

PRODUCT RELEASE SUMMARY

AVEVA™ Point Cloud Manager (on-premise) 5.8.0.0

Release Date: 20/01/2022

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Superseded software version: Point Cloud Manager 5.7.0.1

1. Point Cloud Manager Version Numbers

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

- First version field denotes general software series number.
- Second version field is incremented to track major new feature implementation.
- Third version field is incremented to track minor new feature implementation.
- Final (fourth) version field is incremented to track error fixes.

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. Important Announcement

Due to a known issue (Section 6.) with PDF floorplans not displaying correctly in AVEVA™ Connect solution, it is advised that users perform the publishing with AVEVA™ Point Cloud Manager 5.7.0.1. For more information on the issue please see section 6 reference **1717487**.

Dual licensing technology support in previous versions has been suspended. AVEVA™ Point Cloud Manager 5.8.0.0 now only supports AVEVA™ ALS licensing, and support for legacy Sentinel licensing has been dropped for this and future releases. Previous versions of Point Cloud Manager and LFM will still be able to use Sentinel. Please contact your Account Manager or the Support Team for further information.

AVEVA™ Connect has received security enhancements which now require users to authenticate via AVEVA™ Point Cloud Manager 5.6 or higher. Anyone wishing to upload laser scans or published Viewer projects to a AVEVA™ Connect folder must use v5.6 onwards. Older versions will not be able to authenticate, and the connection will fail.

4. 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 K600	1024MB DDR3
NVIDIA Quadro P600	2GB 64-Bit GDDR5
NVIDIA Quadro K2000	2GB GDDR5
NVIDIA Quadro P6000	24GB GDDR5X
NVIDIA Quadro RTX6000	24GB GDDR6

5. Enhancements for this Release

5.1. NavVis™ VLX e57 support

NavVis™ VLX is a wearable mobile mapping system that enables high-quality reality capture of complex buildings at unprecedented speed and scale. NavVis™ and AVEVA™ have worked together to support the import of NavVis™ e57 files into the AVEVA™ Point Cloud Manager. Captured data is processed in NavVis™ ION to deliver high-quality data in e57 formats that contain both 3D point cloud data and panoramic images while creating no additional work for the user. The data is then imported into AVEVA™ Point Cloud Manager and once a dataset is generated will be able to take measurements of the data, link with CAD systems, and publish the dataset to AVEVA™ Point Cloud Manager - Viewer for integration with the wider Digital Twin.

5.2. Process Autodesk™ FBX files for Viewer on AVEVA™ Connect

AVEVA™ Point Cloud Manager has been able to import the FBX file format designs for review use within the application for several versions. This widely used 3D exchange format allows designers to easily import their objects and conduct detailed analysis in comparison to the point cloud. In this release we have implemented the ability to publish the Objects file from AVEVA™ Point Cloud Manager into an Objects.cache able to be uploaded to the Viewer on AVEVA™ Connect solution, further minimising the need to translate 3D data into other formats.

5.3. Support for BricsCAD™

It is important that we deliver and update the supported AVEVA™ Point Cloud Manager CAD links to match with users needs. With AVEVA™ Point Cloud Manager 5.8.0.0. users will be able to interact with point cloud data with BricsCAD™ version 21 and 22. The point cloud will be accessible in the 3D modelling module of the software.

5.4. Download non-cloud generated datasets

Users now have the ability to download all AVEVA™ Point Cloud Manager Cloud projects hosted on AVEVA™ Connect. This builds on the functionality released in 5.7 to download Cloud generated projects on demand for use locally. There are some differences in the data formatting between projects that have been prepared and uploaded via an AVEVA™ Point Cloud Manager (app) session and a Cloud generated dataset that need to be highlighted.

Uploaded (published) projects are in standard LFM format. These will be unchanged following download and are accessible in all versions of AVEVA™ Point Cloud Manager. Cloud generated projects are optimised for remote use with Everything3D™ and other AVEVA™ solutions. If downloaded, these will need to be viewed within AVEVA™ Point Cloud Manager 5.7 or later following download and are not able to be used locally within Everything3D™ at this time. Please note that customers will be able to remotely access the Cloud generated projects with the release of Everything3D™ 3.1.5 in 2022 and work directly with AVEVA™ Connect Point Cloud Manager projects. This will allow stakeholders to fully collaborate with one centralised copy of the project, wherever they are based.

Remotely accessing centralised laser data within design & operations is an exiting development and allows multi-region project dataset sharing between project stakeholders. Where customers wish to continue to work with local datasets however, this download functionality will provide a convenient method to transfer laser projects from one location to another and may assist service delivery companies with project handover.

5.5. Updated User Interface

The new colour scheme is mostly monochrome, and colour is now used sparingly in a subtle but tasteful way. It is used to highlight actions and elements, showing the user where they are, what they are interacting with or warning them about errors. Users now can change between Light and Dark mode and this can be set to the user's profile, mirroring the preference entered for the Microsoft theme.

5.6. Increased support for CAD systems

CAD SYSTEM	RELEASE SUPPORTED
AutoDesk Revit™	2021, 2022

6. Known Issues

INTERNAL REFERENCE	DESCRIPTION
1717487	<p>AVEVA Point Cloud Manager - Viewer (on AVEVA Connect) not displaying PDF floorplans.</p> <p>Projects published using 5.8.0.0. have been found to incorrectly display the plans in the Viewer sidebar and graphics area. If PDF floorplans are being used, publishing to AVEVA Connect should be done using AVEVA Point Cloud Manager 5.7.0.1.</p>
1600666	<p>Integrated BubbleViews do open correctly in Intergraph™ Smart3D™ 2016.</p> <p>Prior to this release we were aware of startup issues with integrated Bubbleviews in several CAD links. Fixes were created for later versions of Intergraph™ Smart3D™ but the defect has remained for Smart3D™ 2016. A fix has not made this release and will follow.</p>
1654593	<p>“CAD Link port in use” message appearing for users that do not use CAD Link.</p> <p>This message would appear when starting up multiple instances of the software at the same time. The message displays even if the user does not initiate a CAD Link. The message is still important and in future releases we intend to assess how best to deliver it to the user.</p>
1703338	<p>Integrated BubbleView in the Intergraph™ SmartPlant Review™ CAD Link doesn't remain parked when the view is rotated.</p> <p>When using the integrated BubbleView in the SPR CAD Link, after selecting a point and rotating the BubbleView it will not remain parked.</p>
1711637	<p>CAD link issue with AutoDesk™ Navisworks Simulate™</p> <p>The CAD link to Navisworks Simulate™ is currently unable to connect to Point Cloud Manager. Interacting with CAD software is an important aspect of Point Cloud Manager, and we will work to resolve this issue.</p>

7. Ongoing Investigations

INTERNAL REFERENCE	DESCRIPTION
993724	<p>Investigation into Virtual Environment support.</p> <p>Customers are now utilising virtual environments as a solution to deploying software for large numbers of users. To keep pace with how customers are working, we are investigating how our software and CAD links work in this environment and will incorporate this into our testing and development work.</p>

8. 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.

8.1. Individual Function Test

All Point Cloud Manager desktop functionality is examined for correct responses. Functions called from the Main Menubar, 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.

8.2. 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.

8.3. 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.