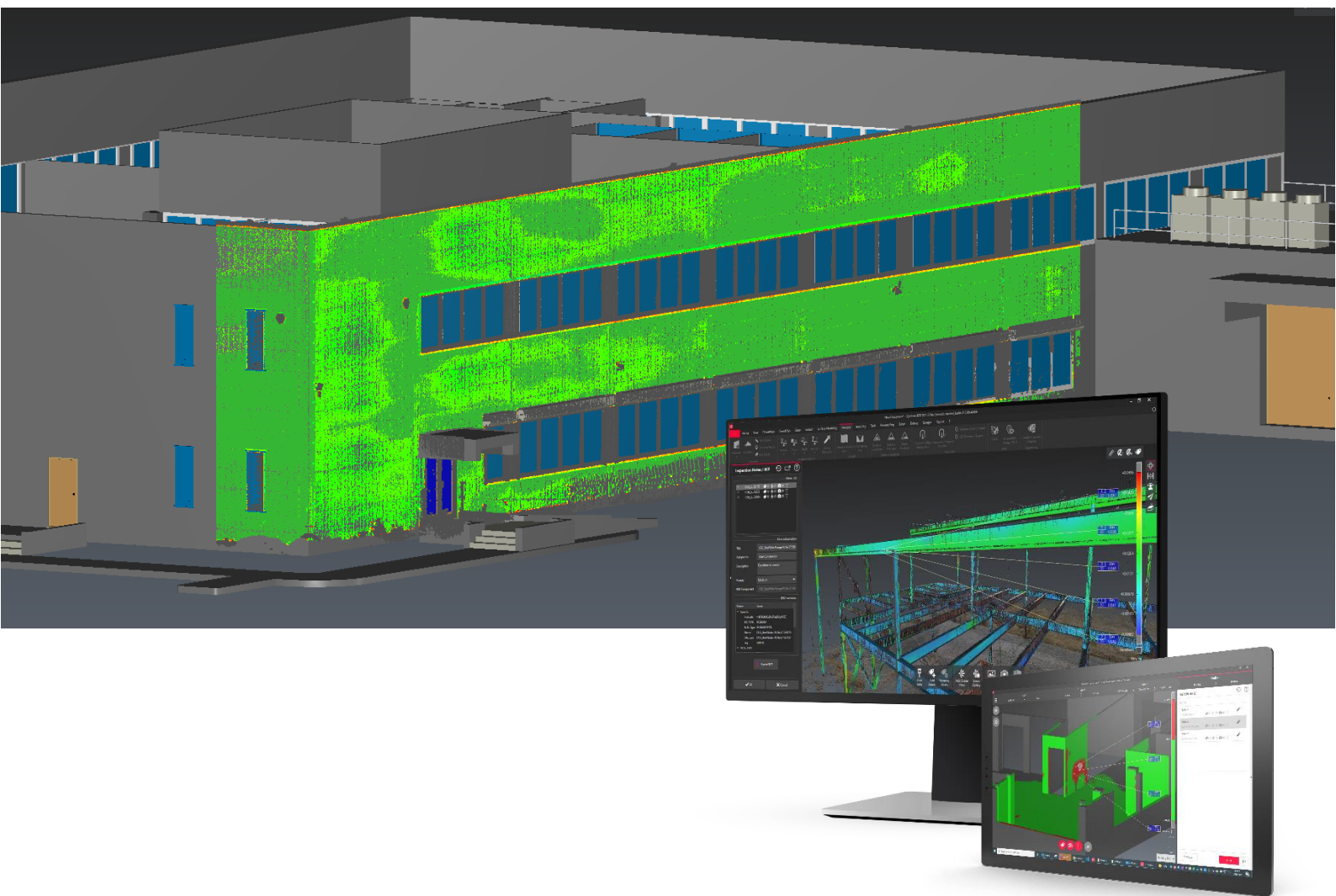


Leica Geosystems Release Notes

Product: Leica Cyclone 3DR 2023.1.5
Date: 2 October 2023
From: HDS Software Product Management



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What's New

This is a minor release including bug fixes for stability.

According to the maintenance expiration date policy, users under maintenance on 18 March 2023 may access version 2023.1.1 with no new license required.

Improvements

- **Application > Auto-Update:** Auto-Update mechanism can be disabled via a feature toggle.

Bugfixes

- **File > Export e57:** The number of exported clouds were not appropriate when a point cloud containing several subsets was exported. Fixed.
- **Script:** Crashes could occur when Object.Prototype was extended. Fixed.
- **Texturing > Extract OrthoImage:** Errors could happen when clouds were outside the scope defined by the rendering box. Fixed.

Generic specifications

Leica Cyclone 3DR 2023.1 Compatibility

Cyclone 3DR is compatible with CLM 2.11.0 and higher.

Cyclone 3DR is compatible with JetStream ENTERPRISE 1.3 and higher.

Cyclone 3DR is compatible with LGS files.

Cyclone 3DR is compatible with Cyclone ENTERPRISE 2022.0 and higher.

Cyclone 3DR is compatible with Cyclone REGISTER 360 2021.1 and higher.

Cyclone 3DR is compatible with Cyclone IMP databases from Cyclone 6.0 or higher, however improved rendering will only be seen with IMPs from Cyclone 9.3 or higher.

Recommended Computer Specifications

Regular workflows in desktop application:

CPU: 2 GHz Dual Quad Core i7 or higher (i5 minimum)

RAM: minimum 16 GB or more for 64-bit OS

Graphics Card: NVidia Quadro or GeForce 1 GB (with OpenGL support, versions 4.3 or higher)

Operating system: Microsoft Windows 10 (Build 1809), 11 (64 bits supported)

Hard Disk: 3 GB free disk space

Tablet device for Touch Mode:

Microsoft Surface PRO Core i7 1.5 GHz – 16GB RAM.

Minimum specifications for Auto-classification (in addition to other recommended specifications for the desktop application):

RAM: minimum 32 GB

Graphics Card: NVidia with GPU capabilities

- [Compute capability](#): 3.7 or higher
- Minimum GPU memory: 4 GB

Hard Disk:10 GB free disk space

CUDA® 11.6 Toolkit (from NVidia). **The 11.6 version of CUDA is mandatory for Auto-Classification.**

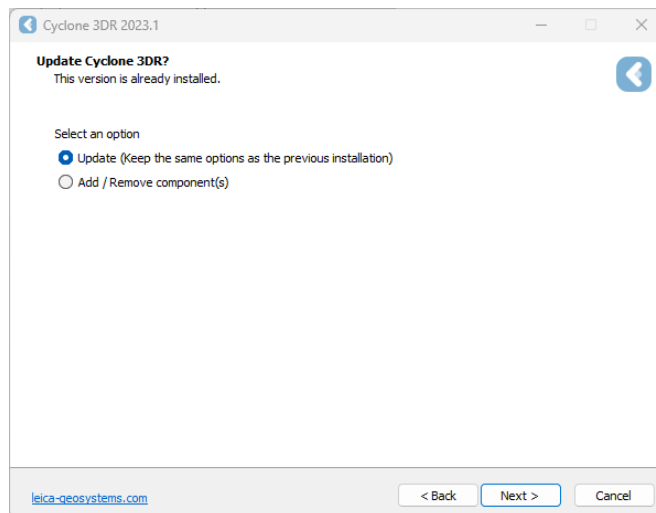
Installation and Licensing Recommendations

Installation update Procedure

1. Launch the Cyclone 3DR EXE and follow the instructions in the Setup Wizard



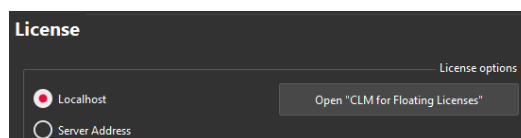
2. Select the option to update Cyclone 3DR (or repair if you want to change installing options)

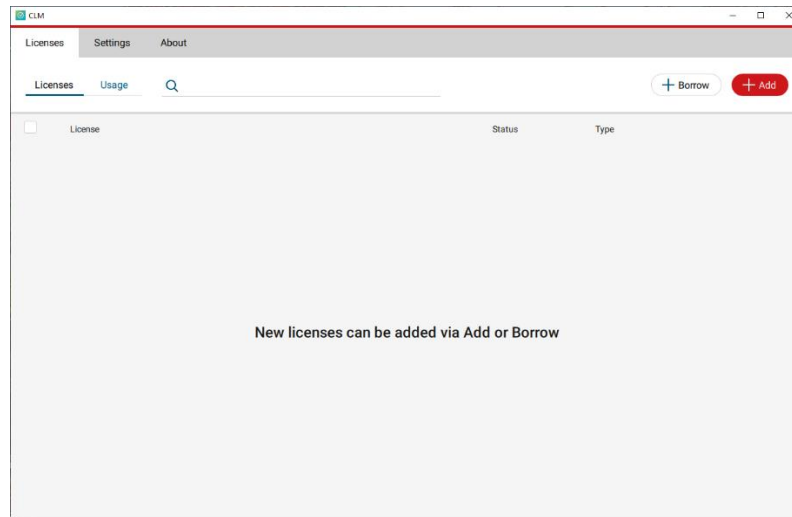


3. Complete the installation by selecting "Finish".

Licensing Setup

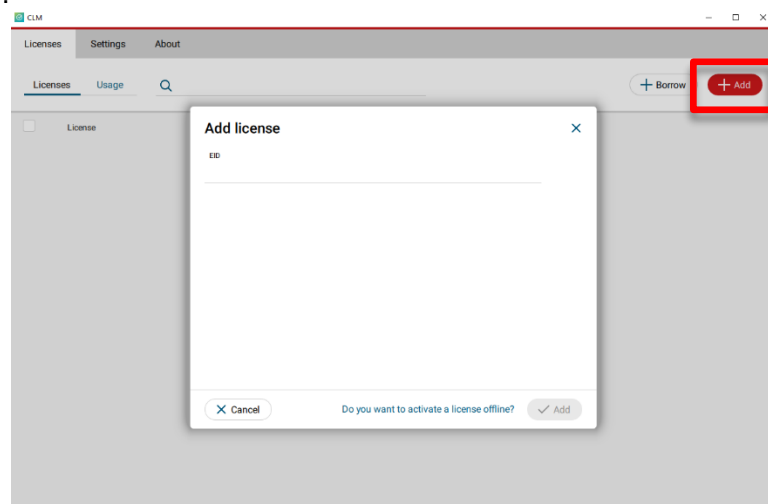
1. Once you have installed Cyclone 3DR, open the Client License Manager for **Floating** Licenses via Cyclone 3DR (Home/Settings/License) or via the program located here:
Start Menu | All Programs | Leica Geosystems | Client License Manager



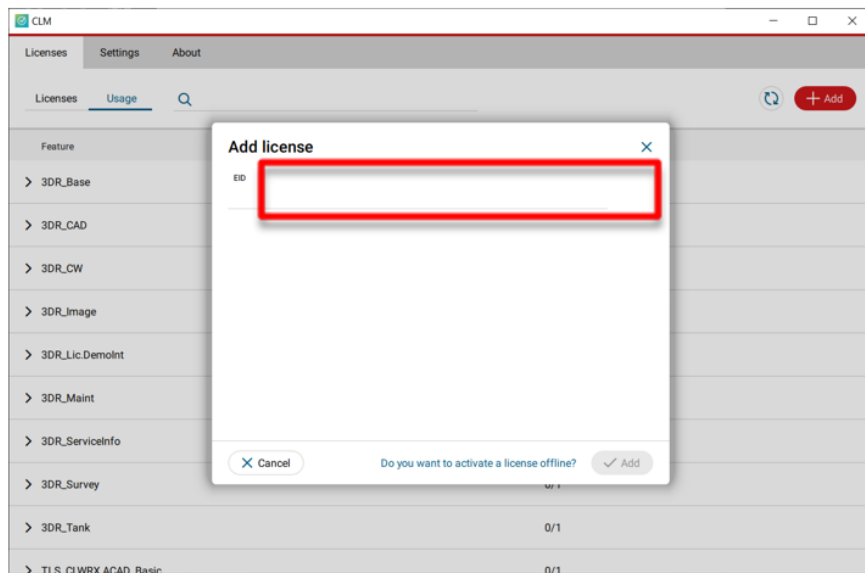


****NOTE* Be sure to choose the CLM Floating option (there are two CLM options and the Nodelocked CLM will not activate your license)***

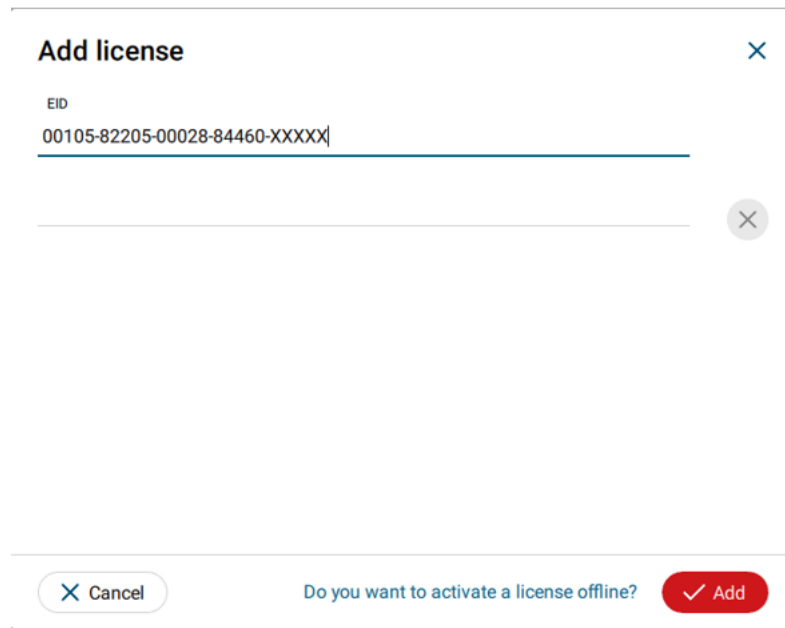
2. Click "Add".



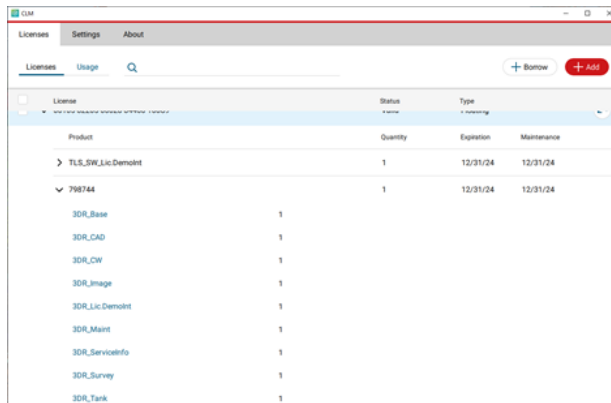
3. Enter your Entitlement ID (EID) in the field (copy / paste). To enter multiple EIDs separate them with a semicolon ";" and no space.



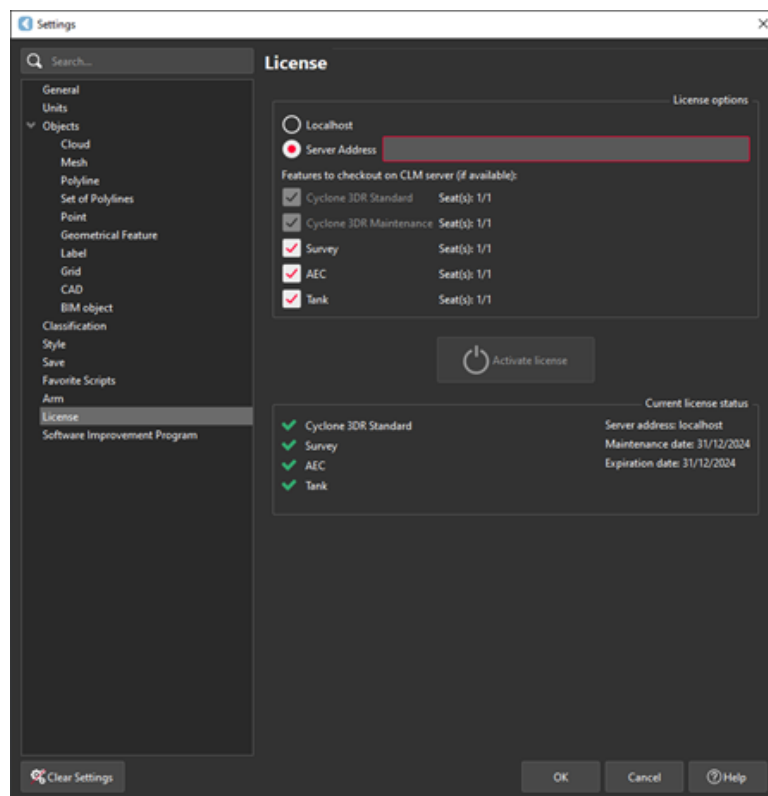
4. After you have entered your EID, click on the “ADD” button in the bottom right of the page



5. Once your licenses are activated you can close CLM and launch or return to Cyclone 3DR.



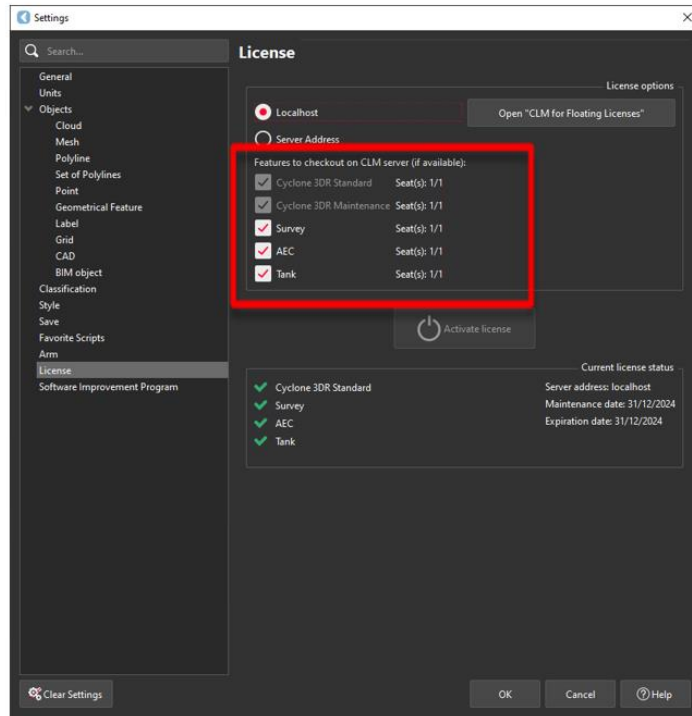
6. Go to Home / Settings and select License.



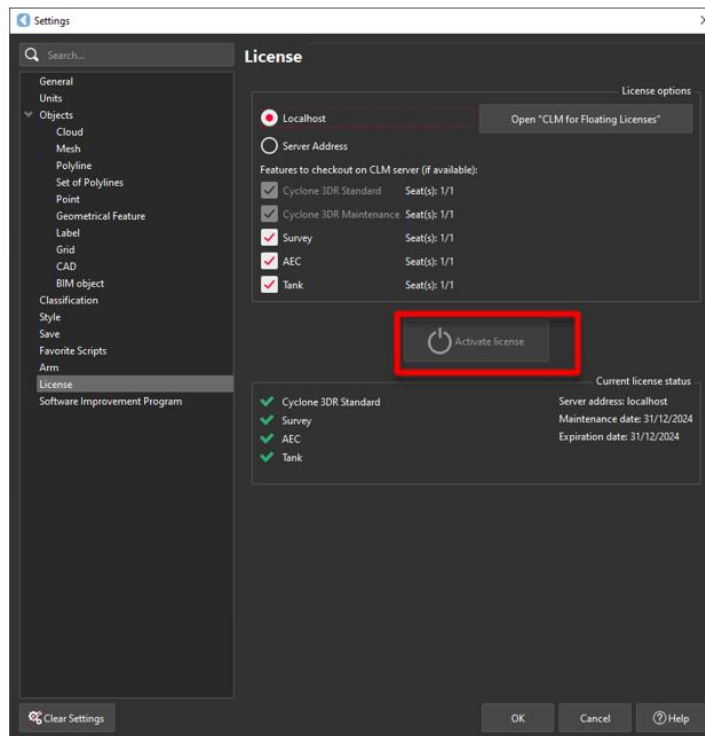
7. If you have entered the EID inside your local CLM, select **Localhost**. If the license is on a dedicated server, enter the server's name in **Server Address**.



8. You can select the features you want to check out from CLM. The available options to checkout will correspond to the options you purchased which are contained in your EID.



9. Once the options are selected, click on **Activate license**.



Licensing

All users with valid CCP or CCP which was valid as of 18 March 2023 for Cyclone 3DR, can run this new version of Cyclone 3DR.

All users with valid CCP or CCP which was valid as of 18 March 2023 for 3DReshaper, can run this new version of Cyclone 3DR with no new license required.

Users with 3DReshaper licenses with expired CCP must migrate to Cyclone 3DR in order to continue to access updates and support. Please contact your sales or support personnel for more information.

Known Issues

- The Documentation Center is only available in English.
- Some CAD import and export issues might happen. For example, when exporting a cloud in DXF, some entities might be missing. To avoid this, it is preferable to use the Send to AutoCAD option.
- If DXF can be imported with a standard version, DWG requires the AEC or PRO Edition. One workaround is to use the 3DSend command from AutoCAD to Cyclone 3DR.
- .RSH files are natively compatible with Cyclone 3DR, and the last version of 3DReshaper is compatible with .3DR files (with a limit on textures and CAD objects).

Leica Cyclone 3DR supported file formats

Import / Export

Please reference the Cyclone 3DR Technical Specification for a complete list of supported file types per license.

	Import	Export
Point Cloud	Files ASCII (*.asc, *.csv, *.xyz, *.xyz...) Leica Geosystems (*.pts, *.ptx) and LGS (*.lgs) Leica Nova MS50/60 (*.sdb, *.xml) ShapeGrabber (*.3pi) 3DReshaper binary file (*.nsd) AutoDesk DXF (*.dxf) STL (*.stl) Polyworks (*.psl) Leica T-Scan + Steinbichler (*.ac) LIDAR data (*.las; laz) Other ASCII (*.*) Zoller and Fröhlich (*.zfs - *.zfc) PLY points without triangles (*.ply) ESRI ASCII (raster format *.asc) FARO (*.fls - *.fws) POLYWORKS (*.psl) E57 (*.E57 files) LandXML files (*.xml) DOT Products (*.dpl) RDBX	ASCII FILES (*.asc, *.csv...) Binary files (*.nsd) Leica Geosystems (*.pts, *.ptx, *.lgs) E57 (*.e57) IGES (*.igs) LAS (*.las) LAZ (*.laz) Autodesk DXF (*.dxf)
Mesh	STL format (*.stl) Binary PBI format (*.pbi) DXF 3Dface format (*.dxf) Ascii POLY format (*.poly) OBJ format (*.obj) Ascii Leica format (*.msh) OFF files (*.off) PLY (*.ply) GLB format (*.glb, *.gltf)	Ascii and binary STL format (*.stl) Binary PBI format (*.pbi) DXF 3Dface format (*.dxf) Ascii POLY format (*.poly) Vertices only (*.asc) DXF polyline (*.dxf) Ascii Leica format (*.msh) PLY (*.ply) LandXML (*.xml) OBJ format (*.obj) GLB format (*.glb)

		FBX format (*.fbx) IFC / IFCSite type (*.ifc, *.ifczip)
Contour / Section	IGES format DXF polyline format Binary MLI format (*.mli)	IGES format DXF polyline format Binary MLI format (*.mli) ASCII formats
CAD / BIM Models	IGES STEP DWG IFC RVT	IGES STEP DXF
Project	Cyclone 3DR (*.3dr) DXF - DWG XML Cyclone ModelSpace View (from IMP) JetStream Enterprise project	Cyclone 3DR (*.3dr) DXF PDF 3D SKETCHFAB
Report		PDF CSV BCF
Image	BMP JPEG JPG PNG	Ortho-image including georeferencing information as TXT file JPG JPEG BMP PNG TIF

Send To / Send From

Cyclone 3DR provides “SendTo” features as well to import and export certain kinds of data with third-party products. More information is available in Cyclone 3DR documentation center (from the software help menu).

	Send From	Send To
Point Cloud	-	-
Mesh / Surfaces	AUTODESK AutoCAD HEXAGON MinePlan 3D HEXAGON BricsCAD	AUTODESK AutoCAD HEXAGON MinePlan 3D HEXAGON BricsCAD
Contour Section / Points	AUTODESK AutoCAD HEXAGON MinePlan 3D HEXAGON BricsCAD	AUTODESK AutoCAD HEXAGON MinePlan 3D HEXAGON BricsCAD
CAD Model	AUTODESK AutoCAD HEXAGON BricsCAD	-
Image	-	AUTODESK AutoCAD (ortho-image) HEXAGON BricsCAD

The following commands in Cyclone 3DR include a direct “Send to” capacity that provides the possibility to export the outputs in different layers in the CAD 3rd party software product:

Menu	Feature	Comment
Extract	Contour Lines	1 layer for standard contour lines and values. 1 layer for major contour lines and values.
Extract	Scan to Plan	1 layer per slice (floorplans or sections)
Extract	Virtual Surveyor	1 layer per layer created in 3DR Virtual Surveyor project.
Analysis	Gridded Inspection Surface Analysis with a Grid	Points and values on grid can be directly sent to CAD SW product. Sent to active layer.
Texturing	Extract Orthoimage	Sent to active layer.
Analysis	2D Preview Export	1 layer for 2D Grids 1 layer for inspection objects 1 layer per section 1 layer per axis points 1 layer per axis point quotations.
Coord Sys		
Tank		

Compatibility with native JetStream point clouds

The following commands can use native JetStream point clouds (LGS files or connection to Cyclone CORE, Cyclone REGISTER 360, Cyclone ENTERPRISE) as inputs. **In other words, it is not required to proceed a CloudWorx > Convert project step prior to execution of the listed features.**

Menu	Feature	Comment
Extract	Virtual Surveyor	Note that selecting is not required for this feature. Thus, it can be used for any kind of object in a 3DR project.
Surface Modeling	Scan to Mesh	A clipping box as input is recommended to define an area of interest.
Analysis	Stockpile	

The functionalities of the menus View, CloudWorx and Script can obviously be used for JetStream point clouds.

Point clouds with classification

Classification of point clouds is saved and supported after Import/Export for the following formats:

E57, LAS, LAZ, LGS

Export BCF tickets

The following commands embed the capacity to export BCF (BIM Collaboration Format) files that contain information from IFC model for an open-BIM experience with other software and BIM solutions.

Cyclone 3DR 2023.1 support BCF 2.1 format (export).

Menu	Feature	Comment
Analysis	Inspection Notes / BCF	Input: Inspected BIM Model Feature to report issues from an inspection and that gives the ability to create manual notes that contains screenshots, images from disk, labels and deviation values (attached CSV), clipping object information and coordinates and orientation of viewpoint ; but also a user-defined title, an assignment (email address), a comment and a priority.
Analysis	Clash	Input: A point cloud and a BIM Model Feature to report clashes that contain screenshot, clash status (clash, no clash or undefined) and a comment. All tickets refer to the same assignment (email address).
Analysis	Progress Monitoring	Input: A point cloud and a BIM Model Feature to report the progress monitoring analysis. Default export contains a summary (progress distribution between installed, in progress, not installed and no data). Ability to customize the export and to create additional single tickets per analyzed element depending on their status (installed, not installed, in progress). All tickets refer to the same assignment (email address).