Product:	**iCON office**
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iCON office release version 2016.1.952.14

This document describes the latest update of iCON office, so please take your time to read the release notes.

iCON office is a subscription based software and it is only possible to run versions that are released before the expire date of your subscription. To check the subscription date of your license go to the menu, Help>> About >> Subscription Date, in iCON office and check the subscription date.
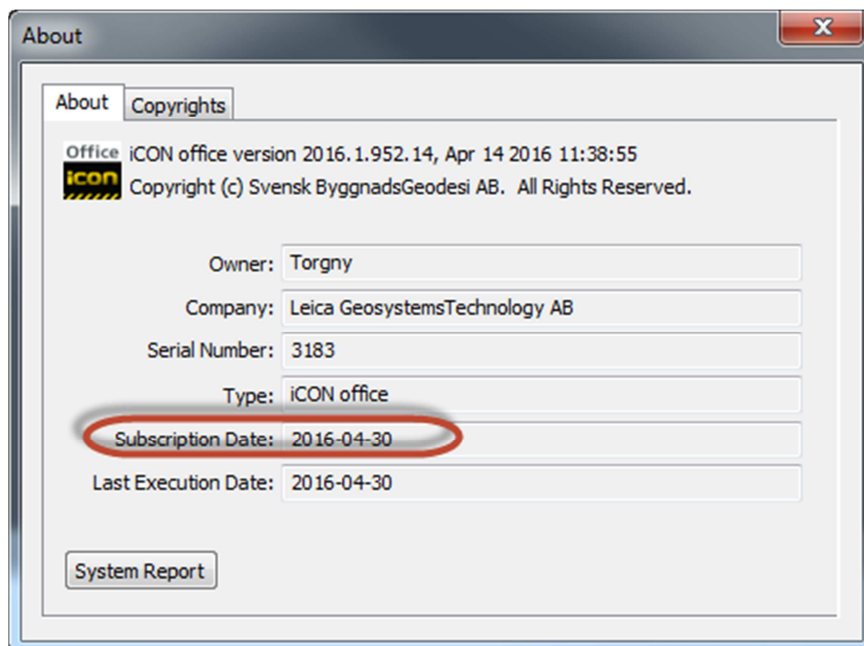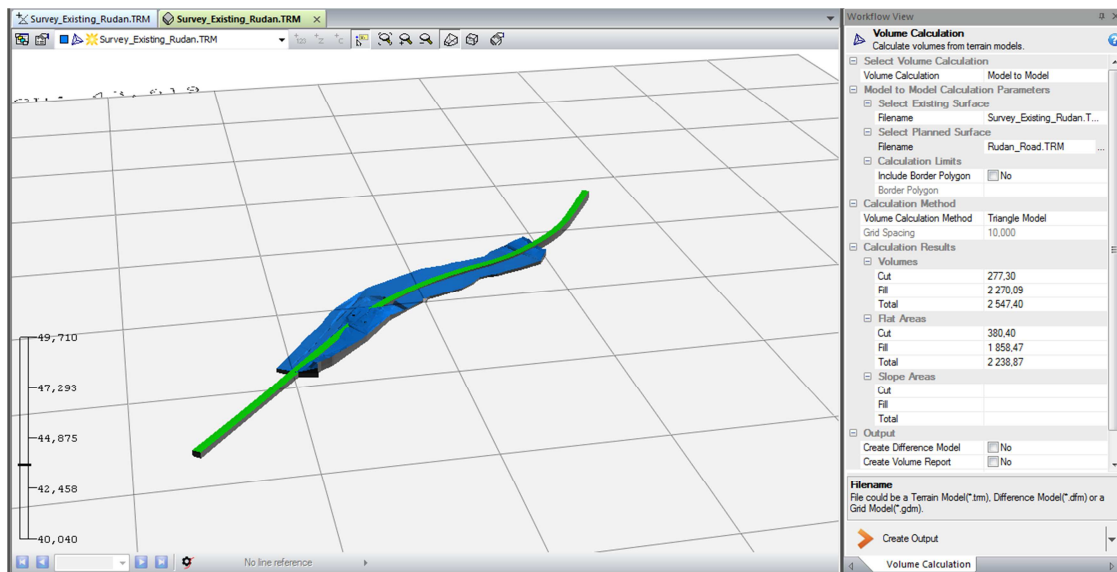
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1 New Functions and Improvements

1.1 Volume Calculation

1.1.1 New User Interface

The user interface for volume calculation from terrain models has moved from a dialog to a workflow view, so the graphical view is not blocked and can be used for viewing files included in the volume calculation.

This can be useful if there are a lot of surface models in a project or if border polygons are used in the calculation. Go the menu, Functions>>Volume Calculation, Model to Model, to open the workflow view. At the top of the pane, the user can select between the methods Model to Model, Stockpile or Reference Level.

1.1.2 Stockpile

Stockpile has been added as calculation method. You can use it to calculate volume and area of a stockpile. The outer edge of the terrain model will be used as the calculation border, both in width and height.

1.1.3 Colored Cut and Fill Map in DWG Format

As an output from a volume calculation a difference model can be generated. The height in the difference model is a delta height, i.e. the height difference between the two surfaces. Earlier only contour lines could be used to illustrate the cut and fill areas. Now an option called, Create Cut and Fill Map, has been added to the data menu for difference model.

This function is also using the workflow view. The user can define height intervals and colors and it's also possible to add a road line with stationing information. As the cut and fill map is exported as a dwg file, most 3rd party software can read it.
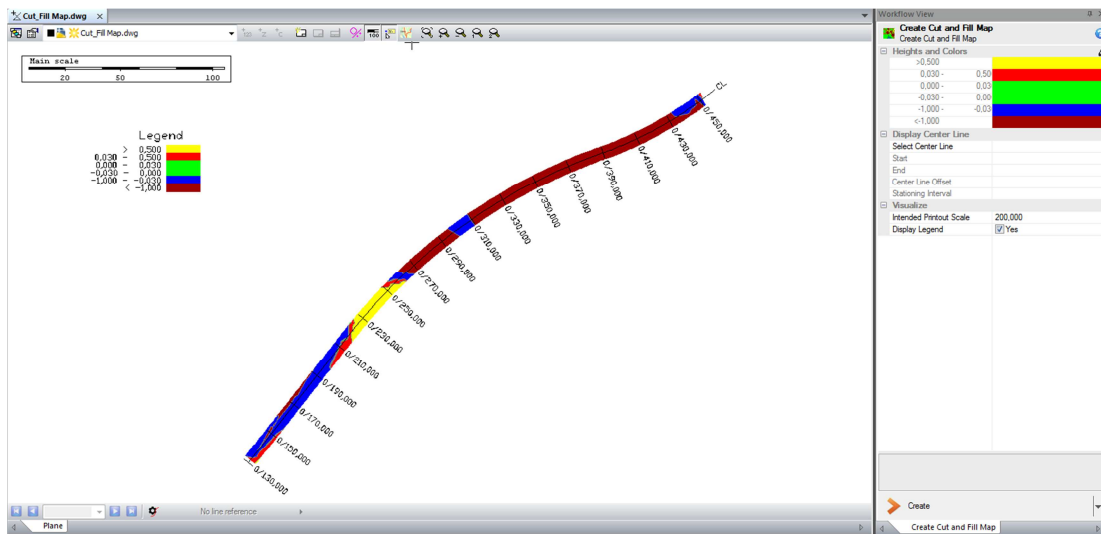
1.2 Improved Workflow for Grid Models

The function to convert e.g. a grid model from iCON 3D, that has been used as a modify model, has been moved to the menu Functions. The workflow view is used for different converting settings.
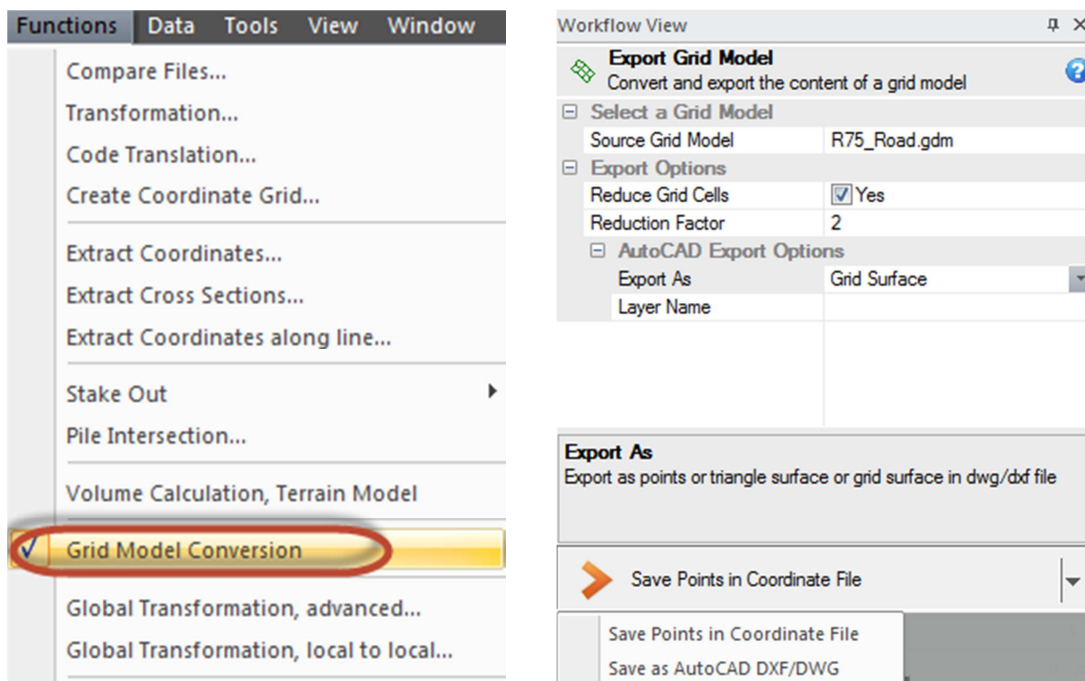
Data in a grid model can be saved in a coordinate file for further processing in iCON office or exported directly as point data, a grid or triangle surface to dwg/dxf. If a very small grid size is used in the field, it's possible to reduce the number of points when the data is converted.

In this version it's also possible to include a grid model in a point cloud. This can be useful for heavy grid models, because then all filtering possibilities in the point cloud module are available for the user.

## 1.3 Create Terrain Model

Two more options are added to the workflow view for Create Terrain Model:

- If the user has used a minus sign [-] as point code, or the point code starts with a minus sign, these points can be excluded or included in the triangulation.
- Another option is that the resulting terrain model can be displayed in the current window or in a new separate window. Earlier the generated surface was always displayed in the same window as the input data.
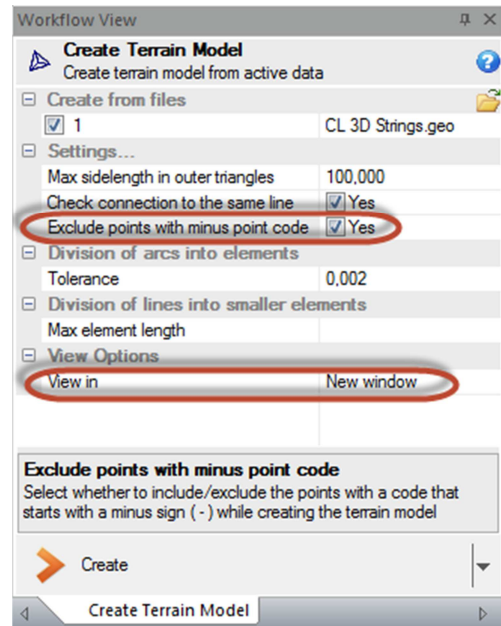
1.4 Colored Tunnel Difference Model in 2D and 3D

In the data menu for tunnel calculations a new function called, Compare Survey to Design, can be found. A 2D or 3D colored difference model in dwg format, with user defined colors and height values, can be created.
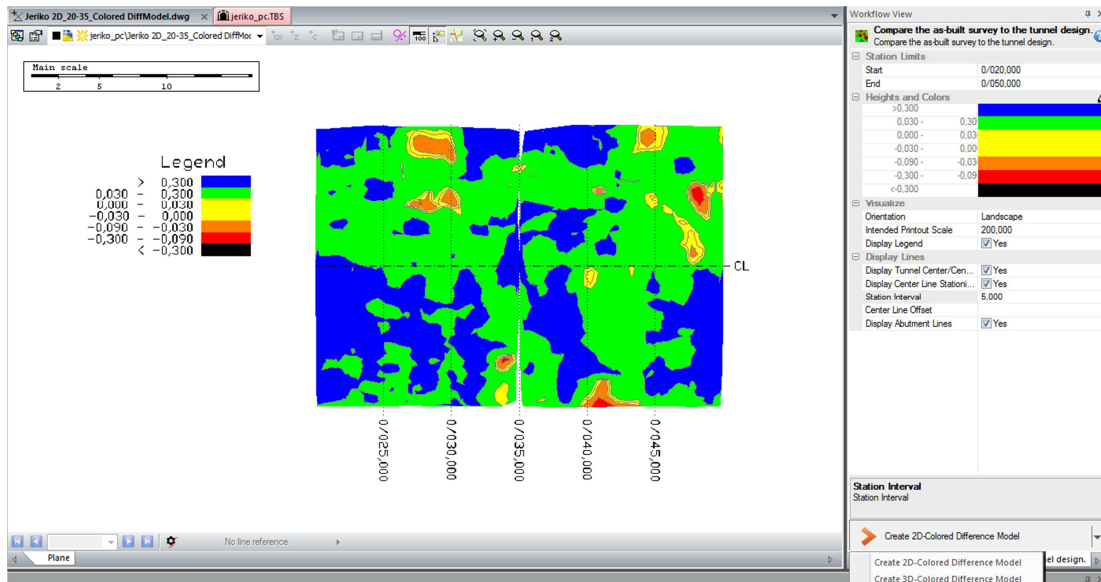

The workflow view is used for the different settings like colors and height intervals, possibility to add a center line with stationing information etc. In this function, design tunnel sections are compared with the as-build. The as-build can be a point cloud from a tunnel scan or a difference model generated from a

TPS survey. The colored tunnel difference model can be used as a report, to display any over cut and under break areas.

1.5 File Transfer to a User Defined Location

A file transfer dialog, File >> Communication >> File Transfer, to transfer files to/from a user defined location, e.g. a download folder, network location or removable device has been added. The latest used path will be saved and used the next time the user opens the transfer dialog.
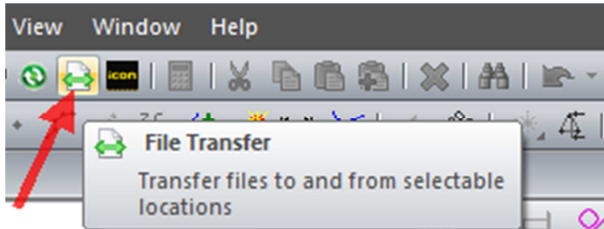
Associated files are handled in the transfer. If the user transfers a road model, e.g. string line model, the included center line and the 3D strings that build up the road model are transferred as well. No file converting is done, so if a LandXML file is transferred the data is not converted to iCON office native formats.

1.6 Surveying

The atmospheric correction for Leica TS 16, TS 60 and MS60 has been added in the predefined list of instruments.

Support for the Topcon leveling format (*.cs1) has been implemented.

1.7 LandXML

Validation of LandXML files is now available in the data menu when a LandXML file is displayed in the graphical window. The result of the validation is displayed in the Input/Output window.

In the LandXML export the version is changed from 1.1 to 1.2

1.8 System and Stability Fixes

iCON office has its own crash reporter that catches crashes of the software and sends reports to the development team. As a result some maintenance and stability fixes have been done in this version.

2 iCON office modules

- 797955 CSW301   **Core Module** – Import/Export and basic functionality

Add-On modules:

- 797956 CSW302   **Road** – Advanced road line calculations
- 797957 CSW303   **Terrain** - Volume calculation model to model
- 797958 CSW304   **Volume** - Volume calculation by sections
- 797959 CSW305   **Tunnel** – Tunnel functionality
- 797580 CSW306   **Net Adjustment** - Network adjustment and calculations

- 832546 CSW313   **Point Cloud** – Import and filtering of scanning data

Available packages:

- 6007380   iCON office Core package, includes installation package, Core
- 6007381   iCON office Terrain package, includes installation package, Core, Road, Terrain
- 6007382   iCON office Volume package, includes installation package, Core, Road, Terrain, Volume
- 6007383   iCON office Tunnel package, includes installation package, Core, Road, Tunnel

3 Subscriptions

- 5305269, iCON office subscription 1 year

- 5305270, iCON office subscription 2 years

Provide serial number of the license or the hardware lock ID, when you order an extension of subscription. Use Dongle Tool to update the USB hardware lock with the extended subscription.

4 Leica myWorld

Please use Leica myWorld to find the latest version of the software. Access Leica myWorld by using the following link:

https://myworld.leica-geosystems.com/

If it is a new iCON office installation the HASP driver must be installed so the computer can recognize the USB hardware lock.

Point cloud utility is the point cloud engine and must only be installed if the point cloud module is purchased.

Menu of the installation package

5 Dongle Tool

Use **Dongle Tool** to update the hardware lock with extended subscription for Leica iCON office or to unlock new modules purchased for the license. Place an order using your normal order channels and when the logistics has processed your order, you can run Dongle Tool and update the USB hardware lock.
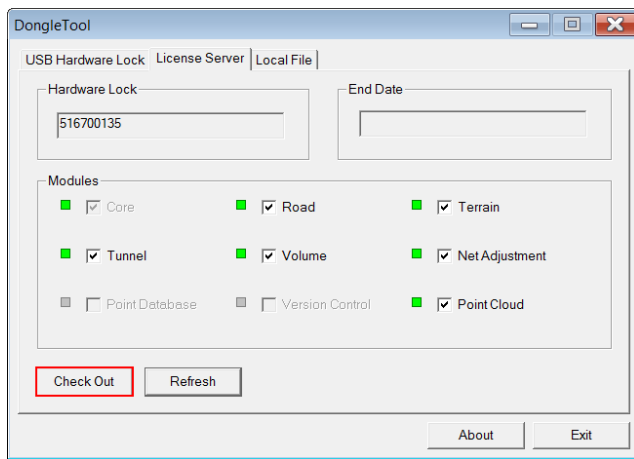
1. Insert the HASP hardware lock into the USB port.
2. Go to Start >> All Programs >> Leica Geosystems >> iCON office and select Dongle Tool.
3. To change the subscription date or to add/remove modules it is first necessary to check in the current license to the license server. This is done by pressing **Check In**.
4. Switch to the **License Server** tab. Select the modules open for use and then press **Check Out**.

This will give the hardware lock a new certificate containing the updated information.