

Leica Geosystems

Release Notes

Product Leica TruView 2021.0.0
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What's New

With this release, JetStream Viewer has been rebranded TruView. The viewer remains a free viewing tool compatible with both files and server-based projects. This is a major release including support for Cyclone ENTERPRISE and a major user interface overhaul.

Ending Windows 7 support

Windows 7 is no longer supported as of this release.

Support for Cyclone ENTERPRISE

Note: Cyclone ENTERPRISE is not released. All information to follow applies to the future release of Cyclone ENTERPRISE.

Leica Cyclone ENTERPRISE is a new, user managed software platform for reality capture project delivery and management. Powered by JetStream technology, Cyclone ENTERPRISE allows reality capture professionals serving all industries to scale from a file-based workflow to a collaborative server and deploy a secure, flexible and self-managed operation.

Leica Cyclone ENTERPRISE offers a range of benefits for new and existing reality capture users:

- Centralized Management: Control user and data management from a simple online, browser-based admin portal
- Seamless Integration: Interoperability with all major CAD products from Hexagon, Autodesk, Bentley, AVEVA, Dassault Systems and others via CloudWorx and JetStream powered technology, delivering rich reality capture-based feature extraction and analysis workflows
- Secure Project Access: Provide secure access to internal and external users on a per project basis. No data leaves the premise. Sessions are managed centrally and remotely.
- Single Source of Truth: Eliminate redundant and duplicated data sources and enable a common project view thereby improving quality and productivity
- Web and Desktop Access: Access via desktop viewer and CAD as well as the no-install online viewer for quick viewing and collaboration from anywhere on any device
- Powered by JetStream: Cyclone ENTERPRISE harnesses the power of JetStream for rapid visualization and powerful collaboration

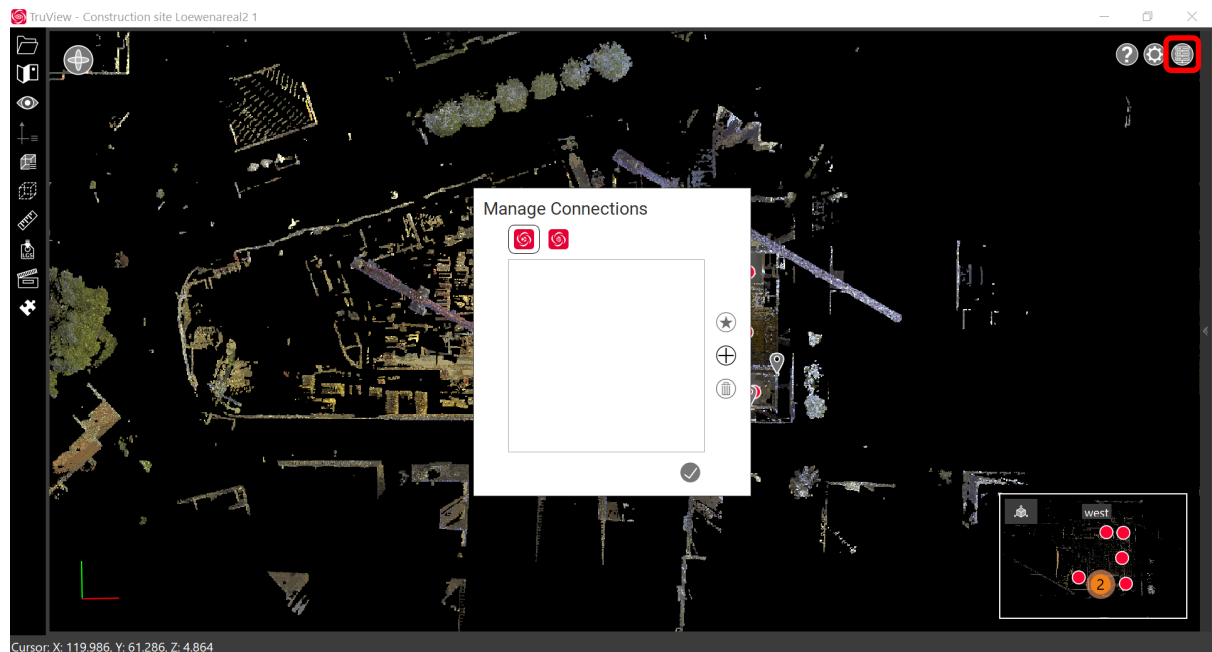
With this release, TruView now supports read/write access to Cyclone ENTERPRISE with the full contents of a project including:

- Point Cloud (RGB, Greyscale, Hue Intensity)
- Imagery (LDR, HDR, IR)
- SiteMap(s)
- UCS(s)
- Clip(s)
- GeoTags (can be modified)
- Assets (can be modified)
- Snapshots/Markups (can be added, modified, and deleted)
- Models (can be added, modified, and deleted)

Projects published to Cyclone ENTERPRISE are accessible within CloudWorx, Verity powered by JetStream and Rithm powered by JetStream with additional products to follow in subsequent releases.

Publishing to Cyclone ENTERPRISE requires a Cyclone PUBLISHER or Cyclone PUBLISHER Pro.

Users can manage their connections to both JetStream Enterprise and Cyclone ENTERPRISE from the Manage Connections area.



Please refer to the Cyclone ENTERPRISE release notes for details on how to connect.

Model Support Improvements

Support for COE models

Within TruView 2021.0.0, users can now work with models in COE format in the same way they can work with IFC and OBJ models. As with all other models, COE models can only be opened when a point cloud is present—whether as an LGS file, , or Cyclone ENTERPRISE project.

COE models will be loaded with colors and shading.

Adopting project coordinates

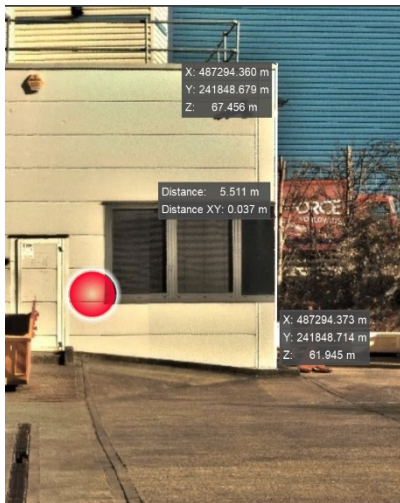
When importing IFC models, the model will now automatically adopt the units of measure of the loaded LGS file. For most models this will mean that little to no manual scaling of the model is required, though the model will still not be automatically aligned with the point cloud if it does not possess the same coordinate system.

Improved Measurement Tools

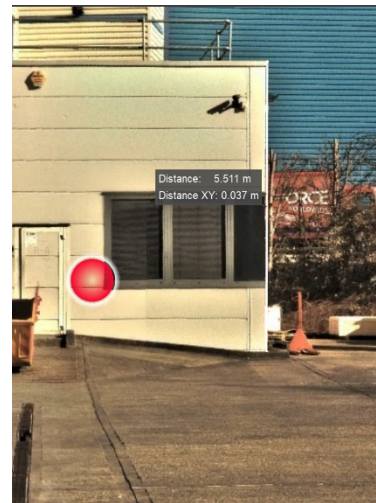
Simple/Advanced Measurement Annotation Style

With this release, the user now has the option of selecting from either Simple or Advanced measurement modes within the Settings. This change allows users to have greater control over the

display and level of information detail that is presented for each measurement. New measurement annotation styles are available for linear, angle and area measurements.



Advanced Mode displays all of the information that is currently presented to the user including the coordinates of each point plus the slope (linear) measurement and the horizontal (XY) measurement.



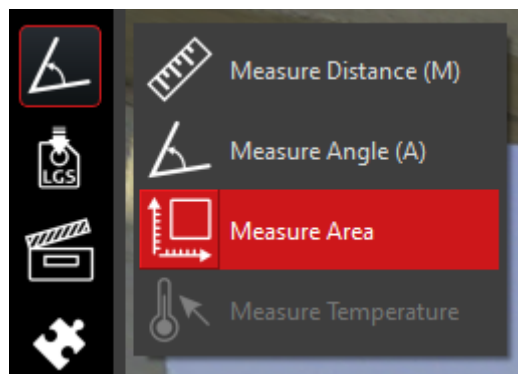
Simple Mode- displays only the slope (linear) measurement and the horizontal (XY) measurement.

Users will also notice that the style and placement of measurement annotations has been changed to provide a more streamlined view of the scene.

Measurement annotations are now more subtle and sit closer to their object without overlapping.

New area measure tool

While in measurement mode, users now have an area measurement option. To use, pick twice to form one leg of the box, then drag out the rectangle and click a third time to close the box. The area of the rectangle will be displayed.





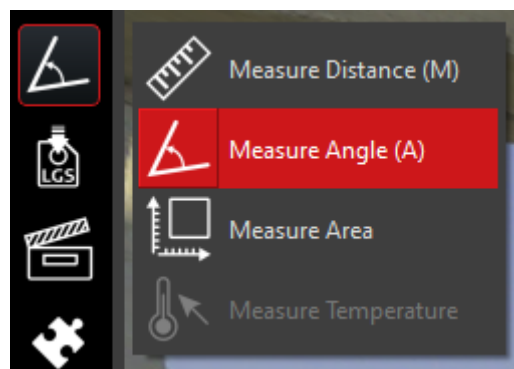
At this time, only rectangular area measurements are supported.

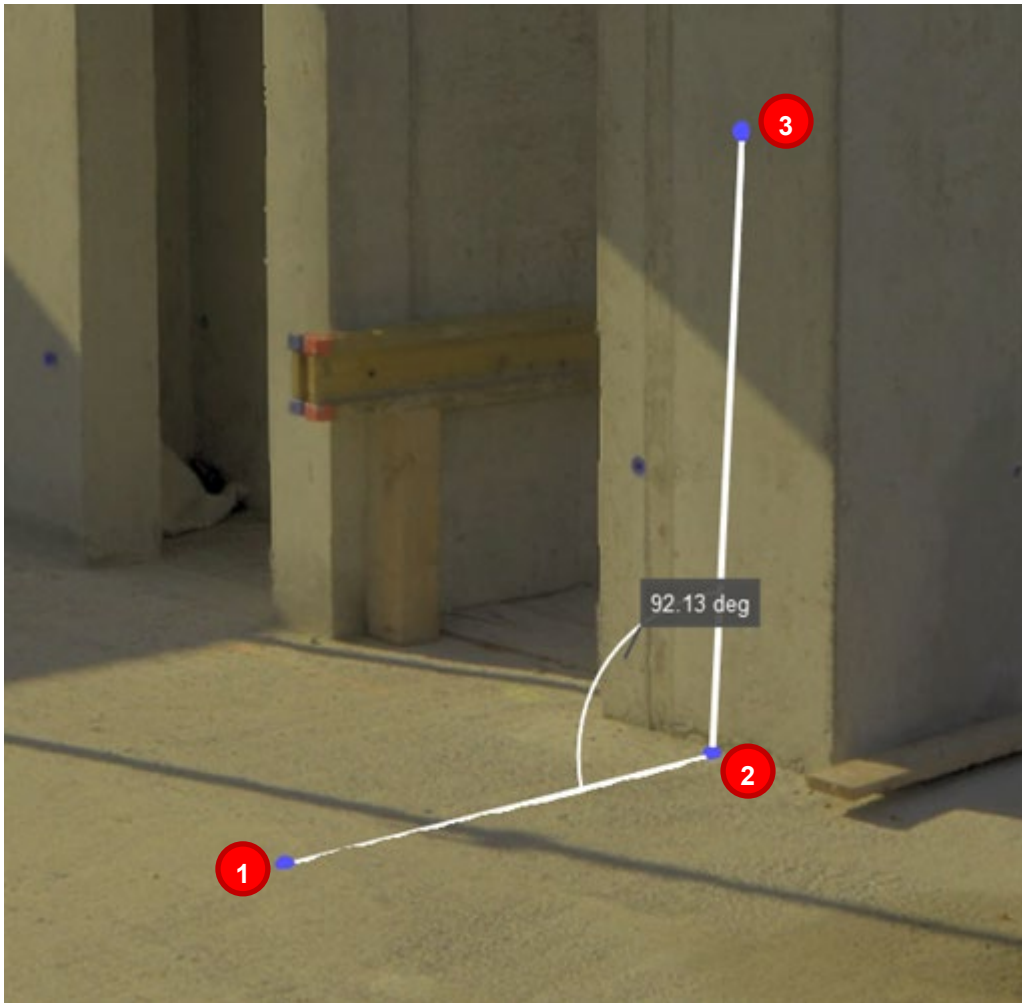
Area measurement annotations will also obey the Simple (below left) and Advanced (below right) annotation styles.



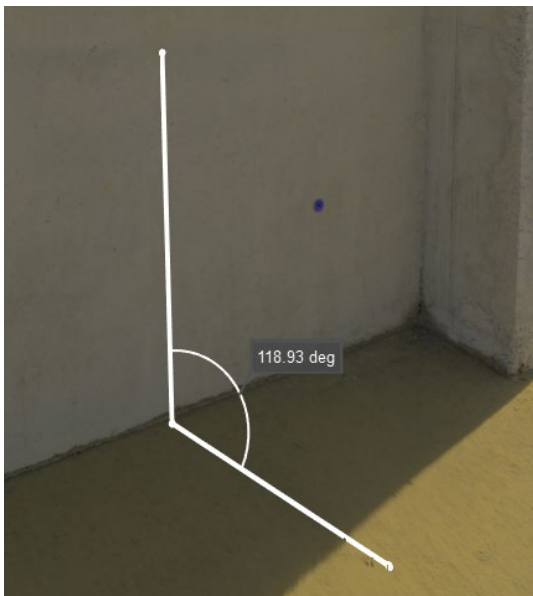
New angle measurement tool

While in measurement mode, users now have an angle measurement option. To use, simply pick on one surface, the vertex then an adjoining surface.





Angle measurement annotations will also obey the Simple and Advanced annotation styles.



Improved multiple measurements

Creating Multiple Measurements – TruView now supports creating multiple measurements in a Project. Creating a new measurement will not overwrite the previous measurement.

Note: Measurements do not get saved into a project. They will only display during the current session.

The creation and viewing of multiple measurements in a scene has been improved to make it easier to quickly create, edit and delete annotations and ensure that they display in such a way that they are easily understandable with annotations clearly associated with their respective marked boundaries.

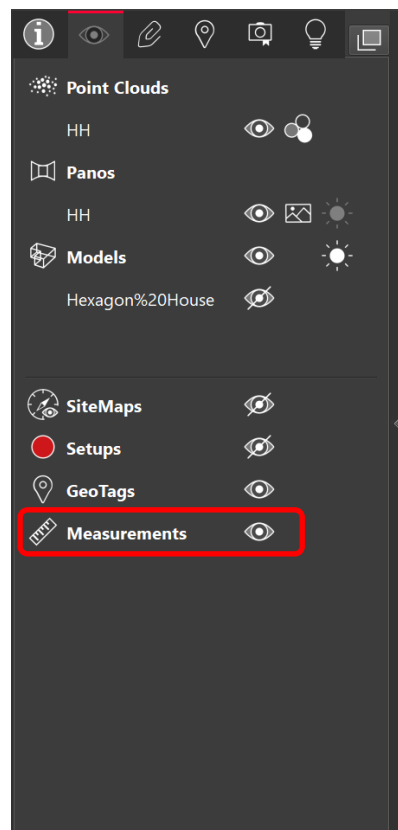


When creating measurements, users will now see a floating tool bar with options to *Accept and Exit Editing Mode* or *Delete Measurement*. If the user selects neither, they will remain in measurement creation mode for the type of measurement they started and can continue to place additional measurements. Users may simply select a different measurement type and continue their session of placing measurements.



Selecting the *Accept and Exit Editing Mode* button will accept all measurements and allow the user to work with other tools. Measurements remain visible while navigating throughout the project.

Selecting *Delete Measurement* will delete only the active measurement not the entire session's measurements. Measurements must be deleted individually. Alternatively, they may be temporarily hidden from the visibility panel.



If a session has been stopped, double clicking on a measurement in a scene will activate it for deletion.

User Interface changes

General changes

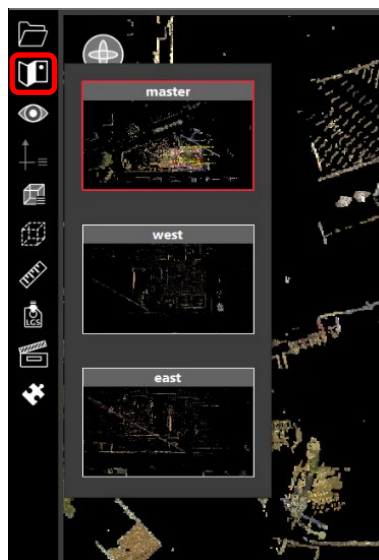
Re-located toolbar

The main toolbar has been re-located from the top of the window to the left to align with other TLS Software products for a unified user experience across the workflow.

Additionally, many actions have been consolidated within the toolbar to provide a cleaner, more easily navigable experience. These include:

SiteMap selector

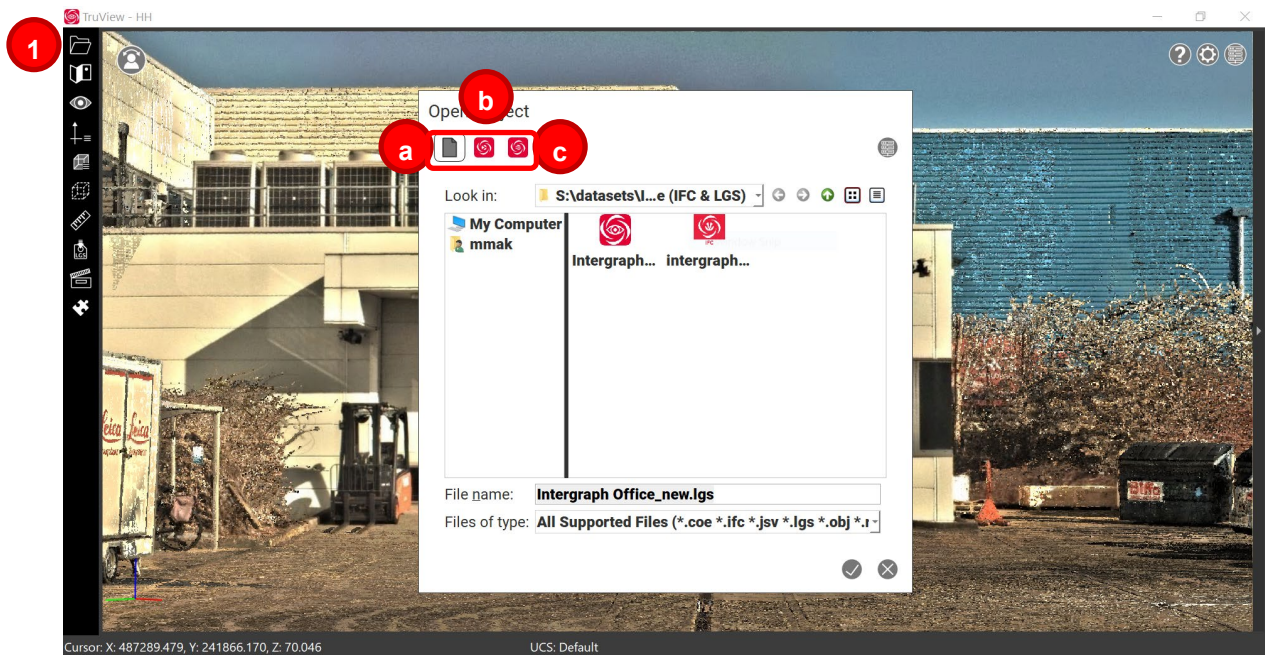
Users can now select between any SiteMaps that exist within a project and navigate between them. This will change what Setups are accessible to navigate between and what SiteMap displays in the Minimap.



Consolidated project browsing

All options for browsing to a project are now consolidated in a single menu for easy access.

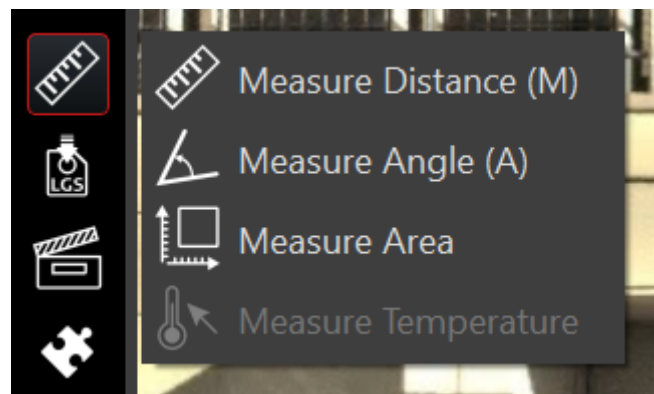
1. Select the Browse button
2. Users can select from:
 - a. Browse Files
 - i. LGS
 - ii. JSV
 - b. Browse Cyclone ENTERPRISE Projects
 - c. Browse JetStream Enterprise Projects



Consolidated measurements

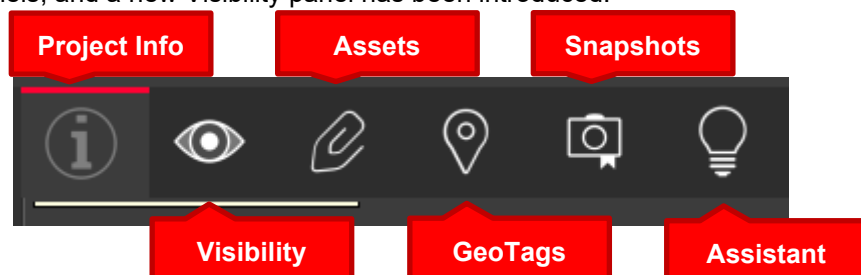
All measurement tools have been clustered under a general measurement icon to ensure the toolbar remains easily navigable.

- Distance (Linear)
- Angle
- Area
- Temperature



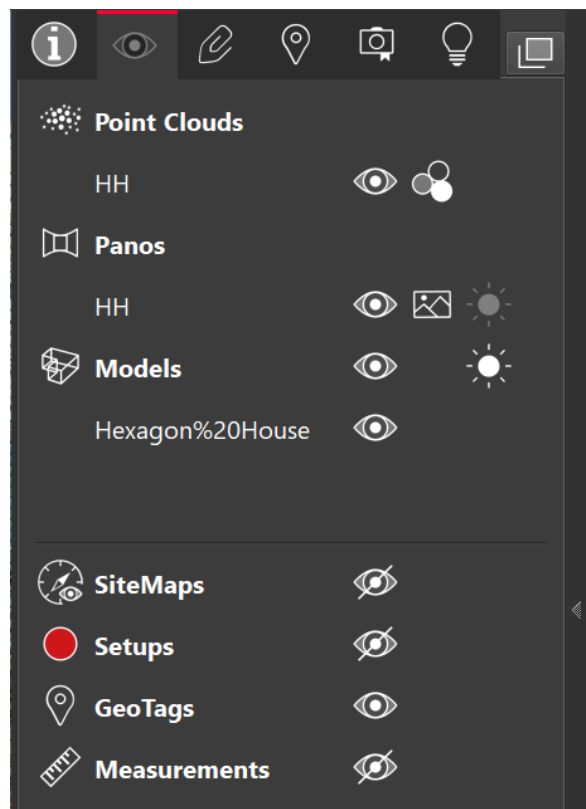
Consolidated panels

The Assets, GeoTags, Snapshots, and Assistant panels have been consolidated on the right side of the screen to streamline project interaction. The Project Info pop-up dialogue has also been moved to the right-side panels, and a new Visibility panel has been introduced.



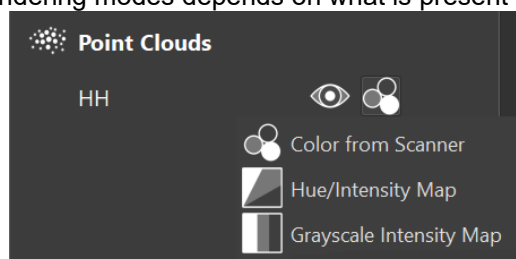
Consolidated visibility options

Users can now control the visibility of many object types from a consolidated visibility panel which can be activated either from the toolbar or from within the right-side panel.

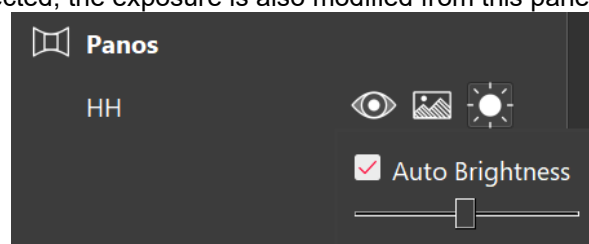
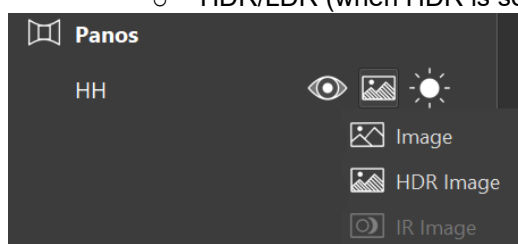


The following objects can be controlled from this panel:

- Point Clouds
 - Show/hide
 - Available rendering modes depends on what is present in the data set

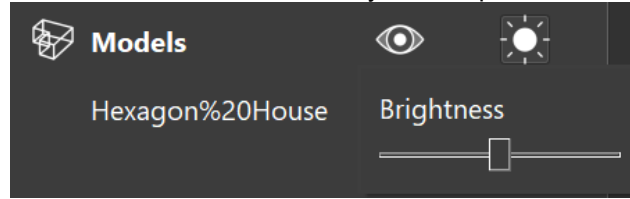


- Panos
 - Show/hide
 - HDR/LDR (when HDR is selected, the exposure is also modified from this panel)



- Model(s)
 - Show/hide

- Brightness – Brightness can be adjusted globally for models
- Models can be turned on/off universally or on a per model basis

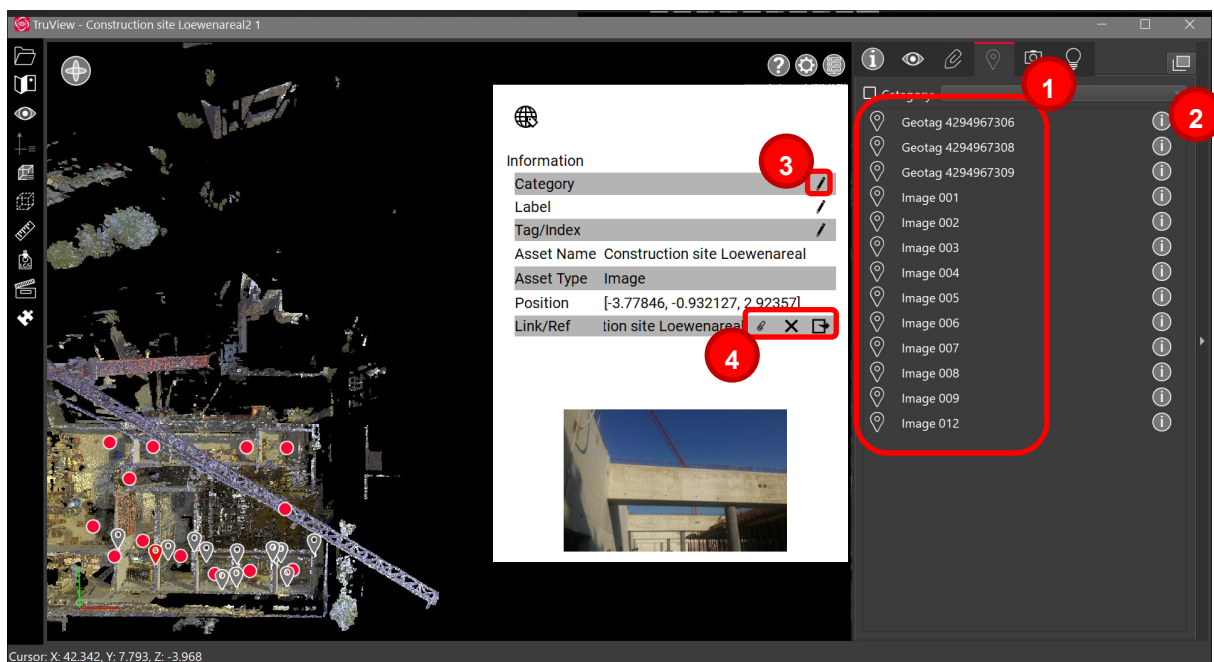


- SiteMap
 - Show/hide the SiteMap object when in collapsed 'minimap' view
- Setups
 - Show/hide Setups
- GeoTags
 - Show/hide GeoTags
- Measurements
 - Show/hide Measurements

GeoTag Editing

With this release, users can now edit the contents of GeoTags via the GeoTags panel.

1. GeoTags will be displayed alphabetically within the panel list.
2. Click on the Info button next to a GeoTag to open the GeoTag's properties.
3. Click on the Edit button to change the contents of any editable field.
4. The Asset associated with a GeoTag can be viewed in large format, can be changed to another Asset within the Project, or remove the Asset linked to the GeoTag altogether.
5. Click ESC to exit a GeoTag editing session.



New surface direction indicator while picking

When in measurement mode, users will now see a direction indicator while picking when the project includes normals. This ensures that users are picking on the intended surface and is particularly

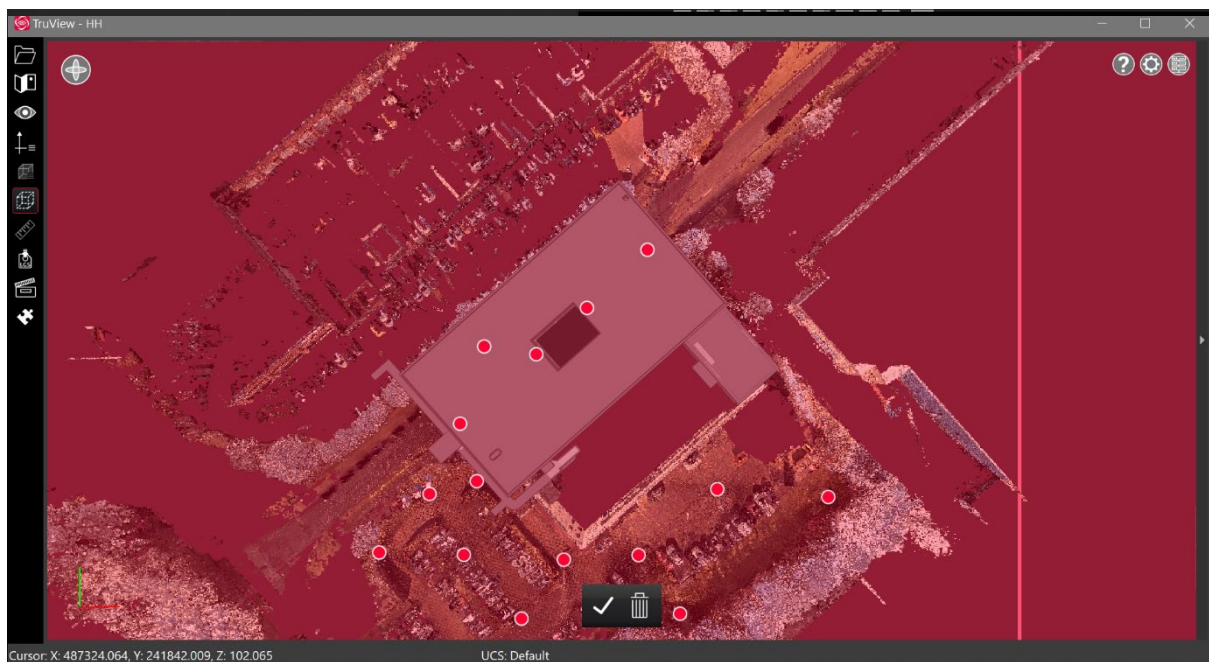
helpful when working with the angle measurement listed above. The surface indicator will only display when the point density is high enough. It will not display when point density is sparse.



Touch-compatible changes

Improved Clip Box Experience for Touch

Temporary Clip Boxes can now be accepted and deleted using on-screen buttons to allow users to interact with them without the use of a keyboard.



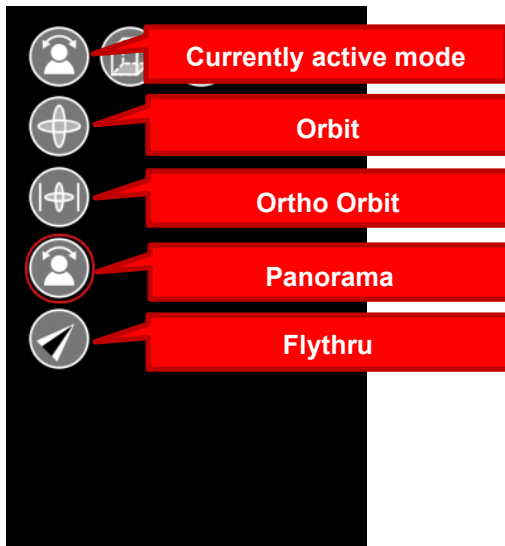
Floating toolbar with navigation buttons

All navigation options can now be found in a new floating, collapsible menu, and remain easily accessible during all actions.

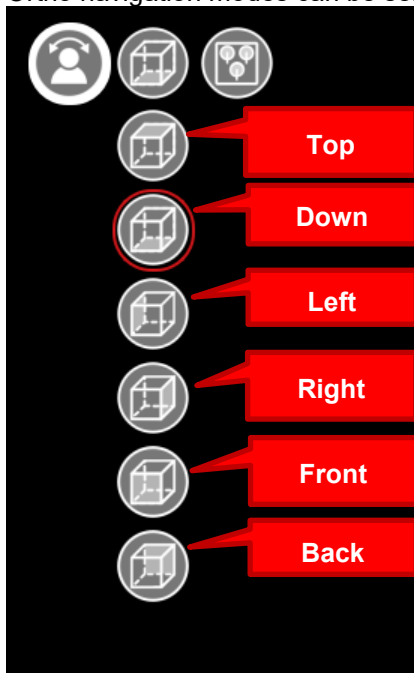
1. Click on the navigation button in the top left of the viewing window. This button will always adopt the icon of the currently active navigation mode.



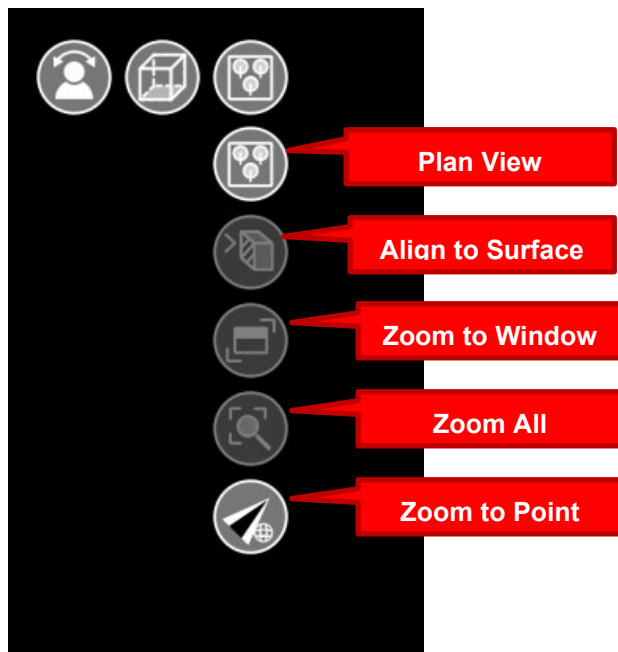
2. Navigation options will expand. Users can select from standard navigation modes:



3. Ortho navigation modes can be selected:



4. Zoom tools can be selected:



Bug Fixes

- Improved the accuracy of measurements when taken from a zoomed-out position.
- Corrected a bug which could cause parts of some IFC models not to import.
- Corrected limit box creation to always be square with the current UCS.
- Corrected a bug that could cause some Assets to appear inverted.
- Corrected a bug that could cause non-visible points to be available for picking during measurements.

Leica JetStream Viewer Compatibility and Upgrades

Compatibility with TruView 2021.0.0 and JetStream Enterprise server

TruView 2021.0.0 requires JetStream Enterprise 1.6 and newer for connected mode to access all features. TruView 2021.0.0 is compatible JetStream Enterprise 1.3 and newer, however non-synchronous versions will result in a limited toolset.

Model Compatibility

TruView 2021.0.0 supports models in LGS files and Cyclone ENTERPRISE projects. LGS files and Cyclone ENTERPRISE projects must be published from Cyclone 2020.1 or later, Cyclone REGISTER 360 (including BLK Edition) 2020.1 or later or JetStream Enterprise 2020.1 or later (for LGS files only) and published with a Cyclone PUBLISHER Pro license (for JetStream Enterprise projects published out as an LGS for model support, this means the project must have been originally published with a Cyclone PUBLISHER Pro license).

Disconnected Mode

TruView 2021.0.0 can be installed and used without connecting to a JetStream Enterprise or Cyclone ENTERPRISE server. The free, stand-alone Viewer can open/read JetStream Viewer (JSV) files as well as LGS files. LGS files are exported from the JetStream Enterprise admin utility, Cyclone ENTERPRISE or from the Cyclone REGISTER family.

The disconnected mode, when viewing JSV files, does not support access to saved User Coordinate Systems (UCS) nor saved limit boxes, slices, and clips. This project information is stored in and managed by JetStream Enterprise, Cyclone ENTERPRISE or available in an LGS file.

Portable Mode

TruView 2021.0.0 Portable is a free, no-install version of the Viewer that can be packaged on a thumb drive and run from any PC, no network or Wi-Fi access required. Leverage most of the TruView's capabilities (all the same capabilities as the Disconnected Mode) in a go-anywhere package that can be navigated by even the most inexperienced point cloud user. Perfect for sharing data with organizations with IT hurdles for new software or as a marketing tool for prospective customers. The free viewer can read LGS files written from Cyclone, the Cyclone REGISTER 360 family, JetStream Enterprise or Cyclone ENTERPRISE projects and JSV files created before March 2020.

Deprecated Features

Leica Geosystems strives to provide support for the widest array of operating systems and file formats possible as is reasonable given current technologies and support from third-party partners. With each release, we review our list of currently supported formats and operating systems in line with industry trends and announced product terminations.

Leica Geosystems may add or terminate support for a file format during any release. Obsolete operating systems will be supported for six months after their announced termination or the next major software release, whichever comes first. Server products will be supported in alignment with Leica's Client License Manager (CLM) supported servers to guard users against incompatibility.

TruView 2021:

- Windows 7 is no longer supported.

Known Issues

Incorrect Clip Box behavior

Measurements picking ignores the active limit-boxes

When using measurement tools, users can select points which are not visible due to clipping. This extends to both temporary Clip Boxes and Limit Boxes published as Clips from upstream.

Model rotation rings clipped by clip boxes

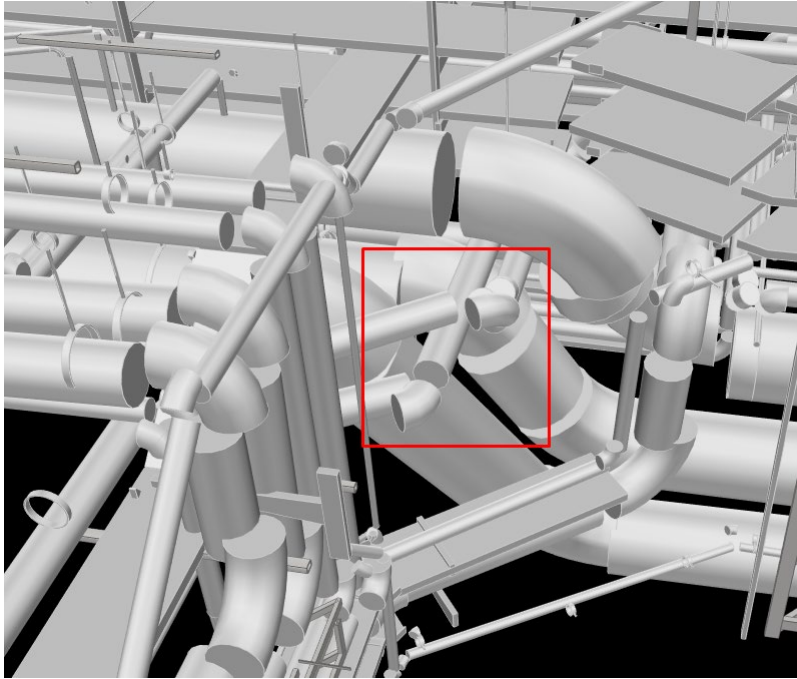
When rotating a model, the rotation rings will obey an active clip thus being cut off when a temporary Clip Box or upstream Clip is active.

Model resizing

A previously scaled model may return to its original (as imported) scale upon being moved with the Align to Point function.

IFC models with large extents

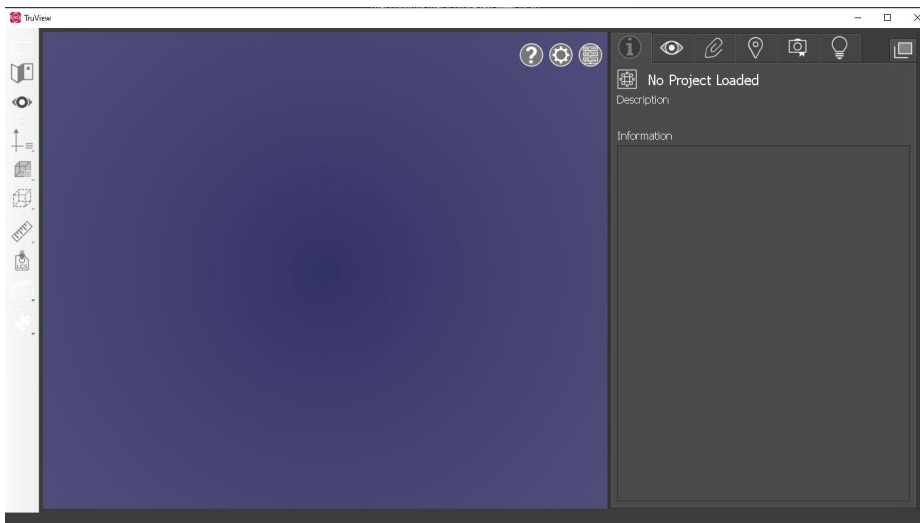
When project coordinates are too large, and not centered on the model itself, some components will not render correctly when rotating around the model



Style sheet issue

The TruView stylesheet occasionally stops working causing the buttons in the main toolbar to turn white.

Workaround – Close and reopen TruView.



GeoTag preview does not close

When hovering over a GeoTag in the main viewing window the image preview does not close sometimes.

Workaround - Close and reopen TruView.



Changing the active server connection will cause a project opened in the current connection to stop working

If a project from one server is open and the active sever is switched to another server, the existing project will not work properly.

Workaround – If another server is set to the active server, close the current project.