Leica Geosystems
Release Notes

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What’s new

This is a major release including over 20 new features for Cyclone. This release further improves Leica Geosystems’ HDS Software product offering to promote simple data transfer and easy workflows to take users from data capture through preparation, data management, and delivery to end users.

General New features

Support for BLK360 data capture with Cyclone FIELD 360

With the release of Cyclone FIELD 360 2.0, users can now operate the BLK360 to automatically capture, pre-align and examine scan and image data, directly within the Leica Cyclone FIELD 360 app from any tablet iOS or Android mobile device. The powerful mobile-device app links 3D data acquisition in the field with the BLK360 and data registration with Leica Cyclone REGISTER, providing the most streamlined service for registering and publishing your captured data.

Cyclone FIELD 360 with BLK360 support showing four setups linked (pre-aligned) on the tablet application.

Cyclone FIELD 360 2.0 with BLK360 support can now collect and link BLK360 scan data. See the support documentation in myWorld for more information on the use of the latest Cyclone FIELD 360 features.

1. After Cyclone FIELD 360 data collection, click the info icon in the upper right corner of the app to open the Sync Server option dialog.
2. Check the Sync Server checkbox to activate the server. It will provide an IP address for use in the following steps.

*Note: If you are unsure of your IP address, simply search IP address in any internet browser.*

3. Next, open Cyclone REGISTER create a new project and use the new command **Import Cyclone FIELD 360 Project**...:
4. Enter the IP address of the tablet (from Step 2) in the connection dialog:

5. Once you have connected, the import options dialog will appear. Select the desired options and click OK.

6. The Smart Align window will open to allow for inspection of the links and data. Click the **Check Links with Setups Silhouette Images** checkbox to view the Preview scan images. From this point on the workflow is the same as the RTC360 workflow (reference Cyclone 9.3.1 release notes for details on its RTC30 workflow):
Support for Autodesk RCP format

Cyclone now supports the RCP format from Autodesk, allowing seamless integration with all Autodesk programs such as ReCap and the AutoCAD suite of products.

- Export of RCP:
  When the user possesses a Cyclone PUBLISHER Pro license, a unified cloud can be exported to RCP. Unified clouds do not support images.

  The new command is available under the File | Export menu in the Cyclone navigator and from the ModelSpace File menu.

- Import of RCP:
  RCP point clouds, including images, can be imported.

  The new command is available under the File | Import menu in the Cyclone navigator.

Detect Moving Objects Filter

This new filter works on a registration to detect objects that have moved between setups. Moved points are marked in red after the filter has been run on a registration.

The supported and tested formats are:
- BLK360
- RTC360
This filter works optimally when the scan positions surround the data being filtered and the scanner locations are less than 10 meters apart. Data should contain high resolution scans only (and not be mixed with lower resolution scan data) to produce the best results.

**Detect Moving Objects works on data imported in Cyclone REGISTER 9.4 or later.**

1. To run the filter, open a Registration ModelSpace. From the File menu go to: Create Object | Segment Cloud | Detect Moving Objects.

2. After the filter has finished, the moved points will be placed in a layer marked “Noise Points”. The user can then review the candidate points and selectively delete them using standard fencing methods.
Support for Password protected LGS files and JetStream Projects

With the release of Cyclone 9.4, users may assign a password to LGS files and JetStream projects upon publishing from Cyclone to ensure secure transmission from provider to end user. Passwords must be entered each time the project or file is viewed in CloudWorx or JetStream Viewer, as well as when a password protected file is uploaded to TruView Enterprise or Cloud. Passwords must contain six or more alphanumeric characters. The appropriate PUBLISHER license is required for publishing LGS files or JetStream projects.

Passwords cannot be recovered or changed for either projects or files but may be removed and re-added from projects within JetStream Enterprise or re-published from Cyclone or Cyclone REGISTER 360.

Cyclone does not accept password protected LGS files that contain non-ascii characters.

Preview RTC360 scans in Import dialog

RTC360 preview scans can now be viewed in the SmartAlign dialog.

1. To view the Preview scans, open any RTC360 project and check the Check Links with Setup Silhouette Images box.
2. Set the view of the Setup Silhouettes you wish to view. There is an option to view the preview scans in Black&White as well as random colors to better identify points contained within different setups.

Auto Sphere Target Extraction
Sphere targets can now be automatically detected and created in the ControlSpace during the import process to assist users of third-party hardware. Sphere targets can be fitted in any dataset originating from any scanner.

1. Open the Import dialog and select **Find Sphere Targets**:

2. A Target Verification window will appear. The user will then verify the sphere extraction as they would a B&W target:
3. Users can also set a sphere diameter within the Preferences:

**Note:** To ignore sphere targets, the diameter should be set to 0.

**ProScan Target Calibration Module**

This new tool is used to create calibration file that is then used to calibrate ProScan Scanners. The ProScan Target Calibration Module requires a Cyclone REGISTER license.

The new Command is located in the ModelSpace under Tools | ProScan Targets Calibration Helper.

1. Create a new ModelSpace or import the *.las profile scan to be used in calibration
2. Go to Tools | ProScan Targets Calibration Helper
3. A dialog will open:

- Step 1- Browse to the TPS file with the control coordinates and click OK.
- Step 2- Browse to the *.las profile and click ok
- Step 3- Click the **Import button** to import the las and TPS files
- Step 4- Click **Detect Targets**
  - This command will take the TPS target locations as seed points to automatically find and extract the B&W targets from the LAS profile scan
- Step 5- Inspect the target extraction by selecting the targets with the pull-down menu. Inspect the quality of the extraction. Use the Refit or Set to Pick point to adjust the location of the target.
- Step 6- The output file name will automatically be filled in but may also be changed.
- Step 7- Click the **Write File** button to create a calibration file
- Done

The file generated is then used in ProScan Software to calibrate a ProScan Scanner.

**Image Features and Enhancements**

**RTC360 Panoramic image improvements**

Panoramic images now import with better clarity, smoother edges and increased brightness for a richer HDR experience.
**Batch apply tone map settings**

Users can now apply image settings in the **Tone Map Editor** to all selected Setups /ScanWorlds.

1. Check the **Batch Apply** checkbox and click the OK button.

2. Then select the ScanWorlds to apply the tone map settings to and click the OK button.
Batch export and re-import panoramic images

With a Cyclone PUBLISHER PRO license, users can now export and re-import panoramic images.  
1. Simply select a Project, ScanWorld(s) or a Registration ScanWorld, then from the context menu select either **Batch Export Pano Images**… or **Batch Re-Import Pano Images**…:

To export Panoramic images:  
1. Select the export folder to begin the process
2. After export, two images will be exported per Setup/ScanWorld: a jpeg and an EXR file. The JPG file is the tone mapped panoramic image and the EXR file is the full HDR version of the image. The exported resolution will match the resolution of the existing pano image.

To import Pano images:
1. The exported jpeg image can be edited and then re-imported. The name and aspect ratio of the image must remain the same to re-import and map the pano. Only the jpeg image can be re-imported. The EXR file can be edited and re-imported, but only if the EXR file is saved as a jpeg and named the same as the Setup/ScanWorld it belongs to. The other JPG must be removed from the folder if using the EXR\JPG version.

New 5120 panoramic image import/export for RTC360 images
The full unique pixel resolution of the RTC360 HDR camera can now be imported and exported with the addition of the new 5120 pano image resolution option. Export to LGS, JetStream Enterprise, TruView Enterprise, and TruView Cloud are supported.

- Users should be aware that using the 5120 export option will result in increased file sizes
- 5120 export is only supported when the native image resolution is 5120.
Ortho Image enhancements

Cyclone 9.4 includes numerous enhancements to the recently introduced Ortho Image workflow, including both image quality improvements and usability improvements for increased efficiency.

Image handling improvements:

- Support for large image sections
  - The image is now automatically split into a grid to support high-resolution settings during image creation. Images are split if the image generated is higher than 8K pixels in one direction.
The Ortho Image section tool has been enhanced by improving the overall image quality to provide sharper edges and better overall clarity. See example below.

- Added support for image smoothing. The options are: none-low-medium-high.

**Workflow improvements for section creation:**
Users can now determine the direction of the slice with an arrow indicating the viewing direction. Clicking left to right versus right to left produces different viewing directions:

Panoramic image now available in the ModelSpace

Users can now view images, both IR and RGB, in the ModelSpace instead of only in the TruSpace, providing greater flexibility and efficiency for visualizing data.

1. Open any ModelSpace and set the view from the scanner location (pick on the point cloud and click “A”—the default hotkey, to align)
2. From the top menu, go to View | Show Images and View | Show IR images. A new Toolbar has been added to support this feature:

Allow the import of individual RTC360 Job folders

Job folders can now be directly imported without the RTC360 storage folder for more nuance in the data import process:
Import/Export Features

Change authentication steps for publishing to TruView Cloud

Cyclone now checks the authentication for TruView Cloud login credentials first and then creates the TruView data to upload if the authentication is successful, rather than checking credentials post-upload queuing. This change prevents delays when incorrect credentials are entered.

Import of Cleaned Scans from Cyclone REGISTER 360

Data imported into Cyclone from Cyclone REGISTER 360 now includes the cleaning done in Cyclone REGISTER 360. Previously, only the full, uncleaned cloud could be imported into Cyclone from Cyclone REGISTER 360.

PTX and E57 export of separate files

Batch export of multiple Scan Worlds to separate E57 and PTX files is now supported. Export of separate files can be performed by selecting a Registration Scan World or Scan World. Export can happen from the Cyclone Navigator or a ModelSpace. Transformations will only be obeyed if the export is originated from the Registration Scan World.

1. Select either a Registration Scan World or individual Scan Worlds, then from the File menu in the navigator or the context menu, select Export as Separate Files:
2. Then select either PTX or E57 and select an export folder:

Option to use scan name as Setup name or Setup name as Setup name

Users can now select if they want Setup names to conform with either scan names or ScanWorld Setup names upon export to E57 for easier data handling by users who do not have intimate familiarity with the project. When imported into 3rd party programs, users can now opt to display the ScanWorld name (Setup name) as an option during E57 export.

When exporting E57 previously, Cyclone used the Scan name (shown below) as the Setup name:
For example, when this scan imported into another program, the Setup name would be “Scan”, not “SW-001”. Now, with the new option, the Setup name can become the ScanWorld name, in this case, SW-001 not Scan.

1. To use this feature, export an E57. There is a new option in the export dialog called **Use Setup Name as Scan Name**:

2. When re-importing an E57 that has been exported using the above option, there is a new import option- **Use Scan Name for Setup Name**. This will properly name the E57 when the E57 is imported.
**LAS file format support**

Cyclone now supports LAS export. LAS version 1.0 through 1.4 is supported with Points, RGB, Intensity, and transformations.

**Import and export LAS and PTS in feet and meters**

Import and export of LAS and PTS formats can now be processed in either meters or feet.

1. To import LAS with the user-specified unit, a new preference has been added to the import options:

![Import Preferences](image1)

2. To export LAS with the user-specified unit, a new preference has been added to the export options:

![Export Preferences](image2)

**Support for Setup icons clustering in downstream SiteMap views**

Cyclone no longer burns Setup icons onto the SiteMap image in support of the dynamic display and clustering of Setup icons in both JetStream Viewer and TruView. Users of these consuming products who were working with very large or densely scanned datasets would often encounter issues with the display of Setup icons on the project SiteMap due to their static nature. This change allows users to zoom to a level where each icon can be easily distinguished from its neighbors and thus easily selected. Both consuming products also allow for displaying the clustering of the Setup icons for a cleaner looking SiteMap. The dynamically clustering and exploding icons also indicate the number of Setups represented. Please see release notes for JetStream Viewer and TruView for more information.
Clustered Setup icons published from Cyclone as seen in TruView.

**Granular publishing options for JetStream Enterprise and LGS export**

Additional export options have been added for LGS files and JetStream Enterprise projects, including:

- User Camera Positions: allows the user to optionally include the user-defined camera positions or only Setup positions
- Owner Info: allows the user to enter additional information regarding the project's creation for viewing in TruView and JetStream
- Option to select the resolution of the SiteMap.
- List of the number of ScanWorlds, Clips and saved UCS'
- Ability to change the project name for clarity in downstream applications (JetStream Enterprise only).
- Pano export resolution option, providing all possible options based on the project's native image resolution.
- Password protection to ensure secure transmission from producer to end user.
- Option to not publish pano images to reduce file size.
Support for the latest BLK360 firmware

Emissivity

There is a new option in the BLK360 settings dialog for emissivity to help users fine-tune the accuracy of the relative temperature gradient displayed downstream. The user can select a setting between 0 and 1.

The emissivity of the surface of a material is its effectiveness in emitting energy as thermal radiation. Thermal radiation is electromagnetic radiation and it may include both visible
radiation and infrared radiation, which is not visible to the human eye. The emissivity of a surface affects how accurately the IR sensor in the BLK360 can record a surface temperature. The emissivity setting allows the user to set a value for the emissivity of the surface being scanned. Please refer to the BLK360EmissivityGuide.pdf in the install directory for details on emissivity and a guide for determining the appropriate emissivity setting based on capture conditions.

Support new tilt compensation without image option
The BLK360 Data Manager now supports capturing data without images.

Note: 1 and High are the recommended universal settings. If you plan to use an alternate setting please refer to the BLK360EmmisivityGuide.pdf document and conduct a test scan prior to executing a large project as the IR display cannot be modified downstream in Cyclone REGISTER 360.
Note: The option to take an image must not be used if the BLK360 scanner is using Firmware release 1.2.1 or earlier.

Auto-population of ID/Tag field for GeoTags imported from RTC360

Cyclone FIELD 360 Tag names will now auto-populate the mandatory ID/Tag index field in Cyclone to ensure a consistent experience across products and simple identification of GeoTags downstream. The Tag/Index can be manually edited if the user wishes.
Import Text file that contains a list of GeoTag ID entries

Users may now import a text file with ID/Tag index entries into Cyclone which will populate the Tag/Index field for easier Tag/Index entry with less human error.

Improved RTC360 GeoTag behavior during Registration

When importing RTC360 projects, GeoTags are now automatically copied from the imported ScanWorlds to the Registration ScanWorld’s ModelSpace, eliminating the need to do this step manually.
Selection of setups for RTC360 import

Users can now select individual setups within the Job folder for RTC360 data import to prevent users from spending time importing data that will not be used in a project.

Read ZFS pano image as background image

Cyclone now supports image files, when present, in ZFS projects. In addition to colorizing the point cloud, images are now displayed as background pano images.

Support for new format of Pegasus Ultimate

Cyclone now supports the new Pegasus:Two Ultimate. The same commands apply for importation of this new scan data.
Registration enhancements

Retain the ScanWorld groups when importing a registration

Cyclone now retains Groups from Cyclone REGISTER 360 projects for consistent user experience across products. Now, when importing a registration, the ScanWorlds will be imported inside of the appropriate group(s).
Create ScanWorld groups using constraints

Registration has been enhanced to support the creation of groups from ScanWorlds that have constraints and are in the Ungrouped area of the registration window.

1. Open a Registration with ScanWorlds in the un-grouped area. At least some of these ScanWorlds need to have constraints. Select the ScanWorlds in the Ungrouped area:

2. Then, from the top menu, go to Registration | Create ScanWorld Group(s) from Selection with Constraints:
3. All constraint-connected ScanWorlds will be placed in one or more groups:

**Preserve Bundles when importing Cyclone REGISTER 360 Project**

Import of Cyclone REGISTER 360 data into Cyclone has been enhanced to support bundles if they exist. Previously, if the data from Cyclone REGISTER 360 had multiple bundles, all the setups would import into the un-grouped area.

Cyclone 9.3.1 and earlier: Cyclone 9.4
Cyclone REGISTER license supports Quick Move tool

The tool “Quick Move” has been added to the Cyclone REGISTER license.

Fix “Bad Z direction” in Visual Alignment

Users can now use Visual Alignment on tilted scans. The tool allows the user to temporarily correct the tilt of ScanWorlds to enable Visual Alignment.

1. Use the Tilt Point Cloud tool in Elevation view to tilt the scan level enough to run Visual Alignment:

2. Chose to tilt either Setup 1 or 2 using these new tools. Scans are colored either orange or cyan to correspond to the colors for the Setup 1 and 2 buttons.

You can also use these tools to move either scan in top view. Both new tools are also available in the context menu:
Note: The corrected tilt is ONLY used to allow for Visual Alignment of scans that otherwise could not be aligned. The corrected tilt is NOT carried through to the coordinate system of either ScanWorld.

View Group Interim Results

This new command can be found below the View Interim Results command in the Registration window:

This new feature allows the user to quickly find the interim results of a Group. Previously the ScanWorlds under a Group had to be selected for View Interim results to show the correct registration.

View Interim results enhancement

This enhancement to the existing feature, View Interim Results, now also runs Optimize ScanWorld Group to ensure that the proper results are shown.

General Program

Update to the latest Faro SDK 7.2.0.648

Cyclone 9.4 will support the latest Faro scanners which have been enabled with the latest available Faro SDK.

New P-Series Firmware

Cyclone now supports the below new features added to P-Series scanners with firmware version 2.9.0:

- Double scan mode
- Pin code protection
- Full Format of Data Partition
- Current Check & Adjust Parameters
- Known Backsight with multiple targets
- Resection: Pick Targets from Target Map
- Resection: Confirmation message when picked target already in Target List
- Tilt calibration when levelling accuracy is bad
- Rotate scanner display in case of upside-down setups
- Reworked Control Points panel
- Extended range for PPM parameters
- Data Copy Tool

Please review the release notes via myWorld for details on the new P-Series functionality.

**Removal of pcE from Cyclone**

pcE support has been removed from all Cyclone modules.

The following features have been removed:
- Export to Cyclone Topo ll
- Convert to Enhanced Working format
- Import of back up files for ScanStation 1 and 2

Users with Cyclone databases that contain pcE data will have to use Cyclone version 9.3.1 or older and convert to advanced working format to view pcE point cloud data and continue to work with it in 9.4 and later.

**Suite Installer supports installing Korean language products**

Users installing Cyclone via a Suite Installer can now install Cyclone in Korean.

**Support for CLM 1.8**

Cyclone 9.4 is now compatible with CLM 1.8.

**Bug Fixes**

**Installation Bugs**

- Corrected a bug which resulted in only the Suite installer object being removed when running the uninstall operation via the Suite installer.
- Corrected a bug which prevented the uninstallation of the Suite Installer if individual components had been manually uninstalled.

**Import Bugs**

- Corrected a bug where certain ScanStation datasets that contain a corrupt file would prevent the whole project from importing.
- Corrected a bug which could result in flipped targets in certain scans.
- Corrected a bug which caused Cyclone to only obey the control coordinate system from Cyclone REGISTER 360 when it was set to default.
- Corrected a bug which could result in double-scan RTC360 setups removing data that was valid.
- Corrected a bug which resulted in some scans imported as PTX or E57 having incorrect colors.
- Reduced the amount of memory consumed when importing P-series data.
- Improved the stability of importing C5 and C10 database files.
- Corrected a bug which could cause target scans to be imported into a separate ScanWorld when importing Z+F data.
- Batch import now supports the import of MS50 data.
- Corrected a bug which could affect the import of panoramic images.
- Corrected a bug which could cause an incorrect orientation of MS60 data upon import.
- Corrected a bug which could cause incomplete import of BLK360 data when using the Auto Align Project command within SmartAlign.
- Corrected a bug which could prevent a registration from being formed when project was imported using Auto Align by files option.
- Corrected a bug which could prevent scene files from being created when projects were imported with SmartAlign option.
- Corrected a bug which could prevent Cyclone from honoring georeferenced coordinates for imported Nova data.
- Corrected a bug which could result in invalid constraint errors being shown when importing a Cyclone REGISTER 360 project.
- Corrected a bug which could prevent a .txt database file from being imported correctly.
- Corrected improper handling of empty Scan Worlds.
- Improved the stability of opening Cyclone REGISTER 360 projects within Cyclone.
- Improved the speed of checking C19 and P20 project folders during import.

**UX Bugs**

- Corrected a bug which could result in empty space on orthoimages which affected the accuracy of measurement.
- The content of certain error and status messages has been updated to provide more specific and actionable information to users.
- Improved the accuracy of image mapping.
- Corrected a bug which could result in points marked as invalid still being visible to the user.
- Corrected a bug which could cause unexpected behavior when jumping between Setups in the Registration ModelSpace.
- Improved the stability of measuring TIN volumes.
- Improved the smoothness of rendering clouds within Visual Alignment.
- Corrected a bug which could prevent background pano images from rendering properly when snapshots were taken within TruSpace.
- Corrected a bug which caused the default resolution of an ortho-image to be set to 0.2m.
- Corrected a bug which could prevent a Registration from being created when using SmartAlign for Faro, E57 and PTX data.
- Improved the stability of Auto Align.
- Corrected a bug which could affect the coloration of BLK360 scans.
- Corrected a bug which resulted in tone map preview not matching the final result.
- Improved responsiveness of SmartAlign import dialog.
- Corrected a bug where estimating Normals on a registered ScanWorld would fail.
- Corrected a bug where the wrong fence mode could be used for creating an Ortho image section.
Publishing Bugs

- Corrected a bug which, in some cases, caused published E57 and PTX files to be coloured incorrectly when imported back into Cyclone or other 3rd party programs.
- Corrected a bug where Cyclone does not give a warning message when there is not enough disk space to perform the requested task.
- Corrected a bug which could cause instability when publishing large datasets.
- ‘Virtual Surveyor Default’ was restored as an option in the normal ASCII export section.
- Corrected a bug which could prevent the successful installation of the Cyclone installer when secondary SDK elements failed.
- Corrected a bug which could prevent projects with large extents from publishing successfully to LGS or JetStream.
- Improved the speed of publishing from KeyPlan to TruView.
- Corrected a bug which caused the error and overlap columns within the registration report to become transposed.
- Corrected a bug which prevented users of Cyclone PUBLISHER Pro from opening Keyplans though the function is supported when using a Cyclone TruView PUBLISHER license.
- Corrected a bug which could prevent publishing of projects with very large coordinates to E57.
- Corrected a bug which reverted the registration of merged point clouds when publishing to E57 and PTX.
- Corrected a bug which could prevent publishing to PTS when a LimitBox was active.
- Corrected a bug which could cause visual abnormalities within TruView and JetStream viewer when working with LGS files.
- Corrected a bug which could cause a delay in Cyclone after successfully publishing MultiStation vertices.
- Re-instantiated target IDs for export to svy format.
- Corrected a bug which could prevent LGS files of C10 Cyclone REGISTER 360 projects from being published.
- Corrected a bug which could cause empty PTX and PTG files to be written.
- Cube map resolutions have been standardized across all export options.

Licensing Bugs

- Improved stability of the connection between Cyclone and CLM.

Leica Cyclone 9.4 Compatibility and Upgrades

Windows 32-bit Support

Windows 32-bit operating system is no longer supported.

Cyclone Database Management Recommendation

To avoid possible database inconsistencies or corruption while moving or copying databases, we recommend the following:

- Locate each IMP file in its own folder.
- When copying, moving or backing up databases, copy/move/back up the complete database folder, including the IMP file, eventlog folder and files, and recovery folder and files.
  - The eventlog records administrative events and critical errors.
  - The recovery file keeps databases consistent, avoiding data corruption that may happen in rare situations.
When adding databases to Cyclone, a warning dialog is displayed if a database’s recovery folder cannot be found when it is added to the database server. Push the More Info button for more information.

**Upgrading to Cyclone 9.4 from Cyclone 6.0.x – 9.3.x**

You must have Administrator-level privileges on your workstation to correctly install Leica Cyclone software.

Run the Cyclone 9.4 InstallShield and follow the directions in the InstallShield Wizard to proceed with the installation. Please read the warning message about compatibility of earlier version databases as older Cyclone IMP files will be upgraded to the new version and may no longer work in older versions of Cyclone.

**Compatibility with Cyclone 9.4 AND Cyclone 8.1.3 or Earlier Versions**

Cyclone 9.4 databases are **NOT** backward compatible with previous Cyclone versions 8.1.3 and earlier. Databases that are updated using this version of Cyclone cannot then be used with earlier versions (8.1.3 and earlier). If you need to work with your data in older versions of Cyclone, you should make an archive copy of your database(s) prior to upgrading. Since it can take some time to update and optimize Cyclone databases, we recommend that you optimize your databases overnight, particularly when multiple databases are involved.

**Known Issues**

**Point Cloud data with extents larger than 15 kilometres published to JetStream Viewer shows no points**

The work around for this issue is to insert Camera positions at the extents of the data before publishing. In Cyclone use the command **Create Object-Insert-Camera** to insert camera locations at the extent of the data. Then when publishing use the option to publish Camera Positions.

![Inserted camera locations](image)

**E57 export with images into ReCap**
In some cases, the imagery may appear blurred when entering the Setup location image sphere. This is a known issue with ReCap.

**4K and 5K Imagery with TruView Local (ActiveX plugin) and Internet Explorer**

The TruView Local plugin for Internet Explorer does not officially support 4K or 5K imagery or new data types found in the LGS file. To take advantage of these features, we recommend TruView Enterprise or TruView Cloud.

**Scanner locations are no longer visible in the ModelSpace when automatically created during Pegasus data import**

When importing Pegasus mobile scan data into Cyclone, the user is provided the option to automatically create ScanWorld positions at a user-defined interval along the trajectory. These are used for the creation of TruView positions at these virtual "Setup" positions. Currently, if this automated process is used, the Scanner locations will not show up in the ModelSpace view but will be correctly located and displayed on the SiteMap for published TruView datasets.

The scanner locations will be visible within the ModelSpace View if they are created manually after import.

**Batch import Panoramic images**

When using the Command Import Panoramic images… Images and scans in the import panel dialog may appear blank. The workaround is to resize the window.

**Usage file reporting issue for EnterpriseElite Customers**

When using the standalone CLM installer, some EnterpriseElite users may find that the usage file (year-month.db) normally located at C:\Leica Geosystems\CLM\LogFiles does not get produced.

Please ensure your LGS.opt (located here: C:\Program Files (x86)\Common Files\Leica Geosystems\License-Server\lgs.opt) file looks like this:

```
DEBUGLOG +"C:\Leica Geosystems\CLM\LogFiles\lgs.log"
NOLOG IN
TIMEOUTALL 240
ENABLE_DB_HISTORY 1
PATH_DB_HISTORY C:\Leica Geosystems\CLM\LogFiles
```

ENABLE_DB_HISTORY should be set to 1 in this file. Please copy the file to a new location, edit it and re-save if the file says it’s read-only.

**Installing CLM while JetStream is running**

During installation of CLM, users may encounter the following error message. This is commonly due to a service like JetStream running in the background.
To enable the successful installation of CLM, please follow these steps:

- Launch the task manager
- Select the Services tab
- Look up the process with the PID (Process ID) shown in the Close applications dialog
- In this case it is JetStream
- Terminate the process so that CLM can be installed
- After CLM is installed, click on the Services button in the Task Manager and restart the service

**Cyclone PUBLISHER Pro**

When publishing directly to TruView Enterprise or Cloud from Cyclone with a Cyclone PUBLISHER Pro license, layers are not published. The workaround is to publish an LGS file and upload it to TruView Enterprise or Cloud.

**Password-protected LGS files**

Passwords cannot be recovered or changed for either projects or files but may be removed and re-added from projects within JetStream Enterprise or re-published from Cyclone or Cyclone REGISTER 360.

Cyclone does not accept password protected LGS files that contain non-ascii characters.

**Non-ascii characters**

Cyclone does not support non-ascii characters. If users wish to open files which include non-ascii characters, they should be re-named locally before attempting to open them in Cyclone.

When users import an RTC360 project which contains non-ascii characters, the file will be re-named upon import to a name including supported characters only.

**RCP export dialog progress reporting**

When exporting an RCP file, the progress will appear to stall part-way through exporting. Though the progress bar does not update, the export is progressing.
Disk Space Requirement for publishing to TruView Cloud

When publishing directly to TruView Cloud, disk space equivalent to the file size is consumed which can cause issues during publishing. If the user cannot guarantee the required disk space locally they should modify the Temp location by running the User Configuration Utility in Cyclone.

Licensing

All users with currently valid CCP, or with CCP valid as late as 1st April 2019, can run this new version with no new license required.