

PROFIS Revit

English

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1 Description

1.1 PROFIS Field Points

This PROFIS Field Points software application provides a CAD solution to designers needing to pinpoint various 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 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 PROFIS Field Points.

1.2 J UIIWa	ie Navigation					
	■· × ∧ A @· > 記 念 吕· =	Autodesk Revit 2017 - Not For Resale Version - Proj	ect1 - Floor Plan: Level 1	Type a keyword or phrase	曲 Si 会 💄 andra.andrei 🔹 🕱 ⑦ ·	X-
	stems Inset Annotate Analyze Massing & Ste Collaborate			Alter a subscription		
	Place Points over Family Place Control Point Point Place Control Point Place Points over Markers Place Points Field Point Field Point Field Point Field Point Field Point Field Point Field Point	 Auternatically Place Annotations Auternationally Place Annotations Annotations → Reports Annotations → Reports Imports 			_	
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The **Hilti**[®] Field Points software uses ribbon technology for easy access to the available functions. The general layout of the windows corresponds to the Revit[®] application.

1.2.1 PROFIS Field Points Ribbon

Place Manual Point	Place Tracing Points Place Points over Path Place Grid Points	 ♀ Place Points over Family ↔ Place Control Point ★ Place Points over Markers 		-	 Automatically Place Annotations Manually Place Annotations 	_	 Import Points Edit Points File 	_		HelpAbout
	Field Point	s	F	ield Point Utilities	Annotations -	Reports	Imports	Exports	Setup -	Help

The PROFIS 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 Revit[®] software screen.

Note

All the instructions in this user guide refer to the commands on the PROFIS Field Points tab. When you launch Revit, your Revit settings define whether or not the PROFIS Field Points ribbon appears on the screen. If the ribbon is closed, you will need to re-open it to follow the instructions.

1.2.2 Ribbon Functions

1.2 Software Navigation

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

1.2.3 Dock/Undock Panes

```
    ← Place Tracing Points 	 Place Points over Family
    N Place Points over Path 	 Place Control Point
    Manual Point 
    # Place Points ver Markers
    Field Points
```

You can dock and undock panes. The graphic below shows an undocked tab.

- 1. When the control is open, below the ribbon click on the pane you want to move.
- 2. Drag the pane to the desired location and release the mouse button.

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



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

If display is set to Cycle through All, repeatedly click to cycle through the views until you find the layout you prefer.

1.2.5 Buttons/Toolbars

Your Autodesk application provides several methods of opening modules with the PROFIS Field Points software.



The Application button provides access to various tasks, such as printing, saving, exporting your drawing in other formats, and so on. When you click on the Application button, a menu opens. Click on the task of your choice.



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

- 1. Go to the Quick Access toolbar in the top left corner of the main window.
- Click .
 The list of option
 - The list of options opens.
- Icons with a checkmark are present on the Quick Access toolbar.
- Items 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, you can right-click anywhere in the toolbar area and then click Customize Quick Access Toolbar.
- 2. In the Customize User Interface dialog, click on the appropriate toolbar command.
- 3. Drag it to the Quick Access toolbar.

Customize (Quick Access Toolbar
New	
🗸 Open	
✓ Save	
✓ Synchro	onize with Central
🗸 Undo	
🗸 Redo	
✓ Measur	e
✓ Aligned	Dimension
✓ Tag by	Category
✓ Text	
✓ Default	3D View
✓ Section	
✓ Thin Lin	ies
🗸 Close H	idden Windows
✓ Switch	Windows
Custom	ize Quick Access Toolbar
Show B	elow the Ribbon

1.2.6 Preliminary Steps

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

- Create your Revit model.
- Use the PROFIS Field Points software to place field points.

1.2.6.1 Important Notes

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

Dimension Style (DIMSTYLE)

The current dimension style controls the appearance.

Units (UNITS)

The units for imperial or metric will populate the PROFIS Field Points dialogs.

Hilti recommends that you go to the Setup module before using the PROFIS Field Points software. This module allows you to create field point defaults that will be used throughout the system.

2 Operation

2.1 Setup

Setup		
6 ⁰		
Settings		
📑 License Manager	🍓 Group Settings	
Point Entity Settings	G Revision Cloud Entity Settings	

Note

The **Setup** pane allows you to set default parameters for field points and field point entities, as well as rebuild the CUI (Custom User interface).

Quick Steps: PROFIS Field Points -> Setup

- 1. On the PROFIS Field Points tab, go to Setup.
- 2. Click on the appropriate link below depending on what you want to do.

License Manager

Field Point Settings → page 7 Field Point Entity Settings → page 12

2.1.1 Field Point Settings



2 X Field Point Settings Annotation General **Restore Defaults** General Annotation First Part Description -Separator : Annotation Last Part Point Number -Tag Orientation Horizontal -Placement * - Leader Include Automatic Placement Automatically place annotation... Position **Upper Left Corner** -Text Offset 150.0 mm OK Cancel

The Field Point Settings module allows you to set defaults that will be used system-wide. You can change these settings for certain point types, but all changes you make outside the Field Point Settings window

do not apply to your default settings. Hilti recommends creating defaults, because this makes setting field points much easier.

Note

If you make changes and then decide that you 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. In the Setup pane, click Settings. The Field Point window opens.
- 2. Click on the tab you want to work with.

Annotation → page 8

General → page 10

2.1.1.1 Annotations

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

Quick Steps: Field Point Settings -> Annotation tab

Annotation defaults can be set for the content, the look, and placement of the annotations. These defaults remain in effect until the **Restore Defaults** button is used to revert to factory defaults. Annotations placed in the drawing beforehand are not affected by these changes to the settings.

2.1.1.1.1 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 none of these characters is specified, you can use a separator of your choice.

Annotation Last Part

Text Height

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

Text Style

Click and select the style from the list.

Annotation Layer

Click and select the annotation layer.

2.1.1.1.2 Placement

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

Leader/Include

If applicable, select the checkbox
 √ to include a leader line as part of the annotation.

Note

The appearance of the leader is determined by the current DIMSTYLE.

• If you select the include checkbox √, the **Arrow Head Offset** field displays. Enter a value (in inches/millimeters, depending on your settings) to define the distance between the arrow head and the field point.

Automatic Placement



This setting is applied when you are inserting points and the annotation is set to Automatic.

In the Automatic Placement pane, proceed as follows:

Position

Click \checkmark to select the placement of the annotation in relation to the field point.

Text Offset

Enter this property value (in inches/millimeters, depending on your settings) to define the distance between the text and the field point.

· Text Offset with Leader

Enter this property value (in inches/millimeters, depending on your settings) to define the distance between the text leader and the field point.

Manual Placement

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

2.1.1.1.3 Complete Annotation Settings

· Click OK when you have finished.

OR

• Click the General → page 10 tab.

2.1.1.2 General

Field Point	Settings		? ×
Annotation	General		
→ Default At	tribute Nam	es	
Attribu	te Name 1	Attribute 1	
Attribu	te Name 2	Attribute 2	
Attribu	te Name 3	Attribute 3	
Attribu	te Name 4	Attribute 4	
Attribu	te Name 5	Attribute 5	
		ОК	Cancel

Attributes provide your field crew with detailed information about a field point, for example whether it is a hanger, bolt, or sleeve. The attribute names appear for each field point insertion and also in the Property Settings window.

Quick Steps: Field Point Settings → page 7 → Tooltips tab

You can assign up to five attributes, each with up to 64 characters.

Rote

Keep in mind that attributes defined under **Settings** \rightarrow **General** are defaults. You can assign point-specific attributes when placing or editing points.

2.1.2 License Manager

2.1.2.1 Request Field Points License

IP	
Company name*	
Hilti customer number	
E-mail*	Activation kev should be sent to the following address:
Repeat E-mail*	
First name*	
Last name*	
Address*	
Zip code*	
City*	
Country*	Switzerland 👻
Telephone no.	
	ve the activation key within the next 10 days to the above E-mail omer service or sign up online at <u>www.hilti.com</u>
	Sign up Cancel

- 1. Click **Setup** in the menu bar.
- 2. Click License Manager.

The registration window appears.

3. Click Register.

The Request License window opens.

- 4. Make the appropriate entries in the fields.
- 5. Click Submit.

}¶€ Note

Within a few days, the activation code will be sent to the email address you provide.

2.1.2.2 Activate Field Points license

gister your software and stay	nformed
	securing an activation key is a straightforward process that brings you a pdates, technical support and timely notification about new software
ready have your activation key	?
Enter your activation key	
	xxxxx-xxxxx-xxxxx-xxxxx (Case Sensitive)
First name*	
Last Name*	
E-mail*	
Tel no.* (no dashes, spaces)	
	Submit Later (24 days left)
	No activation key? Sign up now!
	Sign u

Note

The fields marked * (asterisk) are mandatory fields.

To test PROFIS Revit for 30 days, click Later. The number in parentheses is a countdown number indicating the days remaining.

- 1. Click Setup in the menu bar.
- 2. Click License Manager.

The registration window appears.

- 3. Make the appropriate entries in the fields.
- 4. Click Submit.
- 5. Click Register.

2.1.3 Point Entity Settings



Field Point Entity F	ile Paths				
 Standard Location C: \ProgramDat Additional Location 	a\Autodesk\Revit\Addins\2017\H	lilti Field Poin	ts\Contents\Resou	rces\Field Point Drawings\Metric	\en-US
- Unassigned	3DBox 3DCone		ſ	\bigcirc	1
	3DCylinder CirdeX SquarePlus SquarePlusCirde SquareX]
	CirdeX SquarePlus SquarePlusCirde	······································	eld Point Entity]
	CirdeX SquarePlus SquarePlusCirde SquareX	······································	eld Point Entity Category Name	Unassigned 3DBox	J
	CirdeX SquarePlus SquarePlusCirde SquareX	Fi	Category	-	J
	CirdeX SquarePlus SquarePlusCirde SquareX	····	Category Name	3DBox	•

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 Points drawing entities can be stored in two locations:

A standard location which is predetermined partially based on your PROFIS Field Points installation

OR

An additional user-defined location.

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

All Point Insertion dialogs → Category → 🎲

To modify the properties of a field point entity, proceed as follows:

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



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

- 1. In the left pane of the window, click on the field point entity you want to work with.
- 2. In the Field Point Entity pane, you can modify the following properties:

Category

Click \checkmark and select the desired category from the list. You can also click \cdots to create a new category. Refer to the Category List \rightarrow page 14 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** list when you place your field 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 \checkmark 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 appear in the Entity Name selection list.

3. You can modify the properties of all the entities at this location. When you have finished, click **OK** to save your changes.

2.1.3.1 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: Field Point Entity Settings** \rightarrow **Category** \rightarrow ...

Category List	S X
Categories	
Unassigned	
	Close

2.1.3.1.1 Add Categories

1. Click $\clubsuit \rightarrow$ enter Category Name \rightarrow click OK .

Note

You cannot modify the Unassigned category. This is a system default.

- 1. Click the category you want to modify.
- 2. Click S → enter Category Name → click OK.

2.1.3.1.2 Delete Categories

1. Click the category you want to delete \rightarrow click 🗱 .

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

2.1.4 Group Settings



The PROFIS Field Points for Revit software allows you to create user-defined groups for use for points in your model. This function allows you to simulate planes in your Revit model (as with AutoCAD®). This helps you to better define imported field points.

[∋]e Note



Quick Steps: Setup ▼ → Group Settings

Add Group

- 1. In the Group Settings dialog, click 💠.
- 2. In the Add Group Name dialog, enter the Name of the group.

3. Click OK.

The Group view appears in the **Groups** listing. It will be available for selection when you use Import Points → page 46 to import points into the PROFIS Field Points software.

Rename Group

- 1. In the Group Settings dialog, click S.
- 2. In the Edit Group Name dialog, enter the new Name of the group.
- 3. Click OK.

The new group name now displays in the **Groups** listing. It will be available for selection when you use Import Points \rightarrow page 46 to import points into the PROFIS Field Points software.

2.1.4.1 Delete Group

- 1. In the Group Settings dialog, click on the group you want to delete.
- 2. Click X.



You cannot delete a group that is in use in the PROFIS Field Points application.

2.1.4.2 Refresh Group

From time to time, you may need to refresh (update) the list of groups.

Click c to update the list.

2.1.5 Revision Cloud Settings



Revision Cloud Entity Settings		? <mark>- ×</mark>
Revision Cloud Entity File Paths		
Standard Location:		
C:\ProgramData\Autodesk\Revit\Addins\	2017\Hilti Field Points\Contents\Resou	rces\Revision Cloud Drawings\Metric
O Additional Location:		
Circle Cloud Elliptical Cloud-Arage Elliptical Cloud-Medum Elliptical Cloud-Small Rectangular Cloud Square Cloud		\bigcirc
	Cloud Entity	
	Name	Circle Cloud
	Family Name	Circle Cloud.rfa
	Status	Found
	Visibility	Visible
		OK Cancel

Revision Cloud Entity Settings allow you to define drawings/shapes you want to use to note point revisions. This function works in conjunction with the Import Points \rightarrow page 46 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 entities can be stored in two locations:

A standard location which is predetermined partially based on your PROFIS Field Points installation

OR

An additional user-defined location.

Quick Steps: Setup → ▼ → Revision Cloud Entity Settings

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

Ref Note

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

- 1. In the left pane of the window, click on the revision cloud entity you want to work with.
- 2. In the Revision 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 form from the Entity Name list when you place your field points.

Visibility

Click \checkmark 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 appear in the Entity Name selection list.

3. You can modify the properties of all the entities at this location. When you have finished, click **OK** to save your changes.

2.1.6 Marker Entity Settings

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

Quick Steps: Open Block File → Hilti Marker Points → Place Marker → 🎲

Open Block File → Hilti Marker Points → Place Marker → Marker Entity Settings

🔫 Note

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

- 1. To modify the properties of a marker, proceed as follows:
- Select your working location by clicking the Standard Location or Additional Location option button, as applicable.
- 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 a 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 list when you place your field 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 \checkmark and select the availability status of the entity from the following.

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

Visible allows the entity to appear in the Entity Name selection list.

5. You can modify the properties of all the markers at this location. When you have finished click OK to save your changes.

2.2 Field Points

\oplus	Place Tracing Points	Place Points over Family
Place	N Place Points over Path	Place Control Point
	🞬 Place Grid Points	* Place Points over Markers
	rtula nutua	-

Field Points

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

Quick Steps: PROFIS Field Points - Field Points

On the PROFIS 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 → page 18

This function allows you to place individual points manually. 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 assign up to 5 customized attributes.

Place Tracing Points → page 20

Tracing points allow placement of points in a single or double row along the distance to an object. Field Points can be placed at selected points. Alternatively, you can select the start and end points on a segment of a straight object. Intermediate points can then be placed at the spacing of your choice.

Ref Note

Tracing points will not follow a polyline.

Place Points over Path → page 23

This function allows you to place points along a path. This might be useful for tasks such as curve layout, slab layout, or underground runs. You can place points along arcs, lines, polylines, 3D polylines, or splines.

Place Grid Points → page 26

This command allows you to place object points based on the selected number pattern. The points are placed at grid intersections. Properties can be set for layer, annotation placement, entity types, starting point number, elevation, and field point location. You can also assign up to 5 customized attributes.

Place Field Point over Family → page 29

This command allows you to place field points exactly over families. Once the field point placement has been set for one family, the field point is placed on all identical families in the model. Properties can be set for annotation placement, entity counts, starting point number, elevation, and field point location. You can also define up to five customized annotations.

Place Control Point → page 31

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

Place Points Over Markers → page 34

This command allows you to place field points on a family containing a marker (or place holder) in a family.

Plac	ce N Pla	ce Tracing Points ce Points over Path ce Grid Points	Place Control	Point
		Field Points	5	
Place	Manual Point			? <mark>X</mark>
- Field	Point Entity			
C	ategory	All		- 🖗
	Entity Name	3DBox		-
► E	ntity Details			
- Gene	eral			
D	escription	ddd		
G	roup	<none></none>		- 🎯
P	ace Annotations	None		•
- Star	ting Point Number			
P	refix			
N	umber	1		
_	uffix			
✓ Eleva	ation	,		
	acement Settings	At Work Plane or Ob		-
- Attri	NAME OF COMPANY	At Work Plane or Object	: Snap Elevation < Plane or Object Snap Ele	
	ttribute 1	At Fixed Elevation	Plane or Object Shap Ele	ation
	ttribute 2	In The Lord of		
	ttribute 3			
	ttribute 4			
A	ttribute 5			

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 assign up to 5 customized attributes.

Quick Steps: Field Points -> Place Manual Field Point

- Go to the Field Points group and then click Place Manual Point.
- Proceed as follows to place points on objects:

2.2.1.1 Field Point Entity

Category

Click \checkmark and select the appropriate category from the list. If you want to change settings, click next to the **Category** field. The Field Point Settings \rightarrow page 7 window re-opens. This window allows you to change settings/properties of a point before you set the point.

Entity Name

Click and from the list, select the appropriate entity name representing the point or set of field points.

Entity Details

Click **b** to expand the **Entity Details** pane to view the **Entity Drawing Name**, **File Location**, and **Loaded in Drawing** information pertaining to the field point.



Note

These fields are not editable.

2.2.1.2 General

Description

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

Group

This function allows you to assign/create user-defined groups for use when importing points into your model. This function allows you to simulate planes in your Revit model (as with AutoCAD®) to better define imported field points. You can click to select an existing group from the list or click to create a new group \rightarrow page 14.

Place Annotation

To apply annotations to the point or set of points, click \checkmark and select the method by which you want to place annotations.



Annotations contain tagging information for a point and are initially set up in Setup → Settings → page 8.

2.2.1.3 Starting Point Number

Prefix

The prefix is a user-defined identifier automatically inserted in front of the Number field (see the next topic). You can enter up to 6 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 points, click s 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 behind the Number field (see the preceding topic). You can enter up to 6 characters as a suffix.

Note

The total number of characters in the prefix-number-suffix combination is 16. **Hitti** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded.

2.2.1.4 Elevation

Placement Settings

This property defines the elevation placement for the point or set of points. Click \checkmark and select a setting from the list.

- At Object Snap Elevation
- At distance From Object Elevation

Enter the distance from the object snap elevation (in inches/millimeters, depending on your settings). You must enter a distance if you select this option.

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 if you select this option.

2.2.1.5 Attributes

You can enter up to 5 attributes to further define the field point or field points. Each attribute can contain 62 characters of information.

📢 Note

The attribute labels are defined under Setup \rightarrow Settings \rightarrow page 8.

2.2.1.6 Place Points

- 1. When you are done setting points properties, click **Place**. The points dialog closes and your drawing displays on-screen.
- 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.
- When you have placed all your points, press Enter on your keyboard. The points are now set at the locations you selected.

Ref Note

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

In the command bar, you can click on the Settings text.

OR

Click in the command bar and then type S and press Enter.

OR

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

The Points dialog re-opens. Refer to the instructions above if you want to change settings.

2.2.2 Place Tracing Points



Tracing points allow placement of points in a single or double row along the distance to an object. Field Points can be placed at selected points. Alternatively, you can select the start and end points on a segment of a straight object. Intermediate points can then be placed at the spacing of your choice.

e Note

Tracing points will follow a polyline.

Quick Steps: Field Points -> Place Tracing Points

- Go to the Field Points group → click Place Tracing Points.
- · Proceed as follows to place tracing points in your drawing:

 Field Point Entity 			
Category	All 🔹 🎡		
Entity Name	3DBox •		
 Entity Details 			
+ General			
Tracing Field Point	Single Point 🔹		
Description	8		
Group	<none> • 🎲</none>		
Place Annotations	None 👻		
Starting Point Number			
Prefix			
Number	1 🛞		
Suffix			
- Elevation			
Placement Settings	At Picked Point Elevation		
 Tracing Point Placement 			
	Placing Points At Picked Position		
Point Placement	Place At Every Pick Point 🔹		
+ Attributes			
Attribute 1			
Attribute 2			
Attribute 3			

2.2.2.1 Field Point Entity

Category

Click \checkmark and select the appropriate category from the list. If you want to change settings, click next to the Category field. The Field Point Settings \rightarrow page 7 window opens. This window allows you to change settings/properties of a field point entity before you set the point.

Entity Name

Click **v** and from the list, select the appropriate **entity name** 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 the **Loaded in Drawing** information pertaining to the field point.

Note **>**¶€ These fields are not editable.

2.2.2.2 General

Set Tracing Field Point

Click **v** and select the method Tracing Field Point from the list:

Single Point

This option allows you to set a single point in your drawing.

Single Point with Offset

This setting allows you to set an offset when placing a single point. If you select this option you must also enter a value in the Point Offset From Center field.

Double Point

This function places two points at once using the Offset From Center value (see the description below). You might use this setting when you need to place two parallel rows of rods from a ceiling.

Description

Enter a description for this field. This indicates what the field point represents.

Group

This function allows you to assign/create user-defined groups for use when importing points into your model. This function allows you to simulate planes in your Revit model (as with AutoCAD[®]) to better define imported field points. You can click to select an existing group from the list or click to create a new group \rightarrow page 14.

Place Annotations

To apply annotations to the point or set of points, click \checkmark and select the method by which you want to place annotations.

≽ne Note

Annotations contain tagging information for a point and are initially set up in Setup \rightarrow Settings \rightarrow page 8.

2.2.2.3 Starting Point Number

Prefix

The prefix is a user-defined identifier automatically inserted in front of the Number field (see the next topic). You can enter up to 6 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 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 behind the Number field (see the preceding topic). You can enter up to 6 characters as a suffix.

Note

The total number of characters in the prefix-number-suffix combination is 16. **Hitt** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded.

2.2.2.4 Elevation

Placement Settings

This property defines the elevation placement for the point or set of points. Click \checkmark 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 if you select this option.

At Fixed Elevation

Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeter (depending on your settings). You must enter an absolute elevation if you select this option.

2.2.2.5 Tracing Point Placement

≩¶ ∈ Note

Tracing Point Placement defaults to **Placing Points** at **Picked Elevation**. You must select a point placement option.

Point Placement

Click \checkmark and select a placement option from the list.

- Place at Every Pick Point
 - Place Intermediate Points

When you select this option, you must also:

Enter the Spacing Between Points.

If there is a minimum distance between points, select the Use Minimum Distance Between Points checkbox $\overline{\mathcal{A}}$. You must also enter the Minimum Distance Between Points.

2.2.2.6 Attributes

You can enter up to 5 attributes to further define the field point or field points. Each attribute can contain 62 characters of information.

🔫 Note

The attribute labels are defined under Setup \rightarrow Settings \rightarrow page 8.

2.2.2.7 Place Points

- 1. When you have finished defining points properties, click Place. The Points dialog closes and your drawing appears on the screen.
- 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 have placed all your points, press Enter on your keyboard. The points are now set at the locations you selected.

}¶ < Note

After placement, you may need to zoom in on your model in order to view the point(s).

2.2.3 Place Points over Path



S	elected Entity	
	Select Entity No Entity Selected (Valid D	etail and Model Entities: Arc, Line, Spline)
*	Field Point Entity	
	Category	All 👻 🎕
	Entity Name	3DBox •
	 Entity Details 	
*	General	
	Description	8
	Group	<none> 👻 🍘</none>
	Place Annotations	None
*	Starting Point Number	
	Prefix	
	Number	1
	Suffix	
-	Elevation	
	Placement Settings	At Work Plane or Object Snap Elevation
-	Placement Options	
	✓ Along Entity Path	Not Placing Along Entity Path
	Option	
	✓ At Segment End Points	Placing At Segment End Points
	Option	
		Placing Points Without Offset
	Option	
*	Attributes	
	Attribute 1	
	Attribute 2	
	Attribute 3	
	Attribute 4	
	Attribute 5	

This function allows you to place points along a path. This might be useful for tasks such as curve layout, slab layout, or underground runs. You can place points along arcs, lines, polylines, 3D polylines, or splines.

- 1. Go to the Field Points group and click Place Points over Path.
- Click Select Entry and select the object in your drawing you want to place points over. You can select only one entity at a time for point placement.
- 3. Proceed as follows to place points on your drawing:

2.2.3.1 Field Point Entity

Category

Click \checkmark and select the appropriate category from the list. If you want to change settings, click next to the **Category** field. The Field Point Settings \rightarrow page 12 window opens.

This window allows you to change settings/properties of a field before you set the point.

Entity Name

Click \checkmark and from the list, select the appropriate **entity name** 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 the **Loaded in Drawing** information pertaining to the field point.



Note

These fields are not editable.

2.2.3.2 General

Description

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

Group

This function allows you to assign/create user-defined groups for use when importing points into your model. This function allows you to simulate planes in your Revit model (as with AutoCAD[®]) to better define imported field points. You can click to select an existing group from the list or click to create a new group \rightarrow page 14.

Place Annotations

To apply annotations to the point or set of points, click \checkmark and select the method by which you want to place annotations.



Annotations contain tagging information for a point and are initially set up in Setup → Settings → page 8.

2.2.3.3 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 6 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 points, click s 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 preceding field topic). You can enter up to 6 characters as a suffix.

Note

The total number of characters in the prefix-number-suffix combination is 16. **Hilti** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded.

2.2.3.4 Elevation

Placement Settings

This property defines the elevation placement for a point or set of points. Click \checkmark 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 if you select this option.

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 if you select this option.

2.2.3.5 Placement Options

Along Entity Path



This field is not editable.

The Start Point Offset field allows you to specify a distance from the start point for placing the path point.

- 1. If applicable, select the option checkbox 🗸.
- 2. Enter the values for Spacing Between Points and Start Point Offset.

3. The Minimum Distance Between Points field is not editable. However, you must make the following settings:

If applicable, select the Use Minimum Distance checkbox 🖌 Enter a value in the Minimum Distance Between Points field.

At Segment End Points

This field is not directly editable but its content changes to suit your selection in the Option field. If applicable, select the option checkbox \checkmark .



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.

- If applicable, select the option checkbox ✓.
- 2. Enter an Offset Distance.

2.2.3.6 Attributes

You can enter up to 5 attributes to further define the field point or field points. Each attribute can contain 62 characters of information.



The attribute labels are defined under Setup → Settings → page 8.

2.2.3.7 Place Points

- 1. When you have finished defining points properties, click **Place**. The Points dialog closes and your drawing appears on the screen.
- 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.
- When you have placed all your points, press Enter on your keyboard. The points are now set at the locations you selected.

≽**ę**∈ Note

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

In the command bar, you can click on the Settings text.

OR

Click in the command bar and then type S and press Enter.

OR

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

The Points dialog re-opens. Refer to the instructions above if you want to change settings.

2.2.4 Place Grid Points



Ŧ	Field Point Entity		
	Category	All	- 6
	Entity Name	3DBox	
	 Entity Details 		
*	General		
	Number Pattern		
	Description	8	
	Group	<none></none>	- 6
	Place Annotations	None	•
-	Existing Field Points		
	Overlapping Points	Leave Original	
~	Starting Point Number		
	Prefix		
	Number	1	1
	Suffix		
•	Attributes		
	Attribute 1		
	Attribute 2		
	Attribute 3		
	Attribute 4		
	Attribute 5		

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, starting point number, elevation, and field point location. You can also assign up to 5 customized attributes.

Quick Steps: Field Points -> Place Grid Points

- 1. Go to the Field Points group and click Place Grid Points.
- 2. Proceed as follows to place grid points in your drawing:

2.2.4.1 Field Point Entity

Category

Click \checkmark and select the appropriate category from the list. If you want to change settings, click next to the Category field. The Field Point Settings \rightarrow page 12 window opens. This window allows you to change settings/properties of a field point entity before you set the point.

Entity Name

Click
cl

Entity Details

Click b to expand the Entity Details pane to view the Entity Drawing Name, File Location, and the Loaded in Drawing information pertaining to the field point.

⇒**ę**∈ Note

These fields are not editable.

2.2.4.2 General

Number Pattern

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

Description

Enter a description for this field. This indicates what the field point represents. Group

This function allows you to assign/create user-defined groups for use when importing points into your model. This function allows you to simulate planes in your Revit model (as with AutoCAD[®]) to better define imported field points. You can click to select an existing group from the list or click to create a new group \rightarrow page 14.

Place Annotations

To apply annotations to the point or set of points, click \checkmark and select the method by which you want to place annotations.

∋**ę**∈ Note

Annotations contain tagging information for a point and are initially set up in Setup \rightarrow Settings \rightarrow page 8.

2.2.4.3 Existing Field Points

Overlapping Points

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

2.2.4.4 Starting Point Number

Prefix

The prefix is a user-defined identifier automatically inserted in front of the Number field (see the next topic). You can enter up to 6 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 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 behind the Number field (see the preceding topic). You can enter up to 6 characters as a suffix.

≽**ę**∈ Note

The total number of characters in the prefix-number-suffix combination is 16. **Hitt** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded.

2.2.4.5 Attributes

You can enter up to 5 attributes to further define the field point or field points. Each attribute can contain 62 characters of information.

≩¶∈ Note

The attribute labels are defined under Setup \rightarrow Settings \rightarrow page 8.

2.2.4.6 Place Points

- 1. When you have finished defining points properties, click Place. The Points dialog closes and your drawing appears on the screen.
- 2. You have the option of accepting the selection or removing grid lines.

≽ne Note

You can place grid points only on line objects. If the grid consists of polylines, you must explore them first.

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

	A ~P	Place Tracing Points 😥 Place Points over Famil	ly
	Ψ NP	Place Points over Path	
	Place	• • • • • • • • • • • • • • • • • • • •	
an	nual Point 🏭 P	Place Grid Points 🛛 🔆 Place Points over Marke	er
		Field Points	
		amily ? 🔤 🗙	2
1	Place Points over F	amily	
S	elected Family		
a	Colored Fronts		
2	Select Family		
6	3 No Family Selected	ed	
_			_
*	Field Point Entity		â
	Category	All 🗸 🎯	
	Entity Name	3DBox •	
	Entity Details		
*	General		
	Description	8	
	Group	<none> 🔻 🎲</none>	
	Place Annotation	ns None 🔻	
*	Starting Point Numb	ber	
	Prefix		
	Number	1 🛞	
	Suffix		
*	Elevation		
	Placement Settin	ngs At Work Plane or Object Snap Elevation 🔻	
Ŧ	Field Point Location	S	
	Placement Optio	Insertion Point	
	Placement Locat	ions	
Ŧ	Apply To		
	Family Instances	s All Instances 👻	
*	Attributes		
	Attribute 1		
	Attribute 2		0
	Attribute 3		
	Attribute 4		*

This function allows you to place points in a selected family in your model.

Quick Steps: Field Points → Place Points over Family

In your model, select the family you want to add points to.

- 1. Go to the Field Points group.
- 2. Click Place Points over Family.
- 3. Click Select Family.
- 4. Go to your model and click on the family you want to place points over.
- 5. Proceed as follows to place points over families in your model:

Category

1. Click \checkmark and select the appropriate category from the list.

 If you want to change settings, click next to the Category field. The Field Point Settings → page 7 window opens. This window allows you to change settings/properties of a field point entity before you set the point.

Entity Name

Entity Details

Click to expand the Entity Details pane to view the Family Name, File Location, and the Locaded in Model information pertaining to the field point.



These fields are not editable.

2.2.5.1 General

Description

Enter a description for this field. This indicates what the field point represents.

Group

This function allows you to assign/create user-defined groups for use when importing points into your model. This function allows you to simulate planes in your Revit model (as with AutoCAD[®]) to better define imported field points. You can click to select an existing group from the list or click to create a new group \rightarrow page 14.

Place Annotations

To apply annotations to the point or set of points, click \checkmark and select the method by which you want to place annotations.

}¶ €	Note
191	

 $^{-1}$ Annotations contain tagging information for a point and are initially set up in Setup ightarrow Settings ightarrow page 8.

2.2.5.2 Elevation

Placement Settings

This property defines the elevation placement for the point or set of points.

- 1. Click **T**.
- 2. Select a setting from the list.
- At Work Plane or Object Snap Elevation
- Above Work Plane or Object Snap Elevation

Enter the distance above the work plane (in inches/millimeters, depending on your settings). You must also enter a distance if you select this option.

At Fixed Elevation

Enter the absolute elevation (the point's distance from zero elevation) in inches/millimeters (depending on your settings). You must also enter an Absolute Elevation if you select this option.

2.2.5.3 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 model 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 6 characters as a suffix.

Note

The total number of characters in the prefix-number-suffix combination is 16. **Hilti** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded.

2.2.5.4 Field Point Locations

Placement Options

- Click
- · Select the appropriate option from the list.
- If you select Insertion Point, the point is placed on the insertion point of the family.
- If you choose Custom Points, you must open the family editor by clicking ... and then select the placement points. Touch each point on the family where you want to add a field point. Then click Enter. This takes you back to the Place Points over Family dialog.

Placement Points

This field displays the coordinates of the points you are placing. The coordinates are relative to the insertion point (for example, if your placement option is set to insertion point, this will show the point at 0,0,0). All points are listed, so you can always check the number of points you have set in each instance of that family.

; •:	Note
∕ ₩ \	

Each point has its own coordinates listed.

2.2.5.5 Apply To

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

All Instances

Allows you to apply placement to all families within the reference.

Current Instance

Allow you to apply placement only to the family currently selected (only one family)

 Selected Instance Allows you to select multiple families within the same reference.

2.2.5.6 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.

Note **.**

The attribute labels are defined under Setup \rightarrow Settings \rightarrow page 8.

2.2.5.7 Place Points

When you have finished defining points properties, click **Place**. The Points dialog closes and your model shows the selected family and the specified points.

2.2.6 Place Control Point



	Category	
	concigony	All
	Entity Name	ЗДВох
•	 Entity Details 	
r G	Seneral	
	Description	8
	Group	<none> •</none>
	Place Annotations	None
- S	Starting Point Number	
	Prefix	
	Number	1 8
	Suffix	
- E	Elevation	
	Placement Settings	At Work Plane or Object Snap Elevation
- A	Attributes	
	Attribute 1	
	Attribute 2	
	Attribute 3	
	Attribute 4	
	Attribute 5	

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

Quick Steps: Field Points -> Place Control Point

- 1. Go to Field Points group and click Place Control Point.
- 2. Proceed as follows to place points on objects:

2.2.6.1 Fields Point Entity

Category

Click \checkmark and select the appropriate category from the list. If you want to change settings, click \circledast next the Category field. The **Field Point Settings** \rightarrow page 12 window opens. This window allows you to change settings/properties of a field before you set the point.

Entity Name

Click and from the list, select the appropriate entity name 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 the **Loaded in Drawing** information pertaining to the field point.

Note

These fields are not editable.

2.2.6.2 General

Description

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

Group

This function allows you to assign/create user-defined groups for use when importing points into your model. This function allows you to simulate planes in your Revit model (as with AutoCAD[®]) to better define imported field points. You can click to select an existing group from the list or click to create a new group \rightarrow page 14.

Place Annotation

To apply annotations to the point or set of points, click \checkmark 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 \rightarrow Settings \rightarrow page 8.

2.2.6.3 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 6 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 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 preceding field topic). You can enter up to 6 characters as a suffix.

Note

The total number of characters in the prefix-number-suffix combination is 16. **Hilti** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded.

2.2.6.4 Elevation

Placement Settings

This property defines the elevation placement for the point or set of points. Click \checkmark 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 if you select this option.

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** if you select this option.

2.2.6.5 Attributes

You can enter up to 5 attributes to further define the field point or field points. Each attribute can contain 62 characters of information.



The attribute labels are defined under Setup \rightarrow Settings \rightarrow page 8.

2.2.6.6 Place Points

- 1. When you have finished defining points properties, click **Place**. The Points dialog closes and your drawing appears on the screen.
- 2. Click the areas in the drawing where you want to place points.
- 3. You can continue clicking on additional areas in the drawing to place more points.
- 4. When you have placed all your points, press ESC on your keyboard. The points are now set at the locations you selected.

≽¶∈ Note

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

In the command bar, you can click on the Settings text.

OR

Click in the command bar and then type S and press Enter.

OR

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

The Points dialog re-opens. Refer to the instructions above if you want to change settings.

		0
	Place Points over Marke	rs 🤶 🔜 🗙
S	elected Family Entities	
-	Select Family Entities	Select All from Current View
•	No Family Entities Select	ted
*	Field Point Entity	
	Category	All 👻 🏐
	Entity Name	JDBox •
	 Entity Details 	
*	General	
	Description	8
	Group	<none> 🔻 🎡</none>
	Place Annotations	None
*	Starting Point Number	
	Prefix	
	Number	1 🕷
	Suffix	
*	Elevation	
	Placement Settings	At Work Plane or Object Snap Elevation
Ŧ	Attributes	
	Attribute 1	
	Attribute 2	
	Attribute 3	
	Attribute 4	
	Attribute 5	

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. Proceed as follows:

Family Objects

Click this option if you want to select particular family objects in the model for points placement. Select Entire Model

Click this option if you want to select the entire model.

3. Complete the following points in order to set marker points in the model:

2.2.7.1 Field Point Entity

Category

Click \checkmark and select the appropriate category from the list. If you want to change settings, click next to the Category field. The Field Point Settings \rightarrow page 12 window opens. This window allows you to change settings/properties of a field before you set the point.

Entity Name

Click and from the list, select the appropriate entity name 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 the **Loaded in Drawing** information pertaining to the field point.

Note

These fields are not editable.

2.2.7.2 General

Coordinates

This field shows the coordinates (x, y, and z) and is editable.

Description

Enter a description for this field. This indicates 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 \checkmark 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 → page 8.

2.2.7.3 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 6 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 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 preceding field topic). You can enter up to 6 characters as a suffix.



The total number of characters in the prefix-number-suffix combination is 16. **Hilti** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded.

2.2.7.4 Elevation

Placement Settings

This property defines the elevation placement for a point or set of points. Click \checkmark 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 if you select this option.

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 if you select this option.

2.2.7.5 Attributes

You can enter up to 5 attributes to further define the field point or field points. Each attribute can contain 62 characters of information.



The attribute labels are defined under Setup \rightarrow Settings \rightarrow page 8.

2.2.7.6 Place Points

- 1. When you have finished defining points properties, click **Place**. The Points dialog closes and your drawing appears on the screen.
- 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.
- When you have placed all your points, press Enter on your keyboard. The points are now set at the locations you selected.

≽**ę**∈ Note

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

In the command bar, you can click on the Settings text.

OR

Click in the command bar and then type S and press Enter.

OR

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

The Points dialog re-opens. Refer to the instructions above if you want to change settings.

2.2.7.7 Place Markers (Blocks)

This command inserts the markers (placeholders) within a block. You can then use the Place Points over Markers \rightarrow page 34 command to place field points over the block markers.

- 1. Double-click on the block file you want to work with. The Edit Block Definition dialog opens.
- 2. Click OK.
- 3. Go to the Hilti Marker Points tab and click Place Marker.
- 4. In the Entity Name field click **v** and select a name from the list.
- 5. Click > to view entity details. These data cannot be edited in this dialog
- 6. Click Place.

≽**ę**∈ Note

You can change the default settings for markers by clicking 🎡 next to the Entity Name field.

2.2.7.8 Marker Entity Settings

The Marker Entity Settings command allows you to set defaults for marker settings. Quick Steps: Open Block File \rightarrow Hilti Marker Points \rightarrow Place Marker \rightarrow Open Block File \rightarrow Hilti Marker Points \rightarrow Place Marker \rightarrow Marker Entity Settings

🔫 Note

If you select Additional Location, you must also set the additional field point entity location path. You can click ••• to navigate to the desired location. The Marker Entity File Paths list is populated based on the contents in the location selected.

- 1. To modify the properties of a marker, proceed as follows:
- Select your working location by clicking the Standard Location or Additional Location option button, as applicable.
- 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 a 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 list when you place your field 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 **v** and select the availability status of the entity from the following.

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

Visible allows the entity to appear in the Entity Name selection list.

5. You can modify the properties of all the markers at this location. When you have finished click OK to save your changes.

2.2.8 Family Editor

When you have finished editing the markers, you can load the family into an open project with this comment. Quick Steps: Open Family File \rightarrow PROFIS Field Points \rightarrow Family Editor \rightarrow Load Into Project

- 1. Go to the PROFIS Field Points tab and then to the Family Editor group.
- 2. Click Load Into Project.
- 3. In the **Load into Project** dialog, select the checkboxes **√** next to the projects you want to load the family into.

≽**ę**∈ Note

If only one project is open, the PROFIS Field Points software automatically loads the family into that project. If more than one project is open, you must select the projects you want to load the family into.

1. Click OK.

2.3 Field Point Utilities



Renumber Points

Field Point III Renumber Grid Points Properties

Field Point Utilities

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

Quick Steps: PROFIS Field Points -> Field Point Utilities

On the PROFIS Field Points tab, go to Field Points Utilities. Refer to the topics on the following pages for more information on each utility.

Field Point Properties → page 38

This command allows you to view the current properties of a field point or selected set of field points and modify the properties if necessary.

Renumber Points → page 41

This command allows you to renumber field points set beforehand. You can set the starting point number, update the prefix and suffix, and include field points exported beforehand in the renumbering process.

Renumber Grid Points → page 42

This command allows you to renumber grid points. You can renumber based on the selected number pattern, update the prefix and suffix, and include field points exported beforehand in the renumbering process

2.3.1 Field Point Properties



The **Field Point Properties** command allows you to review the properties for field points that you set beforehand in your drawing.

Quick Steps: Field Point Utilities -> Field Point Properties

- 1. Go to the Field Point Utilities group.
- 2. Click Field Point Properties.
- Select the points in the drawing you want to view properties for and then press Enter on your keyboard.
 OR

Select points in the drawing and click.

The Field Points Properties window opens.

∋e, Not	te
---------	----

To make a multi-point selection, continue selecting all relevant points before clicking the Properties button. For 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!

2.3.1.1 Field Point Entity

Field Point Entity					
Category		All 👻 🏐			
Entity Nam	e	3DBox •			
Entity Details	2				
- General	General				
Coordinates	Coordinates (-74' 3 15/32",10' 8 23/32",0")				
Description		RR			
Staked					
 Point Number 					
Prefix					
Number		1			
Suffix					
 Exported 					
Exported		Not Exported			
 Elevation 					
Absolute Elev	ation	0"			
 Options 	Options				
 Annotations 					
Annotatio	n First Part	Description •			
Separator		:			
Annotatio	n Last Part	Point Number 🔹			
 Attributes 					

Category

Click \checkmark and select the appropriate category from the list. If you want to change the settings, click next to the Category field. The Field Point Settings \rightarrow page 7 window opens. This window allows you to change settings/properties of a field point entity before you set the point.

Entity Name

Click
cl

Entity Details

Click **)** to expand the Entity Details pane to view the **Entity Drawing Name**, **File Location**, and the **Loaded in Drawing** information pertaining to the field point.

Note **≥**¶<

These fields are not editable.

2.3.1.2 General

Coordinates

The coordinates (x, y and z) of the field points are shown in this field. The field is editable.

Description

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

Staked

Select the checkbox 🗸 if the field point was staked, laid out, or shot in the field.

Ref Note

This checkbox is activated by default when you check the properties of field points imported from the field so that you can tell that this field point was staked.

Layer

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

2.3.1.3 Point Number

Prefix

The prefix is a user-defined identifier automatically inserted in front of the Number field (see the next 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 model contains existing field points, click so 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 behind the Number field (see the preceding topic). You can enter up to six characters as a suffix.

Note

The total number of characters in the prefix-number-suffix combination is 16. **Hilti** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded.

2.3.1.4 Exports/Elevation

Exported

This section is for information purposes only.

- If the Set Objects As Exported option is set when you export field points, this property displays the
 Exported On [date and time]. The name of the exported file also appears.
- If the points have not been exported or the option is not selected, this field shows 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).

2.3.1.5 Options

Annotations

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

Separator

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

- Colon :
- Period .
- Dash -

≽**ę**∈ Note

If none of these characters is specified, you can use a separator of your choice.

Annotation Last Part

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

2.3.1.6 Attributes

You can enter up to 5 attributes to further define field points. Each attribute can contain 62 characters of information.

Note

The attribute labels are created under Setup \rightarrow Settings \rightarrow page 8.

2.3.1.7 Attribute Names

This field displays the default attribute names initially created under Setup \rightarrow Settings \rightarrow page 10. You can modify the default names in the **Field Point Properties** window. However, these changes affect only the selected points. The default names are not changed.

2.3.1.8 + Complete Field Point Properties

When you have finished working in the Field Point Properties window, click OK.

2.3.2 Renumber Points		
Field Point Renumber Points Field Point Renumber Grid Points Field Point Utilities Renumber Field Points	<u>8</u>	
- Starting Point Number		
Number	14 🛞	
✓ Prefix		
Update		
✓ Suffix		
Update		
- Options		
Include Previously Exported Field Point		
	OK Cancel	J

This command allows you to renumber existing field points in your drawing. Quick Steps: Field Points Utilities \rightarrow Renumber Points

≽**ę**∈ Note

Each point selected is renumbered incrementally based on your input in this field.

If you want to use the next number available, click 🎲 next to the field. The field is populated with the next available unused number.

The total number of characters in the prefix-number-suffix combination is 16. **Hilti** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded now or in the future.

- 1. Go to the Field Point Utilities group and click Renumber Field Points.
- 2. In the Number field, enter the new starting point number.
- In the Prefix and Suffix sections, you can update the current assignments. Select the checkbox ✓ next to the appropriate Update field.

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

- 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 appears on the screen as you click each point.

The Points dialog re-opens. Refer to the instructions above if you want to change settings.

A	
Renumber Points	
ield Point 💥 Renumber Grid Points	
Properties	
Field Point Utilities	
Renumber Grid Field Points	×
✓ General	
Renumber Pattern	-
✓ Starting Point Number	
Number 14	8
✓ Prefix	
Update	
▼ Suffix	
Update	
✓ Options	
Include Previously Exported Field Poin	
OK Cancel	

This command allows you to renumber existing grid points in your drawing. Quick Steps: Field Points Utilities → Renumber Grid Points

Ref Note

The total number of characters in the prefix-number-suffix combination is 16. **Hilti** recommends limiting the number of characters for each field to ensure that the limit of 16 characters is not exceeded now or in the future.

- 1. Go to the Field Point Utilities group and click Renumber Grid Points.
- 2. In the Renumber Pattern field, click **v** and select a pattern from the list.
- In the Prefix and Suffix sections, you can update the current assignments. To update the current prefix and/or suffix:

Select the checkbox \checkmark next to the Update field.

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

- The Options section allows you to include in renumbering all grid points exported beforehand. If you
 want these included, select the checkbox √.
- 5. When all properties are set, click OK.
- 6. Click the first line of the grid you want to renumber. After you have accepted the grid section, grid points are renumbered. You can accept the selection or remove the grid lines.

2.4 Annotations



- Annotations

The **Annotations** group provides commands for placing annotations and changing the annotation settings. **Quick Steps: PROFIS Field Points** \rightarrow **Annotations**

On the PROFIS Field Points tab, go to **Annotations**. Refer to the following pages for more information on each utility.

Automatically Place Annotations → page 43

This command allows you to add annotations automatically to field points. The annotations are created and placed in accordance with the settings in Setup \rightarrow Settings \rightarrow page 8.

Manually Place Annotations → page 44

This command allows you to add annotations manually to field points. The annotations are based on your selected insertion point(s).

Refresh Point Annotations → page 44

When annotations are modified outside the PROFIS Field Point software application, you can use this command to refresh annotation text to reflect the correct PROFIS Field Point annotation settings.

Apply Point Annotation Settings → page 44

This command allows you to apply annotation settings to annotations associated with selected field points. The same applies to the properties of field points. If you have changed the default settings in Setup \rightarrow Settings \rightarrow page 8, use this command to apply the new settings to existing annotations and field points.

≽ę∈ Note

This command applies to settings in the General \rightarrow page 10 section of the Annotations \rightarrow page 8 tab. It does not apply to changes made in the Placement \rightarrow page 8 section.

2.4.1 Automatically Place Annotations

+ Automatic	ally Place Annotations					
A Manually Place Annotations						
Annotations 👻						
Multiple	Finish Cancel					

This command allows you to add annotations automatically to field points. The annotations are created and placed in accordance with the settings in Setup \rightarrow Settings \rightarrow page 8.

Quick Steps: Annotations -> Automatically Place Annotations

- 1. Go to the Annotations group.
- 2. Click Automatically Place Annotations
- 3. Select the field points in a drawing where you want to automatically place an annotation.

 The annotation is placed for each field point you selected. The settings created under Setup → Settings → page 8 apply.

Changing settings applies only to new points placed. If you placed points before you made your changes to the settings, instead of being updated automatically these annotation settings remain as they were at the time of placement.

- 5. Repeat steps 2 and 3 to continue automatically placing annotations.
- 6. When you have finished automatically placing point annotations, press ESC on your keyboard.



2.4.2 Manually Place Annotations



This command allows you to add annotations manually to field points. The annotations are 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 place the annotation. The annotation appears on the screen.
- Move the annotation to the insertion point of your choice (within the point) and right-click. The annotation is placed at the insertion point you selected. The settings created under Setup → Settings → page 8 apply for rotation.

Changes

- 4. Repeat steps 2 and 3 to continue manually placing annotations on other field points.
- 5. When you have finished placing annotations, press [ESC] on your keyboard.

Ref Note

Changing settings applies only to new points placed. If you placed points before you made your changes to the settings, instead of being updated automatically these annotation settings remain as they were at the time of placement.



2.4.3 Refresh Point Annotations

When annotations are modified outside the PROFIS Field Point software application, you can use this command to refresh annotation text to reflect the correct PROFIS Field Point annotation settings.

- 1. Go to the Annotations group and click Refresh Point Annotations.
- Select field points on the drawings where annotations need to be refreshed. The command bar shows a count of the number of field point annotations found to have been modified outside PROFIS Field Points.
- When you have finished selecting points, press Enter on your keyboard. The annotations are updated to reflect the current setting for each particular point in the PROFIS Field Points program.

2.4.4 Apply Point Annotation Settings

This command allows you to apply annotation settings to annotations associated with selected field points. The same applies to the properties of field points. If you have changed the default settings in Setup \rightarrow Settings \rightarrow page 8, use this command to apply the new settings to existing annotations and field points.

🔫 Note

This command applies to settings in the General \rightarrow page 8 section of the Annotations \rightarrow page 8 tab. It does not apply to changes made in the Placement \rightarrow page 8 section.

Quick Steps: Annotations -> Apply Point Annotation Settings

- 1. Go to the Annotations group → click Apply Point Annotation Settings.
- 2. Select the field points on the drawings that you want to apply the new settings to.

≽¶∈ Note

Changing settings applies only to new points placed. If you placed points before you made your changes to the settings, instead of being updated automatically these annotation settings remain as they were at the time of placement.

 When you have finished selecting points, press Enter) on your keyboard. The annotation is updated to reflect the new settings modified in the General → page 8 section under Setup → Settings → page 8.

2.5 Reports	
Reports	
Reports	
🔅 Field Point Reports	? 💌
Selected Field Points	
Select Field Points	del
O No Field Points Selected	
Available Reports:	

- Report Type				
	Туре	Detailed Point Data		
-	Group Filters			
	<none> (0)</none>	\checkmark		
_		or Detailed Point Data report.		

The Reports group contains commands for producing reports Quick Steps: PROFIS Field Points → Reports

- 1. On the PROFIS Field Points tab, click Reports.
- 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 have placed all your points, press Enter) on your keyboard. The Insert Objects window re-opens.

Select Entire Model

Object points will be set for the entire drawing. They 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.

2.6 Imports



The Imports group provides commands for importing to and editing field points in your Revit models.

Quick Steps: PROFIS Field Points -> Imports

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

Import Points → page 46

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

Edit Points File → page 58

This command allows you to modify the import file before importing the points into your drawing.

2.6.1 Import Points		
 Import Points Edit Points File 		
Imports		
Settings Import TFL File Options Settings	88	

- Options							
- Coordinates							
Use Shared Coordinates to Import							

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: PROFIS Field Points → Imports

Note

If you import from aCSV file \rightarrow page 47, you have to provide additional information before you can proceed to the next step. Click here \rightarrow page 47 for more information.

- 1. Go to the Imports group and click Import Points. The Field Point Import window re-opens.
- In the Select File To Import field, click
 … to navigate to the location of the import file
 → double-click the
 file.
- 3. If two or more user coordinate systems (UCS) are available, select the appropriate UCS for your import from the list and click **OK**.
- 4. The grid shows the field points available in the file for import.
- 5. Select 🖌 or clear 📃 the Include checkbox for each field point based on what you want to do.
- 6. Click Continue to proceed with the import. The Import Field Points to Drawing window re-opens.

≽¶∹ Note

You can sort by date in the grid by clicking the appropriate column heading. An arrow displays in the header to denote ascending or descending sort order.

The checkboxes are all selected by default.

	Include	Point Number	Description	Coordinates	Group	Staked	Attribu
•	\checkmark	C-5		(503.261,-408.530,0.000)			Layer A
	\checkmark	C-6		(503.770,-407.234,0.000)			Layer /
	\checkmark	C-7		(503.376,-406.332,0.000)			Layer A
	\checkmark	C-8		(505.066,-407.743,0.000)			Layer A
	\checkmark	C-9		(443.179,-276.568,0.000)			Layer A
	\checkmark	C-10		(446.437,-280.256,0.000)			Layer A
	\checkmark	C-11		(448.494,-275.154,0.000)			Layer A
	\checkmark	C-12		(442.963,-280.039,0.000)			Layer A
	\checkmark	C-13		(444.806,-278.412,0.000)			STAND

2.6.1.1 Import from CSV

+	Options					
	CSV Import Format	ENH				
	Units	inches				
	✓ Coordinates					
	Use Shared Coordinates to Import					

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

Quick Steps: PROFIS Field Points -> Imports

- 1. In the CSV Import Format field, click 🕶 and then select the appropriate format from the list.
- 2. Click **v** in the Units field and select the appropriate unit of measurement from the list.
- 3. Select the Use Shared Coordinates to Import checkbox \checkmark , if applicable \rightarrow OK.
- 4. Click **OK** when you have finished. The Field Point Import → page 46 window opens.
- 5. To continue your import, refer to the Import Points \rightarrow page 46 topic (step 3).

Note

If this checkbox is not selected, points default to the project coordinates.

2.6.1.2 Field Point Import Settings

Field Point Import Settings		? X
- Import Options		
Set Include Flag	\checkmark	
	OK	Cancel

This allows you to select settings on how the points are flagged in the file.

Quick Steps: Field Point Import → 🎲

- 2. Click **OK** when you have finished.

2.6.2 Import Field Points To Model

When you have completed all the steps in the Field Point Import \rightarrow page 46 window and then clicked **Continue**, the **Import Field Points** to **Model** window opens.

Quick Steps: Imports → Import Points

M	atched P	oints New	Points						e 🎟 🧕	
	Include	Point Numbe	er Description	Coordinates	Group	Staked	Control	Attribute 1	Attribute 2	At
•		C-5		(503.261,-408.5	0			Layer A	Attribute	4
		C-6		(503.770,-407.2	0			Layer A	Attribute	A
		C-7		(503.376,-406.3	0			Layer A	Attribute	A
		C-8		(505.066,-407.7	0			Layer A	Attribute	A
		C-9		(443.179,-276.5	0			Layer A	Attribute	A
		C-10		(446.437,-280.2	0			Layer A	Attribute	A
		C-11		(448.494,-275.1	0			Layer A	Attribute	4
		C-12		(442.963,-280.0	0			Layer A	Attribute	4
		C-13		(444.806,-278.4	0			STANDARD	Attribute	A
		C-14		(517.382,-214.2	0			STANDARD	Attribute	F
		C-15		(445.689,-268.9	0			Layer A	Attribute	A
		C-16		(450.121,-266.8	0			Layer A	Attribute	F
		C-17		(445.768,-263.4	0			Layer A	Attribute	A
		C-18		(448.973,-270.1	0			Layer A	Attribute	A
		C-19		(433.868,-238.7	0			STANDARD	Attribute	4
		C-20		(447.904,-267.8	0			STANDARD	Attribute	4
4										F

The Import Field Points To Model window organizes the available field points into three tabs:

Note

Each grid tab contains its selected field points from the import file. If you want to sort the data in the grid, click the column heading of your choice.

Matches

Contains the points from the import file which, according to an identifier generated by the PROFIS Field Points software at the time each point was created, match an existing point in the model.

New Points

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

Model Points

Points that are in the model, but not in the import file.

2.6.2.1 Matches

On the Matches tab, select 🗸 or clear 🗌 the Include checkbox next to the appropriate entities.

Note Click to select the settings for the imported field points. Refer to Settings for field points imported into models for detailed explanations.

2.6.2.2 New Points

On the New tab, select 🗸 or clear 🗌 the Include checkbox next to the appropriate entities.

 Click to select the settings for the imported field points. Refer to Settings for field points imported into drawings for detailed explanations.

Note

Carefully review the information in this window.

2.6.2.3 Complete Import

∋e Note

To create matches additional to those generated automatically by the software, click \blacksquare . See Create Additional Matches \rightarrow page 54 for detailed information. To modify new point properties, refer to the **Modify New Point Properties** topic on subsequent pages.

Click Import to proceed with the import.

2.6.3 Import Settings

When you import field points into a model, you can create settings and descriptions that define how these new field points appear in the model.

Quick Steps: Import Field Points To Drawing → 🎡

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

2.6.3.1 New Points

Ma	atched Points	New Points	Control Points	Display Format	
-	New Point Enti	ity			
	Category		All		- 🏐
	Entity Na	ame	3DBox		•
	Entity Deta	ils			
	General				
	Place Anno	tations I	None		
- 1	Group Option				
	Option		Create Group fr	om Import File If It Does Not Exist in	Drawing 🔻
	Option		Create Group fr	om Import File If It Does Not Exist in	Drawing 🔻

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 🕶

Select the appropriate category from the list.

If you want to change settings, click \circledast next to the **Category** field. The Field Point Settings \rightarrow page 12 window opens. This window allows you to change settings/properties of a field point entity before you set the point.

Entity Name

Click \checkmark and from the list, select the appropriate **entity name** 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 the **Loaded in Model** information pertaining to the field point.



Note

These fields are not editable.

General

Place Annotations

To apply annotations to the point or set of points, click \checkmark and select the method by which you want to place annotations.



Group Option

The Groups function allows you to assign user-defined groups for use when importing points into your model. This function allows you to simulate planes in your Revit model (as with AutoCAD®) to better define imported field points.

Option

Click \checkmark to select a group option from the list. This defines how groups are applied to your imported field points.

Matched Points New Points	Control Points	Display Format		
Length Display Format		-		
Decimal Display Only				
Decimal Digits To Display	0.000			
Description Format				
ield selection and order determi			hed points. This applies to scre	eens
here you can view existing mat	ches or create ne	w ones.		
Point Number				
Description				
Coordinates				
Group				
Staked				
Attribute 1 Attribute 2				-
Attribute 3				
Attribute 4				

The field selection and sequence determine the description format for matched points. This sequence applies to windows in which 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 I for the entities you do not wish to display.

The selected columns and sequence are shown at the bottom of the window.

2. Click **OK** to save the changes.

Note

You can change the sequence within a column by clicking an entity and then clicking or \checkmark to move it up or down.

Matched Points	New Points	Control Points	Display Format	
 Point Matching 	,			
Match Tole	rance	0.001		
- Deviation				
Tolerance		38.1 mm		
Ignore Z				
		1		
Place R	evision Cloud		\checkmark	
Entity N	lame	Cir	cle Cloud	- 6
Entity D	etails			

2.6.3.3 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

- 1. To set the Point Match Tolerance, click -.
- 2. Select a tolerance value from the list.

Deviation

In the Deviation pane, set the following:

- If you want to Ignore Z, select the checkbox √.

Revision Cloud

The procedure for making Revision Cloud settings for imported points is as follows:

- 1. Select the Revision Cloud checkbox 🗸.
- 2. In the Entity Name field, click **v** and select a cloud option from the list.

Rote

The options in the **Entity Details** pane are not editable in this window. Refer to Setup / Revision Cloud Settings \rightarrow page 15 for more information.

2.6.3.4 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 points are imported.

2.6.3.5 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 window opens. This window allows you to change settings/properties of a field point entity before you set the point.

Entity Name

Click \checkmark and from the list, select the appropriate entity name representing the field point or set of field points.

Entity Details

Click **b** to expand the Entity Details pane to view the **Family Name**, **File Location**, and the **Loaded in Model** information pertaining to the field point.

}¶∈ Note

These fields are not editable.

2.6.3.6 General

To apply annotations to the point or set of points, click \checkmark and select the method by which you want to place annotations.



Annotations contain tagging information for points and are initially set up in Setup → Settings → page 8

2.6.3.7 Group Option

This function allows you to assign/create user-defined groups for use when importing points into your model. This function allows you to simulate planes in your Revit model (as with AutoCAD[®]) to better define imported field points. You can click \checkmark to select an existing group from the list or click to create a new group \rightarrow page 8.

2.6.3.8 Complete

Click OK.

OR

To continue creating settings for the imported part, click on another tab in the window.

2.6.4 Modify New Point Properties

	Point Number Prefix	Point Number	Point Number Suffix	Description	Coordinates	Gro
•	С	5			(503.261,-408.530,0.000)	1 4
	С	6			(503.770,-407.234,0.000)	10
	С	7			(503.376,-406.332,0.000)	1
	С	8			(505.066,-407.743,0.000)	1
	С	9			(443.179,-276.568,0.000)	1
	С	10			(446.437,-280.256,0.000)	1
	С	11			(448.494,-275.154,0.000)	1
	С	12			(442.963,-280.039,0.000)	i.
	С	13			(444.806,-278.412,0.000)	1
	С	14			(517.382,-214.298,0.000)	1
	С	15			(445.689,-268.957,0.000)	1
	С	16			(450.121,-266.818,0.000)	1
	С	17			(445.768,-263.455,0.000)	i.
	С	18			(448.973,-270.105,0.000)	1
	С	19			(433.868,-238.786,0.000)	1
	С	20			(447.904,-267.887,0.000)	i.
	С	21			(626.880,-269.659,0.000)	1
	c	22			(con ono non non)	, *

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

Quick Steps: Import Field Points To Drawing → 🕥

The grid is populated with the new points from the import file that do not match any existing points in the model.

Note

You can sort the data in the columns by clicking the column heading. The coordinates and the Staked fields are not editable.

- If you want to change the information for new points, click in the appropriate field and make your changes. Note: The coordinates and the Staked fields are not editable.
- When you have finished, click **OK** to save your changes.

2.6.5 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.

- 1. In the Match Rules pane, click **v** in the Type field and select a match rule from the list.
- 2. Based on your selection in this field, refer to the appropriate topic below for further instructions. **Basic**

In the Basic Match Rule pane, select the Ignore Case checkbox \checkmark if applicable. Next to each entity setting:

If you have selected a type requiring a Value, enter this value in the Condition field.

When you have entered the required information for a match rule, press \boxed{Enter} on your keyboard. The operation is performed. Items in the Include column are selected \checkmark if they meet the selected criteria.

e Note

You can continue to create matches until all available points are matched.

Custom

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

OR

Click ... to create a new rule.

For more information on this procedure refer to:

Manage Custom Match Rules

1. Click **OK** when you have finished setting additional matches.

2.6.5.1 Basic Match Options

When you select Basic as your type in Match Rules, you have the following options in the Condition list. An explanatory 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

The software looks for a partial match (anywhere) between the import point field name and the drawing point field name. A Value is required.

Starts With

The software looks for a partial match (at the start only) between the import point field name and drawing point field name. A Value is required.

Ends With

2.6.5.2 Custom Match Rules

The software looks for a partial match (at the end only) between the import point field name and drawing point field name. A Value is required.

Name		Description
Filter 1		filter 1
Filter2	4	Rule
		☑ Ignore Case
	*	And O
		OK Cancel

When you select the Custom option in Create Additional Matches, 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 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 topic.

Custom Match Operators

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

- A Group consists of a logical operator and a condition.
- Groups are created to map a custom match rule.

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

Logical Operators

Compares two or more conditions

① And
Or Or
O Not And
O Not Or
add Condition
🚽 Add Group

Comparison Operators

Compares column data with specific conditional values



2.6.5.3 Manage Custom Match Rules

This topic details how to set up and manage custom match rules

∋**ę**∈ Note

The graphic above labels the parts of this window covered in the instructions below. When you open the window, it will not display as in the graphic.

Manage Custom Match Rule:	? 🗙
Name	Description
Filter 1 Filter 2 Import Rule 1	Import Rule 1 Rule Rule And O Logical Operator [Attribute 1] Begins With 10 O Comparison Operator
Rule List	Column Name OK Cancel

2.6.5.4 Add Custom Rule

Add Custom	Match Rule	X
Name		
1		
	OK	Cancel

≽**ę**∈ Note

The logical operator defaults to And. If you want to use some other logical operator, click on And to select another operator from the pop-up menu.

- 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.
- 3. Click OK.

The name of the rule displays in the left pane of the Manage Custom Match Rules window.

- 4. Highlight the new rule.
- If you want to add more information about the rule, click the **Description** field and enter the necessary data.
- As applicable, select or clear the Ignore Case checkbox.
- In the Rule pane, begin adding the conditions and parameters for this rule by clicking on the default logical operator And.
- 8. Click Add Condition from the pop-up menu.
- 9. Click the column name (displayed in blue and enclosed in brackets) [Attribute 1].
- 10. Select the column name to match on for this condition.
- 11. The comparison operator list is dynamic, based on your selection in Column Name.

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 shot or staked in the field.

Column Name

For example, if you choose [Attribute 1] as your column name, the comparison operator list has different options than when you choose [Staked].

Attribute 1

Staked

- 1. Click the comparison operator.
- 2. Select the desired operator from the list.
- 3. Click OK.
- 4. To add another group condition to this custom match rule, refer to the Add → Modify Group → Condition to Custom Match Rule topic below.

2.6.5.5 Edit Custom Match Rule Name

- 1. In the Manage Custom Match Rule window, highlight the rule in the Name list to edit.
- 2. Click S. The Edit Custom Rule Name dialog opens.
- 3. Modify the Name.
- 4. Click OK.

≽**ę**∈ Note

If you need to change the conditions, refer to the Add \rightarrow Modify Group \neg Condition to Custom Match Rule topic below.

2.6.5.6 Add -> Modify Group -> Condition to Custom Match Rule

- 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.
- 3. Select one of the following options from the pop-up menu

Add Condition

The condition is added under the logical operator selected. The new conditions are added to the existing custom match rule.

Add Group

The condition is added under the logical operator selected. The condition is added to the existing custom match rule.

- Review the complete condition displayed at the bottom of the Manage Custom Match Rules window to ensure it is exactly how you want it.
- 5. Click **OK** to save the custom match rule.

∋e Note

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

2.6.5.7 Delete Custom Match Rule

1. In the Manage Custom Rule window, highlight the name of the rule you want to delete.

- 2. Click X.
- 3. Click **OK** in the confirmation window.

2.6.6 Edit Points File



S	elect File to Edit							
С	\Users\andrand\Docu	uments\Points.csv						
	Point Number Prefix	Point Number 🔺	Point Number Suffix	Coordinates	Attribute 1	Attribute 2	Attribute 3	Attri
•	С	5		(503.3,-408.5,0.0)	Layer A	Attribute	Attribute	LII ^
	С	6		(503.8,-407.2,0.0)	Layer A	Attribute	Attribute	LII
	с	7		(503.4,-406.3,0.0)	Layer A	Attribute	Attribute	LII
	с	8		(505.1,-407.7,0.0)	Layer A	Attribute	Attribute	LII
	с	9		(443.2,-276.6,0.0)	Layer A	Attribute	Attribute	LII
	с	10		(446.4,-280.3,0.0)	Layer A	Attribute	Attribute	LII
	с	11		(448.5,-275.2,0.0)	Layer A	Attribute	Attribute	LII
	с	12		(443.0,-280.0,0.0)	Layer A	Attribute	Attribute	LII
	с	13		(444.8,-278.4,0.0)	STANDARD	Attribute	Attribute	LII
	с	14		(517.4,-214.3,0.0)	STANDARD	Attribute	Attribute	LII
	С	15		(445.7,-269.0,0.0)	Layer A	Attribute	Attribute	LII
	с	16		(450.1,-266.8,0.0)	Layer A	Attribute	Attribute	LII
	с	17		(445.8,-263.5,0.0)	Layer A	Attribute	Attribute	LII
	с	18		(449.0,-270.1,0.0)	Layer A	Attribute	Attribute	LII
	С	19		(433.9,-238.8,0.0)	STANDARD	Attribute	Attribute	LII
4								

This command allows you to edit points in an import file. Quick Steps: Imports → Edit Import Points File

🔫 Note

You can change the sequence within a column by clicking an entity and then clicking r II to move it up or down.

The coordinates and the Staked fields are not editable.

- 1. In the Select File To Edit field, click
- 2. Navigate to the location of the import file.
- 3. Double-click the file. The field is populated with the path and the file name and the data from the import file appear in the bottom pane of the window.
- 4. Change the information for the import points as desired.
- 5. Change the information for the import points as desired.
- 6. When you have finished modifying the new point properties, click Save As to save the import file. If you want to keep the original file, save the changed file under a new name (for example, append a version number to the file name).
- 7. In the Save As dialog, enter a file name.
- 8. Click Save.

≽e Note

Do not change the file extension. Click **OK** in the **Edit Import File** dialog.

2.7 Exports



The **Exports** group provides commands for exporting field points for use in other products. **Quick Steps: PROFIS Field Points** → **Exports**

∋**ę**∈ Note

When you open Revit for the first time. If you previously exported a **Hilti** application in this Revit session, the last export format used is shown.

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

CSV → page 59 → page 59

This export function creates a comma-separated file that can be manipulated for import into other programs or opened in Microsoft Microsoft [®] Excel [®].

2.7.1 CSV

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

Quick Steps: Exports → Export to CSV

1. In the selected Field Points pane, click one of the following:

Select Field Points/Entities

This option allows you to choose the specific field points or entities you want to include in your export file. When you have finished selecting the points you want to export, click **Finish** above the Model pane. The Export to CSV window re-opens.

2. Select Entire Model

All points will be exported for the entire drawing. They will be included.

- 3. In the **Point Type** pane, select the checkboxes ✓ next to the types you want to include in your export file.
- 5. In the Options pane, 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 \checkmark if you want to export your points based on a different user coordinate system (UCS), if available.

Choose the appropriate UCS from the list.

≽**ę**∈ Note

If only one UCS is available, alternatives will not be available in the list

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

Directory

Defaults to the folder where the file was last saved. A sub-folder is created. Name

The file name defaults to your [Drawing name]Field Points.

- 2. Click **OK** when you have finished.
- 3. When you have completed your export settings, review the export dialog.
- 4. Click OK.



E	xport t	to TXT	? ×		
Se	elected	Field Points			
୍ୟ ଷ	<u> </u>	tt Field Points	Select Entire Drawing		
+	Point Ty	/pe			
	Indu	ude Manual Points (0)	\checkmark		
	Indu	ude Object Points (0)			
	Include Tracing Points (0)				
	Include Grid Points (0)				
	Include Field Points over Blocks (0)				
	Include Field Points over Path (0)				
		ude Marker Points (0)			
	Indu	ude Control Points (0)			
-	Options				
	Form	nat	ENH		
		Objects As Exported	\checkmark		
	Include Previously Exported Objects				
Fil	e				
Dire	ectory:	C: \Users \andrand \Documents \Dr	awing11TXTFieldPointFiles ····		
Nar	ne:	Drawing11FieldPoints			
			OK Cancel		

Navigate to the CSV button.

Click TXT.

Select the field points you want to export.

At the bottom of the window, select the point type you want to add.

Select the location for saving the data.

Click OK.

2.8 Help

The PROFIS Field Points help system explains how to work with the software application. For each topic there is a brief description of what is available in the various windows, along with instructions for the various tasks.

≽**ę**∈ Note

This Help file applies only to PROFIS Field Points commands. When you use native Revit commands, refer to the help installed with your program.

Quick Steps: Help → Help

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

Online Help → page 62

2.8.1 Online Help



PROFIS Field Points includes an online help file that walks you through many of the procedures for using the application.

This help function supports numerous options:

- In PROFIS Field Points-specific windows, you can press <u>F1</u> on your keyboard to view help for the window you currently have open. The help messages provide 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 shows the PROFIS 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

2.9 Technical Support

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

∋e Note

The PROFIS Field Points software supports additional language packages based on the language of your Revit system. Please keep in mind that support is available in English only.

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

Technical Support ?? → page 62

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 step you through the instructions.
- · You may also be asked to provide the following information:

Product name and version, for example PROFIS Field Points, your Autodesk-compatible software platform and versions,

The operating system you are using (for example, Windows® 10, Windows® 7 or Windows® 8).

You will also be asked what exactly the problem is, whether it is reproducible and what you were doing when the problem occurred.

If you call PROFIS Field Points support outside regular working hours:

- · Leave a detailed message on our voice mail system. We will review your call the next business day
- You can also be send a fax or email to our support staff. We will read your communication and contact you on the next working day.

Technical Support

Phone Support	•/•
Fax Support	•/•
Internet e-mail	•/•



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