PRODUCT RELEASE SUMMARY
AVEVA™ Point Cloud Manager (Desktop) 23.2.2.0

Release Date: 04/08/2023

This document outlines all changes made in the above release of AVEVA™ Point Cloud Manager.

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Superseded software version: Point Cloud Manager 23.1.0.0

1. Point Cloud Manager Version Numbers

Point Cloud Manager version numbers take the format X.X.X.X.

- First version field denotes the year of release.

- Second version field is incremented to track the releases for that year.

- Third version field is to track patch fixes for that release.

2. Recommended CAD Machine Specification

The following machine specification is for a CAD machine, we offer machine specifications for other processes such as Dataset creation. Follow the link to find out more **here**.

COMPONENT	RECOMMENDATION
Processor	Intel Core i7 Processor. 8MB cache 4/8 Cores
Operating System	Windows 10 Pro x64
Memory	DDR3 1600 MHz 8GB RAM 1600 MHz
Graphics	NVidia Quadro K2200 with 4GB of GPU memory
Data Storage	500GB SSD (Operating System & local project storage – if required)
Network	1GB Ethernet Card

3. ALS Licensing

AVEVA™ Point Cloud Manager 5.8.0.0 onwards will require AVEVA™ ALS licensing technology. The legacy Sentinel licensing system can still be used for versions 5.7.0.1 and prior, but Sentinel based license creation & support will end 31st December 2022. Please contact your Account Manager or the Support Team for further information.

4. Important Announcements

Product support: AVEVA Point Cloud Manager solutions (formally LFM Software) have been supported through the email address lfm.support@aveva.com, which was the gateway to the 'RT' support case management system. Technical support for Point Cloud Manager software has now been integrated within the AVEVA Knowledge & Support Center, which is a common platform to create and monitor support cases; access installers*; and product knowledge & training material for all AVEVA products. To create new support cases and continue to receive prompt support please follow the guidance notes attached. Please note that the registration process can take over 24 hours, and we would recommend registration at the earliest opportunity, which can be done prior to case creation. Emails sent to the lfm.support@aveva.com address are no longer being monitored and will be unanswered.

*Please note that the AVEVA Point Cloud Manager installers will temporarily remain outside the Knowledge & Support Center and accessed by: https://www.aveva.com/en/support-and-success/support-contact/aveva-product-support/#LFM-Support

Knowledge & Support Center access: https://softwaresupportsp.aveva.com/

NavVis laser data: AVEVA Point Cloud Manager can now import e57 data from the NavVis VLX scanner. Please note: For NavVis datasets, taking measurements whilst in Panoramic images is currently not supported but is available within the 3D point cloud.

5. Recommended Graphics Cards

AVEVA™ Point Cloud Manager is tested with a range of graphics cards. Below is a list of graphics cards that work successfully with AVEVA™ Point Cloud Manager.

GRAPHICS CARDS	GPU MEMORY
NVIDIA Quadro P5000	16GB GDDR5X
NVIDIA Quadro K6000	12GB GDDR5
NVIDIA Quadro M6000	12GB GDDR5
NVIDIA Quadro M5000	8GB GDDR5
NVIDIA Quadro P2000	5GB GDDR5
NVIDIA Quadro M2000	4GB GDDR5
NVIDIA Quadro P600	2GB 64-Bit GDDR5
NVIDIA Quadro K2000	2GB GDDR5
NVIDIA Quadro P6000	24GB GDDR5X
NVIDIA Quadro RTX6000	24GB GDDR6

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6. Enhancements for this Release

6.1. Demolition in Cloud Projects

Users now have the ability to demolish volumes of Cloud projects loaded with Point Cloud Manager Desktop. This workflow only supports non-refined volumes.

6.2. BubbleView Enhancements

Point Cloud Manager has updated the BubbleViews, the format now is inline with Point Cloud Manager projects generated on AVEVA Connect. The new BubbleView supports the following features:

- 24-bit colour support
- diagonal motion
- support for demolition
- colour-intensity switching
- Multiple definition on zoom
- Support for displaying demolition
- Support for doing demolition

6.3. AutoCAD Plant3D object now visible in Point Cloud Manager
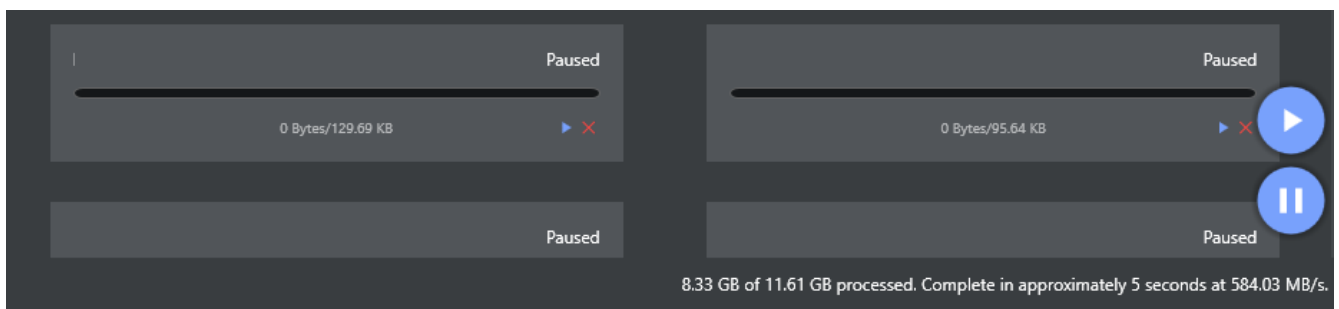
Plant3D components and other non-standard objects are now supported and visible with Point Cloud Manager desktop application.

6.4. Cloud Project bar added to Main Interface

Point Cloud Manager now displays the project currently open in the top right of User interface. Clicking on this reveals the options to "log out" of the current project. This feature was previously only available through the "Manage Uploads" window.

6.5. Ability to Pause and resume scan uploads

When publishing scans and datasets to AVEVA Point Cloud Manager on Connect users now have the ability to pause the process and resume at a later time. Paused upload elements can be resumed up to 24 hours.

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6.6. Fine tune floorplan position

Additional support added for finer rotational controls when placing PDF floorplans. Users can now select a snapping angle and when holding CTRL/Shift can snap to 30 degree increments.

6.7. Support of Sky in e57 created from Z+F Laser Control

E57 files created from Z+F scanners using the Laser Control software now contain sky when imported into Point Cloud Manager.

CAD SYSTEM	RELEASE SUPPORTED
AutoDesk REVIT	2023

7. Bug Fixes

INTERNAL REFERENCE	DESCRIPTION
2307694	Density of points in AutoCAD Revit Volume not displaying correctly Issue with showing points from a volume selection fixed where it wasn't actually using the volume Also added new density option for terrestrial data
2310283	Point Cloud Manager crashes when Solid Point Cloud is switched off after demolition/restoration in Cloud loaded project.
2310350	Deleting Label from attributes section of markups does not delete the label. This issue is resolved for new markups
2311767	Solid Point Cloud missing sections within 3D view for Cloud Projects. Improvements have been made to rendering of Solid Point Cloud in 3D view by dynamically rendering to reduce sections from not displaying to user.
2313387	Snap to plane Volume creation is intermittent on Large Cloud projects.
2324253	Dataset generated using the "Ignore Colour information" is not displaying properly Issue where the display of points would show multicolour or green when "ignore Colour Information" was selected. This has now been resolved to show intensity.
2345676 2346524	Select function when defining Volumes does not work When creating volumes with multiple boxes the ability to select a box would not work, this was a long standing bug. Now users are able to create multiple boxes, resize and change which is the active Volume box. Function for resizing the Volumes has also been improved when in BubbleView.
2399161	Microstation Connect issues Support for Microstation Connect version 10.17.02.61 is now included, this will solve ribbon display issues and the freezes when closing the CAD link.

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2433239	Opening of Cloud Projects Improvements have been made to the time taken to open cloud projects, further work is planned to work with customers proxy server settings.
2456948	Floorplan Management When a project has a large amount of floorplans, the ability to right click is unavailable. This has now been fixed and users are able to use the right click menu.
2291423	Title Bar grows and hangs on Dataset open

8. Known Issues

INTERNAL REFERENCE	DESCRIPTION
2535053	RVM file not showing correctly on Import This release sees improvements to model caching, as part of this a small bug has been noted in this release which relates to RVM which contain exploded views. This can show objects in incorrect positions.
2581035	Panoramic images not showing correctly for Cloud projects Loading panoramic images from Connect do not open correctly showing a black screen. This has been worked on but is not available in the 23.2 release. Point Data is still available for this data and panoramic images are available on Connect.
2553653	Highlight does not work for Solid Point Cloud When selecting a Volume and choosing "Highlight" this will not display when Solid Points are enabled.

9. Support Information

Please report any issues with this version to us by creating a support case through the GCS Knowledge & Support Center accessed here: https://softwaresupportsp.aveva.com/. When creating a ticket please include as much necessary information to assist the support team in answering your query as quickly as possible:

- Which AVEVA Point Cloud Manager solution does the issue relate to?
- What is the full version number of this package?
- What is the license number if applicable/known?
- If the problem relates to an AVEVA Point Cloud Manager link to an external package, what is the name and version number of the CAD package in question?
- Concise description of the issue
- Workflow steps to repeat the problem
- Download details of supporting data (scans/drawings/surveys etc.)

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10. Unsigned DLL information

AVEVA Point Cloud Manager uses a range aof Unsigned DLLs in its development for more information please review the linked document **here**.

11. Product QA cycle:

The development philosophy used to produce Point Cloud Manager applies AGILE principles to ensure a high-quality product which evolves to match customer requirements. Throughout the development cycle, test and evaluation is used to guide the process and minimise the final test overhead.

The final test process has three stages, and this document has been prepared after these have been completed. These stages are outlined below.

11.1. Individual Function Test

All Point Cloud Manager desktop functionality is examined for correct responses. Functions called from the Main Menu bar, Main Toolbar, Modelling Toolbars, and Component Browser are tested in turn. This ensures that the functionality matches the design intent, and previously recorded errors have been fixed.

11.2. Destructive Test

This section of the test schedule is aimed at investigating to see if a software product exhibits proper behaviour when subjected to improper usage, or improper input. The tests are applied to different data samples, machines, and in a random manner to try to replicate 'real world' variations in user conditions.

11.3. Software Acceptance Tests

AVEVA concludes the Point Cloud Manager test cycle with a series of controlled examples aimed at simulating real life use situations. The finished models are QA checked against calibrated historical data, to ensure that the product maintains the previous output standard.

CAD LINK SUPPORT:
AVEVA™ POINT CLOUD MANAGER
23.2.2.0

Autodesk™

SOFTWARE	VERSION
Autodesk AutoCAD™	2019, 2020, 2021, 2022, 2023
Autodesk NavisWorks™* **	2019, 2020, 2021, 2022, 2023
Autodesk Revit™	2019, 2020, 2021, 2022, 2023

*Navisworks Simulate and Manage only, Navisworks Freedom is not supported.

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SOFTWARE	VERSION
AVEVA Review™	6.4, 12
AVEVA PDMS™	6(SP3-5), 12(SP3-6), 12.1

Bentley™

SOFTWARE	VERSION
Bentley MicroStation™	Connect

Hexagon (Intergraph)™

SOFTWARE	VERSION
Intergragh Smart 3D™ **	2019, v13, v13.1
Intergraph Smart Plant Review™ **	2017, 2018, 2020
Hexagon BricsCAD™	V21, V22

**When using the selected CAD links, the ability to load cloud datasets are not currently supported. This is FOR NAVISWORKS, Smart 3D and Smart Plant Review. This is due to the CAD systems requiring an LFD file to start the connection.

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