PC Software
Point Creator
for Revit

Quick-start guide　　　　　　　　　en

Introduction to Hilti Point Creator for Revit

Hilti Point Creator is used to extract point coordinates from 2D or 3D CAD/BIM drawings from Revit. The point coordinates and attributes are used with the Hilti POS 150 and POS 180 robotic total station system. This plug-in for Revit is compatible with Revit versions 2012 and higher.

The attributes, in particular, apply to products from the Hilti BIM/CAD library, and contain information such as Hilti item number, product description and type of product. Additional information such as layer description and color of the graphical CAD element is taken from CAD models.

The extracted point coordinates and attributes are assigned to a Point Identifier (PtID) and copied to a layer in the Revit system. The numerical values for the coordinates and attributes can be stored in data files with various formats for transfer to the Hilti POS 150 and POS 180 robotic total station system.

Hilti Point Creator also provides a link to the Hilti BIM/CAD library for downloading of Hilti products for use in the design process for 3D models, especially for BIM relevant CAD modeling.

Summary of the process for transferring points from CAD/BIM to the jobsite

1. Start Revit.
2. Open or create the drawing you wish to work with.
3. Go to the "Hilti" tab.
4. Set the relevant parameters in General Settings.
5. Define Single Point, Block or Multiple Point mode.
6. Export the points to a data file.
7. Save the file on your USB flash drive.
8. Transfer the data from the USB flash drive to your Hilti total station system.

QUICK-START GUIDE
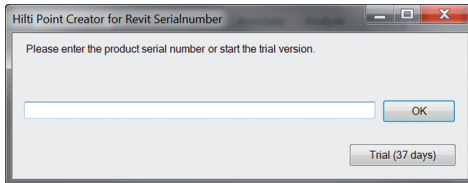# PC Software Point Creator for Revit

Content

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1. General information

1.1 Initial installation

Start the installation of Hilti Point Creator by double-clicking the .exe file and then follow the instructions displayed on the screen.

1.2 Starting Point Creator

After successful installation, Point Creator will start automatically together with Revit.

If no licence key is entered, Point Creator will run as a demo version for 60 days. After this, Point Creator can be used only when a licence key has been entered.
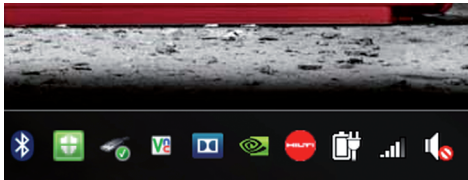
You must be connected to the Internet during the registration process.

The license key can be obtained from your Hilti account manager.

Note:
In the annex you will find an overview of the Revit versions supported by Point Creator.
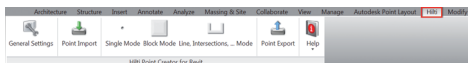
1.3 Updating

You receive updates through the AutoUpdater, which will be installed automatically together with Point Creator during the initial installation. AutoUpdater is located in the taskbar.

After opening AutoUpdater, an overview of the already installed Hilti applications is displayed. If you select one of these applications, details of the currently installed version and the version available from the server will be shown. Click "Download" to download and install the latest version. Click the "Changes" button to display a summary of what has changed since the previous version.

2. Functional overview

Hilti Point Creator offers the following functionality:
- **Settings**
  – General settings (define parameters for point naming, point display and data export options).
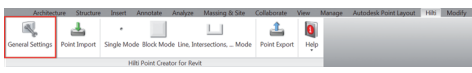- **Point import**
  – Importing point data
  – File import formats are:*.txt, *.csv, *.oml, *.dxf
- **Point extraction methods**
  – Single Point (extracts data from single points and elements).
  – Block mode (points are extracted from a reference block and transferred to other selected blocks of the same type).
  – Multiple Points (selects various graphical elements such as lines, arcs, etc.. and extracts points).

- **Data export**
  – Export (for the extraction of point data - as defined in the settings - in various output formats (coordinates and attributes).
- **Link to the Hilti BIM/CAD online library**
  – Download BIM/CAD objects for all Hilti products to Revit (Hilti BIM/CAD objects can also be used in AutoCAD and other design applications).
- **Help**
  – Help (instructions for use)
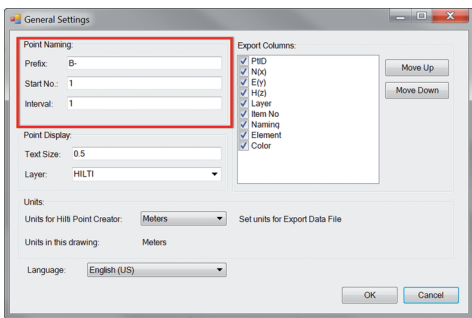 – About (shows the version number and licence agreement)

2.1 General settings

lick the General Settings button to open the menu to define parameters for Hilti Point Creator.
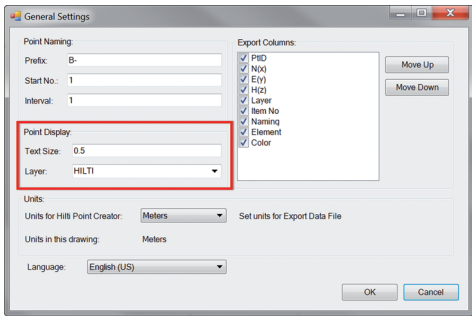– Point naming
– Point display
– Export columns
– Units
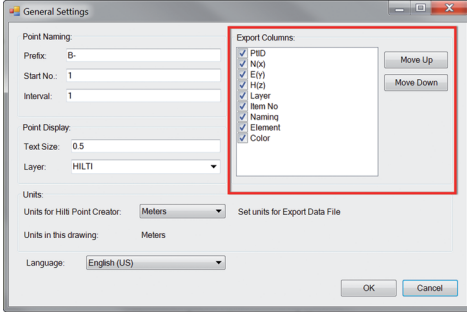– Language

2.1.1 Naming points

Define a prefix for the point identifier (PtID) with a maximum of 6 characters.
The start number is the first numerical value to be added to the prefix.
The interval defines the increments (negative values may be used for decrements).
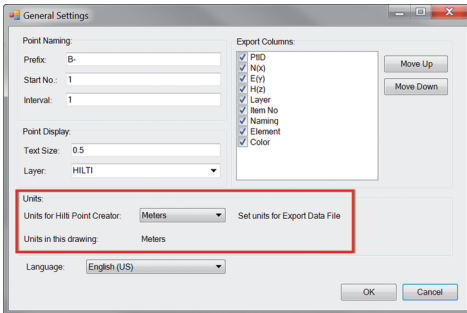
2.1.2 Displaying points

The Point Display setting sets the text size for the PtID that is shown in the drawing.

2.1.3 Exporting columns

Selections made under Export Columns determine which values are to be exported.
The Move Up and Move Down buttons can be used to define the sequence of the data to be exported.
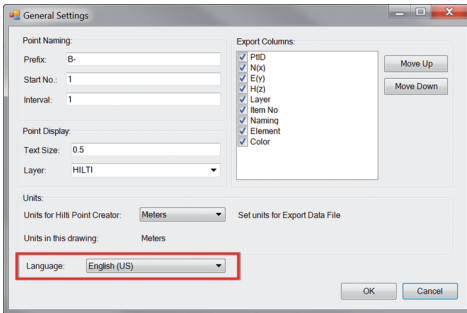
2.1.4 Units

The units to be used for exporting point data can be defined in the settings under Units.

Note:
When exporting data, check to ensure that the Hilti total station and Point Creator use the same units. Scaling errors will otherwise result.
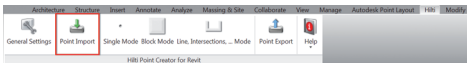
2.1.5 Language

The units to be used for exporting point data can be defined in the settings under Units.

Note:
When exporting data, check to ensure that the Hilti total station and Point Creator use the same units. Scaling errors will otherwise result.
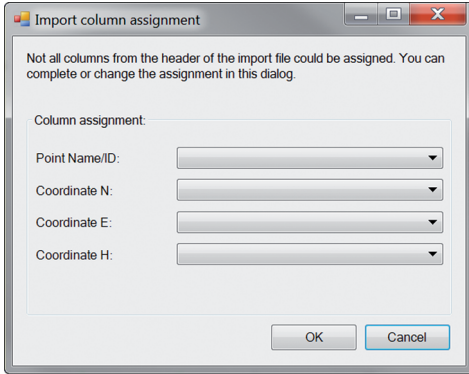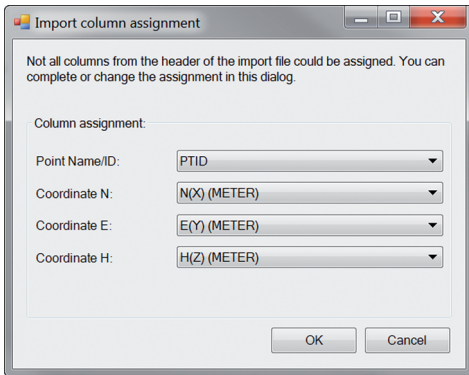
2.2 Importing points

The Point Import function can be used to import existing points into Revit.
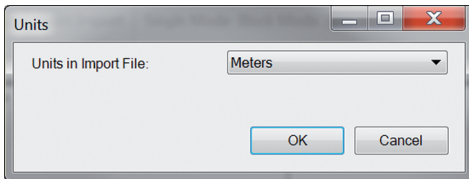This function supports the following data formats:
– *.txt
– *.csv
– *.dxf
– *.oml

If Point Creator is unable to assign the columns correctly when importing the data, or if the units are not clearly defined, an additional dialog will be displayed in which this information must be defined manually.
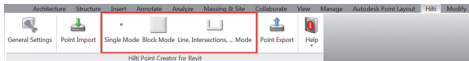
Manual column assignment.

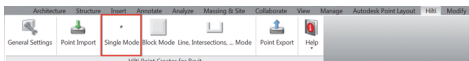Selection of the units to be used for the imported data.

2.3 Point extraction

The Point Extraction menu provides three methods of extracting points from a 2D or 3D CAD model.
– Single Point mode
– Block mode
– Multiple Point mode
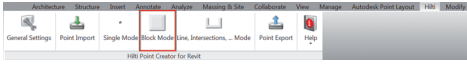
2.3.1 Single Point mode

In Single Point mode the Revit point snapping feature is used to select single points. The desired point is extracted as soon as it is snapped (selected).
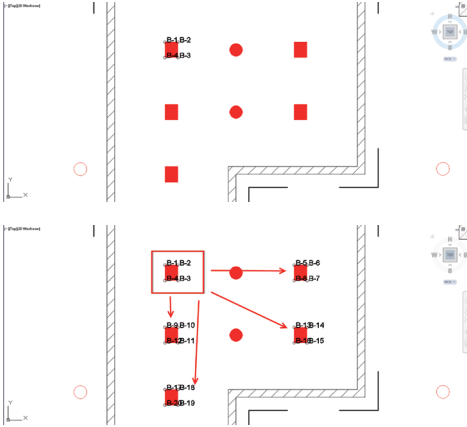
Note:
If a point is not "snapped" automatically, it may be necessary to activate point snapping mode in Revit. Please refer to Revit Help for further information.

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2.3.2 Block mode

Block mode is a powerful option for extracting points from CAD blocks. It "learns" which points are to be extracted from a block and then transfers these to other blocks of the same kind where points are also to be extracted.

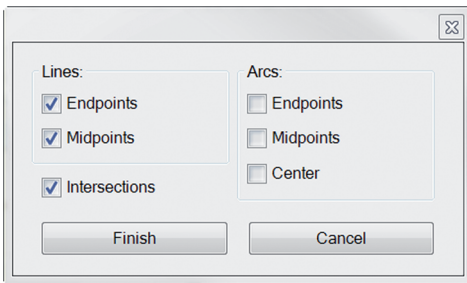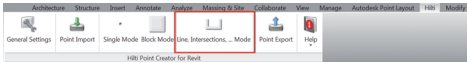**Proceed as follows to transfer points from one block to another block of the same type:**

Learning process
1. Select Block mode from the Point Creator menu.
2. Click the desired block to select it from the CAD model.
3. Within the selected reference block, select the points you wish to extract.
4. Once the points of a reference block are defined or "learned" press ESC to continue with the point extraction.

Point extraction process
1. Click to select all blocks to which the points are to be transferred.
2. Click "Finish" to transfer the points to all selected blocks. A PtID is assigned to all extracted points.
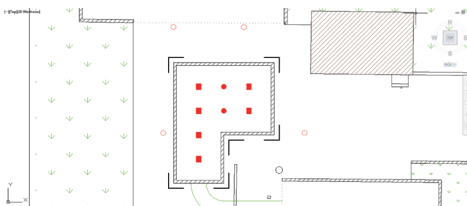
2.3.3 Multiple Point mode

The Multiple Point button opens a menu providing various options for the extraction of points.
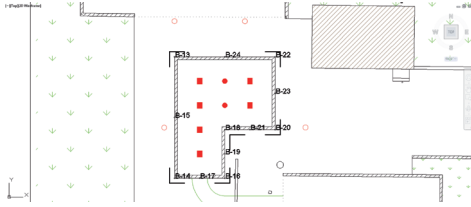Tick the boxes for the relevant elements and options.
– **Lines** (extracts endpoints and midpoints of the line)
– **Arcs** (extracts endpoints, midpoints and center point of the arc)
– **Intersections** (extracts intersections of lines)
– **Polygon corner points**

Proceed as follows to extract points from lines:

Element selection process
1. Select the element(s) (lines, arcs, etc…) to be used for point extraction.
   – Click to select a single element or multiple elements.
   – Drag the cursor to mark all elements within the area.
2. To deselect an element, press the SHIFT key and click on the selected element.

Point extraction process
1. Once one or more elements have been selected, click "Finish" to start the point extraction process. A PtID is assigned to all extracted points.

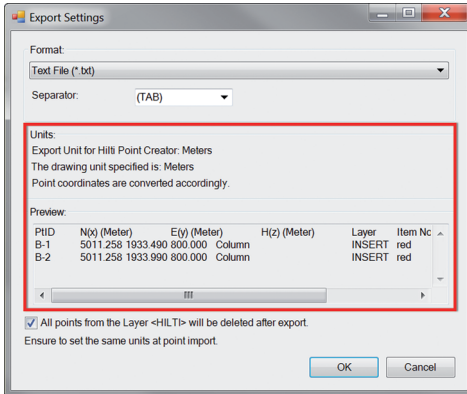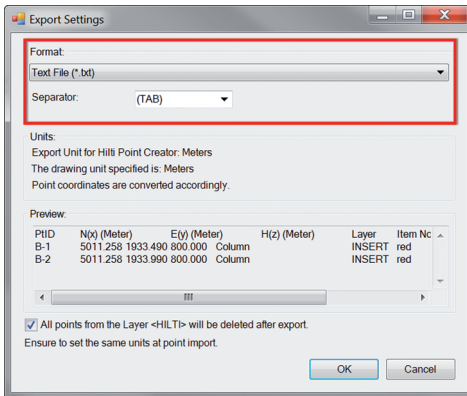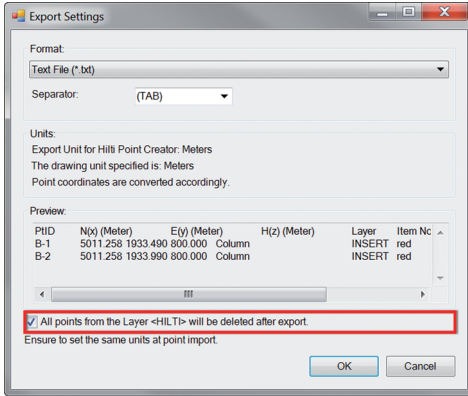## 2.4 Exporting points

The Export button opens a menu providing options for selection of the data export format.
– text format (*.txt)
– Excel format (*.csv)
– dxf format (*.dxf)
– Hilti format (*.oml)

Note: For the *.txt and *.csv formats, the first two data lines of the file can be viewed as an example. The other formats cannot be shown here.

Click OK to export the point data as a file.

If the box is ticked, all points will be automatically deleted from the drawing after exporting the data in a file format.
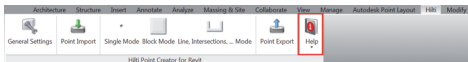
2.5 Hilti BIM / CAD online library

The Hilti BIM/CAD Library button will take you to Hilti Online where you can download BIM/CAD objects for all relevant Hilti products.

Downloaded Hilti objects contain block attributes such as logistics information (item no., item description, order quantity, etc.) as well as approval information and other technical data.

When a point is created from a Hilti object from the Hilti BIM/CAD Library, the applicable attributes for this object are also extracted and subsequently transferred to the Hilti total station. These attributes can then be viewed and used on the Hilti total station.

With this feature, Hilti closes the gap between the planning office and the jobsite, putting important information at your fingertips, on the spot.

2.6 Help

Here you will find the instructions for use and the license agreement.

3. FAQ/Further information

What happens if I don't enter a license key?
If no license key is entered, Hilti Point Creator can be used free of charge for 60 days. After this 60-day period, Point Creator can no longer be used without a license code.

Where can I obtain a license key?
• The license key can be obtained from your Hilti account manager.

When do I need to enter the license key?
• After the installation procedure you need to enter your license key when starting Revit the first time. For the registration process you need to be connected to the Internet.

Versions supported

	2011	2012	2013	2014
Revit	–	+	+	+

+ supported • – not possible

I cannot install the software because the Auto Start function in Windows is disabled. What can I do?
• Insert the CD-ROM in the drive
• Double click the setup file in the root folder of the CD-ROM
• Install the software

How can I update to the latest version using Hilti PROFIS AutoUpdate?
• Open "Programs > Hilti > PROFIS AutoUpdate"
• Select Point Creator and check if a new version is available
• Press "Install" and your software will be updated to the latest version

I lost my installation CD. Where can I download the newest version?
• Go to "System settings > Add/Remove Programs"
• Remove Hilti Point Creator for Revit
• Download the latest version from: www.hilti.com/point_creator_revit
• Install the software on your computer

Hilti has much more to offer in the field of BIM. Where can I get more information?
• Visit www.hilti.com/BIM to get the latest information and/or
• Follow us on Twitter at: www.twitter.com/hilti_bim

What are the minimum system requirements for Point Creator
• AutoCAD or Revit version 2012 or higher
• Microsoft Windows XP or higher
• 1 GB RAM
• 100 MB free disk space

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