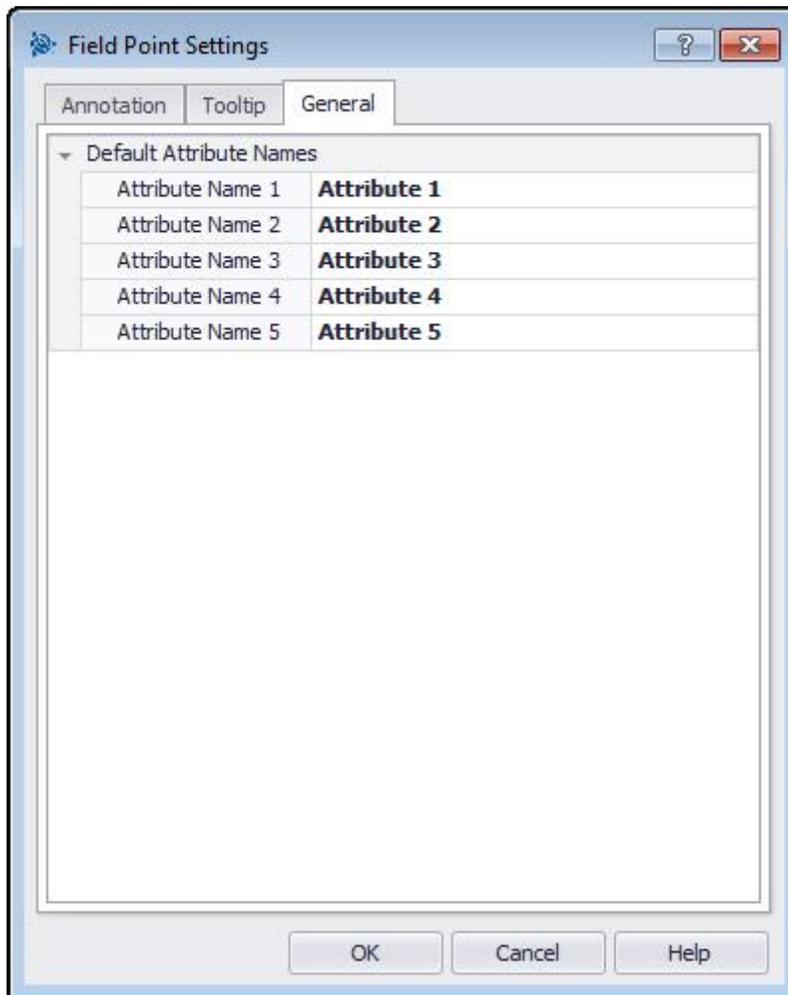
You can enter up to five notes are available (64 characters each).

💡**Tip** - Keep in mind that Attributes defined under *Settings / General* are defaults. You can define point-specific attributes when placing or editing points.

License Manager
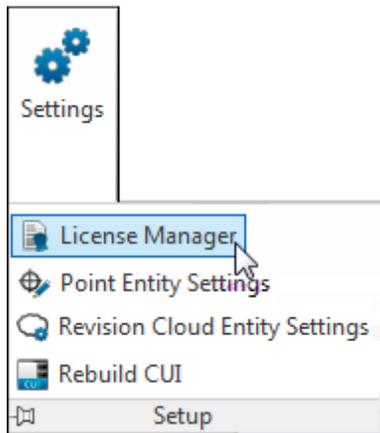
The License Manager provides information on connecting to the Trimble Field Points License Server. This information is setup during the installation routine; however, you can view or modify settings as necessary in this window.

💡**Tip** - You must be connected to the License Server to use the Trimble Field Points software.

Note: If you are attempting to activate or manage your licenses, refer to [License Activation/ Management](#)🗋26 for details.

Quick Steps: Setup / License Manager

Trimble recommends that you modify the information in this pane only under the direction of your IT professional AND a Trimble Support Representative.

▶ **License**

The License pane allows you to checkout a license for use on another machine.

Check-Out

Click ⋯ and then click **Yes** in the confirmation dialog.

- The Roaming field now displays *Yes*.
- The Roaming Days Left displays the number of days remaining in the check-out period.

Check-In

Click ⋯ and then click **Yes** in the confirmation dialog. The Roaming field now displays *No*.

Release License

If you want to release your Trimble Field Points license and continue to work in the Revit software, click the **Release** button. This releases the Trimble Field Points license, making it available for others to use.

Tip - When you release a Trimble Field Points license, all of the commands on the Trimble Field Points tab are unavailable.

When you release your license, the button changes to *Get License*. You can obtain a license, when needed, by clicking the **Get License** button.

Primary License Server

Server Name
This is the computer/server where your License Server is installed.

Tip - When you check out a license, the Server Name changes to *localhost* on the machine using the license.

Port
This is the communication port to the License Server on your computer.

Backup License Server (optional)

Server Name
This is the computer/server where your License Server is installed.

Port
This is the communication port to the License Server on your computer.

Current License From
This is the location of your current Trimble Field Points License.

General

Host Name
This field provides the name of the license host.

Host Signature
If applicable, this field displays the host signature.

Completion

- Click **OK** when you are done.

- Clicking **Cancel** does not save any of your changes.

- Do *not* click the *Activate* button unless directed to do so by a Trimble Field Points support representative. This process is specific to timed licenses. If you need to activate a license, refer to the License Activation/Management 26 topic.

License Activation/Management

Activating your licenses is typically done during the installation procedure; however, if you choose to activate one or more licenses outside of the installation routine, follow the instructions in this topic.

You can also easily manage your licenses through the Reprise License Manager application.

▶ Activate Licenses

If you elected to not activate licenses during the installation procedure or you need to activate additional licenses, proceed as follows:

1. Go to the computer containing the License Manager. **Note**: This is where you installed the software (either in a central location of stand-alone, one-to-one computer/license environment).

2. Go to the Windows **Start** menu **/ Reprise License Manager / License Activation Utility**.
   OR
   Navigate to *[DriveLetter]\\ProgramData\RLM* and click on ***ActivateLicenseServer.exe***.

   💡**Tip** - Depending on your computer settings, the exe file extension may not display on your computer.

3. In the License Activation dialog, enter the **Activation Code**. You can also copy and paste this code from the activation email (previously received) into the field.

4. In the **Licenses to Activate** field, enter the number of licenses you wish to activate at this time. Keep in mind that you are allowed to activate *ONLY* the number of licenses you have purchased.

   ⚠**Caution** - If you intend to use a combination of server and one-to-one (local or stand-alone) licenses, do not activate all licenses available in this dialog. Doing so assumes all licenses will be pulled from the license server, making no licenses available for the local computer.

6. Click **Activate**.

▶ Manage Licenses

Managing your licenses is accomplished through the Reprise License Manager (RLM) software. You can open this application using the following procedures.

1. Go to the computer containing the License Manager. **Note**: This is where you installed the software (either in a central location of stand-alone, one-to-one computer/license environment).

2. Go to the Windows **Start** menu and navigate to **/ Reprise License Manager / License Management**.

OR

1. Go to the computer containing the License Manager. **Note**: This is where you installed the software (either in a central location of stand-alone, one-to-one computer/license environment).Open Internet Explorer.

2. In the address, enter *http://[LicenseManagerComputerName]:[Port#]*.

> **Note:** Substitute the name of the computer where the License Manager is installed and the Port # for the bracketed items in the address. (The port number should be '5054' as this is the default.)

This program allows you to manage your Trimble Field Point licenses as necessary. Follow the instructions as presented in the screen.

Point Entity Settings
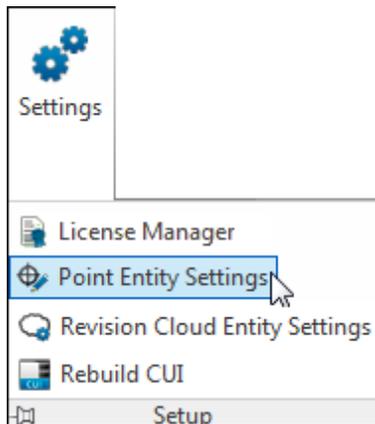
Field Point Entity Settings allow you to:

- Name and organize the entities you want available for use as field points in your drawings
- Organize the entities into categories to aid in locating a desired entity
- Control the availability of entities from this window

Field Point Entity drawings can be stored in two locations:

A standard location which is predetermined partially based on your Trimble Field Points installation.
OR
In an additional user-controlled location.

Drawings in these locations show initially in the entity list under the Unassigned category. As you begin assigning the entities to your desired categories, the list is organized around the categories that you create.

Quick Steps: Setup ▼ / Point Entity Settings

All Point Insertions dialogs / Category / ⚙
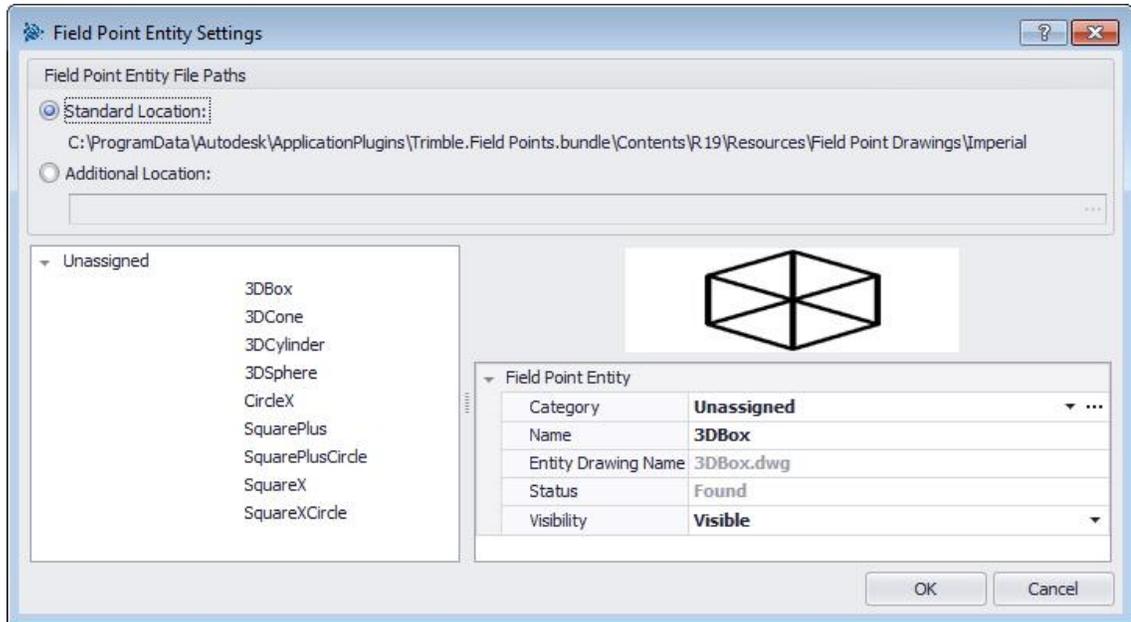
To modify the properties of a field point entity, proceed as follows:

1. Select your desired working location by clicking **Standard Location** or **Additional Location** option button.

   💡**Tip** - If you select **Additional Location**, you must also set the additional field point entity location path. You can click ⋯ to browse to a desired location. The field point entity list is populated based on the contents in the location selected.

2. In the left pane of the window, click on the field point entity you want to work with.

3. In the Field Point Entity pane, modify the following properties:

   Category
   Click ▼ and select the desired category from list. You can also click ⋯ to create a new category. Refer to the Category List□31 topic for detailed instructions on managing categories.

   Name
   Enter the name for this entity. The entity names must be unique across all field point entity file paths. This ensures that you are selecting the correct entity from the **Entity Name** lists when preparing to place points.

   Entity Drawing Name
   This field displays the actual drawing file name (not editable).

   Status
   This field displays information about the current condition of the drawing file, such as **Found** or **Not Found** (not editable).

   Visibility
   Click ▼ and select the availability status of the entity from the list.

   - Hidden will hide the entity in the Entity Name selection list.

- Visible allows the entity to display in the Entity Name selection list.

4. You can continue modifying the properties of other entities at this location. When you are done, click **OK** to save your changes.

Category List

The Category List window allows you to create additional categories for selection in the Field Point Entity Settings window. Categories help you keep your field point entities better organized.

Quick Steps: Point Entity Settings / Category / ⋯
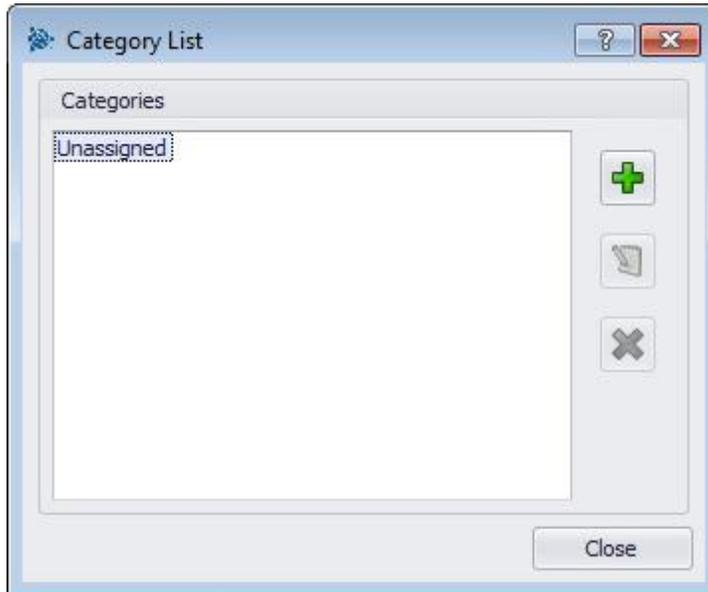
Add Categories

1. Click [+] .

2. In the Add New Category dialog, enter the **Category Name** and then click **OK**.

Modify Categories

💡**Tip** - You cannot modify the Unassigned category. This is a system default.

1. Click the category you want to modify.

2. Click [✎] .

3. Enter the new **Category Name** and then click **OK**.

Delete Categories

1. Click the category you want to delete.

2. Click [✖] .

Tip - You cannot delete a category that is in use. If the category is being used in the software, the button will be unavailable.

Revision Cloud Entity Settings
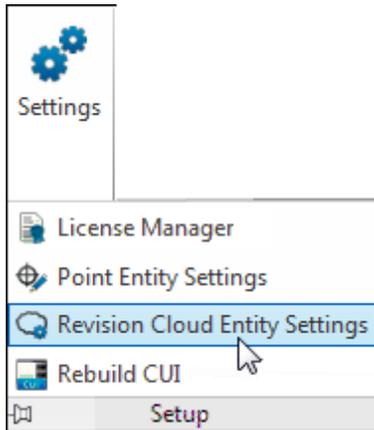
Revision Cloud Entity Settings allow you to define drawings/shapes you want to use to note point revisions. This feature works in conjunction with the Import Points[ ]98 functionality to identify differences in the original drawing versus the points placed in the field. The revision cloud entity is inserted around a point that does not fit within the tolerance defined for the imported entities.

Revision Cloud Entity drawings can be stored in two locations:

A standard location which is predetermined partially based on your Trimble Field Points installation.
OR
In an additional user-controlled location.

Quick Steps: Setup ▼ / Revision Cloud Entity Settings
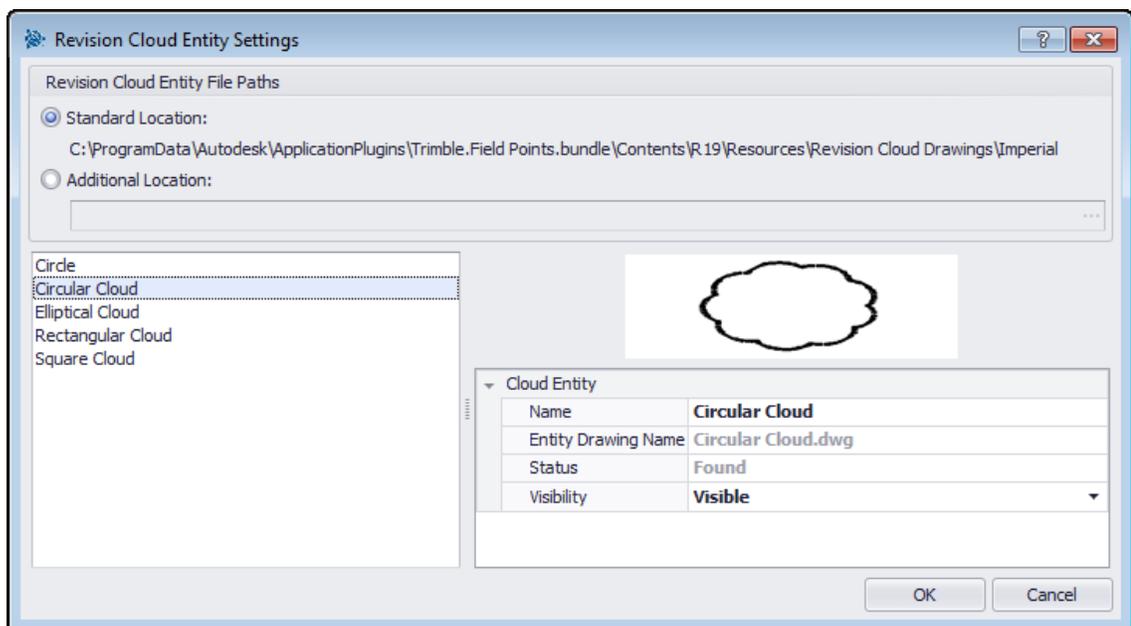
1. Select your desired working location by clicking **Standard Location** or **Additional Location**

option button.

> 💡**Tip** - If you select **Additional Location**, you must also set the additional field point entity location path. You can click ⋯ to browse to a desired location. The field point entity list is populated based on the contents in the location selected.

2. In the left pane of the window, click on the revision cloud entity you want to work with.

3. In the Cloud Entity pane, you can modify the following properties:

   Name
   Enter the name for this entity. The entity names must be unique across all field point entity file paths. This ensures that you are selecting the correct entity from the **Entity Name** lists when preparing to place points.

   Visibility
   Click ▼ and select the availability status of the entity from the list.

   - Hidden will hide the entity in the Entity Name selection list.
   - Visible allows the entity to display in the Entity Name selection list.

4. You can continue modifying the properties of other entities at this location. When you are done, click **OK** to save your changes.

Rebuild CUI
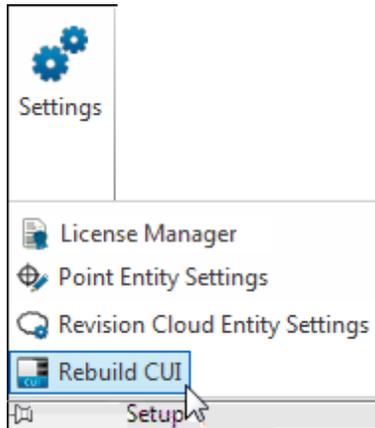
CUI (Customize User Interface) refers to the Trimble® Field Points tab on the ribbon.

Quick Steps: Setup / Rebuild CUI

💡**Tip** - This is an advanced feature in the Trimble Field Points software. If you are unsure how to use it, please contact your support group for more details.

Field Points

The Field Points group allows you to set markers for various points on your drawing. This information can then be exported to in formats compatible with many surveying instruments. This allows for faster implementation using your AutoCAD software platform.

Quick Steps: Trimble® Field Points / Field Points
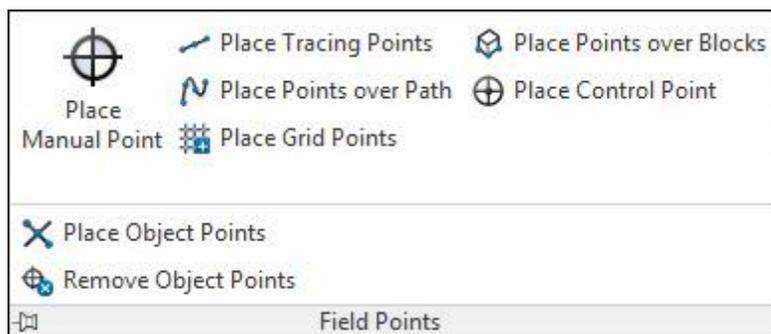
On the **Trimble® Field Points** tab, go to the **Field Points** group. Refer to the topics on the following pages for more information on setting each point type.

Place Manual Point[39]
Placing Manual Field Points allows you to manually place single points. Points can be placed anywhere in space or on objects. Properties can be set for layer, annotation placement, starting point number, and elevation. You can also define up to five customized attributes.

Place Tracing Points[42]
Tracing Points allow placement of points in a single or double row, at the desired elevation, along a distance of an object. Field Points can be placed at selected points or you can select the beginning and end points on a segment of a straight object. Intermediate Points can then be placed at a set spacing of your choice. *Note:* Tracing points will not follow a polyline.

Place Points over Path[46]
This feature allows you to place points along a path. This might be useful for tasks such as curb layout, slab layout, or underground runs. You can place points on Arc, Line, Polyline, 3D Polyline, or Spline.

Place Grid Points[51]
This command allows you to place object points based on the selected number pattern. Points are placed at grid intersections. Properties can be set for layer, annotation placement, entity types, overlapping points, starting point number, elevation, and field point location. You can also define up to five customized attributes.

Place Points over Blocks⬜ 54

This feature allows you to place points on a selected block throughout your drawing.

Place Control Point⬜ 57

Control Points are defined by the survey team and are used to coordinate locations on the site or inside a building.

Place Object Points⬜ 68

This command allows you to place object points on primitive AutoCAD® objects, such as lines, polylines, circles, and ellipses. Properties can be set for layer, annotation placement, entity types, overlapping points, starting point number, elevation, and field point location. You can also define up to five customized attributes.

Remove Object Points⬜ 73

This command provides a quick way to remove multiple set of object points for selected entities or for the entire drawing. You can remove object points by entity type, inside blocks and xrefs as well as at particular field point locations.

Place Manual Point
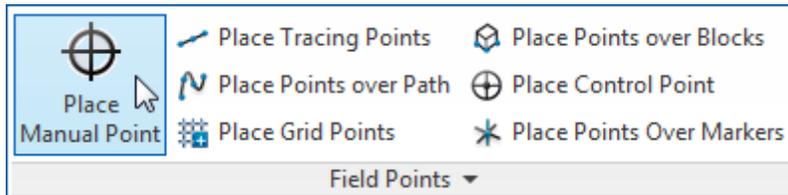
The Place Manual Field Points window allows you to manually place single points. Points can be placed anywhere in space or on objects. Properties can be set for layer, annotation placement, starting point number, and elevation. You can also define up to five customized attributes.

Quick Steps: Field Points / Place Manual Point
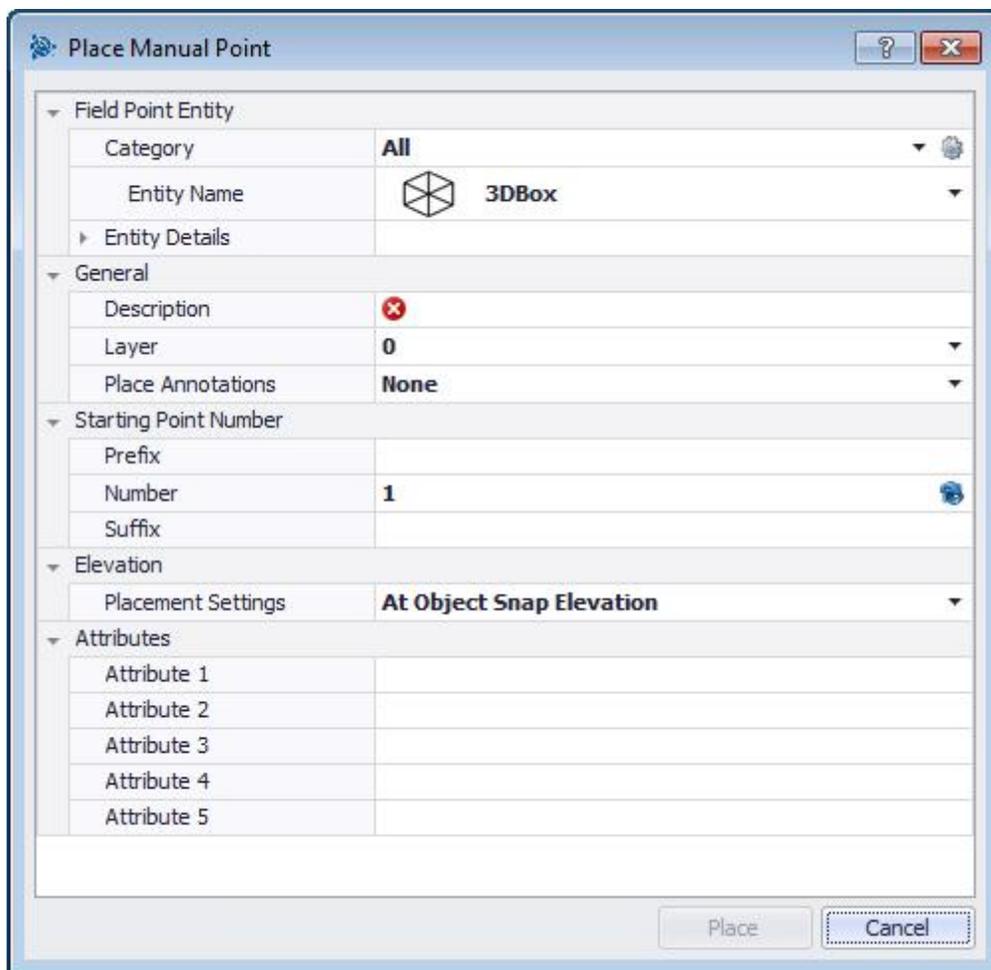
1. Go to the **Field Points** group and then click **Place Manual Point**.

2. Complete the following to place points on objects:

▶ **Field Point Entity**

Category

Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The [Field Point Settings](#)⊐28 window opens. This window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name

Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details

Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. **Note:** These fields are not editable.

▶ General

Description

Enter a **Description** for this field. This helps define what the field point represents.

Layer

Assign this field point to a particular drawing layer by selecting the layer from the list.

Place Annotations

To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. **Note**: Annotations contain tagging information for a point and are initially set up in [Setup / Settings](#)⊐19.

▶ Starting Point Number

Prefix

The **Prefix** is a user-defined identifier automatically inserted before the *Number* field (see the next field topic). You can enter up to six characters as a prefix.

Number

Enter the starting number for this point or set of points. Enter a number between 1 and 999,999,999. If the drawing contains existing field points, click 🌐 to get the next number (including the matching prefix and suffix) if you wish to continue the same numbering sequence.

Suffix

The **Suffix** is a user-defined identifier automatically inserted after the *Number* field (see above field topic). You can enter up to six characters as a suffix.

💡 **Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit.

▶ Elevation

Placement Settings
This property sets the elevation placement for the point or set of points. Click ▼ and select a setting from the list.

- **At Object Snap Elevation**

- **At Distance From Object Snap Elevation**
  Enter the distance from the object snap elevation (in inches/millimeters, depending on your settings). You must enter a **Distance** when this option is selected.

- **At Fixed Elevation**
  Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeters (depending on your settings). You must enter an **Absolute Elevation** when this option is selected.

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute can contain 62 characters of information.

💡**Tip** - The Attribute labels are defined under [Setup / Settings]⌐19.

▶ Place Points

1. When you are done setting points properties, click **Place**. The points dialog closes and your drawing displays on-screen.

2. Click the areas in the drawing where you want to place points. You can continue clicking on additional areas in the drawing to place more points.

3. When you are finished placing points, press ⌐Enter⌐ on your keyboard. The points are now set in the locations selected.

💡**Tip** - You can also place one or more points, change your settings, and then continue to place additional points without ending the procedure (by pressing ⌐Enter⌐). To change settings while placing points, use one of the following options:

In the Command Line, you can click on the *Settings* text.
OR
Click in the Command Line and then type **S** and press ⌐Enter⌐

OR
You can right-click and choose **Settings** from the pop-up menu.

The points dialog reopens. Refer to the instructions above if you want to change settings.

Place Tracing Points
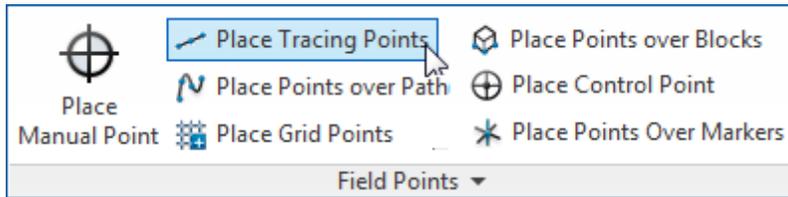
Tracing Points allow placement of points in a single or double row, at the desired elevation, along a distance of an object. Field Points can be placed at selected points or you can select the beginning and end points on a segment of a straight object. Intermediate Points can then be placed at a set spacing of your choice. *Note:* Tracing points will not follow a polyline.

Quick Steps: Field Points / Place Tracing Points
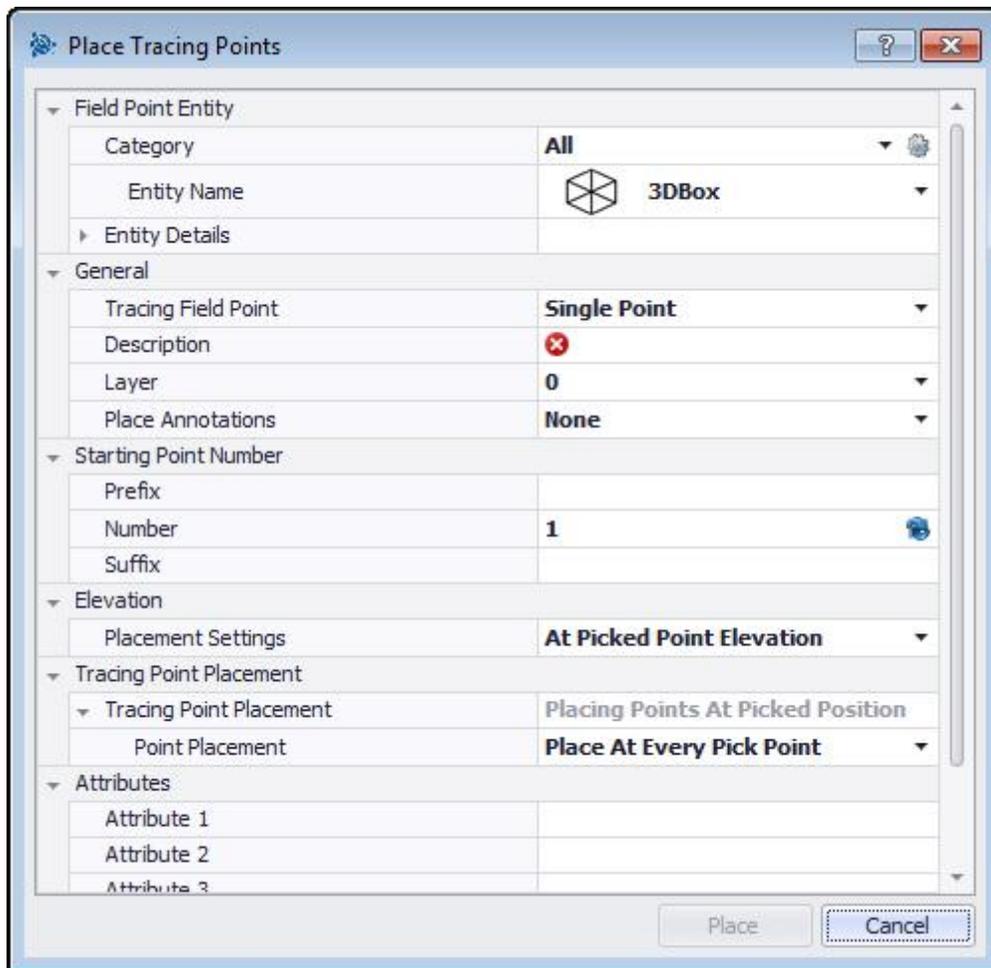
1. Go to the **Field Points** group and then click **Place Tracing Points**.

2. Complete the following to place tracing points on your drawing:

▶ Field Point Entity

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The [Field Point Settings](#)◻28 window opens. This window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name
Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. *Note:* These fields are not editable.

▶ General

Tracing Field Point
click ▼ and select the method **Tracing Field Point** from the list,

Single Point
This option allows you to set a single point in your model.

Single Point with Offset
This setting allows you to set an offset when placing a single point. When this option is selected, you must also enter a value in the **Point Offset from Center** field.

Double Point
This selection places two points at once using the **Point Offset From Center** value (*Description* below). You might use this setting when you need to place two parallel objects at a time such as hanging two parallel rows of rods from a ceiling.

Description
Enter a **Description** for this field. This helps define what the field point represents.

Layer
Assign this field point to a particular drawing layer by selecting the layer from the list.

Place Annotations
To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. *Note*: Annotations contain tagging information for a point and are initially set up in [Setup / Settings](#)◻19.

▶ Starting Point Number

Prefix
The **Prefix** is a user-defined identifier automatically inserted before the *Number* field (see the next field topic). You can enter up to six characters as a prefix.

Number
Enter the starting number for this point or set of points. Enter a number between 1 and 999,999,999. If the drawing contains existing field points, click 🌐 to get the next number (including the matching prefix and suffix) if you wish to continue the same numbering sequence.

Suffix
The **Suffix** is a user-defined identifier automatically inserted after the *Number* field (see above field topic). You can enter up to six characters as a suffix.

💡**Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit.

▶ Elevation

Placement Settings
This property sets the elevation placement for the point or set of points. Click ▼ and select a setting from the list.

- **At Picked Point Elevation**

- **At Distance From Picked Point Elevation**
  Enter the distance from the picked elevation (in inches/millimeters, depending on your settings). You must enter a **Distance** when this option is selected.

- **At Fixed Elevation**
  Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeters (depending on your settings). You must enter an **Absolute Elevation** when this option is selected.

▶ Tracing Point Placement

Point Placement
Click ▼ and select a placement option from the list.

💡**Tip -** If you select a point placement of *Place Intermediate Points*, you must also complete the following:

- **Spacing Between Points**
  Enter the distance between points in inches/millimeters (depending on your settings).

- **Minimum Distance Between Points**
  Click the checkbox if you want to use a minimum distance between points. You must also enter the **Minimum Distance Between Points** in inches/millimeters (depending on your settings).

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute

can contain 62 characters of information.

💡**Tip** - The Attribute labels are defined under <u>Setup / Settings</u>⬚19.

▶ Place Points

1. When you are done setting points properties, click **Place**. The points dialog closes and your drawing displays on-screen.

2. Click the areas in the drawing where you want to place points. You can continue clicking on additional areas in the drawing to place more points.

3. When you are finished placing points, press ⎡Enter⎤ on your keyboard. The points are now set in the locations selected.

💡**Tip** - You can also place one or more points, change your settings, and then continue to place additional points without ending the procedure (by pressing ⎡Enter⎤). To change settings while placing points, use one of the following options:

In the Command Line, you can click on the *Settings* text.
OR
Click in the Command Line and then type **S** and press ⎡Enter⎤

OR
You can right-click and choose **Settings** from the pop-up menu.

The points dialog reopens. Refer to the instructions above if you want to change settings.

Place Points over Path

This feature allows you to place points along a path. This might be useful for tasks such as curb layout, slab layout, or underground runs. You can place points on Arc, Line, Polyline, 3D Polyline, or Spline.

Quick Steps: Field Points / Place Points over Path
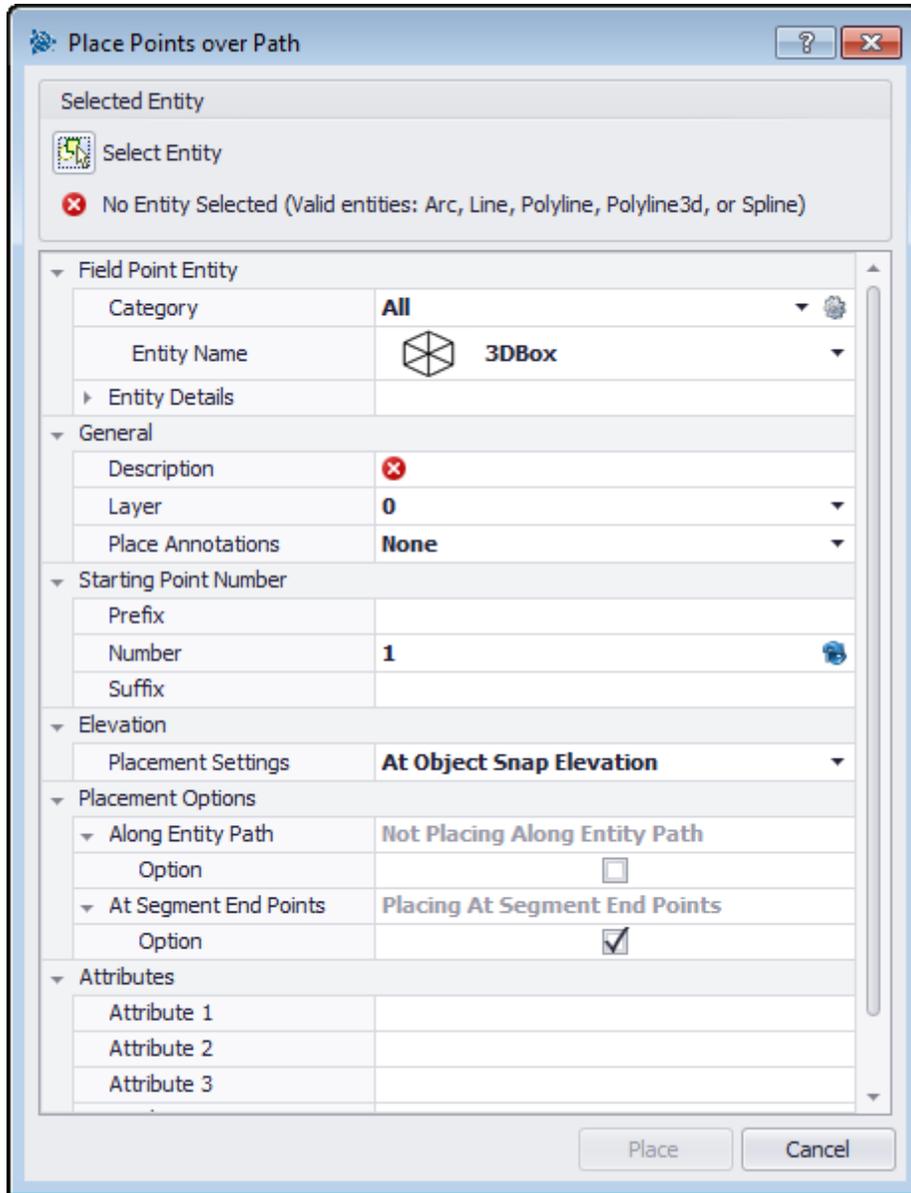
1. Go to the **Field Points** group and then click **Place Points over Path**.

2. Click **Select Entity**. Select the object in your drawing you want to place points over.

   💡**Tip** - You can select only one entity at a time for point placement.

3. Complete the following to place points on your drawing:

▶ **Field Point Entity**

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The Field Point Settings⬛28 window opens. This window allows you to

change settings/properties of a field point entity prior to setting the point.

Entity Name
Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. ***Note:*** These fields are not editable.

▶ General

Description
Enter a **Description** for this field. This helps define what the field point represents.

Layer
Assign this field point to a particular drawing layer by selecting the layer from the list.

Place Annotations
To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. ***Note***: Annotations contain tagging information for a point and are initially set up in <u>Setup / Settings</u>▯[19] .

▶ Starting Point Number

Prefix
The **Prefix** is a user-defined identifier automatically inserted before the *Number* field (see the next field topic). You can enter up to six characters as a prefix.

Number
Enter the starting number for this point or set of points. Enter a number between 1 and 999,999,999. If the drawing contains existing field points, click 🌐 to get the next number (including the matching prefix and suffix) if you wish to continue the same numbering sequence.

Suffix
The **Suffix** is a user-defined identifier automatically inserted after the *Number* field (see above field topic). You can enter up to six characters as a suffix.

💡**Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit.

▶ Elevation

Placement Settings
This property sets the elevation placement for the point or set of points. Click ▼ and select a setting from the list.

- **At Object Snap Elevation**

- **At Distance From Object Snap Elevation**
  Enter the distance from the object snap elevation (in inches/millimeters, depending on your settings). You must enter a **Distance** when this option is selected.

- **At Fixed Elevation**
  Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeters (depending on your settings). You must enter an **Absolute Elevation** when this option is selected.

▶ Placement Options

Along Entity Path
This field is not editable.

1. If applicable, select the **Option** checkbox ☑.

2. Enter **Spacing Between Points** and **Start Point Offset** values. *Note:* The Start Point Offset field allows you to specify a distance from the start point to place the first path point.

3. The *Minimum Distance Between Points* field is not editable; however, you must complete the following:

   a. If applicable, select the **Use Minimum Distance** checkbox ☑.

   b. Enter a value in the **Minimum Distance Between Points** field..

At Segment End Points

This field is not directly editable; however, it changes based on your selection in the *Option* field.

   If applicable, select the **Option** checkbox ☑.

💡**Tip** - When you select this option, points will be placed at the end of segments of a polyline and 3D polyline.

Offset From Path

This option allows you to place points with an offset.

1. If applicable, select the **Option** checkbox ☑.

2. Enter an **Offset Distance**.

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute can contain 62 characters of information.

💡 **Tip** - The Attribute labels are defined under [Setup / Settings]📄[19] .

▶ Place Points

1. When you are done setting points properties, click **Place**. The points dialog closes and your drawing displays on-screen.

2. Click the areas in the drawing where you want to place points. You can continue clicking on additional areas in the drawing to place more points.

3. When you are finished placing points, press ⌷Enter⌷ on your keyboard. The points are now set in the locations selected.

💡 **Tip** - You can also place one or more points, change your settings, and then continue to place additional points without ending the procedure (by pressing ⌷Enter⌷). To change settings while placing points, use one of the following options:

In the Command Line, you can click on the *Settings* text.
OR
Click in the Command Line and then type **S** and press ⌷Enter⌷

OR
You can right-click and choose **Settings** from the pop-up menu.

The points dialog reopens. Refer to the instructions above if you want to change settings.

Place Grid Points
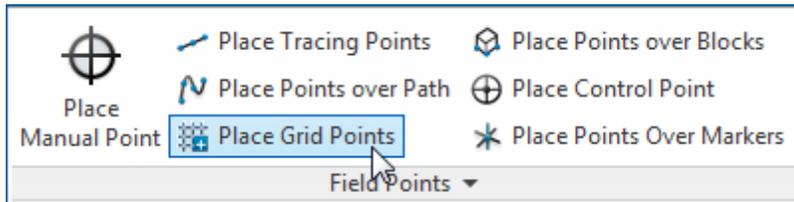
This command allows you to place object points based on the selected number pattern. Points are placed at grid intersections. Properties can be set for layer, annotation placement, entity types, overlapping points, starting point number, elevation, and field point location. You can also define up to five customized attributes.

Quick Steps: Field Points / Place Grid Points
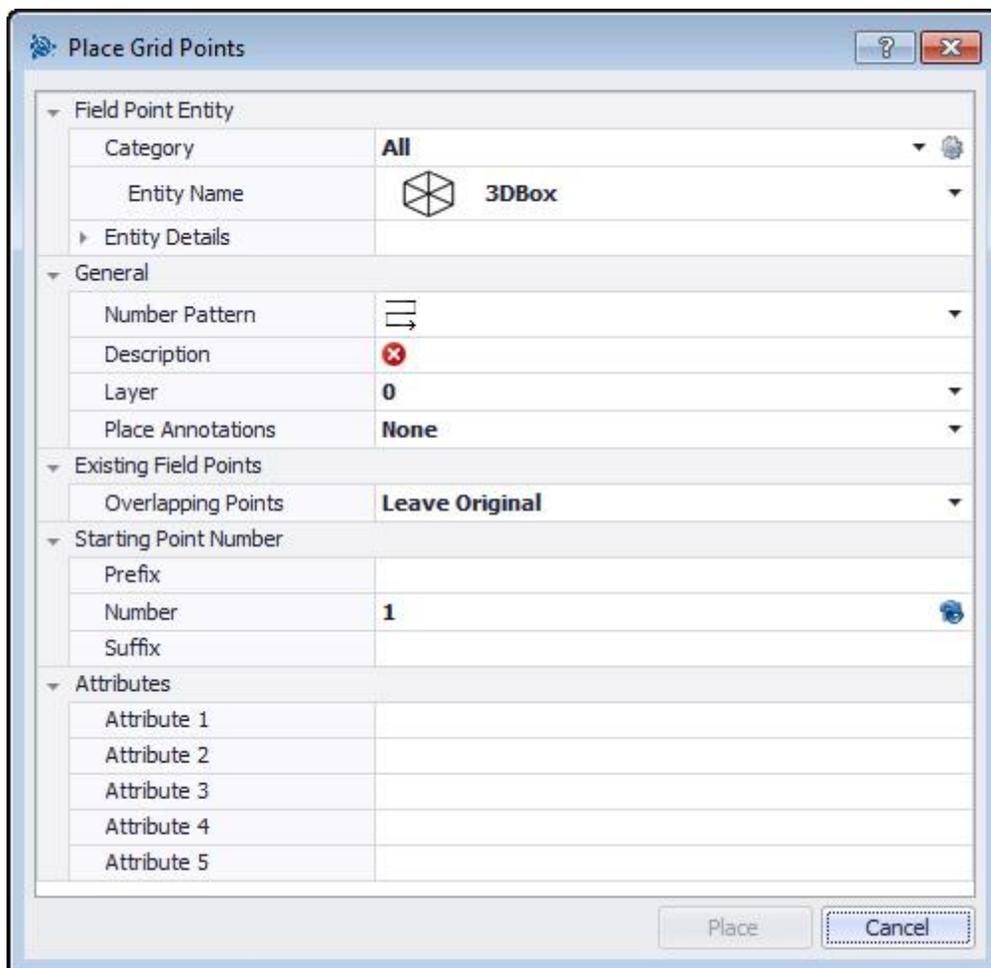
1. Go to the **Field Points** group and then click **Place Grid Points**.

2. Complete the following to place grid points on your drawing:

▶ Field Point Entity

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The [Field Point Settings]◻28 window opens. This window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name
Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. **Note:** These fields are not editable.

▶ General

Number Pattern
The Number Pattern field allows you to select a pattern so points are placed and numbered around the grid intersections. Click ▼ to select the desired pattern from the list.

Description
Enter a **Description** for this field. This helps define what the field point represents.

Layer
Assign this field point to a particular drawing layer by selecting the layer from the list.

Place Annotations
To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. *Note*: Annotations contain tagging information for a point and are initially set up in [Setup / Settings]◻19.

▶ Existing Field Points

Overlapping Points
This field allows you to choose how overlapping points are handled. Click ▼ in the **Overlapping Point** field and select the desired option from the list.

▶ Starting Point Number

Prefix
The **Prefix** is a user-defined identifier automatically inserted before the *Number* field (see the next field topic). You can enter up to six characters as a prefix.

Number
Enter the starting number for this point or set of points. Enter a number between 1 and 999,999,999. If the drawing contains existing field points, click 🌐 to get the next number (including

the matching prefix and suffix) if you wish to continue the same numbering sequence.

Suffix
The **Suffix** is a user-defined identifier automatically inserted after the *Number* field (see above field topic). You can enter up to six characters as a suffix.

💡**Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit.

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute can contain 62 characters of information.

💡**Tip** - The Attribute labels are defined under <u>Setup / Settings</u>▯¹⁹ .

▶ Place Points

1. When you are done setting points properties, click **Place**. The points dialog closes and your drawing displays on-screen.

   💡**Tip** - You can place grid points only on line objects. If the grid consists of polylines, you must explode them first.

2. You have the option of accepting the selection or removing grid lines.

When you accept the grid selection, grid points are created.

Place Points over Blocks
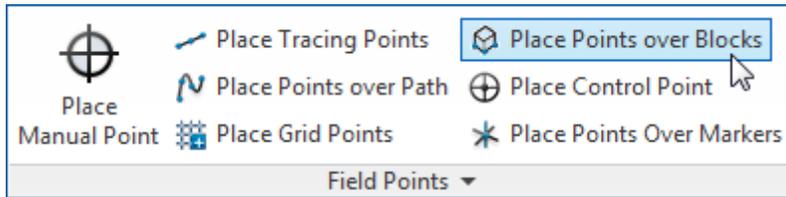
This feature allows you to place points on a selected block throughout your drawing.

Quick Steps: Field Points / Place Points over Blocks
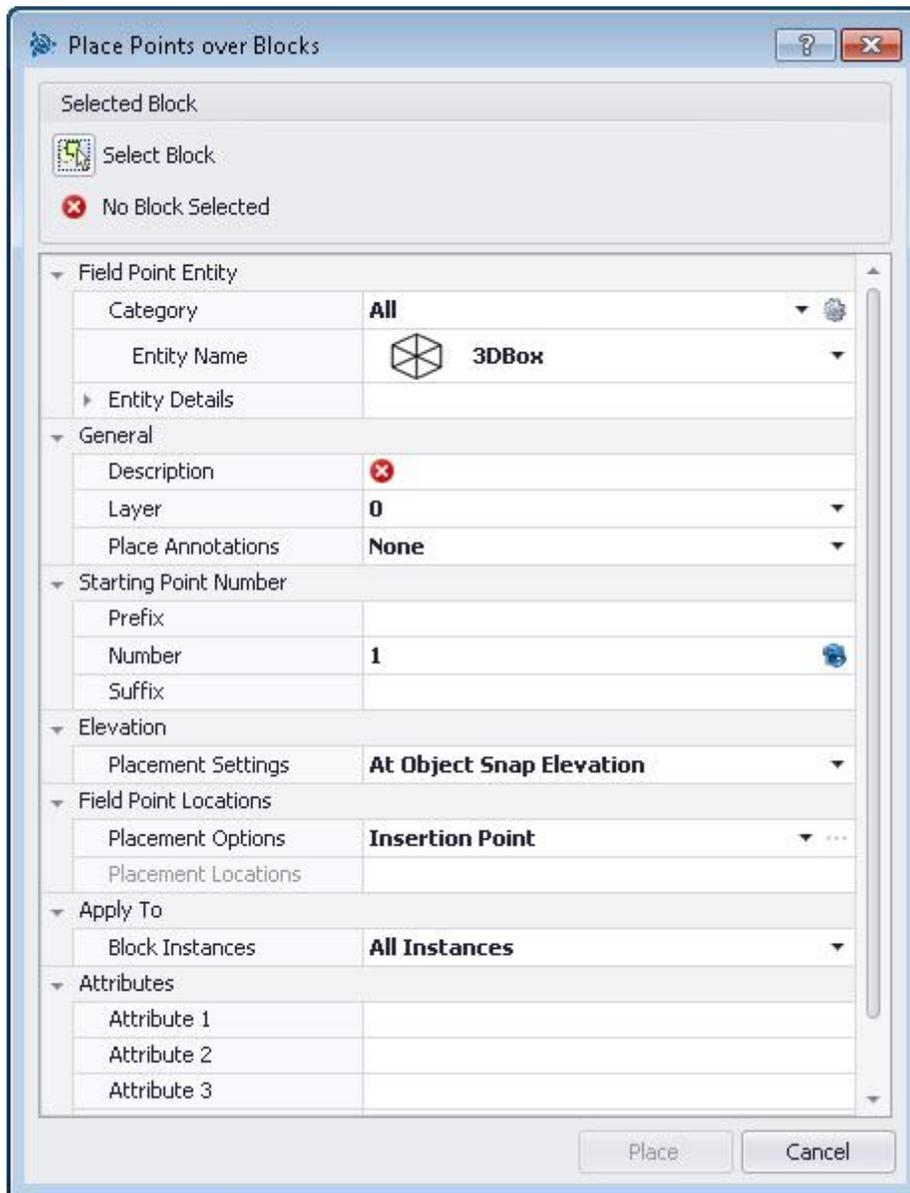
1. Go to the **Field Points** group and then click **Place Points over Blocks**.

2. Click **Select Block**. Select the block in your drawing to place points *over*.

3. Complete the following to place points over a block in your drawing:

▶ **Field Point Entity**

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The [Field Point Settings]²⁸ window opens. This window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name
Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. ***Note:*** These fields are not editable.

▶ **General**

Description
Enter a **Description** for this field. This helps define what the field point represents.

Layer
Assign this field point to a particular drawing layer by selecting the layer from the list.

Place Annotations
To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. ***Note***: Annotations contain tagging information for a point and are initially set up in [Setup / Settings]¹⁹.

▶ **Elevation**

Placement Settings
This property sets the elevation placement for the point or set of points. Click ▼ and select a setting from the list.

- **At Object Snap Elevation**

- **At Distance From Object Snap Elevation**
  Enter the distance from the object snap elevation (in inches/millimeters, depending on your settings). You must enter a **Distance** when this option is selected.

- **At Fixed Elevation**
  Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeters

(depending on your settings). You must enter an **Absolute Elevation** when this option is selected.

▶ Field Point Locations

Placement Options
Click ▼ and select the appropriate option from the list.

- If you select **Insertion Point**, the point is placed on the insertion point of the block.

- If you choose **Custom Points**, you must open the block editor by clicking ⋯ and then select the placement points. Touch each point on the block where you want to add a field point. Press ⌑Enter⌑ when you are done. This returns you the Place Field Point over Blocks dialog.

Placement Locations
This field displays the coordinates of the points you are placing. The coordinates are relative points to the insertion point (for example, if your placement option is set to insertion point, this will show one point at 0,0,0). Each point location is listed, so you can use it as a way to verify the number of points you are placing on each instance of that block. *Note:* Each location has its own coordinates listed.

▶ Apply To

The *Apply To* selection list allows you to specifically select what you want when placing points over blocks.

All Instances
Allows you to apply placement to all blocks within the block reference

Current Instance
Allow you to apply placement to the block currently selected (only one block)

Select Instance
Allows you to select multiples within the same block reference

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute can contain 62 characters of information.

💡**Tip** - The Attribute labels are defined under [Setup / Settings](#)🗋19.

▶ Place Points

When you are done setting points properties, click **Place**. The points dialog closes and your drawing displays the selected block on-screen along with the specified points.

Place Control Point
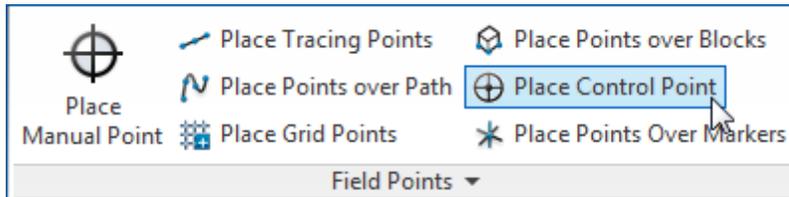
Control Points are defined by the survey team and are used to coordinate locations on the site or inside a building.

Quick Steps: Field Points / Place Control Point

1. Go to the **Field Points** group and then click **Place Control Point**.

2. Complete the following to place points on objects:

▶ **Field Point Entity**

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The [Field Point Settings](#)⌐28 window opens. This window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name
Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. ***Note:*** These fields are not editable.

▶ General

Description
Enter a **Description** for this field. This helps define what the field point represents.

Layer
Assign this field point to a particular drawing layer by selecting the layer from the list.

Place Annotations
To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. ***Note***: Annotations contain tagging information for a point and are initially set up in [Setup / Settings](#)⌐19.

▶ Starting Point Number

Prefix
The **Prefix** is a user-defined identifier automatically inserted before the *Number* field (see the next field topic). You can enter up to six characters as a prefix.

Number
Enter the starting number for this point or set of points. Enter a number between 1 and 999,999,999. If the drawing contains existing field points, click 🔄 to get the next number (including the matching prefix and suffix) if you wish to continue the same numbering sequence.

Suffix
The **Suffix** is a user-defined identifier automatically inserted after the *Number* field (see above field topic). You can enter up to six characters as a suffix.

💡 **Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit.

▶ Elevation

Placement Settings
This property sets the elevation placement for the point or set of points. Click ▼ and select a setting from the list.

- **At Object Snap Elevation**

- **At Distance From Object Snap Elevation**
  Enter the distance from the object snap elevation (in inches/millimeters, depending on your settings). You must enter a **Distance** when this option is selected.

- **At Fixed Elevation**
  Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeters (depending on your settings). You must enter an **Absolute Elevation** when this option is selected.

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute can contain 62 characters of information.

Tip - The Attribute labels are defined under <u>Setup / Settings</u>□19.

▶ Place Points

1. When you are done setting points properties, click **Place**. The points dialog closes and your drawing displays on-screen.

2. Click the areas in the drawing where you want to place points. You can continue clicking on additional areas in the drawing to place more points.

3. When you are finished placing points, press ⟨Enter⟩ on your keyboard. The points are now set in the locations selected.

Tip - You can also place one or more points, change your settings, and then continue to place additional points without ending the procedure (by pressing ⟨Enter⟩). To change settings while placing points, use one of the following options:

   In the Command Line, you can click on the *Settings* text.
    OR
    Click in the Command Line and then type **S** and press ⟨Enter⟩

    OR
   You can right-click and choose **Settings** from the pop-up menu.

The points dialog reopens. Refer to the instructions above if you want to change settings.

Place Points Over Markers

This command allows you to place field points on a block containing a marker, or place holder, in a block.

Quick Steps: Field Points / Place Points Over Markers
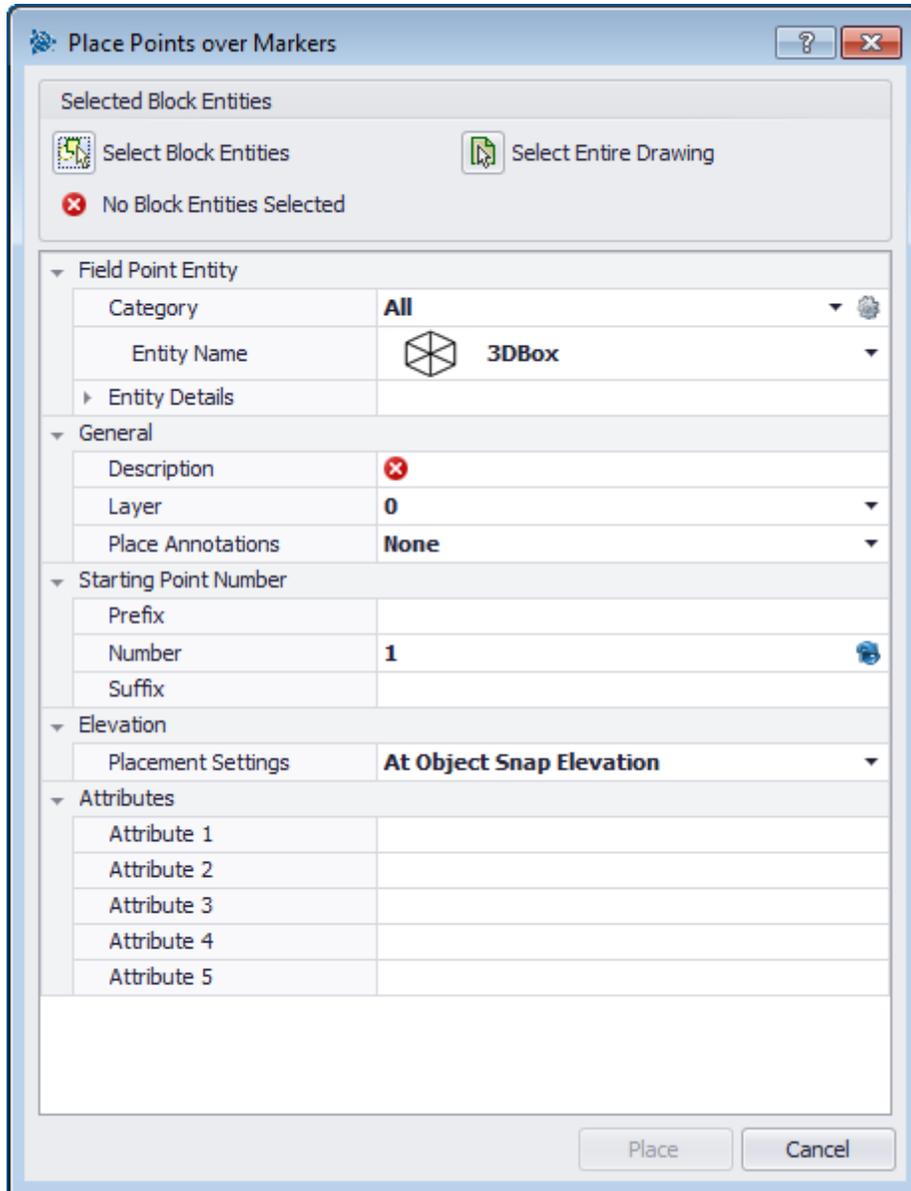
1. Go to the **Field Points** group and then click **Place Points Over Markers**.

2. Complete the following to place points:

▶ **Field Point Entity**

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The Field Point Settings □28 window opens. This window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name
Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of

field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. ***Note:*** These fields are not editable.

▶ General

Description
Enter a **Description** for this field. This helps define what the field point represents.

Layer
Assign this field point to a particular drawing layer by selecting the layer from the list.

Place Annotations
To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. ***Note***: Annotations contain tagging information for a point and are initially set up in <u>Setup / Settings</u>⌐19.

▶ Starting Point Number

Prefix
The **Prefix** is a user-defined identifier automatically inserted before the *Number* field (see the next field topic). You can enter up to six characters as a prefix.

Number
Enter the starting number for this point or set of points. Enter a number between 1 and 999,999,999. If the drawing contains existing field points, click 🔄 to get the next number (including the matching prefix and suffix) if you wish to continue the same numbering sequence.

Suffix
The **Suffix** is a user-defined identifier automatically inserted after the *Number* field (see above field topic). You can enter up to six characters as a suffix.

💡**Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit.

▶ Elevation

Placement Settings
This property sets the elevation placement for the point or set of points. Click ▼ and select a setting from the list.

- **At Object Snap Elevation**

- **At Distance From Object Snap Elevation**

Enter the distance from the object snap elevation (in inches/millimeters, depending on your settings). You must enter a **Distance** when this option is selected.

- **At Fixed Elevation**
  Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeters (depending on your settings). You must enter an **Absolute Elevation** when this option is selected.

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute can contain 62 characters of information.

💡**Tip** - The Attribute labels are defined under <u>Setup / Settings</u>[19].

▶ Place Points

1. When you are done setting points properties, click **Place**. The points dialog closes and your drawing displays on-screen.

2. Click the areas in the drawing where you want to place points. You can continue clicking on additional areas in the drawing to place more points.

3. When you are finished placing points, press ⌷Enter⌷ on your keyboard. The points are now set in the locations selected.

💡**Tip** - You can also place one or more points, change your settings, and then continue to place additional points without ending the procedure (by pressing ⌷Enter⌷). To change settings while placing points, use one of the following options:

   In the Command Line, you can click on the *Settings* text.
   OR
   Click in the Command Line and then type **S** and press ⌷Enter⌷

   OR
   You can right-click and choose **Settings** from the pop-up menu.

The points dialog reopens. Refer to the instructions above if you want to change settings.

Place Markers (Blocks)
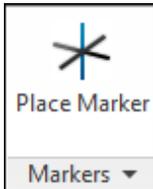
This command inserts markers (placeholders) within a block. You can then use the Place Points over Markers[□]60 command to place field points over the block markers.

Quick Steps: Open Block file / Trimble Field Points / Place Marker
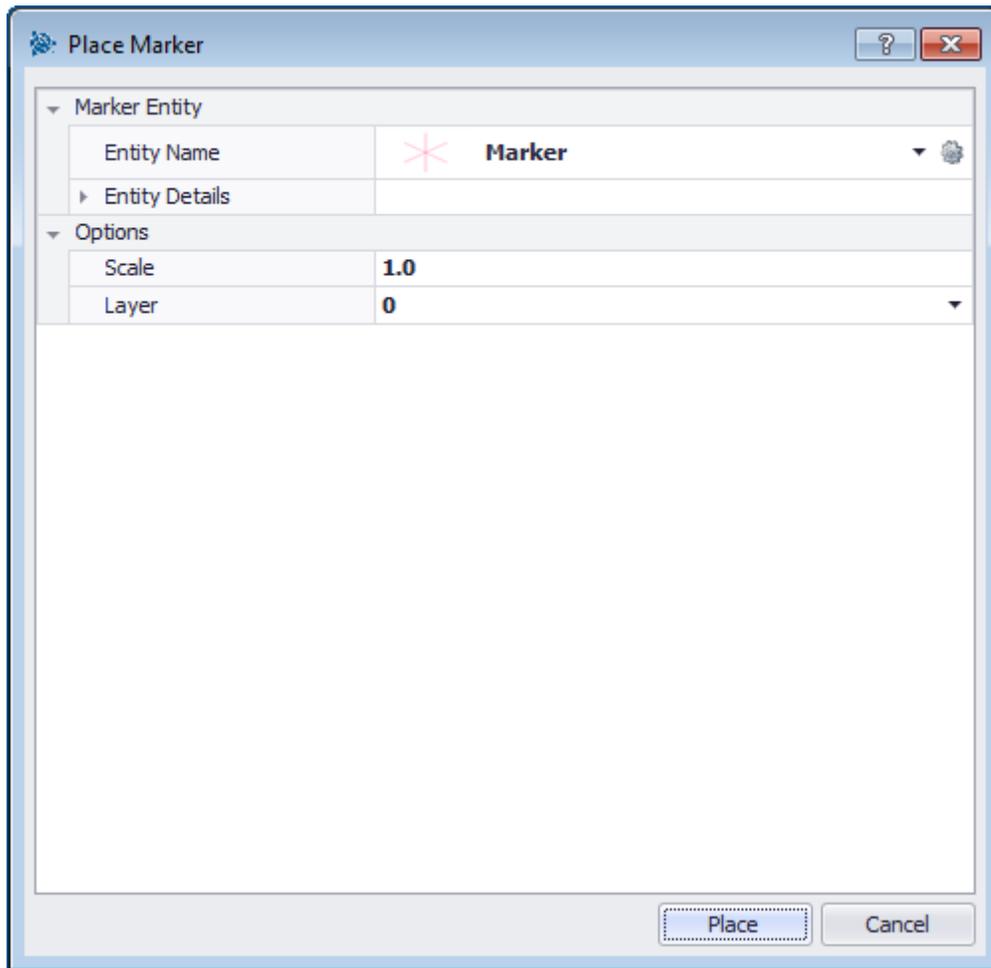
1. Double-click on the block file you want to work with. The Edit Block Definition dialog opens. Click OK.

2. Go to the **Trimble Marker Points** tab and click **Place Marker**,

3. In the **Entity Name** field, click ▼ and select a name from the list.

   💡 **Tip** - You can change the default settings for markers[□]66 by clicking 🛞 next to the Entity

Name field.

4. Click ▶ to view **Entity Details**. This data cannot be edited in this dialog.

5. Click **Place**.

Marker Entity Settings
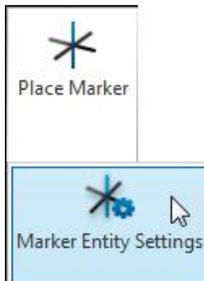
The Marker Entity Settings command allows you to view defaults for marker settings.

Quick Steps: Open Block file / Trimble Trimble Marker Points / Place Marker / ⚙

Open Block file / Trimble Trimble Marker Points / Place Marker / Marker Entity Settings
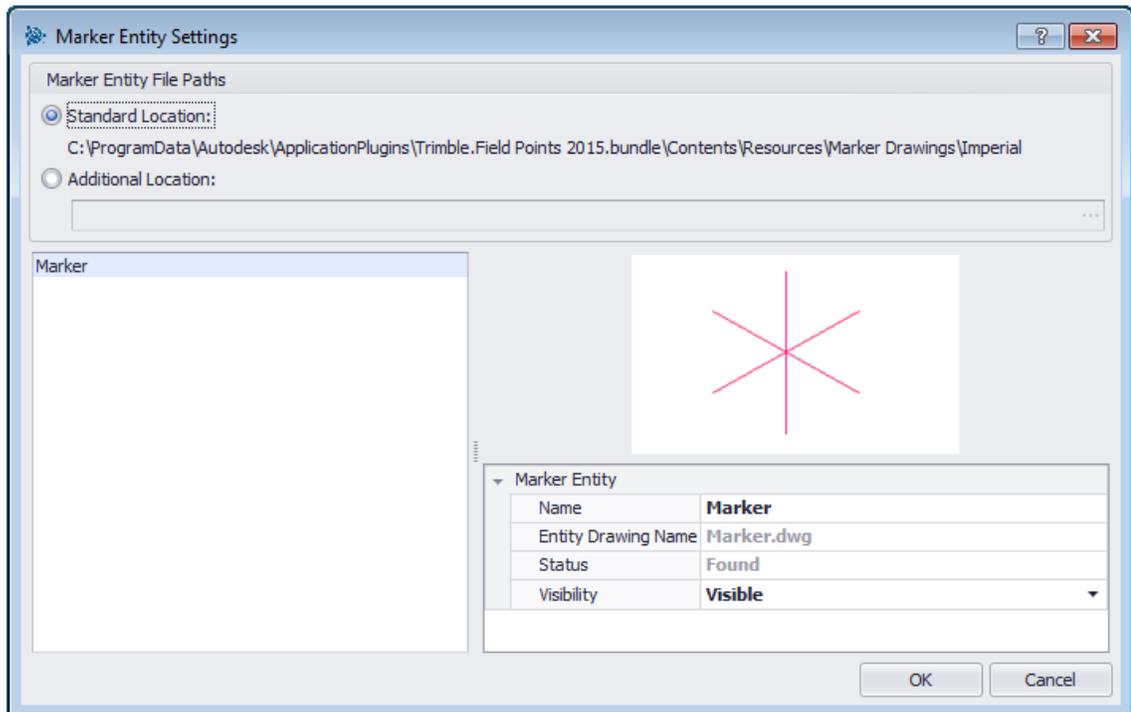
1. To modify the properties of a marker, proceed as follows:

2. Select your desired working location by clicking **Standard Location** or **Additional Location** option button.

    💡**Tip** - If you select **Additional Location**, you must also set the additional field point entity location path. You can click ⋯ to browse to a desired location. The Marker Entity File Paths list is populated based on the contents in the location selected.

3. In the left pane of the window, click on the marker you want to work with.

4. In the **Marker Entity** pane, modify the following properties:

Name
Enter the name for this marker. The entity names must be unique across all marker file paths. This ensures that you are selecting the correct entity from the **Marker Name** lists when preparing to place points.

Block Name
This field displays the actual model file name (not editable).

Status
This field displays information about the current condition of the model file, such as **Found** or **Not Found** (not editable).

Visibility
Click ▼ and select the availability status of the entity from the list.

- Hidden will hide the entity in the Entity Name selection list.
- Visible allows the entity to display in the Entity Name selection list.

4. You can continue modifying the properties of other markers at this location. When you are done, click **OK** to save your changes.

Place Object Points
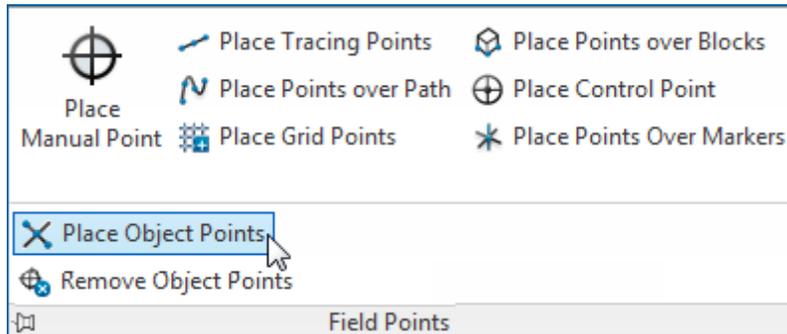
This feature allows for automatic generation of custom field points on items, such as lines, rectangles, circles, background drawings and so on. Custom points can also be placed on entities within Xrefs and blocks.

Quick Steps: Field Points / Place Object Points
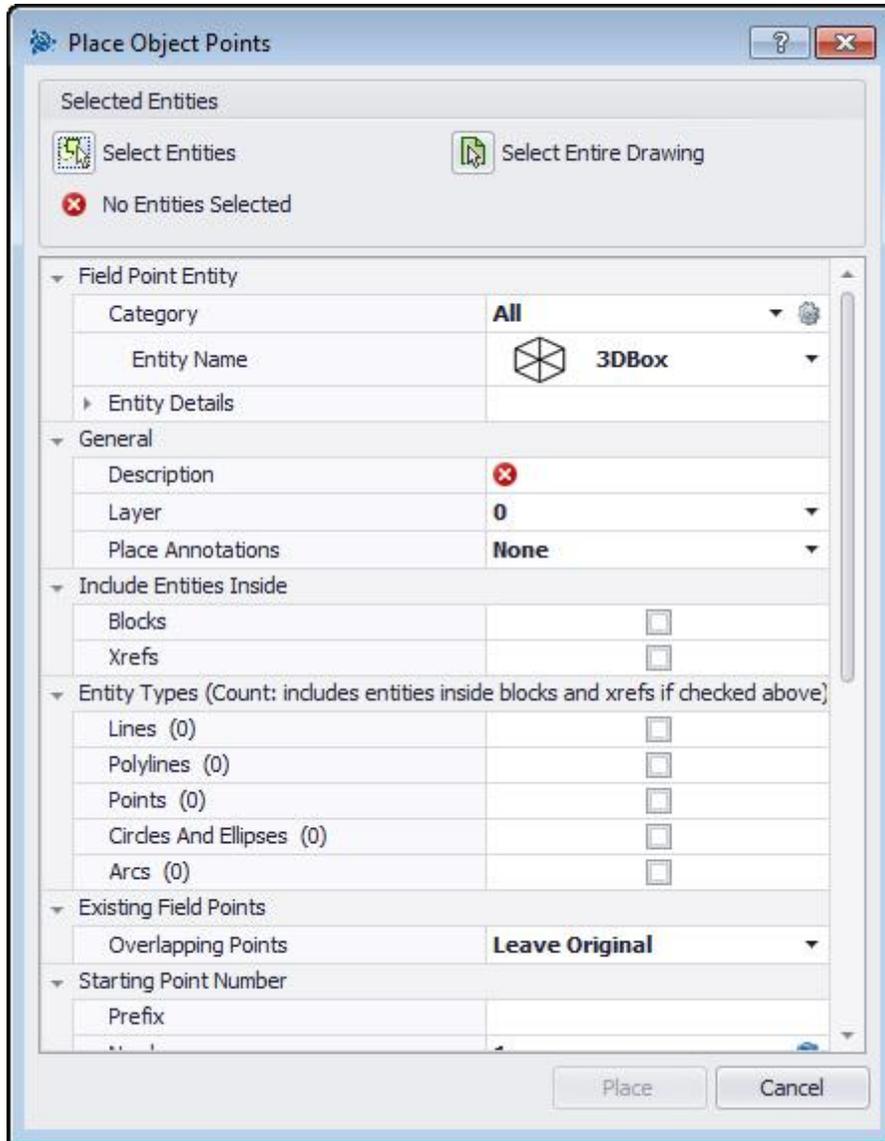
1. Go to the **Field Points** group, click ▼ next to the *Field Points* group label. Click **Place Object Points**.

2. In the Selected Entities pane, click one of the following:

   Select Entities
   This option allows you to choose the specific entities for object points. When you are done selecting the points you want to place, press ⌑Enter⌑ on your keyboard. The Place Object Points window reopens.

   Select Entire Drawing
   Object points will be set for the entire drawing will be included.

2. Complete the following to place points on objects:

▶ **Field Point Entity**

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The Field Point Settings□28 window opens. This window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name
Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. ***Note:*** These fields are not editable.

▶ General

Description
Enter a **Description** for this field. This helps define what the field point represents.

Layer
Assign this field point to a particular drawing layer by selecting the layer from the list.

Place Annotations
To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. ***Note***: Annotations contain tagging information for a point and are initially set up in Setup / Settings□19.

▶ Include Entities Inside

Select the appropriate checkbox ☑ based on what you want included in the object point:

- **Blocks**
- **Xrefs**

▶ Entity Types

💡**Tip** - You must select at least one option in this section.

Select the appropriate checkbox ☑ based on the entity types you want included:

Lines
This option places object points on selected lines. After the objects are selected, the number of line entities included in the object placement is displayed.

Polylines
This option places object points on polylines. After the objects are selected, the number of line entities included in the object placement is displayed.

Points

This option places object points on points. After the objects are selected, the number of line entities included in the object placement is displayed.

Circles and Ellipses

This option places object points on circles and ellipses. After the objects are selected, the number of line entities included in the object placement is displayed.

Arcs

This option places object points on arcs. After the objects are selected, the number of line entities included in the object placement is displayed.

▶ Existing Field Points

Overlapping Points

This field allows you to choose how overlapping points are handled. Click ▼ in the **Overlapping Point** field and select the desired option from the list.

▶ Starting Point Number

Prefix

The **Prefix** is a user-defined identifier automatically inserted before the *Number* field (see the next field topic). You can enter up to six characters as a prefix.

Number

Enter the starting number for this point or set of points. Enter a number between 1 and 999,999,999. If the drawing contains existing field points, click 🌐 to get the next number (including the matching prefix and suffix) if you wish to continue the same numbering sequence.

Suffix

The **Suffix** is a user-defined identifier automatically inserted after the *Number* field (see above field topic). You can enter up to six characters as a suffix.

💡**Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit.

▶ Elevation

Placement Settings

This property sets the elevation placement for the point or set of points. Click ▼ and select a setting from the list.

- **At Object Snap Elevation**

- **At Distance From Object Snap Elevation**
  Enter the distance from the object snap elevation (in inches/millimeters, depending on your settings). You must enter a **Distance** when this option is selected.

- **At Fixed Elevation**
  Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeters (depending on your settings). You must enter an **Absolute Elevation** when this option is selected.

▶ Field Point Location

Select the appropriate checkbox ☑ depending on where you want the point located on the entity.

💡 **Tip** - You must select at least one option in this section.

- **At End Point Object Snap**
- **At Mid Point Object Snap**
- **At Center Point Object Snap**
- **At Node Object Snap**
- **At Quadrant Object Snap**
- **At Intersection Object Snap**
- **At Apparent Intersection Object Snap**

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute can contain 62 characters of information.

💡 **Tip** - The Attribute labels are defined under [Setup / Settings](#)⬚19.

▶ Place Points

Click **Insert**. Points are places on the objects according to the settings selected.

Note: The *Insert* button is not active until you have made selections in the *Entity Type* and *Field Point Location* sections above.

💡 Tip - To quickly remove object points set on your drawing, refer to the [Remove Object Points](#)⬚73 topic below.

Remove Object Points
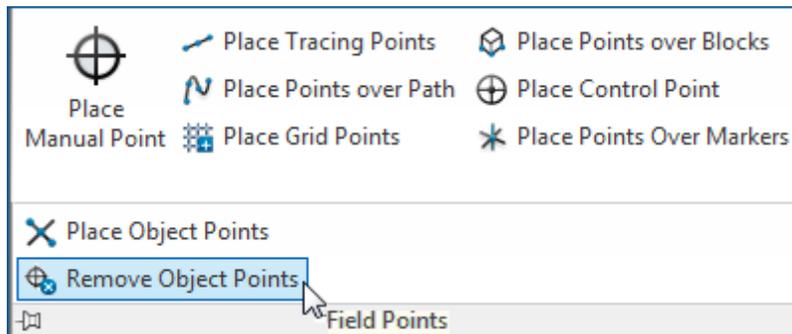
Once Object Points have been set, you can quickly remove them using this command. You can select specific entities or the entire drawing.

Quick Steps: Field Points / Remove Object Points
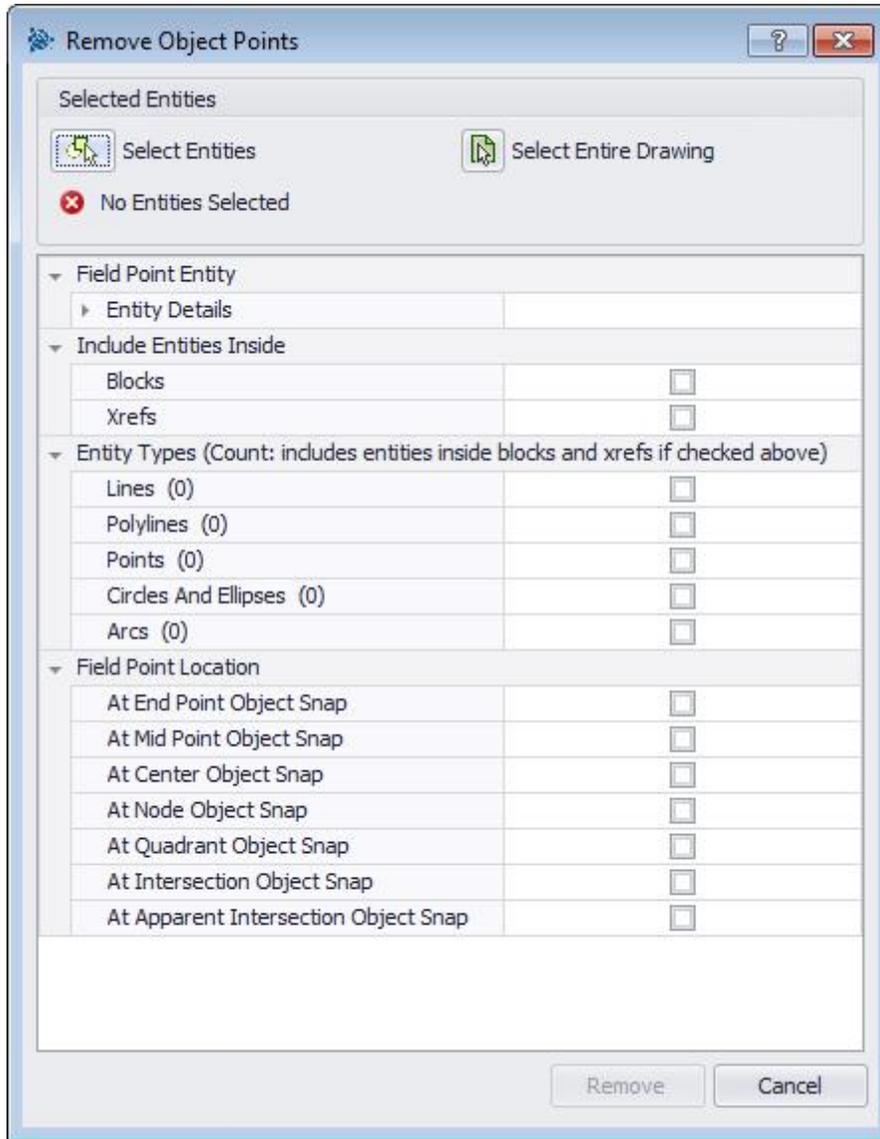
1. Go to the **Field Points** group, click ▼ next to the *Field Points* group label. Click **Remove Object Points**.

2. In the Selected Entities pane, click one of the following:

    Select Entities
    This option allows you to choose the specific entities for object points. When you are done selecting the object points you want to remove, press ⎡Enter⎤ on your keyboard. The Remove Object Points window reopens.

    Select Entire Drawing
    Object points will be set for the entire drawing will be included.

2. Complete the following to place points on objects:

▶ **Field Point Entity**

The following fields are provided for information purposes only. These fields are not editable.

- **Entity Drawing Name**
- **File Location**
- **Loaded in Drawing the field point.**

▶ Include Entities Inside

Select the appropriate checkbox ☑ based on what you want included in the object point:

- **Blocks**
- **Xrefs**

▶ Entity Types

💡**Tip** - You must select at least one option in this section.

Select the appropriate checkbox ☑ based on the entity types you want included:

Lines
This option places object points on selected lines. After the objects are selected, the number of line entities included in the object placement is displayed.

Polylines
This option places object points on polylines. After the objects are selected, the number of line entities included in the object placement is displayed.

Points
This option places object points on points. After the objects are selected, the number of line entities included in the object placement is displayed.

Circles and Ellipses
This option places object points on circles and ellipses. After the objects are selected, the number of line entities included in the object placement is displayed.

Arcs
This option places object points on arcs. After the objects are selected, the number of line entities included in the object placement is displayed.

▶ Field Point Location

Select the appropriate checkbox ☑ depending on where you want the point located on the entity.

💡**Tip** - You must select at least one option in this section.

- **At End Point Object Snap**
- **At Mid Point Object Snap**
- **At Center Point Object Snap**

- **At Node Object Snap**
- **At Quadrant Object Snap**
- **At Intersection Object Snap**
- **At Apparent Intersection Object Snap**

▶ Complete Object Point Removal

Click **Remove**. All selected Object Points are removed from your drawing.

Note: The *Remove* button is not active until you have made selections in the *Entity Type* and *Field Point Location* sections above.

5

Field Point Utilities

The Field Points Utilities group provides options for viewing and modifying field point properties, renumbering points, and placing blocks on points.

Quick Steps: Trimble® Field Points / Field Point Utilities
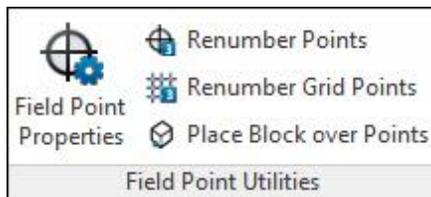
On the **Trimble® Field Points** tab, go to **Field Point Utilities**. Refer to the topics on the following pages for more information on each utility.

Field Point Properties [78]
This command allows you to view the currently set properties for a field point or selected group of field points and modify the properties if necessary.

Renumber Points [82]
With this command, you can renumber field points previously set. You can set the starting point number, update the prefix and suffix, and include previously exported field points in the renumbering process.

Renumber Grid Points [84]
This command allows you to renumber grid points. You can renumber based on the selected number pattern, update the prefix and suffix, and include previously exported field points in the renumbering process.

Place Block on Points [86]
This command allows you to place a block on field points. You can choose to place the block on select field points or for the entire drawing.

Field Point Properties
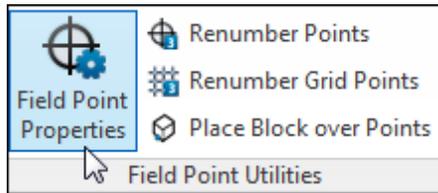
The Field Point Properties command allows you to review the properties for field points previously set on your drawing.

**Quick Steps: Field Point Utilities / Field Point Properties**

1. Go to the **Field Point Utilities** group and click **Field Point Properties**.

2. Select the points in the drawing you want to view properties *for* and then press ⸢Enter⸣ on your keyboard.
   OR

   Select the points in the drawing and then click ⸢Field Point Properties⸣.

   The Field Points Properties window displays.

   💡**Tip** - To make a multi-point selection, continue selecting all relevant points *before* pressing ⸢Enter⸣ or clicking the Field Points Properties button. For a multi-point selection, properties that are not identical display as **Varies**. Keep in mind that you must pick the point and ***not*** the point annotation!

▶ Field Point Entity

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙
next to the **Category** field. The Field Point Settings▯[28] window opens. This window allows you to
change settings/properties of a field point entity prior to setting the point.

Entity Name
Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of
field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and
Loaded in Drawing information pertain to the field point. *Note:* These fields are not editable.

▶ General

Description

This field allows you to enter additional information about the selected field points.

Staked

Select the checkbox ☑ if the field point been shot, laid out, or staked in the field. Note: If you are reviewing field point properties for points imported from the field, the checkbox will be selected by default to let you know the field point has been staked.

Layer

Assign this field point to a particular drawing layer by selecting the layer from the list.

▶ Point Number

Prefix

The **Prefix** is a user-defined identifier automatically inserted before the *Number* field (see the next field topic). You can enter up to six characters as a prefix.

Number

Enter the starting number for this point or set of points. Enter a number between 1 and 999,999,999. If the drawing contains existing field points, click 🌐 to get the next number (including the matching prefix and suffix) if you wish to continue the same numbering sequence.

Suffix

The **Suffix** is a user-defined identifier automatically inserted after the *Number* field (see above field topic). You can enter up to six characters as a suffix.

💡**Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit (now of in the future).

▶ Exported / Elevation

Exported

This section is for informational purposes only.

- If *Set Objects As Exported* option is set when exporting field points, this property displays the *Exported On [date and time]*. The exported file name also displays.

- If the points have not been exported or the option is not set, the field displays *Not Exported*.

Elevation

Absolute Elevation
This property represents the field point's distance from zero elevation. This value is set in inches/millimeters (depending on your settings).

▶ Options

Annotations

Annotation First Part
This property is a default content setting for the tag prefix. Click ▼ and select **Point Number** or **Description** from the list.

Separator
This setting designates the separator between the tag prefix and the tag suffix. Examples of visually effective separators are:

- Colon :
- Period .
- Dash -

Note: If is not required that you use these characters. You can use a separator of your choice.

Annotation Last Part
This property is a default content setting for the tag suffix. Click ▼ and select **Point Number** or **Description** from the list.

▶ Attributes

You can enter up to five attributes to further define the field point or set of field points. Each attribute can contain 62 characters of information.

💡 **Tip** - The Attribute labels are defined under <u>Setup / Settings</u>▯19.

▶ Attributes Names

This field displays the default attribute names initially created under <u>Setup / Settings</u>▯23. You can modify the default names in the Field Point Properties window; however, this changes the names only for the selected points. The default names are not affected.

⊞ Complete Field Point Properties

When you are done working in the Field Point Properties window, click **OK**.

Renumber Points
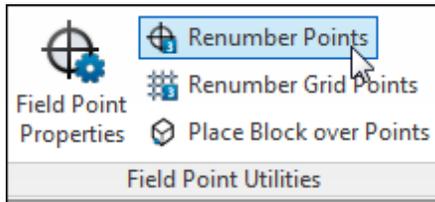
This command allows you to renumber existing field points on your drawing.

Quick Steps: Field Point Utilities / Renumber Points
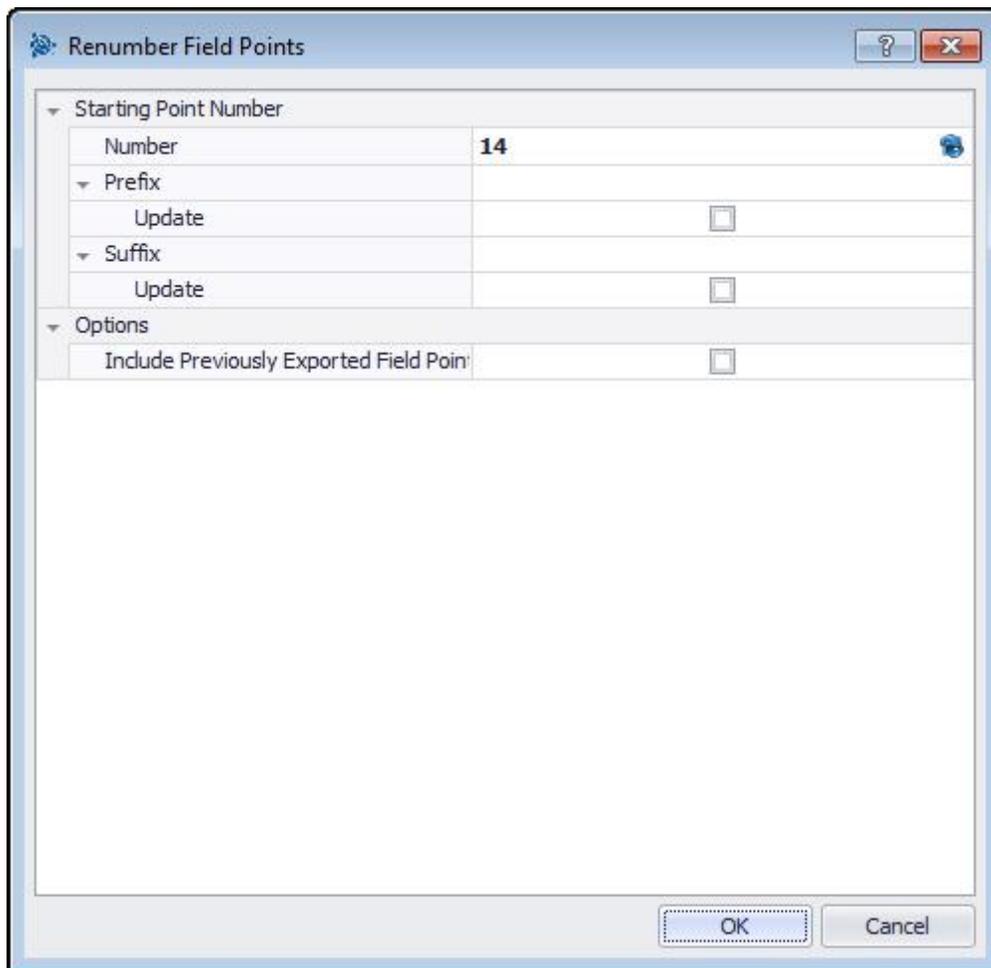
1. Go to the **Field Point Utilities** group and click **Renumber Field Points**.

2. In the **Number** field, enter the new starting point number . *Note:* Each point selected is renumbered incrementally based on your input in this field.

    💡**Tip** - If you want to use the next number available, click 🔵 next to the field. The field is populated with the next available unused number.

3. In the **Prefix** and **Suffix** sections, you can update the current assignments to new ones. To update the current prefix an/or suffix:

   a. Select the checkbox ☑ next to the appropriate Update field.

   b. When you select the checkbox, you will also need to enter a value in the **New Prefix** and/or **New Suffix** fields.

   💡**Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit (now of in the future).

4. The Options section allows you to include all points in the renumbering operation that have previously been exported. If you want these included, select the checkbox ☑.

5. When all properties are set, click **OK**.

6. Select the points in the drawing you want to renumber. The points are renumbered incrementally based on your selections in the Renumber Field Points window. The renumbering information displays on-screen as you click each point.
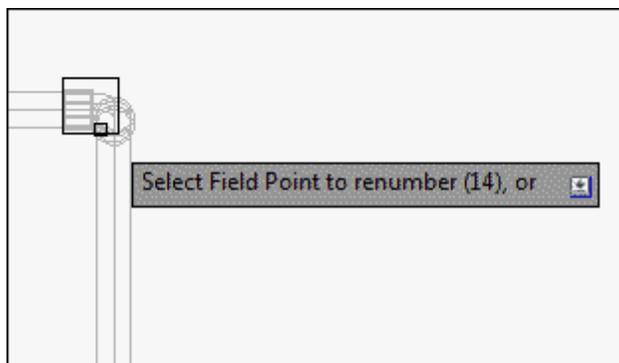
💡**Tip** - You can also place one or more points, change your settings, and then continue to place additional points without ending the procedure (by pressing ⌷Enter⌷). To change settings while placing points, use one of the following options:

   In the Command Line, you can click on the *Settings* text.
   OR
   Click in the Command Line and then type **S** and press ⌷Enter⌷

   OR
   You can right-click and choose **Settings** from the pop-up menu.

The points dialog reopens. Refer to the instructions above if you want to change settings.

Renumber Grid Points
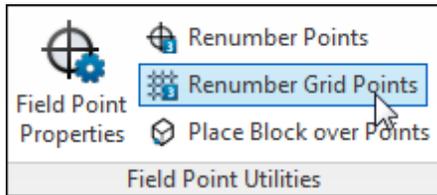
This command allows you to renumber existing grid points on your drawing.

**Quick Steps: Field Points Utilities / Renumber Grid Points**
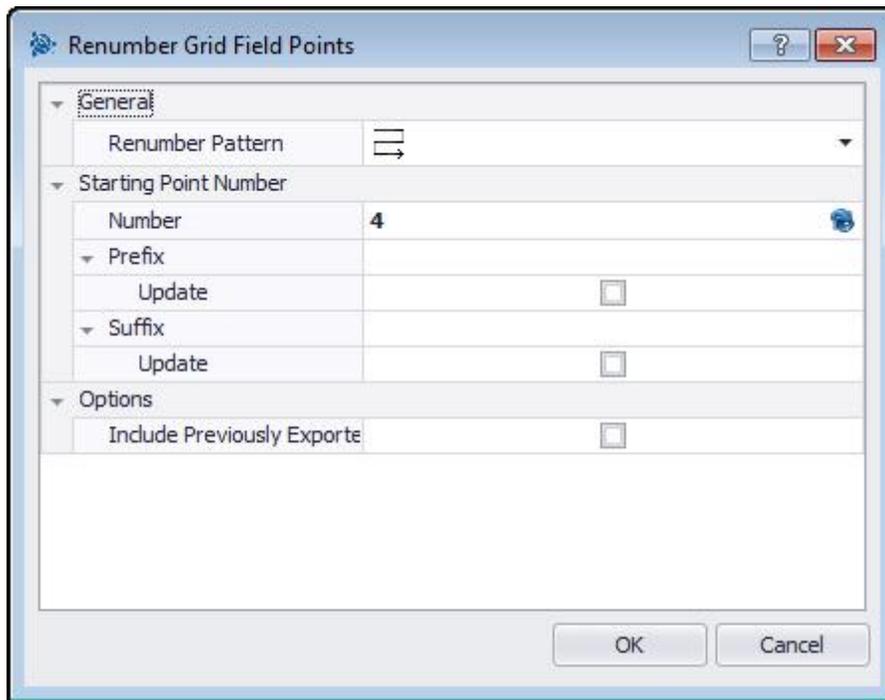
1. Go to the **Field Point Utilities** group and click **Renumber Grid Points**.

2. In the **Renumber Pattern** field, click ▼ and select a pattern from the list.

3. In the **Prefix** and **Suffix** sections, you can update the current assignments to new ones. To update the current prefix an/or suffix:

   a. Select the checkbox ☑ next to the appropriate Update field.

   b. When you select the checkbox, you will also need to enter a value in the **New Prefix** and/or **New Suffix** fields.

   💡**Tip** - The total number of characters for the Prefix-Number-Suffix sequence cannot exceed 16. Trimble recommends that you limit the number of characters used in each field so you do not exceed the 16 character limit (now of in the future).

4. The Options section allows you to include all grid points in the renumbering operation that have previously been exported. If you want these included, select the checkbox ✔.

5. When all properties are set, click **OK**.

6. Click on the first line of the grid you want to renumber. After you have accepted the grid selection, grid points are renumbered. You can accept the selection or remove the grid lines.

Place Block over Points
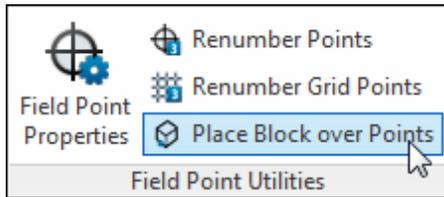
This command allows you to place blocks on points in your drawing.

Quick Steps: Field Points Utilities / Place Block on Points
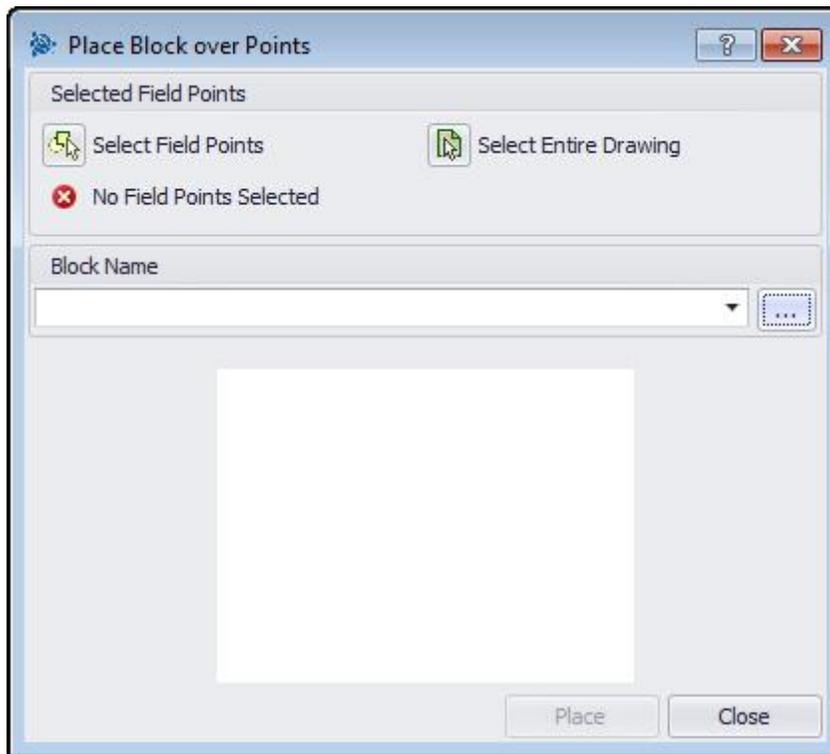
1. Go to the **Field Point Utilities** group and click **Place Block over Points**.

2. In the Selected Field Points pane, click one of the following:

    Select Field Points
    This option allows you to choose the specific field points for placing the block. When you are done selecting the points for your block, press ⎡Enter⎤ on your keyboard. The Place Block on Points window reopens.

    Select Entire Drawing
    This option will select all points within your drawing for placement of the block.

3. In the **Block Name** field, click ▼ to select the block you want to place. You can also click ⋯ to browse to the drawing/block you want to insert.

4. Click **Place**.

   💡**Tip** - You can complete the above steps to place additional blocks before proceeding to *step 6* (which completes the placement).

5. Click **Close** when you are done.

Annotations

The Annotations group provides commands to place annotations and modify annotation settings.

Quick Steps: Trimble® Field Points / Annotations
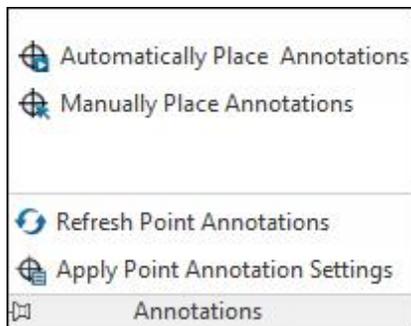
On the **Trimble® Field Points** tab, go to **Annotations**. Refer to the topics on the following pages for more information on each utility.

Automatically Place Annotations [90]
This command allows you to add annotations automatically to field points. The annotations are created and placed based on the settings under Setup / Settings [19].

Manually Place Annotations [91]
You can manually add annotations to a field point using this command. Annotations are placed based on your selected insertion point(s).

Refresh Point Annotations [92]
When annotations are modified outside of the Trimble Field Point software application, you can use this command to refresh annotation text to reflect the proper Trimble Field Point annotation settings.

Apply Point Annotation Settings [93]
This command allows you to apply annotation settings to annotations associated with selected field points, as well as field point properties. If you have changed the default settings in Setup / Settings [19], use this command to apply the new settings to existing annotations and field points.

💡 **Tip** - This command applies to setting in the General [19] section on the Annotation [19] tab. It does not apply to changes made in the Placement [20] section.

Automatically Place Annotations
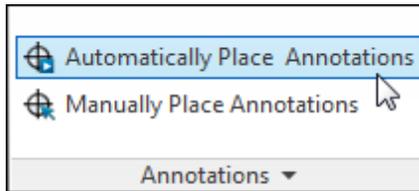
This command allows you to add annotations automatically to field points. The annotations are created and placed based on the settings under Setup / Settings☐19.

Quick Steps: Annotations / Automatically Place Annotations

1. Go to the **Annotations** group and click **Automatically Place Annotations**.

2. Select field points on the drawings where you want to automatically place annotation.
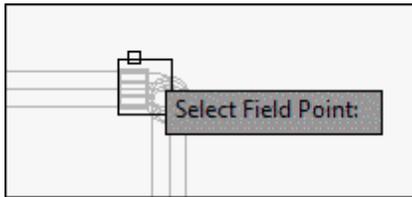
3. When you are finished selecting points, press ⌨Enter on your keyboard. The annotation is placed on each selected field point based on the settings created under Setup / Settings☐19.

   💡**Tip** - Changing settings applies only to new points placed. If you placed points previously and then changed your settings, the existing annotation settings are not updated. They retain the settings as they were at the time of placement.

4. To continue automatically placing annotations, repeat *steps 2* and *3*.

5. When you are finished automatically placing point annotations, press ⌨ESC on your keyboard.

Manually Place Annotations
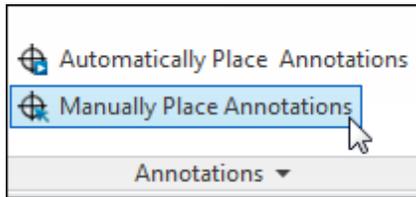
You can manually add annotations to a field point using this command. Annotations are placed based on your selected insertion point(s).

Quick Steps: Annotations / Manually Place Annotations

1. Go to the **Annotations** group and click **Manually Place Annotations**.

2. Click the field point on the drawing where you want to add the annotation. The annotation displays on-screen.
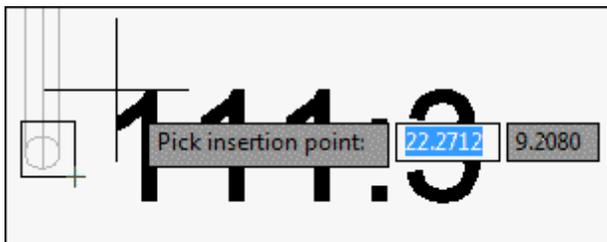
3. Move the annotation to the desired insertion point (must be within the point itself) then right-mouse click. The annotation is placed on at the selected insertion point. Rotation is based on the settings created under [Setup / Settings](#) [19] .

   💡**Tip** - Changing settings applies only to new points placed. If you placed points previously and then changed your settings, the existing annotation settings are not updated. They retain the settings as they were at the time of placement.

4. Repeat *steps 2* and *3* to continue manually placing annotations on other field points.

5. When you are finished placing annotations, press ESC on your keyboard.

Refresh Point Annotations
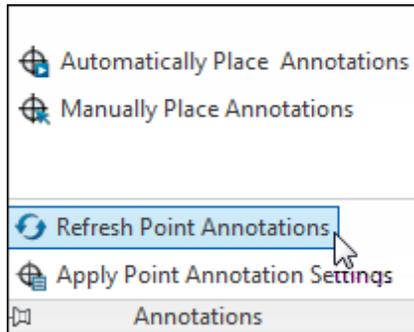
When annotations are modified outside of the Trimble Field Point software application, you can use this command to refresh annotation text to reflect the proper Trimble Field Point annotation settings.

Quick Steps: Annotations / Refresh Point Annotations

1. Go to the **Annotations** group and click **Refresh Point Annotations**.

2. Select field points on the drawings where annotations need to be refreshed. A count of the number of field point annotations found to have been modified outside of Trimble® Field Points displays on the command line.

3. When you are finished selecting points, press `Enter` on your keyboard. The annotation is updated to reflect the current setting for that particular point in the Trimble Field Points program.

Apply Point Annotation Settings
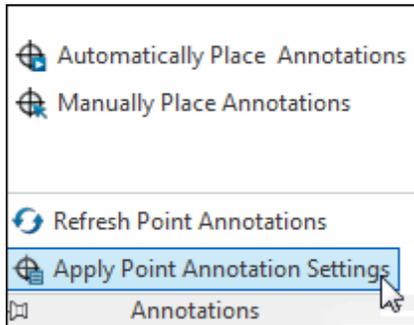
This command allows you to apply annotation settings to annotations associated with selected field points, as well as field point properties. If you have changed the default settings in Setup /Settings[19] , use this command to apply the new settings to existing annotations and field points.

Tip - This command applies to setting in the General[19] section on the Annotation[19] tab. It does not apply to changes made in the Placement[20] section.

Quick Steps: Annotations / Apply Point Annotation Settings

1. Go to the **Annotations** group and click **Apply Point Annotation Settings**.

2. Select field points on the drawings that you want to apply the new settings *to*.

    Tip - Changing settings applies only to new points placed. If you placed points previously and then changed your settings, the existing annotation settings are not updated. They retain the settings as they were at the time of placement.

3. When you are finished selecting points, press ⬚Enter on your keyboard. The annotation is updated to reflect the new settings modified in the General[19] section under Setup / Settings[19]

Reports

The **Reports** group provides commands for producing reports.

Quick Steps: Trimble® Field Points / Reports
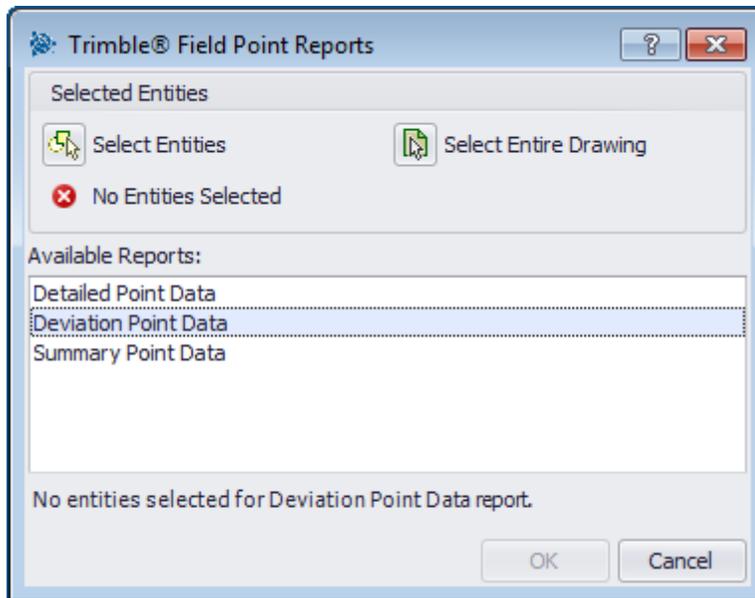
1. On the **Trimble® Field Points** tab, click **Reports**. The Trimble Field Link Reports window opens.

2. In the Selected Entities pane, click one of the following:

   Select Entities
   This option allows you to choose the specific entities for object points. When you are done the points you want to place, press ⎡Enter⎤ on your keyboard. The Insert Object Points window reopens.

   Select Entire Drawing
   Object points will be set for the entire drawing will be included.

3. In the Available Reports pane, click on the desired report.

4. In the Report Note pane, you can enter desired information about the report,

5. Click **OK** to generate the report.

CHAPTER

8

Imports

The Imports group provides commands to import/edit field points in your AutoCAD® drawings.

Quick Steps: Trimble® Field Points / Imports
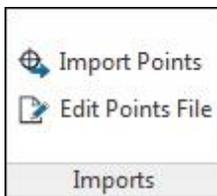
On the **Trimble® Field Points** tab, go to **Imports**. Refer to the topics on the following pages for more information on each utility.

Import Points[98]
This command allows you to import points that were created elsewhere, such as in the field, into your existing drawing.

Edit Points File[121]
This command allows you to modify the import points file before importing the points into your drawing.
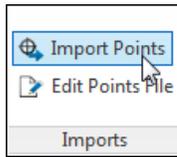
x

x

x

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Import Points

 This command allows you to import points that were created elsewhere, such as in the field, into your existing drawing. If your drawing contains layers, when you import points, the points will be placed on the layer where they were originally exported *from*.

Quick Steps: Trimble® Field Points / Imports

1. Go to the **Imports** group and click **Import Points**. The Field Point Import window opens.

    💡**Tip** - If you are importing from a CSV file□ 100, you must complete additional information before you can continue. Click here□ 100 for more information.

2. In the **Select File To Import** field, click ··· to navigate to the location of the import file. Double-click the file.

3. If multiple UCS coordinates are available, select the appropriate UCS for your import from the list and then click **OK**.
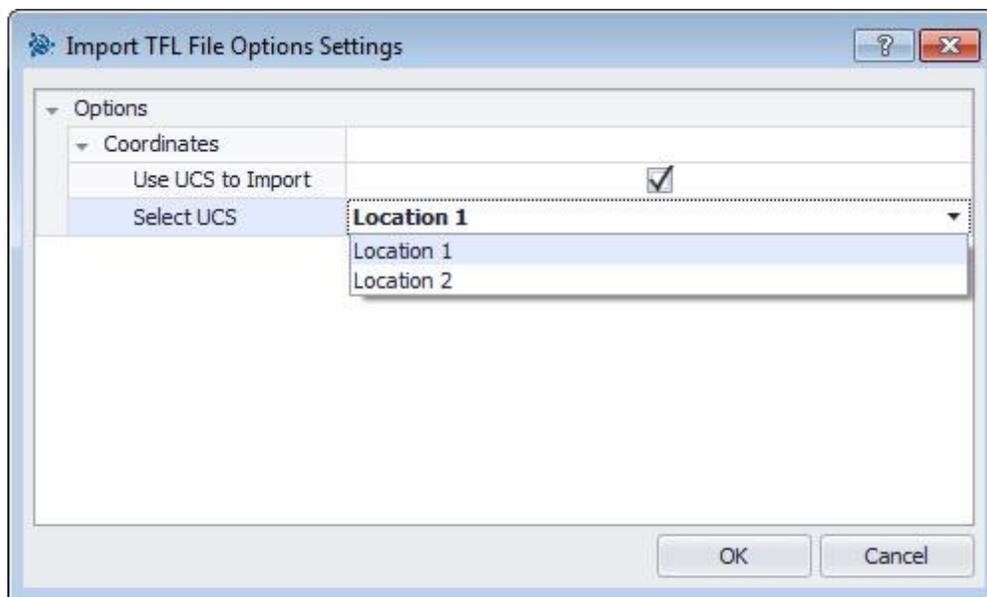
4. The grid displays the field points available in the file for import.
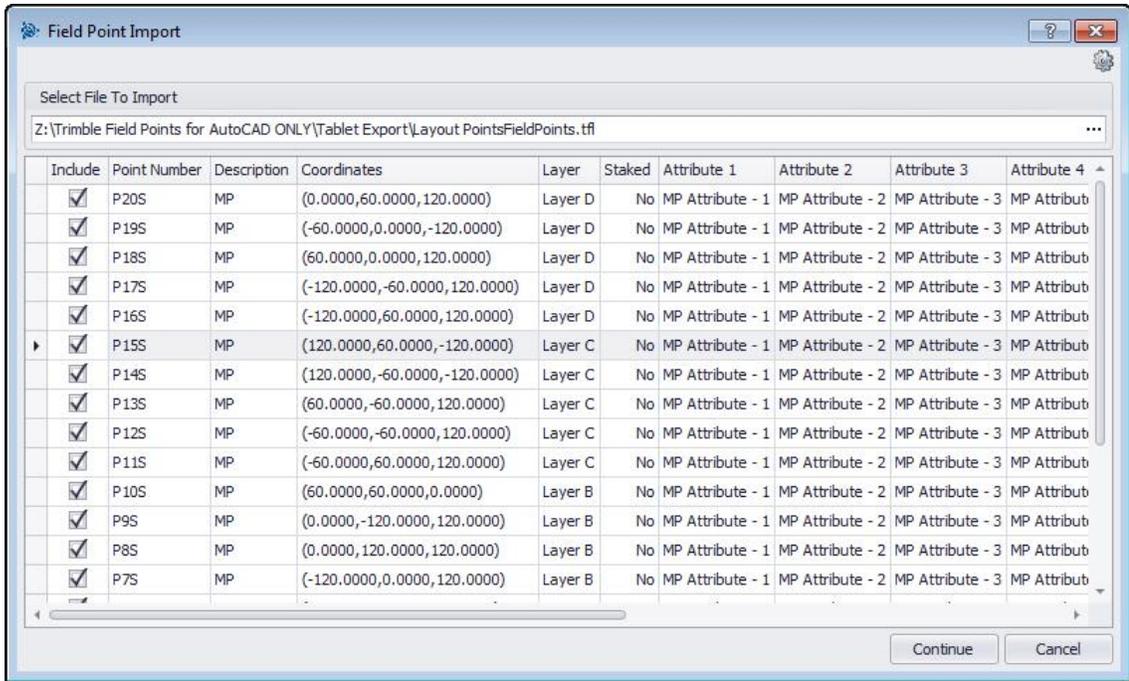
Tip - You can sort data in the grid by clicking on the desired column heading. An arrow displays in the header to denote ascending or descending sorting.

5. Select ☑ or clear ☐ the **Include** checkbox for each field point based on what you want to do.
   *Note*: The checkboxes are all selected by default.

6. Click **Continue** to proceed with the import. The Import Field Points to Drawing[102] window opens.

Import from CSV

When you select a CSV import file, the Trimble Field Points program requires additional information to complete the import.

Quick Steps: Trimble® Field Points / Imports
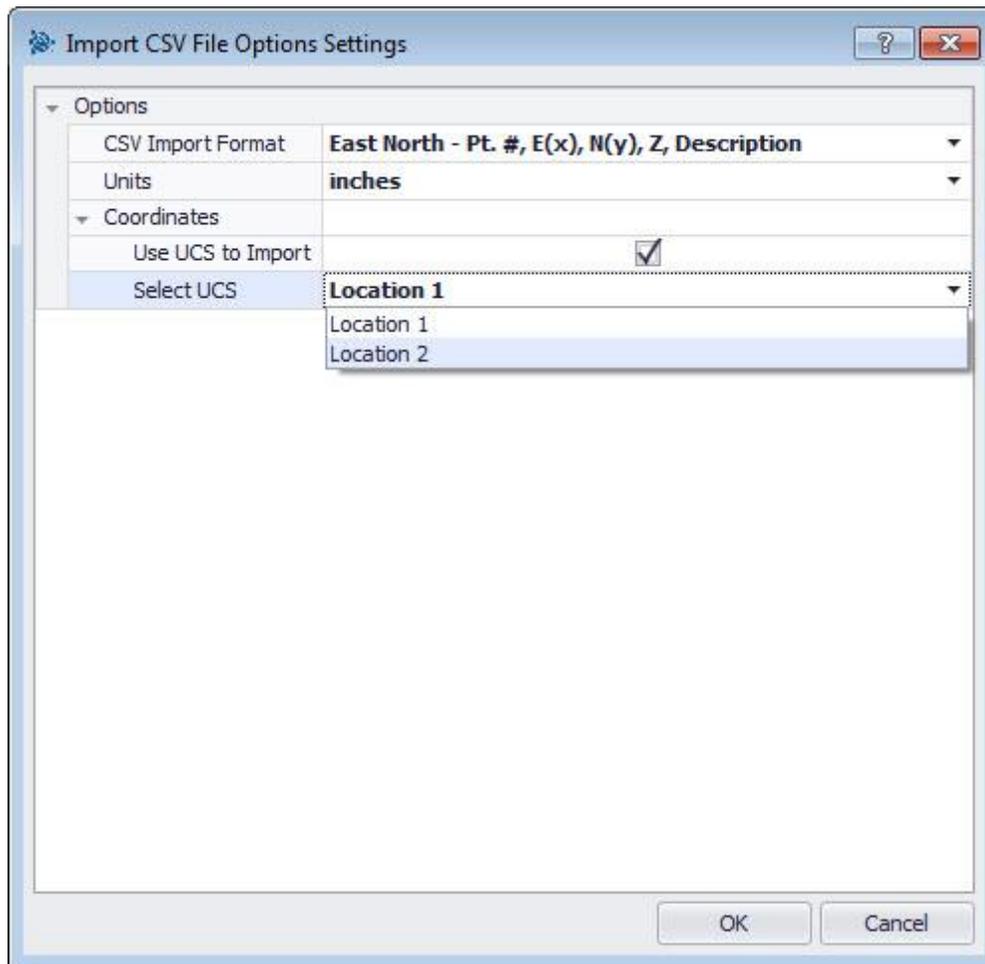
1. In the **CSV Import Format** field, click ▼ and then select the appropriate format from the list.

2. Click ▼ in the **Units** field and select the appropriate measurement unit from the list.

3. If multiple UCS coordinates are available, select the appropriate UCS for your import and then click **OK**.

4. Click **OK** when you are done. The Field Point Import □ 98 window opens. To continue your import, refer to the Import Points □ 98 topic (*step 3*).

Field Point Import Settings

This window allows you to select settings on how the items in the import file are flagged.

Quick Steps: Field Point Import / ⚙
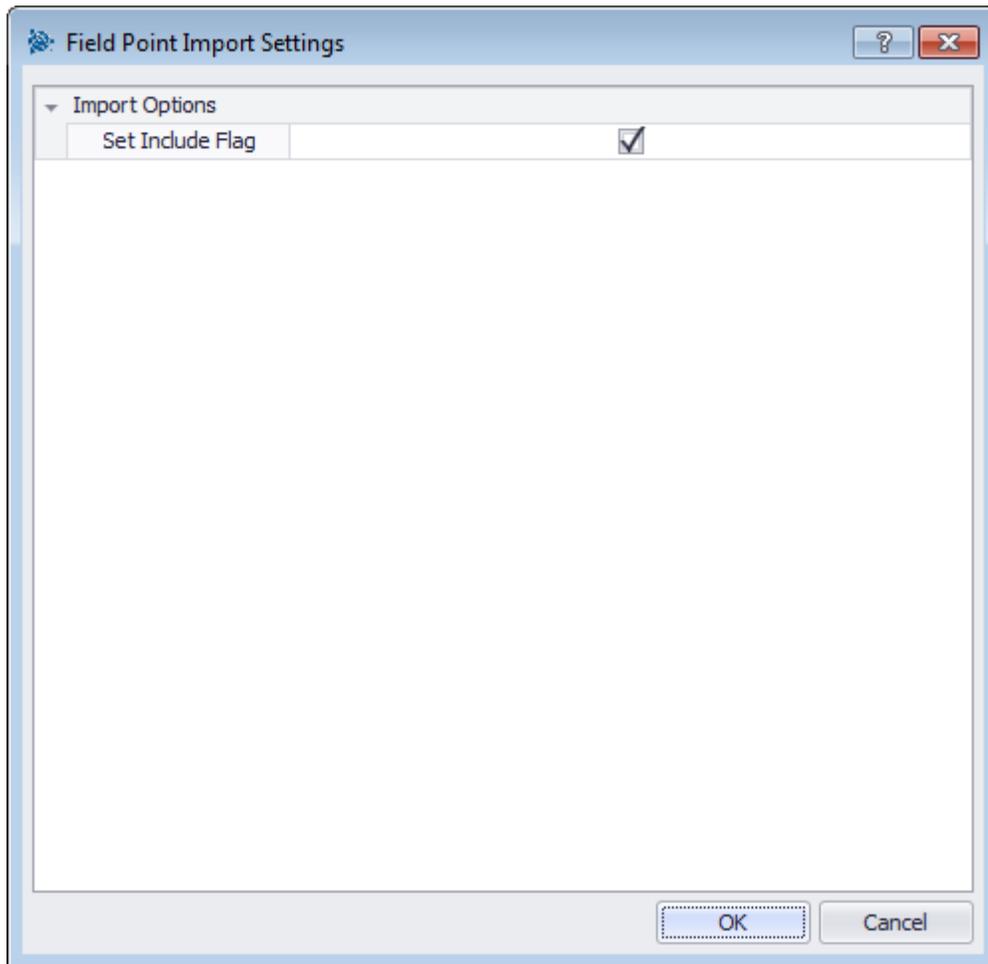
1. In the Import Options pane, select the **Set Include Flag** checkbox ☑.

2. Click **OK** when you are done.

Import Field Points To Drawing

When you have completed the steps in the Field Point Import[98] window and clicked *Continue*, the Import Field Points to Drawing window opens.

Quick Steps: Imports / Import Points
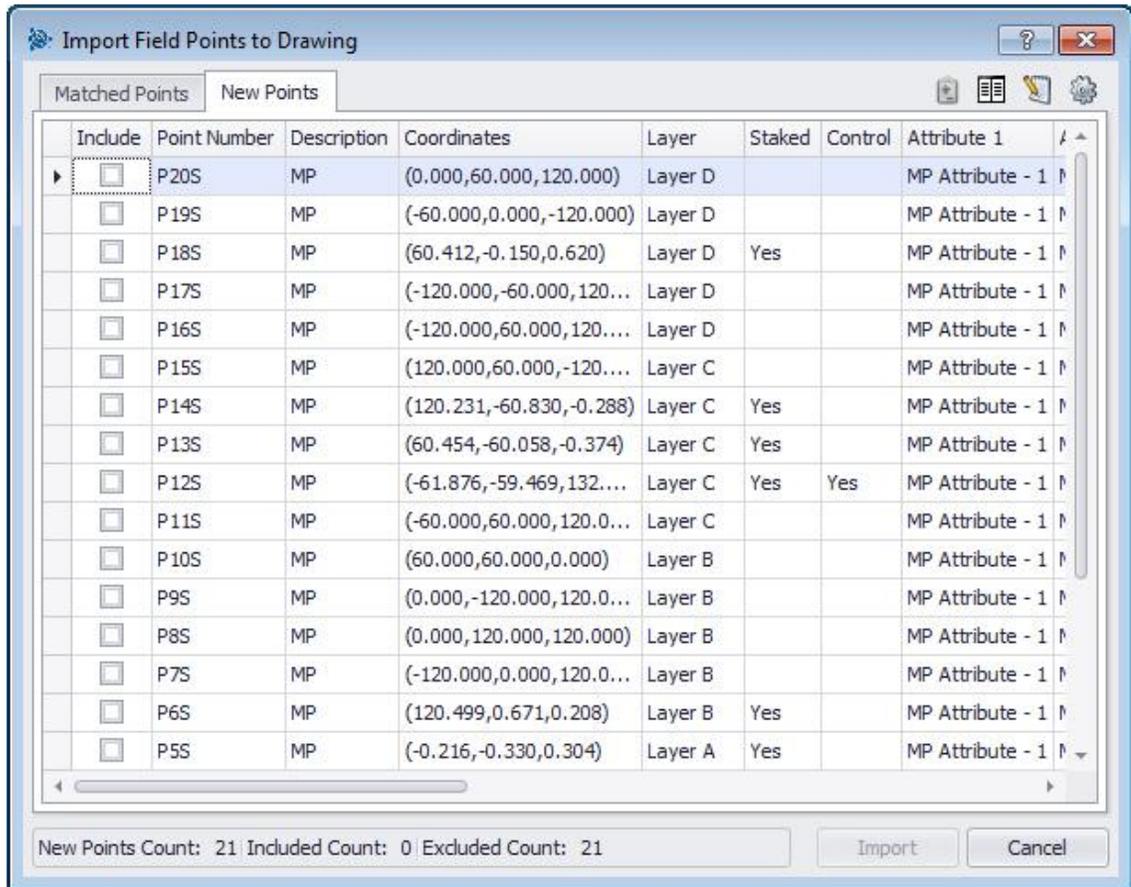
The Import Field Points To Drawing window organizes the available field points into three tabs:

Tip - Each tab grid is populated with the field points selected in the from the import file and displayed on the appropriate tab. To sort the data in the grid, click the desired column heading.

Matches
Points in the import file that match an existing point in the drawing using an identifier generated by the Trimble Field Points software at the time the point was created. *Note*: If you assigned a manual identifier to the point, this displays also.

New Points
Points that are in the import file, but not in the drawing. These do not match an existing point in the drawing.

Drawing Points
Points that are in the drawing, but do not match a point in the import file.

▶ Matches

On the **Matches** tab, select ✔ or clear ☐ the **Include** checkbox next to the appropriate items.

💡 **Tip** - To select the settings for the import field points, click ⚙. Refer to [Import Field Points To Drawing Settings](#)⌐104 for detailed instructions.

▶ New Points

On the **New** tab, select ✔ or clear ☐ the **Include** checkbox next to the appropriate items.

- To select the settings for the import field points, click ⚙. Refer to [Import Field Points To Drawing Settings](#)⌐104 for detailed instructions.

- To modify the new point properties, click 📝. See for a detailed explanation of modifying these properties.

💡 **Tip** - Review the information in this window carefully.

▶ Complete Import

Click **Import** to proceed with the import.

💡 **Tip** - To create additional matches that match other than those generated by the software, click 📋. See [Create Additional Matches](#)⌐112 for detailed information. To modify new point properties, refer to the [Modify New Point Properties](#)⌐111 topic on subsequent pages.

Import Settings

When you import field points into a drawing, you can create settings and descriptions that determine how the new field points display or come into the drawings.

Quick Steps: Import Field Points To Drawing / ⚙

The Import Field Points to Drawing Settings window contains tabs. Depending on the tab you are working on, click the appropriate link below to view detailed information.

▶ **New Points**
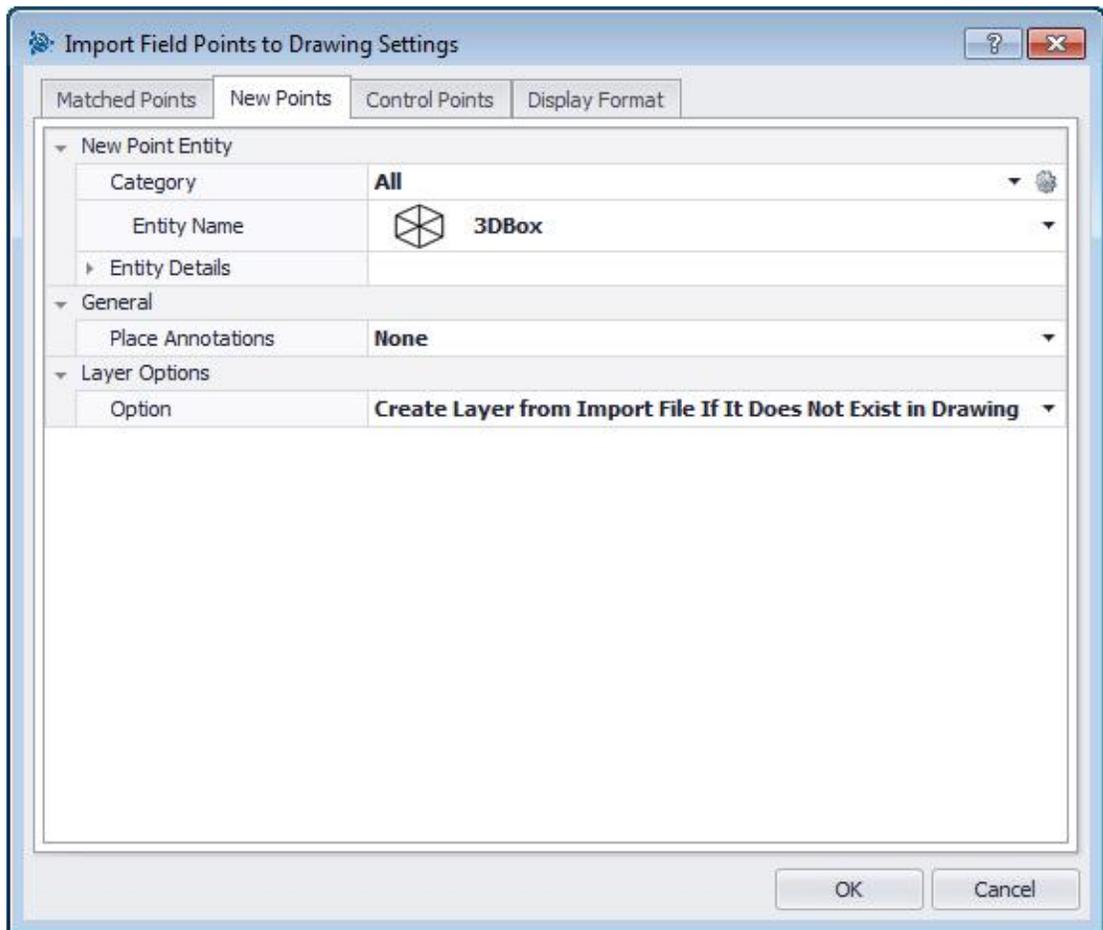
On the New Points tab, you can set the entity name, the default layer, and annotations for the field points to be imported.

New Point Entity

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The Field Point Settings☐ 28 window opens. This

window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name

Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details

Click ▶ to expand the Entity Details pane to view the *Entity Model Name*, *File Location*, and *Loaded in Model* information pertain to the field point. ***Note:*** These fields are not editable.

General

Place Annotations

To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. ***Note***: Annotations contain tagging information for a point and are initially set up in Setup / Settings▯[19].

Layer Options

Click ▼ and select the appropriate layer option from the list.

▶ Display Format
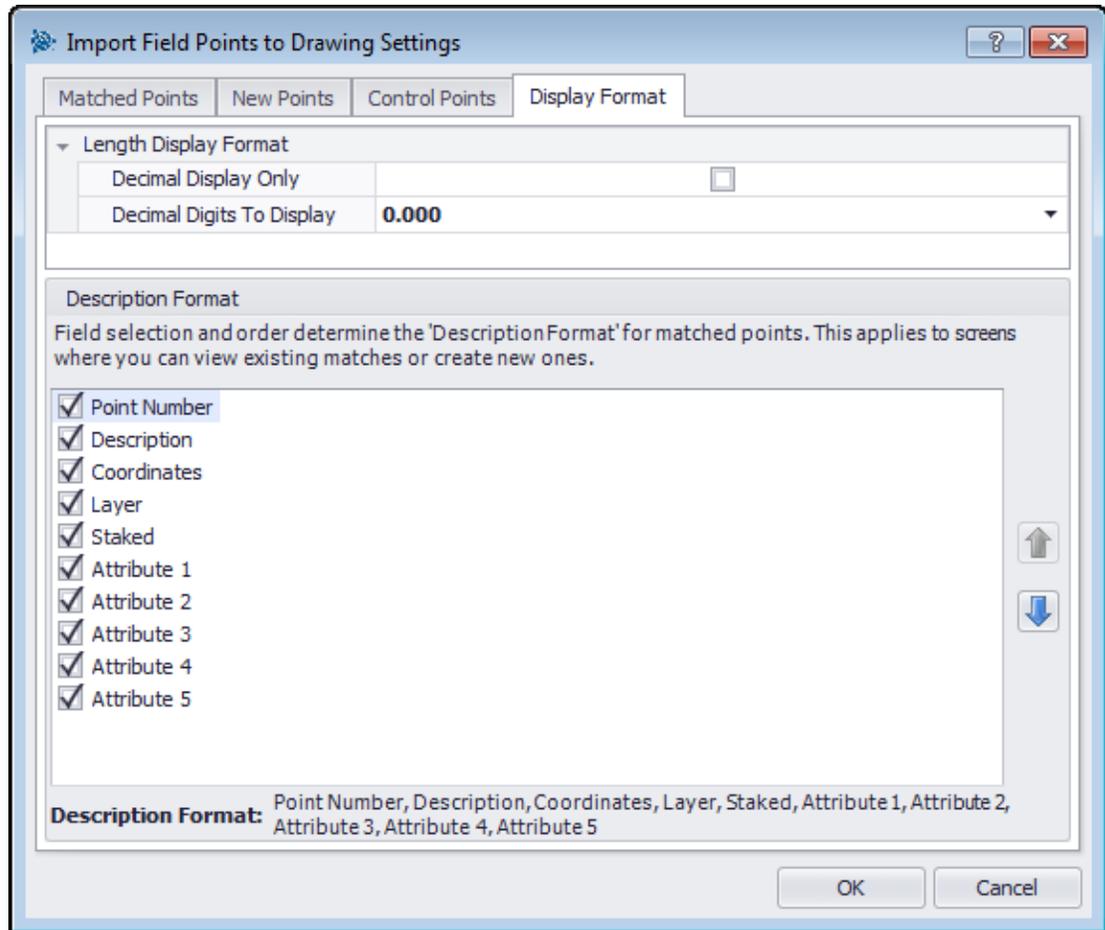
The Field selection and order section determine the description format on matched points. This order applies to windows where you can view existing matches or create new matches.

1. On the Description Format tab, select the checkboxes ☑ you want to display in all import window columns.
   OR

   Clear the checkboxes ☐ for those you do not wish to display.

   💡**Tip** - You can change the order of the column display by clicking the item and then clicking
   ⬆ or ⬇ to move the item up or down.

   The selected columns and order display at the bottom of the window.

Description Format: Point Number, Description, Coordinates, Group, Staked, Attribute 1, Attribute 2, Attribute 3, Attribute 4, Attribute 5

2. When you are done, click **OK** to save the changes.

Matched Points

The options on this tab allow you to set tolerance levels for matching points from your model when importing. You can also set Revision Cloud options.
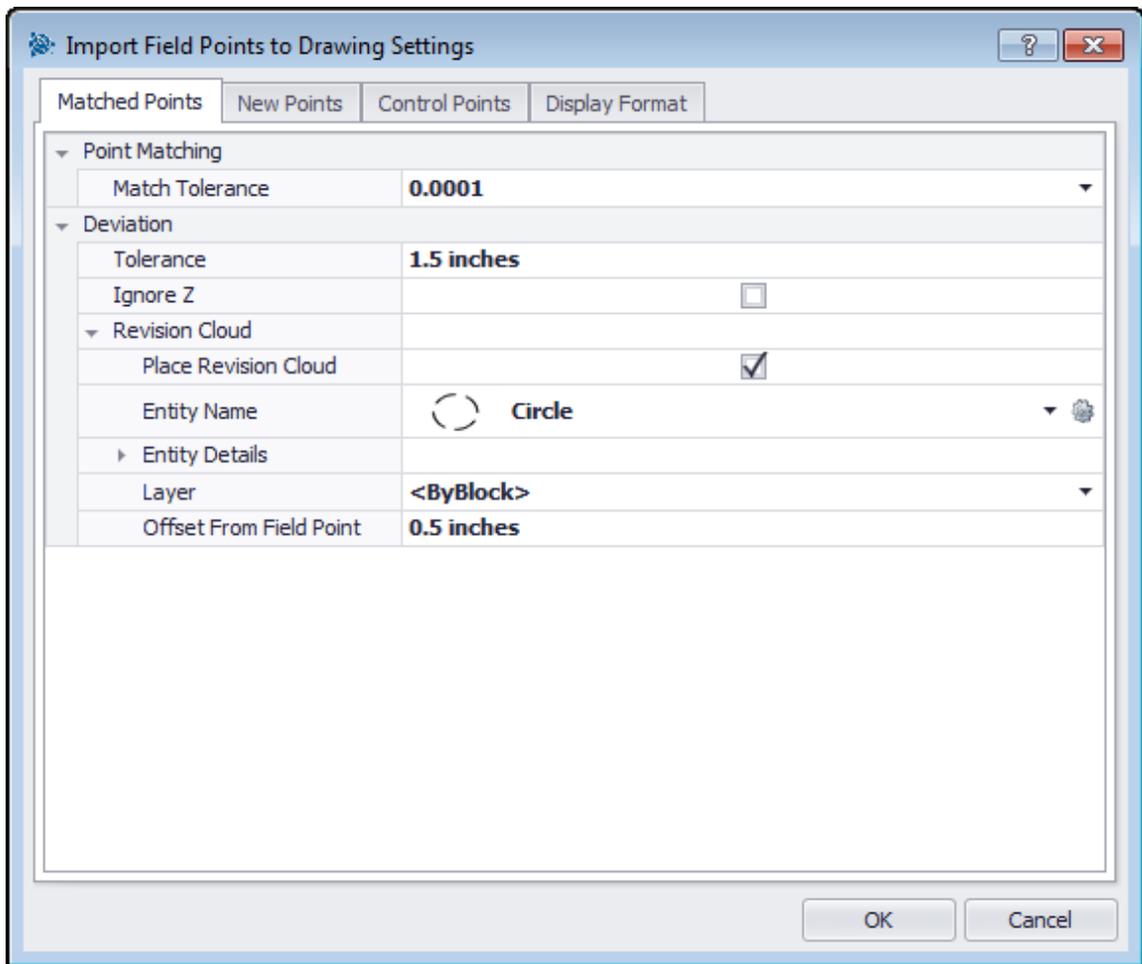
Point Matching

To set **Point Match Tolerance**, click ▼ and select a tolerance value from the list.

Deviation

In the Deviation pane, complete the following:

- To set a deviation **Tolerance**, click ▼ and select a value from the list.
- If you want to **Ignore Z**, select the checkbox ✔.

Revision Cloud

To create Revision Cloud settings for imported items, complete the following:

1. Select the **Revision Cloud** checkbox ✔.

2. In the **Entity Name** field, click ▼ and select a cloud option from the list.

   💡**Tip** - If the revision cloud shape is not available in the list, you can click ⚙ to create

additional [cloud options](#)□33 if necessary. You can also edit existing settings in this window.

The options in the Entity Details pane are not editable in this window. Refer to [Setup / Revision Cloud Settings](#)□33 for more information.

▶ Control Points
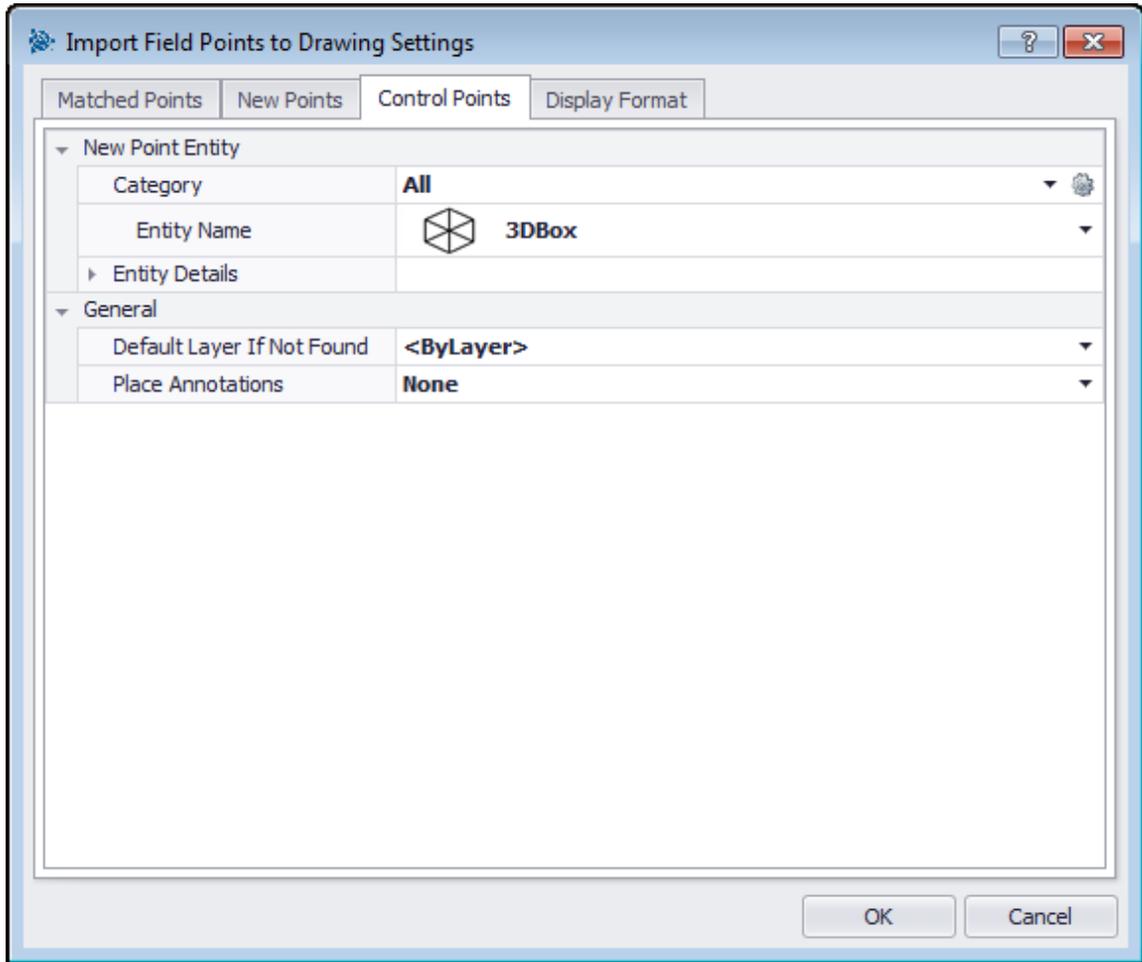
Control Points are defined by the survey team and are used to coordinate locations on the site or inside of a building. This tab allows you to control how these points are treated when importing points.

▶ Field Point Entity

Category
Click ▼ and select the appropriate category from the list. If you want to change settings, click ⚙ next to the **Category** field. The [Field Point Settings](#)□28 window opens. This window allows you to change settings/properties of a field point entity prior to setting the point.

Entity Name

Click ▼ and select the appropriate Entity Name from the list, representing the field point or set of field points.

Entity Details
Click ▶ to expand the Entity Details pane to view the *Entity Drawing Name*, *File Location*, and *Loaded in Drawing* information pertain to the field point. ***Note:*** These fields are not editable.

▶ General/Layer Options

Place Annotations
To apply annotations to the point or set of points, click ▼ and select the method by which you want to place annotations. Note: Annotations contain tagging information for a point and are initially set up in <u>Setup / Settings</u>[19].

Layer Options
Click ▼ and select the appropriate layer option from the list.

▶ Completion

Click **OK** when you are done.
OR
Click another tab within the window to continue creating settings for imported items.

Modify New Point Properties

When you import field points into a drawing, you can modify the properties on new points in this window.

Quick Steps: Import Field Points To Drawing / 🗒️
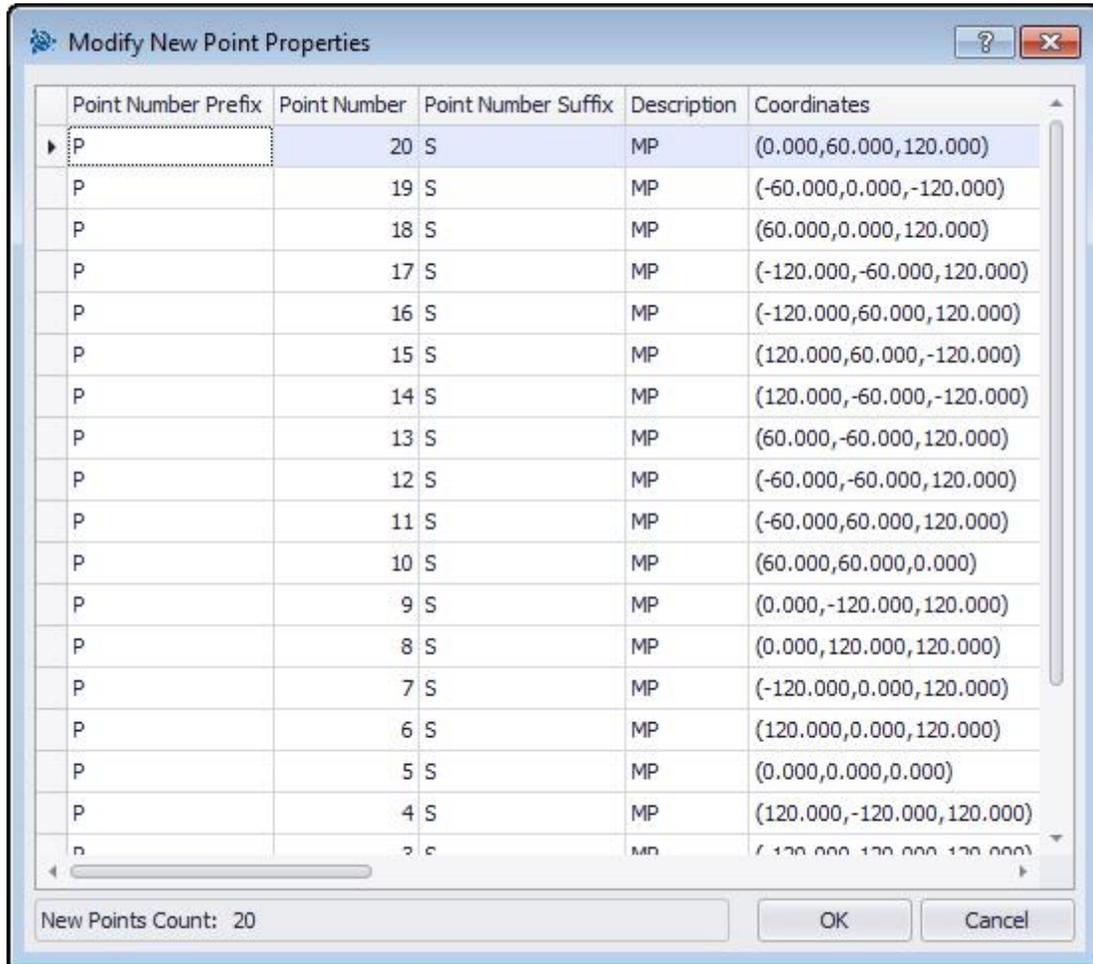
Note: The image above is the default size in the Trimble Field Points software. You will need to resize the window to view all fields.

The grid is populated with the new points selected from the import file that do not match an existing point in the drawing.

💡**Tip** - You can sort the data in the columns by clicking the column heading.

1. If you want to change of the information for the new points, click in the appropriate field and make desired changes. *Note:* The *Coordinates* and *Staked* fields are not editable.

2. When you are done making modifications, click **OK** to save your changes.

Create Additional Matches

When you import field points into a drawing, and the points in the drawing do not match the points in the import, you can match the points to the drawing in this window.

Quick Steps: Import Field Points To Drawing / 🔳
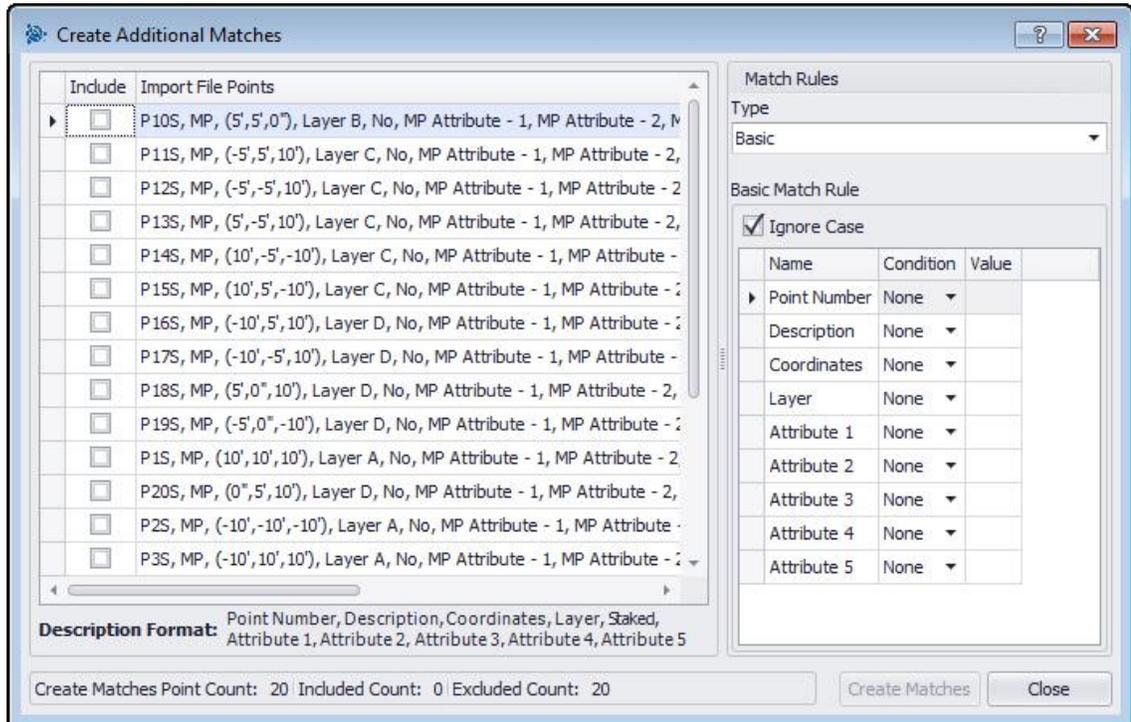
1. In the Match Rules pane, click ▼ in the **Type** field and then select a match rule from the list. Based on your selection in this field, Refer to the appropriate topic below for further instructions.

Basic

a. In the Basic Match Rule pane, select the **Ignore Case** checkbox ✔ if applicable.

b. Next to each entity setting:

- Click ▼ in the **Condition** field and select an option from the list. See the Basic Match Options[114] topic for a detailed explanation of each Condition type.
- If you have selected a Type requiring a **Value** enter this is the Condition field.

c. When you have entered the required information for a match rule, press ⌁Enter⌁ on your keyboard. The operation is performed. Items in the **Include** column are selected ✔ if they meet the criteria selected.

💡**Tip** - You can continue to create matches until all available point are matched.

Custom

In the Custom Match Rule pane, click ▼ to select a rule **Name** from the list.

OR

Click ⋯ to create a new rule. Refer to <u>Manage Custom Match Rules</u>⬚ 115 for more details on this procedure.

2. Click **OK** when you are done setting additional matches.

Basic Match Options

When you select [Basic]□ ¹¹² as your Type in Match Rules, you have the following options in the Condition list. A definition of each Type is included.

None
The system will not perform a match on the field name. Nothing is required in the **Value** field.

Matches
The software looks for an exact match between the field name and the drawing point field name. Nothing is required in the **Value** field.

Contains
Looks for a partial match (anywhere in field) of value between the import file point field name and the drawing point field name. A **Value** is required.

Starts With
Looks for a partial match (beginning only) on value between import file point field name and drawing point field name. A **Value** is required.

Ends With
Looks for a partial match (end only) on value between import file point field name and drawing point field name. A **Value** is required.

Custom Match Rules

When you select Custom as your match Type in the [creating additional matches](#)□ 112 , you must define the parameters of your match.

Quick Steps: Import Field Points To Drawing / ▦

Manage Custom Match Rules Window
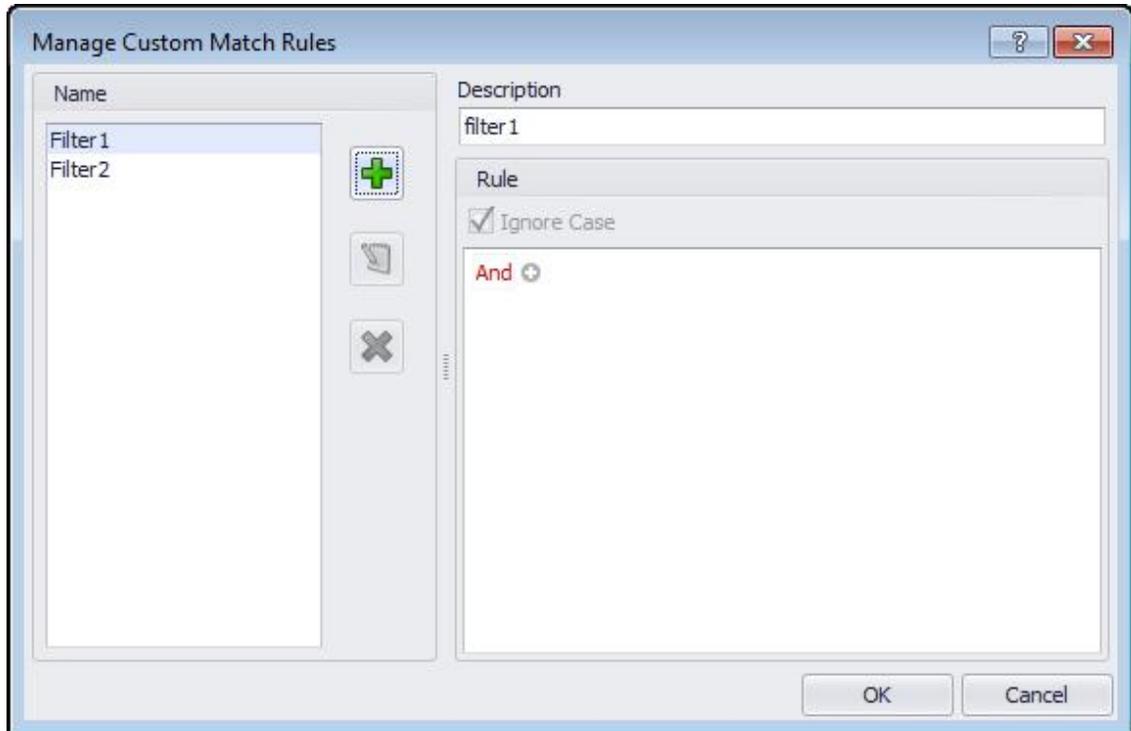
The Manage Custom Match Rules window opens when you select Custom and then click ⋯ in the [Create Additional Matches](#)□ 112 window. You can use various operators for matching purposes. These operators are detailed below. For detailed instructions on creating rules, refer to the [Manage Custom Rules](#) □ 117 topic.

Custom Match Operations

Custom Match Rules that contain more than one condition use Groups.

- A Group consists of a logical operator and a condition.
- Groups are joined together to create the custom match rule.

The complete syntax for the custom match rule is displayed at the bottom of the Manage Custom Match Rules window.

Logical Operators	**Comparison Operators**
Compares two or more conditions	Compares column data with specific conditional values

⊙ And	＝ Equals
⊙ Or	≠ Does not equal
⊙ Not And	abc Contains
⊙ Not Or	acb Does not contain
	[a]b Begins with
⊒₊ Add Condition	b[c] Ends with
⊐⁺ Add Group	⊙ Is any of
	⊙ Is none of
	◌ Is blank
	● Is not blank
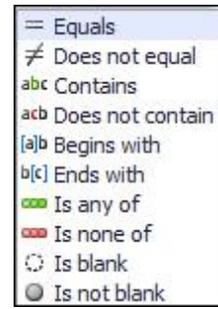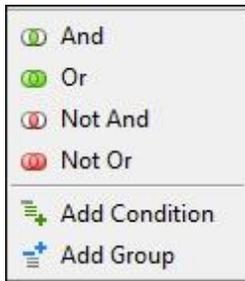
Manage Custom Match Rules

This topic details how to set up and manage custom match rules.
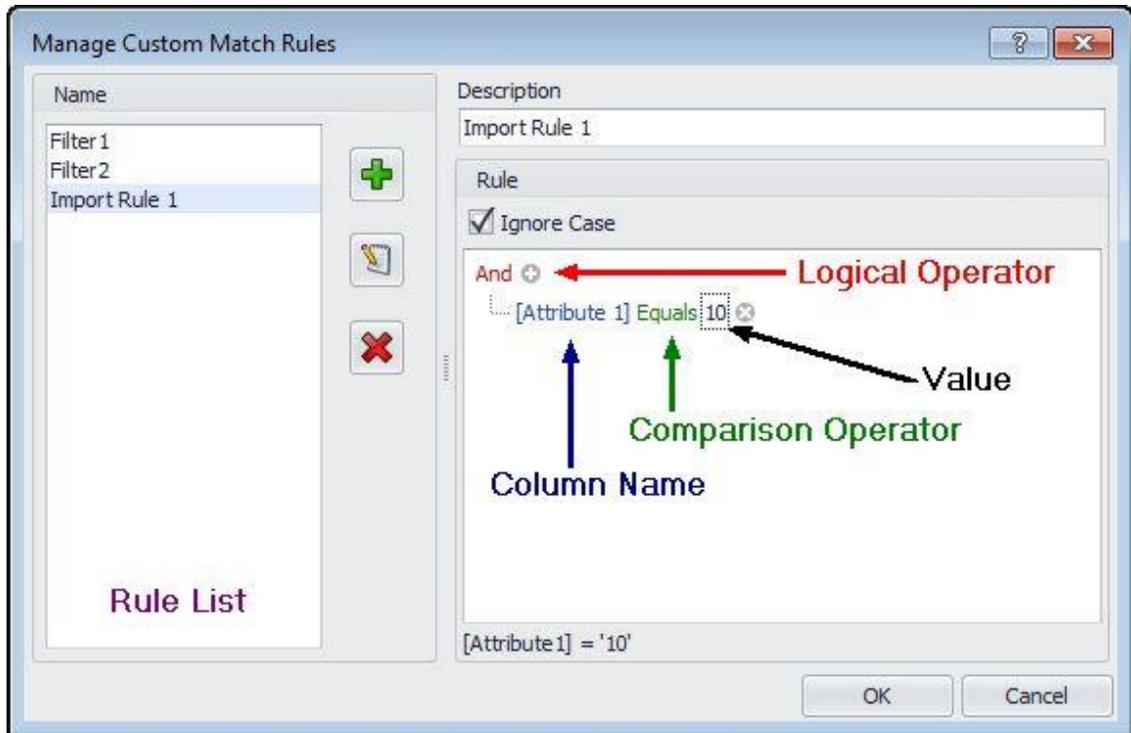
Note: The graphic above illustrates labels for the parts of this window covered in the instructions below. When you open the window, it will not display as in the graphic.

▶ Add Custom Rule

1. In the Manage Custom Match Rules window, click 🞣 .

2. From the Add Custom Match Rule dialog, enter a **Name** for the custom match rule, Click **OK**.
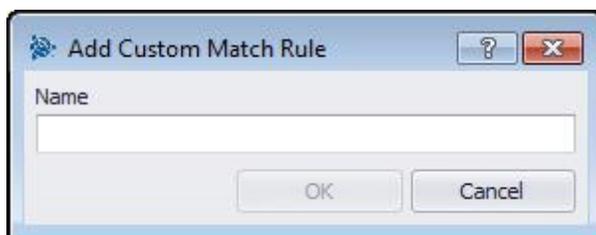
The name of the rule displays in the left pane of the Manage Custom Match Rules window.

3. Highlight the new rule. If you want to add more information about the rule, click in the **Description** field and enter the necessary data.

4. If applicable, select ✔ or clear ☐ the **Ignore Case** checkbox .

5. In the Rule pane, begin adding the conditions and parameters for this rule by clicking on the default logical operator And , then click **Add Condition** from the pop-up menu.

   💡**Tip -** The logical operator defaults to And . If you want to use another logical operator, click on And to select another from the poo-up menu.

6. Click on the column name (displayed in blue and enclosed in brackets) [Attribute 1] and select the column name to match on for this condition. *Note:* This defaults to an alphabetical list of columns selected for display).

   For example, you can select *Staked* to choose points that have been flagged as already being shot or staked in the field.

7. The comparison operator list is dynamic based on the type of your selection in column name. For example, if you choose [Attribute 1] as your column name item, the comparison operator list has different options than when you choose [Staked].

<div align="center">

Attribute 1   **Staked**

</div>
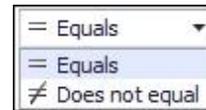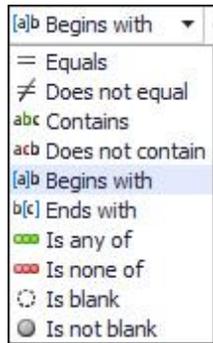
8. Click the comparison operator and select the desired operator from the list. Click **OK** when done.

9. To add another group condition to this custom match rule, refer to the *Add/Modify Group/ Condition to Custom Match Rule* topic below.

▶ Edit Custom Match Rule Name

1. In the Manage Custom Match Rule window, highlight the rule in the **Name** list to edit and click 📝. The Edit Custom Rule Name dialog opens.

2. Modify the **Name** and then click **OK**.

💡**Tip** - If you need to change the conditions,r to the *Add/Modify Group/Condition to Custom Match Rule* topic below.

▶ Add/Modify Group/Condition to Custom Match Rule

1. In the Manage Custom Match Rule window, highlight the **Name** of the rule you wish to add a group or condition *to*.

2. In the **Rule** pane, click the logical operator you want to add a condition *to* and then, depending on what you want to do, select one of the following from the pop-up menu.

   Add Condition
   The condition is added under the logical operator selected. The new condition is joined to the existing custom match rule.

   Add Group
   The condition is added under the logical operator selected. The new condition is joined to the existing custom match rule.

3. Review the complete condition displayed at the bottom of the **Manage Custom Match Rules** window to ensure it is exactly how you want it.

   ⚠ **Caution** - The conditions will be read by the Trimble Field Points software *exactly* as written. If your import is not working as expected, you should review the conditions created in this window carefully.

4. Click **OK** to save the custom match rule.

▶ Delete Custom Match Rule

1. In the Manage Custom Match Rule window, highlight the **Name** of the rule you want to remove.
   Click ,

2. Click **OK** in the confirmation window.

Edit Points File
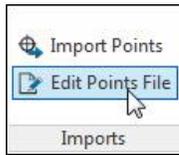
 This command allows you to edit points within an import file

Quick Steps: Imports / Edit Import Points File

1. In the **Select File To Edit** field, click ⋯ and navigate to the location of the import file. Double-click the file. The field is populated with the path and name, Data included in the import file displays in the lower pane of the window.
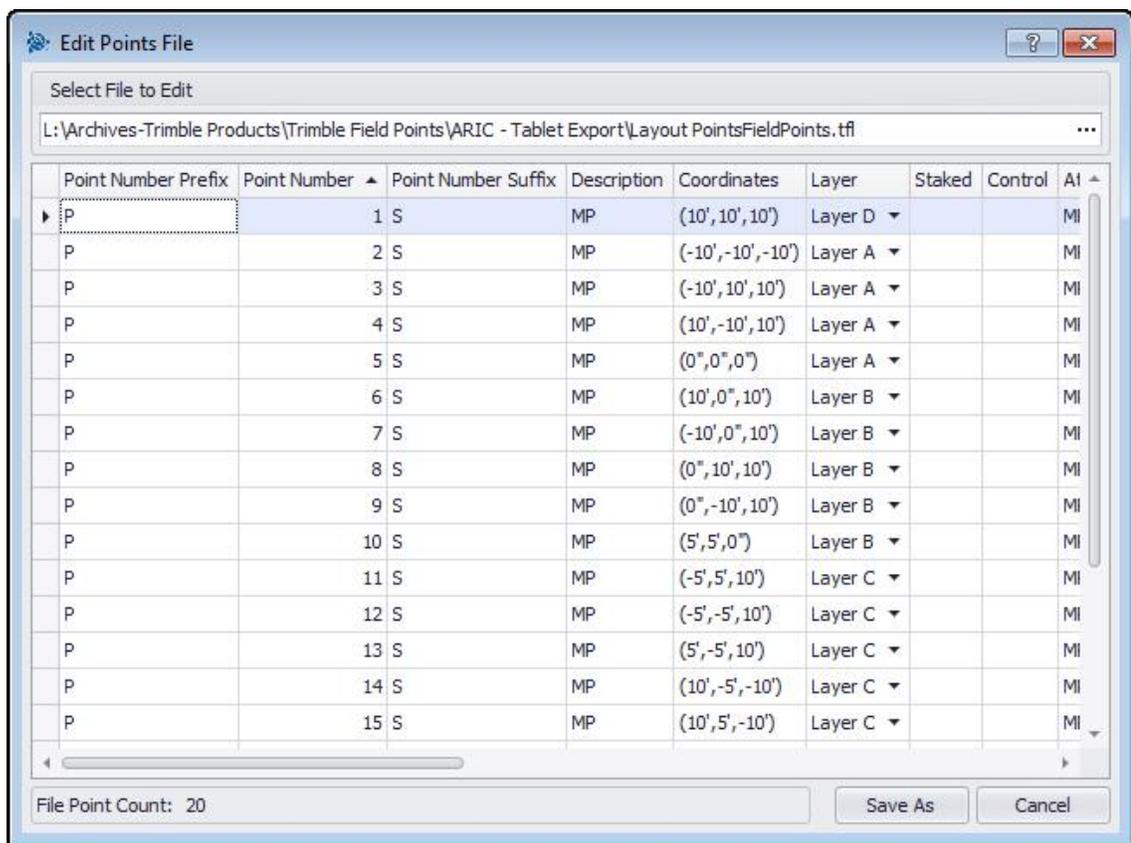
2. Change any of the information for the import points as desired. *Note:* The *Coordinates* and *Staked* fields are not editable.

3. When you are finished modifying the new point properties, click **Save As** to save the import file. You might consider saving the file to another name to preserve the original file (for example, add a number to the end of the file name).

4. In the Save As dialog, enter a file name and then click **Save**. *Note:* Do not change the file extension. Click OK in the Edit Import File dialog.

Exports

The Exports group provides commands to export field points for use in other products.

Quick Steps: Trimble® Field Points / Exports
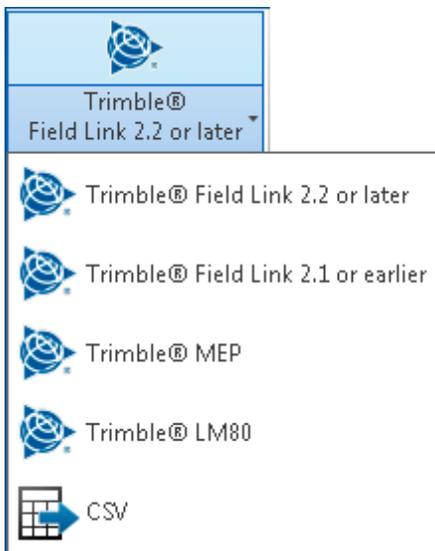
💡**Tip** - The Trimble Field Link 2.2 or later is the default in the group when you first open AutoCAD. If you previously exported to a Trimble application in this session of AutoCAD, the last export format selected displays on the panel.

On the **Trimble® Field Points** tab, go to **Exports**. Refer to the topics on the following pages for more information on each utility.

Trimble® Field Link⌑125
This export is produced for exclusive use with the Trimble® Field Link versions 2.2 or later.

Trimble® Field Link 2.1 or earlier⌑128
This export is produced for exclusive use with the Trimble® Field Link versions 2.1 or earlier.

Trimble® MEP⌑131
This export is produced for exclusive use with the Trimble® MEP layout solution.

Trimble® LM80⌑134
This export is produced for exclusive use with the Trimble® LM80 solution.

CSV [137]

This export produces a comma-delimited file that can be manipulated for import into other programs or opened in Microsoft® Excel®.

Trimble® Field Link for 2.2 or later

⚠️**Caution** - Verify your version of Trimble Field Link before proceeding! This export is for use with **Trimble Field Link versions 2.2 or later**. If you are using version 2.1 of Trimble Field Link or *earlier*, you must use the export functionality for [Trimble Field Link 2.1 or earlier](#)⬜[128].
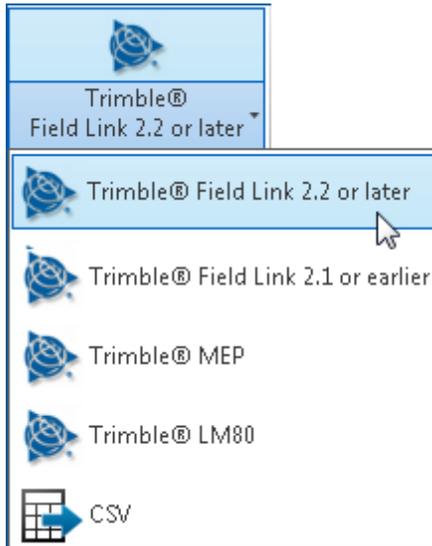
The Trimble Field Link software allows you to easily manage layout tasks. It employs task-based work flow, featuring advanced Layout, Reporting, and Model Viewer functionalities. The application provides access to the latest tools for increasing productivity and accuracy during the construction layout process.

Quick Steps: Exports / Trimble® Field Link 2.2 or later
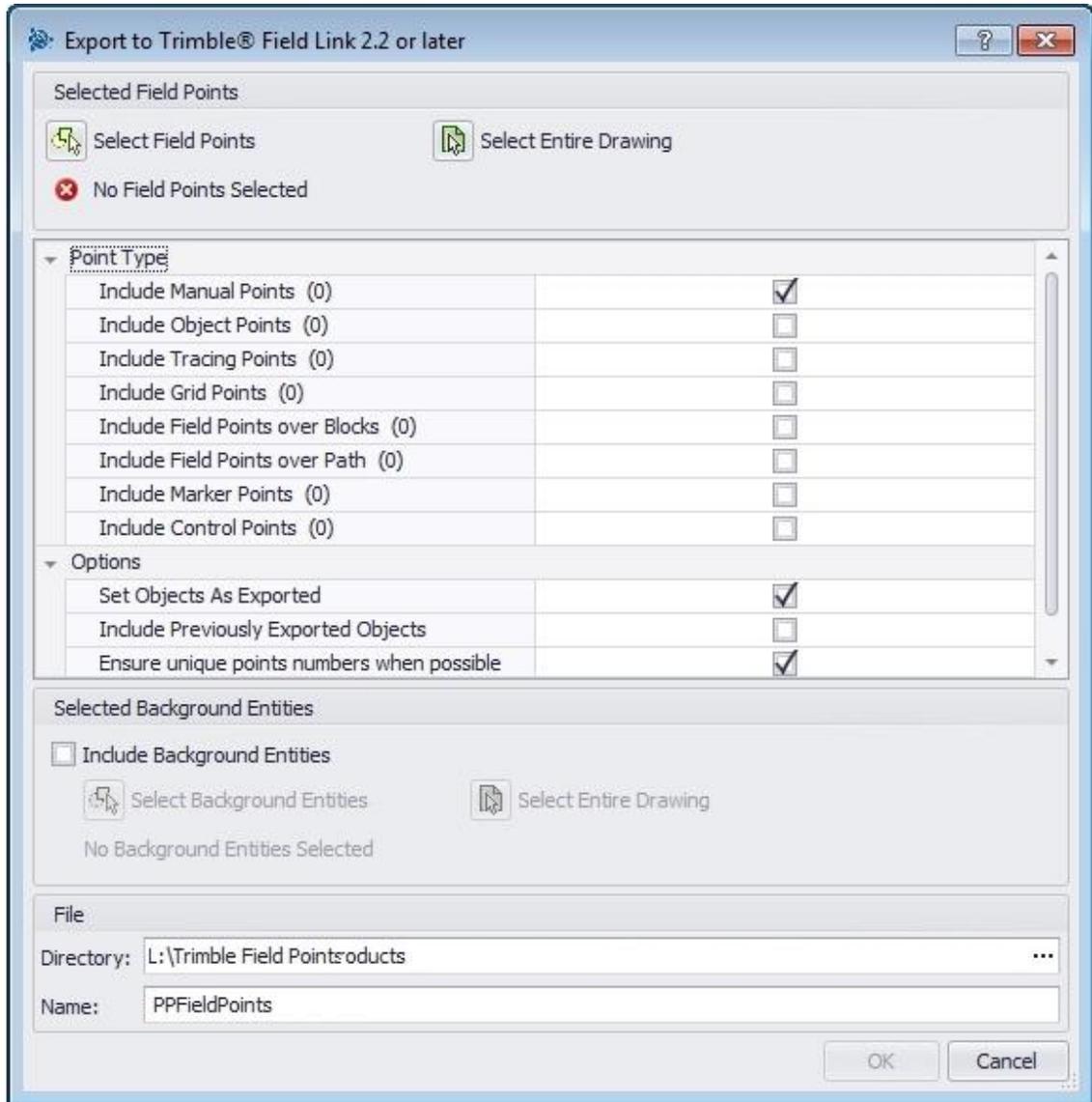
3. In the Selected Field Points pane, click one of the following:

Select Field Points
This option allows you to choose the specific entities you want to include in your export file. When you are done selecting the points you want to place, press ⌈Enter⌋ on your keyboard. The Export to Trimble® Field Link for 2.2 or later window reopens.

Select Entire Drawing
Points will be exported for the entire drawing will be included.

2. In the Point Type pane, select the checkboxes ✔ next to the point types you want to include in your export file.

3. In the Options pane, select all applicable checkboxes ✔:

Set Objects as Exported

When you select this checkbox, a flag is set on all objects included in the export.

Include Previously Exported Objects
If you want all objects in your drawing included in the export file, regardless of whether they were exported previously, select this checkbox.

Coordinates

Coordinates	
Use UCS to Export	☑
Select UCS	Location 1 ▼
	Location 1
	Location 2

- Select the **Use UCS to Export** checkbox ☑ if you want to export your points based on different user coordinate systems (UCS), if available.

- Choose the appropriate UCS from the list.

  💡**Tip** - If only one UCS is available, selections will not be available in the list.

Ensure unique points numbers when possible
When this checkbox is selected ☑, the Trimble Field Link export attempts to produce distinctive point numbering.

4. In the Selected Background Entities pane, click the **Background Entities** checkbox if you want these included and click one of the following:

   Include Background Entities
   If you want to include background entities, select this checkbox. When you select this checkbox, additional options become available.

   Select Background Entities
   This option allows you to choose specific entities for inclusion in your export file.

   Select Entire Drawing
   When this is selected, all background entities in the drawing will be included in your export file.

5. In the File pane, set the directory path and the file name as desired.

   Directory
   Defaults to the folder where the current drawing was last saved with a sub-folder.

   Name
   The file name defaults to your [Drawing name]FieldPoints.

6. Click **OK** when you are done.

7. When the export is complete, review the export dialog and then click **OK**.

Trimble® Field Link 2.1 or earlier

⚠️**Caution** - Verify your version of Trimble Field Link before proceeding! This export is for use with **Trimble Field Link versions 2.1 or earlier**. If you are using a 2.2 version of Trimble Field Link or *newer*, you must use the export functionality for [Trimble Field Link 2.2 or later](#)⬚ [125] .
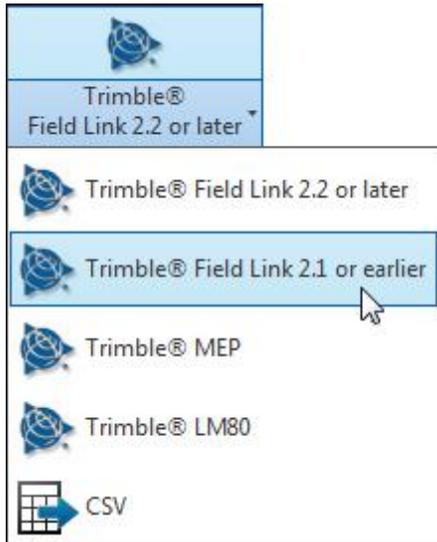
Trimble Field Link software allows you to easily manage layout tasks. It employs task-based work flow, featuring advanced Layout, Reporting, and Model Viewer functionalities. The application provides access to the latest tools for increasing productivity and accuracy during the construction layout process.

Quick Steps: Exports / Trimble® Field Link 2.1 or earlier
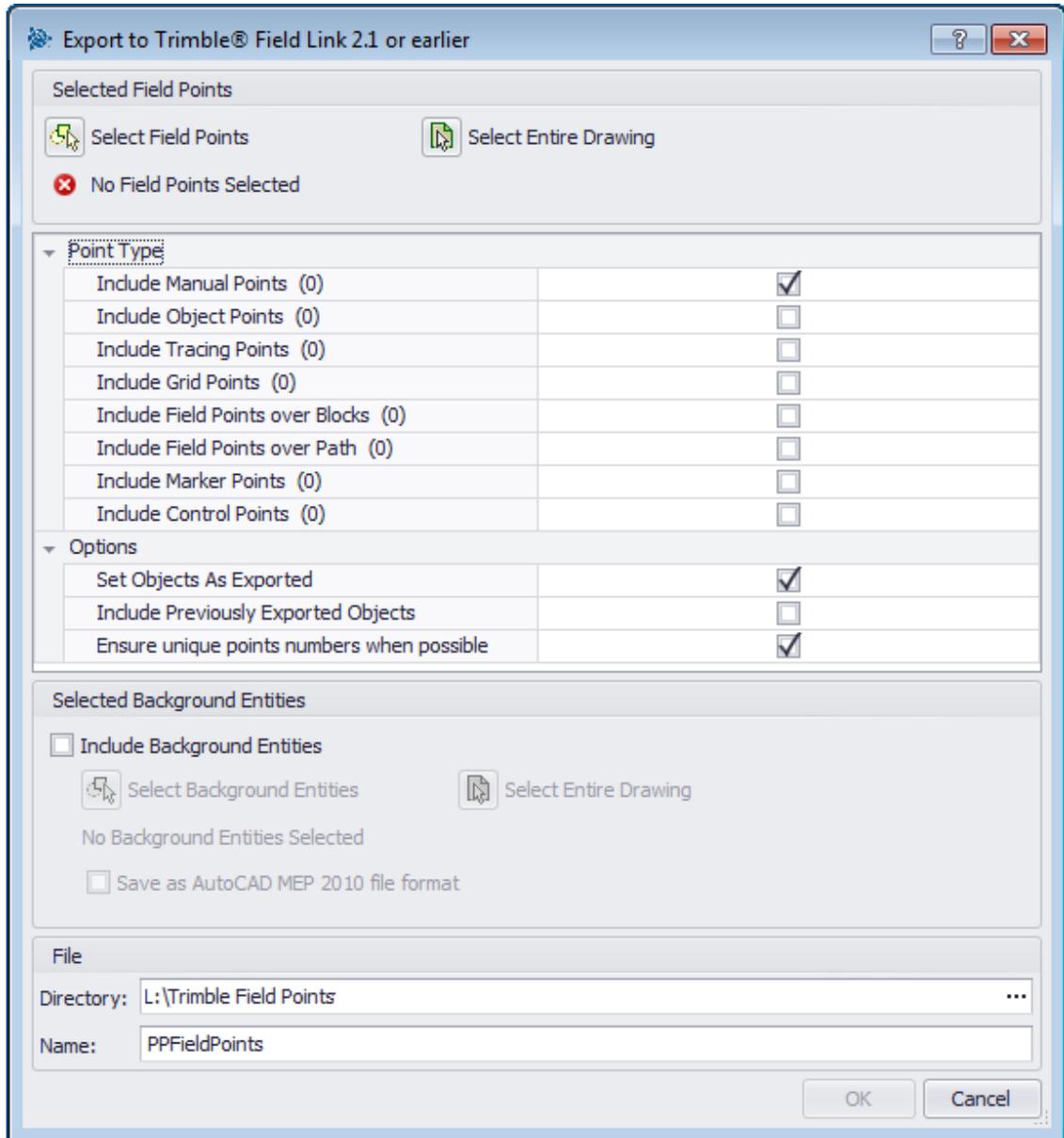
1. In the Selected Field Points pane, click one of the following:

   Select Field Points
   This option allows you to choose the specific field points or entities you want to include in your export file. When you are done selecting the points you want to export, click **OK**. The Export to Trimble® Field Link 2.1 or earlier window reopens.

   Select Entire Drawing
   Points will be exported for the entire drawing will be included.

2. In the Point Type pane, select the checkboxes ✔ next to the point types you want to include in your export file.

3. In the Options pane, select all applicable checkboxes ✔:

Set Objects as Exported
When you select this checkbox, a flag is set on all objects included in the export.

Include Previously Exported Objects
If you want all objects in your drawing included in the export file, regardless of whether they were exported previously, select this checkbox.

Coordinates

- Select the **Use UCS to Export** checkbox ☑ if you want to export your points based on different user coordinate systems (UCS), if available.

- Choose the appropriate UCS from the list.

  💡**Tip** - If only one UCS is available, selections will not be available in the list.

Ensure unique points numbers when possible
When this checkbox is selected ☑, the export for the Trimble Field Link software attempts to produce distinctive point numbering.

4. In the Selected Background Entities pane, click the **Background Entities** checkbox ☑ if you want these included and click one of the following:

   Include Background Entities
   If you want to include background entities, select this checkbox. When you select this checkbox, additional options become available.

   Select Background Entities
   This option allows you to choose specific entities for inclusion in your export file.

   Select Entire Drawing
   When this is selected, all background entities in the drawing will be included in your export file.

5. In the File pane, set the directory path and the file name as desired.

   Directory
   Defaults to the folder where the current drawing was last saved with a sub-folder.

   Name
   The file name defaults to your [Drawing name]FieldPoints.

6. Click **OK** when you are done.

7. When the export is complete, review the export dialog and then click **OK**.

Trimble® MEP

This export opens directly into the Trimble MEP job list. **_Note:_** If desired, you have the option of including a DXF drawing file with the Trimble MEP Export. (This is the only export that includes this file format.)

Quick Steps: Exports / Trimble® MEP
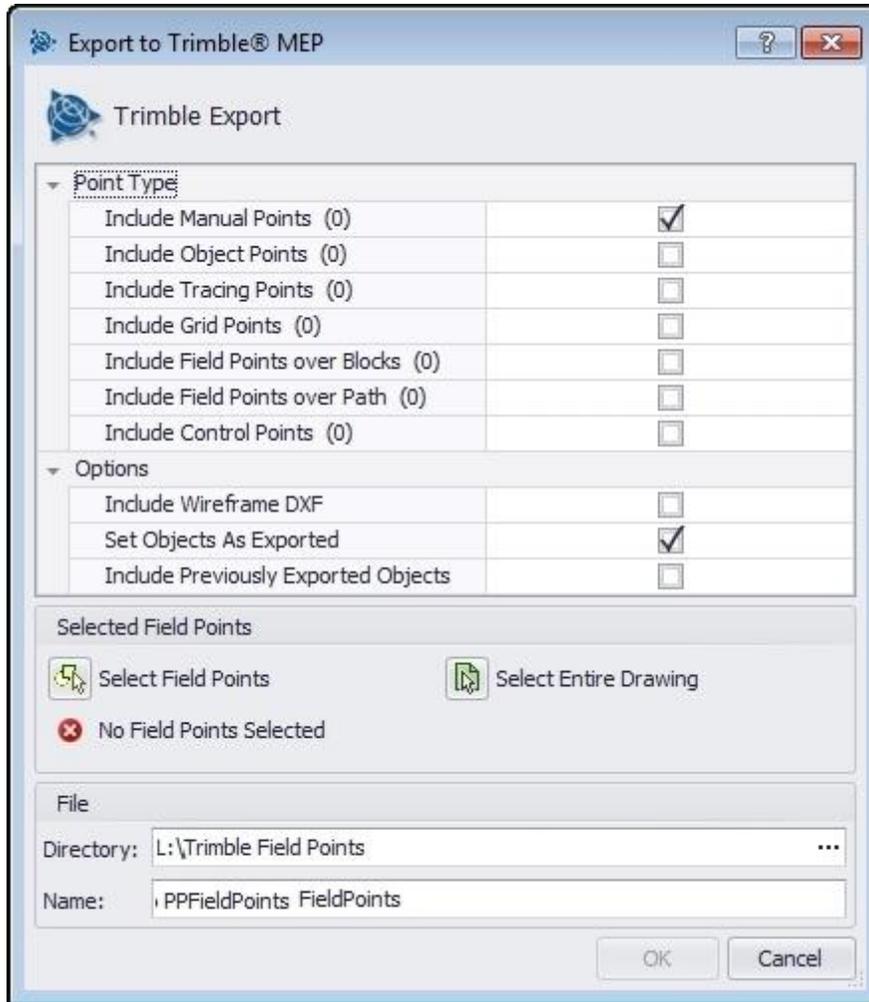
1. In the Selected Entities pane, click one of the following:

   Select Field Points
   This option allows you to choose the specific field points you want to include in your export file. When you are done selecting the points you want to export, press ⎡Enter⎤ on your keyboard. The Export to Trimble® MEP window reopens.

   Select Entire Drawing
   Points will be exported for the entire drawing will be included.

2. In the Point Type pane, select the checkboxes ✓ next to the point types you want to include in your export file.

3. In the **Options** pane, select all applicable checkboxes ✓:

   Include Wireframe DXF
   By default, this creates a DXF file of the selected entities only.

   Set Objects as Exported
   When you select this checkbox, a flag is set on all objects included in the export.

Include Previously Exported Objects
If you want all objects in your drawing included in the export file, regardless of whether they were exported previously, select this checkbox.

Coordinates

- Select the **Use UCS to Export** checkbox ☑ if you want to export your points based on different user coordinate systems (UCS), if available.

- Choose the appropriate UCS from the list.

  💡**Tip** - If only one UCS is available, selections will not be available in the list.

4. In the File pane, set the directory path and the file name as desired.

   Directory
   Defaults to the folder where the current drawing was last saved with a sub-folder.

   Name
   The file name defaults to your [Drawing name]FieldPoints.

5. Click **OK** to create the export file.

6. When the export is complete, review the export dialog and then click **OK**.

Trimble® LM80
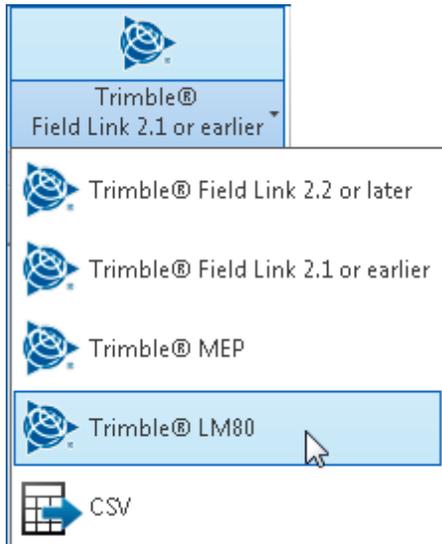
This export is produced for exclusive use with the Trimble® LM80 solution.

Quick Steps: Exports / Trimble® LM80
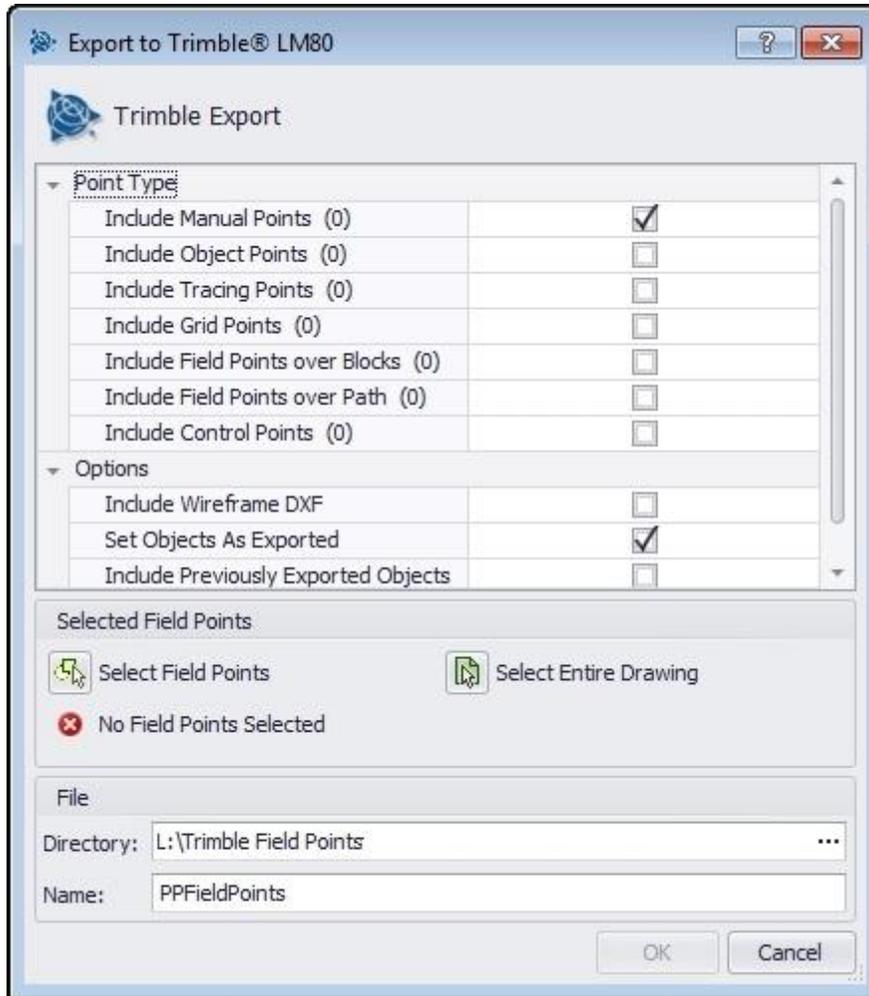
1. In the Selected Field Points pane, click one of the following:

   Select Entities
   This option allows you to choose the specific entities you want to include in your export file. When you are done selecting the points you want to place, press ⌈Enter⌋ on your keyboard. The Export to Trimble® LM80 window reopens.

   Select Entire Drawing
   Points will be exported for the entire drawing will be included.

2. In the Point Type pane, select the checkboxes ✔ next to the point types you want to include in your export file.

3. In the Options pane, select the appropriate checkboxes ✔ next to the following fields:

   Include Wireframe DXF
   By default, this creates a DXF file of the selected entities only.

   Set Objects as Exported
   When you select this checkbox, a flag is set on all objects included in the export.

Include Previously Exported Objects
If you want all objects in your drawing included in the export file, regardless of whether they were exported previously, select this checkbox.

Coordinates

- Select the **Use UCS to Export** checkbox ✓ if you want to export your points based on different user coordinate systems (UCS), if available.

- Choose the appropriate UCS from the list.

   💡**Tip** - If only one UCS is available, selections will not be available in the list.

4. In the File pane, set the directory path and the file name as desired.

   Directory
   Defaults to the folder where the current drawing was last saved with a sub-folder.

   Name
   The file name defaults to your [Drawing name]FieldPoints.

5. Click **OK** when you are done.

6. When the export is complete, review the export dialog and then click **OK**.

CSV
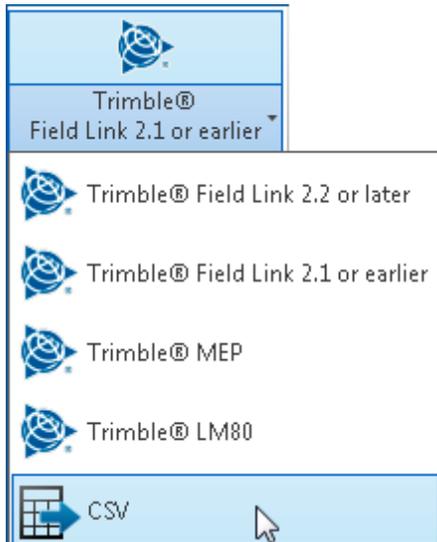
This export produces a comma-delimited file that can be manipulated for import into other programs or opened in Microsoft® Excel®.

Quick Steps: Exports / CSV
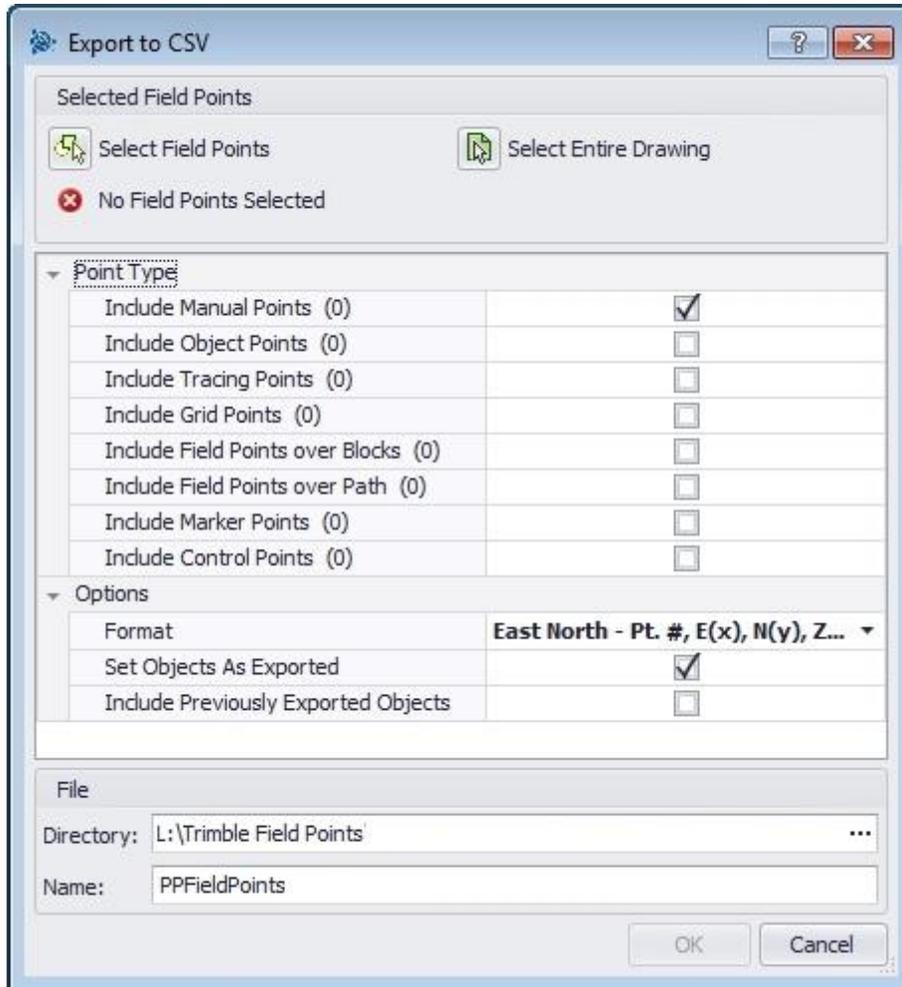
3. In the Select Field Points pane, click one of the following:

   Select Field Points
   This option allows you to choose the specific field points you want to include in your export file. When you are done selecting the points you want to place, press ⌨Enter on your keyboard. The Export to CSV window reopens.

   Select Entire Drawing
   Points will be exported for the entire drawing will be included.

2. In the Point Type pane, select the checkboxes ☑ next to the point types you want to include in your export file.

3. In the Options pane:

   a. Click ▼ next to the **Format** field and select the format you want to use in your comma-delimited CSV file.

   b. Select the appropriate checkboxes ☑ next to the following fields:

      Set Objects as Exported

When you select this checkbox, a flag is set on all objects included in the export.

Include Previously Exported Objects
If you want all objects in your drawing included in the export file, regardless of whether they were exported previously, select this checkbox.

Coordinates

- Select the **Use UCS to Export** checkbox ☑ if you want to export your points based on different user coordinate systems (UCS), if available.

- Choose the appropriate UCS from the list.

  💡 **Tip** - If only one UCS is available, selections will not be available in the list.

5. In the File pane, set the directory path and the file name as desired.

   Directory
   Defaults to the folder where the current drawing was last saved with a sub-folder.

   Name
   The file name defaults to your [Drawing name]FieldPoints.

6. Click **OK** when you are done.

7. When the export is complete, review the export dialog and then click **OK**.

Trimble Connect

Trimble Connect provides coordinated construction information for everyone across the design, build and operate life-cycle. This enables all stakeholders to share, review, coordinate and comment on data-rich building models - anywhere, anytime.
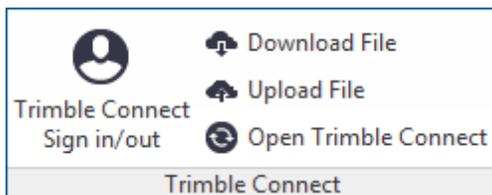
Quick Steps: Trimble® Field Points / Trimble Connect

▶ **Trimble Connect Benefits**

- Bring your team's BIM data together in one shared space.

    ✓ Eliminate tedious file conversions and expensive proprietary software.

    ✓ Combine models created in any modeling tool into one common coordination view with all the measuring, clash and markup tools you need.

    ✓ Upload[143] and share 3D and 2D documentation with the entire team, including PDF, Word, Excel, pictures, and videos.

- Put the project's entire social and transactional history at your fingertips.

    ✓ Building together means sharing tasks and responsibilities.

    ✓ Trimble Connect allows you to assign tasks to collaborators and to manage tasks assigned to you in a convenient to-do list.

- Powerful cloud based technology gets you up and running quickly, with no IT staff or servers.

    ✓ Simple administrative controls anyone can use, with role-based access and security features tailored to AEC teams.

    ✓ Construction sites don't always have the best internet connectivity and sometimes you need to access your data when you aren't online at all.

    ✓ Trimble Connect's Sync Tool helps you keep a local copy of all your critical project data right on your computer.

▶ Trimble Connect Panel/Procedures

The Trimble Connect panel includes the following functionality:

Trimble Connect Sign in/out

When you click this command, the Trimble Connect login dialog displays. This allows you to quickly sign into or sign out of your Trimble Connect portal.

1. Go to **Trimble® Field Points / Trimble Connect / Trimble Connect Sign in/out**.

2. In the Sign in dialog, enter your Trimble Connect credentials.

3. Click **Sign in**.

Download File

This command allows you to download files that are on the Trimble Connect site. **Note:** *You must log into Trimble Connect to access files for download.*

1. Go to **Trimble® Field Points / Trimble Connect / Download file**.

2. In the Download Files screen, expand the Trimble Connect folder(s) where the file you wish to download is located.

3. The files available display in the right pane of the window.

4. Click on the file you want and then click **Download**.

Upload File

You can upload files from your computer or network to the Trimble Connect site. **Note:** *You must log into Trimble Connect to process an upload.*

1. Go to **Trimble® Field Points / Trimble Connect / Upload file**.

2. In the Open files to Upload dialog, navigate to the location of the file(s) you want to send to Trimble Connect. Click **Open**.

    💡**Tip** - The file cannot be open in any other program when uploading.

3. In the Trimble Connect Upload File Destination dialog, expand the Trimble Connect folder where you want to place the file. Click **Upload**.

Open Trimble Connect

This command opens the Trimble Connect site in another window.

   Go to **Trimble® Field Points / Trimble Connect / Open Trimble Connect.** The Trimble Connect site opens.

Trimble Connect Compatible Formats

[Trimble Connect](#)[141] has a 3D model viewing environment that is widely compatible with many file formats. It can display, combine and coordinate models created using the following formats:

SKP	IFC	3DM	DWG
DXF	DGN	OBJ	FBX
3DS	STP	STEP	IGES
IGS	STL	SLDPRT	SLDASM
KMZ	DAE	X3D	OFF

Help

The Trimble Field Points help system contains instructions on how to work with the software application. Each topic provides a brief description of what is available in the various windows, as well as instructions for each task.

💡**Tip -** This help file pertains only to Trimble Field Points commands. When you use native AutoCAD commands, refer to the help installed with your program.

Quick Steps: Trimble® Field Points / Help

Trimble Field Points offers two methods of obtaining help. Click on the appropriate link below for more detailed instructions on using each method.

Online Help⬜ 146

Online Help

Trimble Field Points includes an online help file that walks you through many of the procedures to use the application.

This help method provides numerous options:

- In Trimble Field Points-specific windows, you can press ⌨F1⌨ your keyboard and view help for window you currently have open. The help message provides you with step-by-step instructions on completing procedures within the window.

- You can scroll through the *Table of Contents* to locate the topic containing the procedure you need. The graphic below illustrates the Trimble Field Points table of contents.
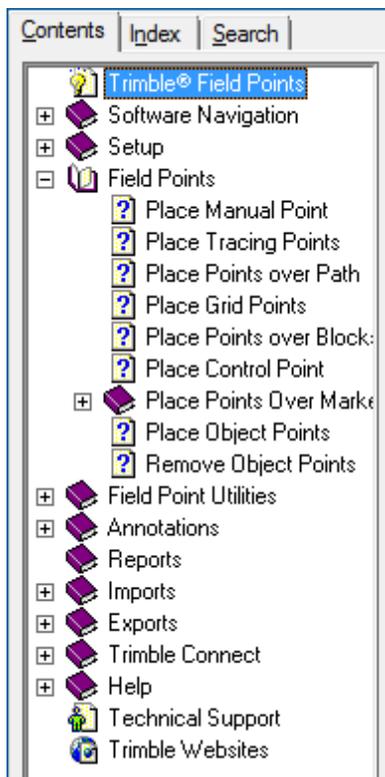
- You can use the Index or search tabs and use keywords to locate the information you need.
- You may see hyperlinks in many of the topics. When you click on a hyperlink, the associated topic displays. It contains additional instructions for completing tasks within the active window.

-

Technical Support

If you are experiencing difficulties using the Trimble Field Points software, do not hesitate to contact our technical support personnel. Before contacting us, you may wish to consult the online system help first, as it covers solutions to many common issues and procedures.

Tip - The Trimble Field Points software supports additional language packs based on the language of your AutoCAD system. Please keep in mind that support is available in English *only*.

You can contact Trimble Field Points support by phone, fax, e-mail, or through our website.

Phone Support	Telephone support is available Monday through Friday, except major holidays. Toll Free: (800)234-3758.
Fax Support	If you would like to fax questions or suggestions: 24 hour fax number (303)799-6547.
Internet E-mail	TFPSupport@trimble.com

To benefit most from your contact with technical support, please comply with the following guidelines before making contact:

- Please be at your computer when you call, as our representative may have to guide you through the instructions step-by-step.
- You may also be asked to provide the following information:
  - The product name and version For example, Trimble Field Points, your Autodesk compatible software platform, and the versions).
  - The operating system you are using (For example, Windows® 10, Windows® 7 or Windows 8).
  - A detailed outline of the problem, whether you can repeat the problem, and what you were doing when the problem occurred.

If you call Trimble Field Points support after regular hours:

- Please leave a detailed message on our voice mail system. We will review your call the next business day.
- You can also fax or e-mail our support representatives. We will review your submission and contact you the next business day.

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