

2023.1.0 Cyclone CORE

Release Notes

Reality Capture Documentation

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What's New

Cyclone CORE 2023.1.0 is a minor release that includes several bug fixes. However, the release of Cyclone CORE is accompanied with a major release of other products in the portfolio that mark a significant milestone in the Leica reality capture technology; however, it has minimal impact on the Cyclone CORE product.

Accompanied with this release, Leica Geosystems introduces the **next-generation data architecture**, a revolutionary point cloud engine and data model for reality capture data that offers unprecedented speed, scalability, and flexibility.

With the version 2023.1 release of the below-listed Leica Geosystems reality capture software, Leica Geosystems has begun an investment into a new, next-generation reality capture data architecture that is expected to mature into a new gold standard for reality capture projects.

The Leica Geosystems reality capture data architecture powers applications like Cyclone REGISTER 360 PLUS and Cyclone ENTERPRISE as well as the **new LGSx** file – the evolution of the popular LGS file. The update provides a next-generation solution that includes significantly faster writing (publishing), higher compression, a new visualization experience, and a new core data architecture. The data architecture change is instrumental to allow Leica Geosystems to build out exciting new capabilities and features in the future to meet the growing needs of the reality capture industry.

Examples of new features that are now possible to build into future software updates, and are planned as such, include, but are not limited to, enabling time-saving “Save” actions when editing an LGSx file with no need for full file copy via “Save As”, file versioning and histories (e.g., track edits to GeoTags, markups, etc. with options to “restore” from the version history), enhanced model and mesh support, and much more. Moving forward, the LGSx format will be opened by any of Leica Geosystems’ reality capture office and cloud apps, bringing consistency for seamless operations and workflows across multiple industries.

With this release, **LGS files will no longer be published** by any of the below listed products though they will still be consumed. It is recommended that all products be updated in synch to ensure a seamless workflow transition.

Applications included in this update:

- Cyclone REGISTER 360 PLUS 2023.1
- CloudWorx 2023.1 suite
- TruView 2023.1
- Cyclone ENTERPRISE 2023.1
- TruView Enterprise & TruView Cloud 2023.1
- Reality Cloud Studio, powered by HxDR
- NEW: LGS File Converter 2023.1 (free LGS-to-LGSx conversion utility with batch conversion ability)

Applications which will soon support the LGSx file:

- Cyclone 3DR
- Cyclone Pegasus OFFICE
- Map360
- Infinity

The following table provides details about product-feature capabilities.

Product	Open Import LGS	Open Import LGSx	Publish LGSx	In-App Project Conversion	Batch Conversion Support	Publish LGS
LGS File Converter 2023.1	Yes	n/a	Yes**	n/a	Yes	No
Cyclone REGISTER 360 PLUS 2023.1 family	Yes	Yes	Yes	Yes	Yes	No
Cyclone ENTERPRISE 2023.1	Yes	Yes	Yes	(future)	(future)	No
TruView 2023.1	Yes*	Yes	Yes	n/a	n/a	No
CloudWorx 2023.1 suite	Yes*	Yes	Q2 2024***	Yes	n/a	No
TruView Enterprise & Cloud 2023.1	Yes	Yes	Yes**	n/a	n/a	No
Reality Cloud Studio, powered by HxDR	Yes	Yes	(future)	n/a	n/a	No
Cyclone 3DR	Yes*	Q1 2024	Q1 2024	n/a	n/a	No
Cyclone FIELD 360 family	No	(future)	(future)	n/a	n/a	n/a
Cyclone Pegasus FIELD	n/a	n/a	Q2 2024	n/a	n/a	n/a
Cyclone Pegasus OFFICE	n/a	n/a	Q2 2024	n/a	n/a	n/a
Map360	Yes*	Q1 2024	(future)** *	n/a	n/a	No
Infinity	n/a	n/a	(future)	n/a	n/a	No
Cyclone CORE 2023.1.0	Yes	n/a	No	No	No	Yes

* Support for opening legacy LGS files will be limited through end of calendar year 2024

** With batch publish queue for customers migrating from these legacy products

*** Open e57 and convert to LGSx for native use

Note: Cyclone CORE **does not support LGSx**; therefore, LGS files should be used instead.

Note: To convert LGS to LGSx, use the LGS converter tool.

Note: Cyclone CORE 2023.1 will support import of Cyclone REGISTER 360 PLUS 2023.1 projects with the new data architecture.

Bug fixes

- Fixed an issue with the alignment of **BLK360 G2** images to the point cloud.
- Fixed an issue with **image-to-point-cloud** on **RTC360** scanner data
- Fixed an issue where **e57 files** from **3DR** would not import
- Fixed an issue where memory was not released after publishing **e57 files**
- Fixed an issue where **UCSs** and **Cutplanes** were not the same when viewed in **TruView**
- Fixed an issue **where** Lidar tags were missing after import of **BLK360** scanner data

Known Issues

BLK360 Known Issues

When importing BLK360 data, the "check links with setup silhouette images" checkbox in the smart align window grays out the OK button so user cannot proceed. The workaround here is to not select the "check links with setup silhouette images" checkbox OR once we are in the above state click the "add by time" button. This un-grays the OK button and user can proceed.

In rare cases, downloading BLK360 data may fail. The workaround is to restart the BLK360 scanner.

If there is a synchronization issue between the tablet and the scanner (which may be caused by a poor or interfering Wi-Fi connection) items created on the tablet using FIELD 360 such as links, images, and geotags may not be synced back to the scanner. The workaround here is to download the data from the tablet using FIELD 360 rather than directly from the scanner.

General Known Issues

Windows 11

Windows 11 that are using Desktop using Manage OneDrive dialog will find that Cyclone crashes when attempting to use search dialogs. The workaround is to stop backup Desktop using Manage OneDrive dialog. A link to Microsoft support can be found [here](#).

GSM enabled computers

When there is a license issue when Cyclone Core and 3DR are running on a computer with GSM enabled, the workaround here is to unplug the GSM.

ReCap export

Several EMEA support issues have been reported where Cyclone fails to export to *.rcp, we are working with Autodesk on this.

Geotags

Certain geotag assets (txt, pdf) fail to open in Cyclone Core after importing LGS files.

Importing P-Series data with FIELD 360.

In some cases, levelled P40 data collected and registered in the field using Cyclone FIELD 360 comes in tilted when imported into Cyclone CORE, but it is not clear that the internal compensator is being over-ridden by manual registration without optimization. The workaround here is to make sure that you optimize in Cyclone FIELD 360.

Using the command Export Separate Setups

There are issues when exporting to separate Setups when exporting from a nested registration and or a referenced database.

To mitigate this issue, export from the home registration or the original database.

Mac OS's running Windows Boot Camp is not officially supported

Cyclone CORE supports Windows 10 on Windows-native devices only.

When publish to Jetstream Enterprise with many assets:

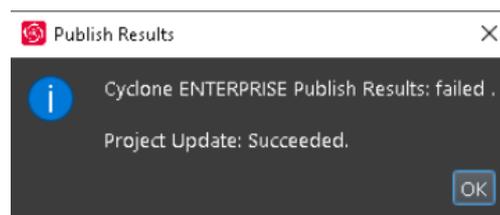
There can be an issue when publishing to JetStream Enterprise with many assets in the project. The workaround is to publish the project to LGS and then import the LGS to JetStream Enterprise.

Cyclone ENTERPRISE Publishing

When publishing to Cyclone ENTERPRISE, you need to enter the Host Name and Port for the target server. The Host Name should only contain the top-level domain part of the URL. In some cases, a host name may be valid for the connection test but will not work for publishing. In this case, the connection dialog will display the Project Selector. To solve this problem, edit the Host Name to remove all text after the Top-Level Domain. For example: "https://mycycloneenterprise.com/abc...-////" should be trimmed to "https://mycycloneenterprise.com"

When publishing to Cyclone ENTERPRISE fails, the error message could mean that:

- The sever has low disk space
- The network drive is disconnected
- File permission error
- Invalid file path



RCP export from ScanWorld issue

Exporting RCP from the ScanWorld, not a ModelSpace, can have issues if the ScanWorld contains detail scans. The workaround is to remove the detail scans from the scan folder.

Setups without Points

If publishing a dataset without valid ScanWorld position(s) to TruView Cloud or JetStream Enterprise, at least one Camera position needs to be added and then the publish needs to have the option to publish camera positions as Setup positions enabled

If all points are deleted from a Setup, it cannot be published to RCP.

Cyclone FIELD 360 measurement support

While Cyclone supports the display of Cyclone FIELD 360 measurements, these measurements do not propagate downstream to other products.

Inconsistent Setup icons

In rare cases where a Setup has no points and only modelled geometry, the LGS file, JetStream Enterprise project, and Cyclone ENTERPRISE project published will open with yellow tetrahedrons as the Setup icons instead of the red Spheres introduced in the 2020.0 product versions.

LGS Publishing to TruView Enterprise & TruView Cloud

In the event of problems uploading large LGS files to TruView Enterprise or TruView Cloud, a user may try to publish another version of the LGS file with the 'Include Point Cloud Data' option unchecked in the LGS Export Options. This option will dramatically reduce the overall file size and could help in case of a problematic TruView Enterprise/Cloud upload as well as reduce upload and import times.

Publishing to TruView Enterprise & TruView Cloud with BLK2GO data

Project data published to TruView Cloud or TruView Enterprise containing BLK2GO data will NOT contain point data image layers, but the camera-based panoramic images will be measurable. Model geometry superimposed on the imagery layers is not supported for BLK2GO data.

Non-BLK2GO data mixed with BLK2GO Scanner data will support the point cloud image layers and models.

BLK Mobile data

- B2G files are updated upon import with the new SLAM solution. ALWAYS backup B2G files BEFORE import.

BLK2FLY Issues

- In some cases, when importing BLK2FLY data the number of WayPoints created is incorrect.
- In some cases, when importing BLK2FLY scans that were downloaded as B2G, the imported scans have the same name as the last scan.

BLK Data Manager

The BLK Data manager will fail to connect to the BLK2GO scanner if there are no scans on the scanner.

RCP export

The 2-billion-point limitation has been removed from export to RCP.

- 30 GB of temp space is need for every billion points exported to a single RCP cloud.
- Using Export to Separate Setups does not use the same level of temp space. Temp space is not generally a problem when exporting separate Setups.

RCP export will fail if the Setup exported has zero points. The workaround is to restore the points for the Setup, export again.

Blurred images within ReCap

In some cases, E57 files published from Cyclone, when imported into ReCap, may display blurred imagery when entering the Setup location sphere. This is a known issue with ReCap incorrectly handling the E57. RCP files published from Cyclone do not show any display issues within ReCap.

The E57 export using the new Compatibility mode option (see details above in feature description) may help with this issue.

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

The TruView Local plugin for Internet Explorer does not officially support 4K and 5K imagery or the LGS file. To take advantage of these features, we recommend TruView, TruView LIVE (part of Cyclone ENTERPRISE), [TruView Enterprise or TruView Cloud](#).

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.

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.

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 Enterprise server 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

LGS usage over network

The use of LGS files is only officially supported when the files are saved locally. Due to variations between network deployments, LGS files may be unreliable when published to or hosted in a network location.

Object behavior with ModelSpace Inventory Table objects or layers set to Unselectable

Selection from the table does not highlight the object in ModelSpace if the Object Type or the Layer is set to unselectable. Object Type and Layer selectability settings can be changed from **View Properties**.

Generating auto-patches for data without HDS file

Generating auto-patches requires an HDS file, which some older databases (2014 and prior) may lack. Currently, HDS file creation is NOT performed when preparing the data for auto generating patches; therefore, the only way to ensure existence of HDS file is re-importing the data.

PTG Export

Please only export uncleaned data to PTG.

Older PyCylinder scripts require new end cap parameters

If a Python script containing the PyCylinder object was created using an older version of the API, you will need to add the two new properties to the end of your existing objects. They can both be made the default value of 0 if you do not want to use them. The parameters are required; without them the script won't run.

Mac OS's running Windows Boot Camp is not officially supported

Cyclone Core supports Windows 10 on Windows-native devices only.

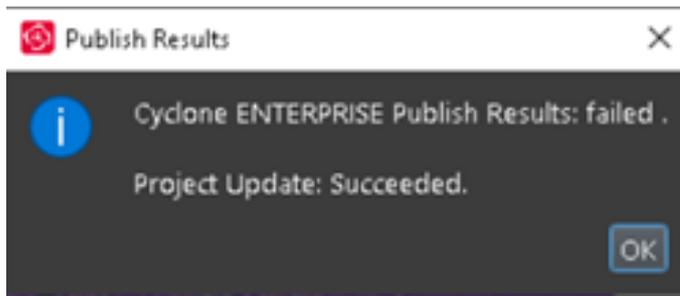
When publishing to Jetstream Enterprise with a large number of assets:

There can be an issue when publishing to JetStream Enterprise with a large number of assets in the project. The workaround is to publish the project to LGS and then import the LGS to JetStream Enterprise.

When publish to Cyclone ENTERPRISE fails to open the proper landing page:

When publishing to Cyclone ENTERPRISE, you need to enter the Host Name and Port for the target server. The Host Name should only contain the top-level domain part of the URL. In some cases, a host name may be valid for the connection test but will not work for publishing. In this case, the connection dialog will display the Project Selector. To solve this problem, edit the Host Name to remove all text after the Top Level Domain. For example, "<https://mycycloneenterprise.com/abc...-/////>" should be trimmed to "<https://mycycloneenterprise.com>"

When publishing to Cyclone ENTERPRISE fails, the below error message could mean that:



- The sever has low disk space
- The network drive is disconnected
- Invalid file path

Importing from Cyclone FIELD 360

Only BLK360 projects will appear when the user connects to Cyclone FIELD 360. Cyclone FIELD 360 does not store full project data for the RTC360\IP-Series and should be imported directly from the scanner's USB memory stick.

Cleaned vs. Uncleaned pano layer publishing

When publishing an LGS file, the Hue and Greyscale pano layers will show the uncleaned cloud.

A workaround would be to publish to E57 and then re-import the data then publish to LGS.

Non-ASCII characters

Non-ASCII characters are not allowed in the following conditions:

- Import temp path
- On computers with non-Latin user names, the user will not be able to create any project if the source data is stored anywhere under the user profile name. This issue will manifest itself in Japanese, Chinese, or any other language containing special non-Latin characters in the user name.
- The SiteMap name cannot have non-Latin (Japanese, Chinese, etc.) characters for publishing to TruView Enterprise or TruView Cloud.

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 file (located here: *C:\Program Files (x86)\Common Files\Leica Geosystems\License-Server\lgs.opt*) 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 a JetStream Enterprise service is running

During the 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:

1. Launch the task manager

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

LGS usage over network

The use of LGS files is only supported when the files are saved locally. Due to variations between network deployments LGS files may be unreliable when published to a network location.

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.

Licensing

Cyclone 2023.1 is a minor release. All users with currently valid CCP, or with CCP valid as of 1 November 2023, can run the latest version with no new license required.