

# Release notes

# PerGeos Software

# Version 2021.2

*Digital rock visualization, analysis and simulation*

Please read these Release Notes carefully. They contain important new information about features, improvements and changes in this version of Thermo Scientific™ PerGeos Software.

We welcome your feedback regarding this version. If you encounter any problems or have any suggestions for improvement, please contact us at [FRBOR.3d\\_hotline@thermofisher.com](mailto:FRBOR.3d_hotline@thermofisher.com).

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# General Enhancements and new features

## Python API enhancements

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A new Python data structure is available `hx.core.HxData.parameters`. It can be used to get and set Amira Avizo 3D Data Parameters and Materials (also known as Parameter Bundle). Class `hx.core.HxViewer`, has a new `auto_redraw` property to control viewers' autoredraw. The same class `snapshot` method supports new options for offscreen rendering and to control antialiasing.

## XPand uses CMake

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The CMake open-source tool is now a requirement to build custom modules by mean of XPand, the C++ API for custom extensions available in PerGeos. CMake is a de facto standard tool to define and create platform independent builds in C++. The adoption of `CMakeLists.txt` replaces the previous build infrastructure based on proprietary PerGeos Package files.

## Licensing

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This release introduces new upgrade features which will allow you to update your licenses more easily when a new version is released:

- For node-locked (local) licenses, a new Upgrade button has been added in Thermo Scientific License Manager 1.6.6. To benefit from this new feature, make sure you don't cancel Thermo Scientific License Manager 1.6.6 installation at the end of Amira-Avizo installation.
- For floating (server) licenses, a new [Upgrade](#) menu is now available in the TLM portal.

## Compatibility notes

- With the announcement from RedHat to discontinuing CentOS 8 at the end of 2021, we will transition the supported Linux distribution to Ubuntu in future versions.
- We will upgrade the compiler versions required to use the XPand extension to:
  - Microsoft Visual Studio 2019 on Windows
  - gcc 9 on Linux

# Operating systems

PerGeos Software version 2021.2 runs on:

- Microsoft Windows 10 (64-bit).
- Linux x86 64 (64-bit). Supported 64-bit architecture is Intel64/AMD64 architecture. Supported Linux distribution is CentOS 7.

To add custom extensions with PerGeos XPand extension, you will need:

- Microsoft Visual Studio 2013 (VC12) Update 4 on Windows
- gcc 4.8.x on Linux CentOS 7

## Solved issues

<b>Bounding Box</b>	AA-24793	The line width port max value is now limited to 10.
<b>Compute Ambient Occlusion</b>	AA-24974	The module is now able to handle data over 4GB.
<b>DICOM</b>	AA-24967	Writer now exports unknown tags in the same format as the input.
<b>Generate Tetra Grid</b>	AA-25443	The available memory information has been added to the system memory error message.
<b>Matlab</b>	AA-25667	It is now possible to export data which name contains paranthesis.
<b>Raw Stereo</b>	AA-16362, AA-16032	Raw Stereo (OpenGL) capabilities have been restored for workstation with compatible hardware
<b>Separate Objects</b>	AA-24880	The Agressive Skeleton method is now applicable on largest data with multiple labels.
<b>MRC</b>	AA-16481	There was sometimes errors raised with .rec files. The reader has been corrected and this is not the case anymore.
<b>ANSYS export</b>	AA-24052	The default extension is now .inp and it replaces the previous one .ans.

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