

# PRODUCT RELEASE SUMMARY

## AVEVA™ Point Cloud Manager (on-premise) 5.9.0.0

Release Date: 12/05/2022

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**Superseded software version:** Point Cloud Manager 5.8.0.0

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

## 3. ALS Licensing

AVEVA™ Point Cloud Manager 5.8.0.0 only supported AVEVA™ ALS licensing. 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 31<sup>st</sup> December 2022. Please contact your Account Manager or the Support Team for further information.

Releases since AVEVA Point Cloud Manager 5.8.0.0 only support ALS licensing.

## 4. Important Announcement

AVEVA Point Cloud Manager can now import e57 data from the NavVis VLX scanner. Please note: making measurements in a BubbleView in a NavVis dataset is currently unreliable. The panoramic camera of the VLX uses a separate lens, meaning that the composite mapping between this and the 3D points is not 1:1 – unlike static scanners. The colour or intensity mapping for measurements is much more reliable when performed in the 3D space, and this is what is recommended at present.

Since renaming to Point Cloud Manager from LFM, the Smart 3D CAD link now requires users to recreate links to each dataset in *Project Management* as the name change will affect the path.

## 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 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

## 6. Enhancements for this Release

### 6.1. Export Navigational (PDF) Floorplans for use in other projects

AVEVA Point Cloud Manager 5.9.0.0 has the ability to export pre-positioned navigational floorplans. Users may now choose to export the Floorplans from one project (.LFX file), and then import into other Point Cloud Manager projects that require the same plans. This will avoid administrative repetition and will aid project delivery.

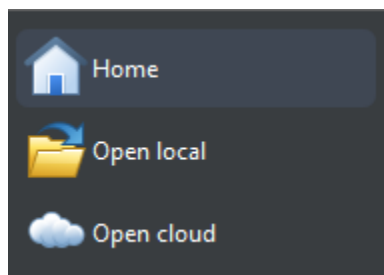
### 6.2. Work with Cloud Data in Point Cloud Manager

Point Cloud Manager project data is typically stored centrally within an organisation to allow all project stakeholders to access on demand across the local network. Modern work practices dictate that projects are often delivered by personnel based in different geographic locations, which can present challenges in sharing data, and can rely on multiple copies of large file-sets being in use at any given time. This is costly to support and can present data consistency challenges as project dataset evolve.

With the release of Point Cloud Manager 5.9, users are able to connect and collaborate on the same Cloud stored data that supports Viewer users. This allows all stakeholders in engineering and operations functions to utilise one centrally stored copy of their laser projects.

To use this new functionality, the laser data stored inside AVEVA Connect must be of the latest format. Any data that has been published and uploaded via a Point Cloud Manager (on-premise) session will need to be upgraded. This process is quick and simple and is initiated by the AVEVA Connect Account Administrator. This functionality will also allow project delivery staff to directly manage and update navigational floorplans & 3D markup in a Cloud generated project. Please contact the Customer Support Team for more information.

To access a Cloud project, the user has a new menu option to Open Cloud on the File Menu. For more information, please view the 'Point Cloud Manager - Server Guide' Section 5.3.



### 6.3. Update FARO SDK

To remain capable of importing a wide array of scan file types, it is important that we update & maintain supported hardware SDK's that are supplied with Point Cloud Manager. This 5.9 update includes enhancements to the FARO SDK allowing us to import their latest version of FLS formatted files.

## 6.4. Updated User Interface

Following from our recent changes in user interface, we are continuing to update the design for clarity and to align with other AVEVA solutions. In this version, the categories in the Entity Browser are now listed vertically and are maximised on use. This removes the need for users to scroll through the tabs, and increases the readability when using the software.

## 6.5. Support for CAD systems

AVEVA Point Cloud Manager will link to a wide range of CAD software. A full list of currently supported CAD systems can be found [here](#). AVEVA endeavours to maintain CAD link support in line with the software vendor and will update and retire support as necessary.

5.9.0.0 - Added support for following CAD systems:

CAD SYSTEM	RELEASE SUPPORTED
Hexagon Smart3D™	V13

Support for CAD systems removed:

CAD SYSTEM	SUPPORT REMOVED
Hexagon Smart3D™	2016

## 7. Bug Fixes

INTERNAL REFERENCE	DESCRIPTION
<b>1717487</b>	AVEVA Point Cloud Manager - Viewer (on AVEVA Connect) not displaying PDF floorplans.  Projects published using 5.8.0.0. have been found to incorrectly display the plans in the Viewer sidebar and graphics area. This has been fixed for the 5.9.0.0 release.
<b>1654593</b>	'CAD Link port in use' message appearing for users that do not use a CAD Link.  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. This has now been removed and only shows when the CAD Link is actively used.
<b>1711637</b>	CAD link issue with AutoDesk™ Navisworks Simulate™  AVEVA Point Cloud Manager now connects correctly with Navisworks Simulate.
<b>1756639</b>	Issue with the display of speech bubbles.  Taking measurements could cause speech bubbles to show incorrectly. The user interface changes allow the speech bubbles to display correctly and have greater clarity.

## 8. Known Issues

INTERNAL REFERENCE	DESCRIPTION
<b>1659799</b>	<p>Deviation Measurements aren't getting created in the Elevation View of AutoCAD after 1st successful creation (inconsistent behaviour)</p> <p>The ability to use Deviation measurements in AutoCAD and BricsCAD has been inconsistent, the ability to take Deviation measurements from 3rd party software has been removed. users still have the ability to measure from the Point Cloud Manager interface and interact with the measurement through the wider tools available there.</p>
<b>914695</b>	<p>4K monitor support</p> <p>Several display issues have been reported when running Point Cloud Manager on high resolution monitors, and these are being actively investigated and resolved to deliver a better user experience in future releases.</p>

## 9. Ongoing Investigations

INTERNAL REFERENCE	DESCRIPTION
<b>993724</b>	<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>
<b>1796331</b>	<p>Very large Projects do not upload using the standard workflow.</p> <p>Customers who require the upload of extremely large projects can have difficulty with publishing using the standard workflow of having all datasets loaded at the time of publish. This can show itself in various ways when accessing in Viewer. Whilst the investigation is ongoing, the best workaround is to publish groups of datasets at a time by loading and unloading when publishing to incrementally build the project.</p> <p>For more information on this workflow please contact support.</p>

# 10. 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.

## 10.1. 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.

## 10.2. 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.

## 10.3. 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.