

What's New: Geoteric 2022.1

Geoteric 2022.1 supports more efficient Automatic Fault Surface Extraction functionality delivering the best possible result into the geocellular model building workflows.

This latest release allows the industry-leading AI Fault Interpretation workflows, AI Faults – 2D Networks and AI Faults – 3D Networks to safely harness the maximum processing power available on a single machine by supporting the latest Graphics card architectures (e.g., Nvidia Ampère).

Better CUDA compute capability and memory handling optimises efficient machine memory consumption, using only what is required without exceeding availability. This improves the processing of larger seismic volumes and the performance of some previously memory hungry AI networks.

Geoteric 2022.1 is now supported on your in-house desktop and workstation on Windows 10 and Windows 11.

Key areas of updates in Geoteric 2022.1

- An upgrade to the underlying AI technology to support the latest and fastest graphic processing cards
 - Support for Nvidia Ampère Graphics Processing Unit (GPU) cards
 - Better CUDA compute capability
 - Improved memory handling
 - Increased stability
- Link for Petrel supports Petrel 2021.2
 - Batch fault surface transfer to Petrel replicates the Geoteric project tree folder structure, naming and content inside Petrel
- Batch fault surface ascii export with an easier, faster user-interface and folder level selection
- The entire contents of the unassigned fault sticks folder can be deleted from the project tree with an easy right-click option.

Geoteric 2022.1 Fixed Issues

GT-0131	Attempts to create a smoothed fault surface too quickly after creating a fault set caused a crash or fail and left the 'create smooth fault surface' button unavailable
GT-0142	Fault sticks which had been picked exclusively in a Z direction failed to produce fault surfaces and could crash the project or leave the 'create smooth fault surface' button unavailable
GT-0442	The Create Opacity Blend UI dialog on 4K screens was clipping some controls, particularly the combination boxes. Note – do not use scaling of more than 200% or less than 150%
GT-1222	The colour of horizon and surface overlays applied in the settings for the display for horizons and surfaces did not match the actual colour as observed on the slices in the scene
GT-1316	Volumetrics volume height maps were ignoring added polygons. Note that the actual volumetric values were correctly calculated, this had a visual map impact only
GT-1354	A volume which was actively being used for the functionality "AI Faults as you move" but which was then deleted, would cause a crash
GT-1485	Horizon overlays no longer incorrectly re-appear when reopening a project, even after removing them from the scene before closing the project. Only those horizon overlays which have been kept in the scene and saved when the project is closed, are now seen as overlays when reopening the project
GT-1995	From Geoteric 2020.1, installation on a machine which had never previously had Geoteric installed, would ask for a restart of the machine and to close all open software.
GT-1731 & GT-3084	Batch Processor. Does not crash when using the delete button to remove tabs, and then hitting the delete button one last time, after all the tabs have been removed, or when using the duplicate button following the 'remove an action' button
GT-2236	Removed the ability to preview AI Faults on Z-slices via the functionality found on the fault interpretation toolbar, since this was not a meaningful workflow. Preview of AI Fault results on Inline and Crossline slices remains
GT-2496	Updated the error message when fine-tuning with AI Faults – 3D Network when no fault sticks fell within the volume being used. The previous error message was not helpful to clarify this situation
GT-2620 & GT-0863	It is now possible to create projects from a SEG Y which is located on non-mapped network drives through the ability to support UNC paths

GT-2639	When cancelling a running AI Faults - 3D Networks process, this could result in seismic volumes remaining in the project data folder and AI Server. These volumes are now deleted upon any cancellation of the AI Faults processes
GT-2739	When evaluating an entire volume using AI Faults - 2D Networks and with the chosen volume in scene, an incorrect error message asked for a volume to be placed in scene. The message now correctly requests that the volume is made active for the process to run
GT-2873	When running the fault extraction workflow, the user interface now informs you that the extraction is taking place. Previously this could lead to the mistaken belief that the software had frozen or crashed
GT-2876	When cancelling a running fault labelled volume extraction process, an empty Fault labelled volume was created and remained in the project tree. This empty volume is now deleted upon cancelation of the process
GT-2883	The 2D Slice Viewers statistics panel displayed incorrect minimum and maximum values for some volumes such as IFC+ when mapped onto the horizon
GT-2889	No longer possible to incorrectly select both an AI Faults – 2D Networks and an AI Faults – 3D networks license simultaneously from the license selector. It was possible that this could have led to instability of the software and error messages
GT-2890	The 2D Slice Viewer was showing incorrect increments and spacing for some projects particularly with non-absolute increments and the measurement of voxels in the window did not match the measurement spacing in the panel
GT-2892	Link for Petrel can now export multi-band colour maps
GT-2945	HDFD output volumes were slightly smaller than the input volumes for seismic where increments were not in whole numbers. This update means that follow-on workflows such as within Classify are possible
GT-2969	Updated the text in the Fault Surface Extraction user interface to warn that performance may deteriorate if no filtering is used. In such cases hundreds or thousands of fault surfaces could be extracted. Please see the user manual for more information
GT-2985	Projects did not open after fault stick filters had been applied, even when these filters had been disabled and were not in use in the project
GT-3031	The Process Manager service 'stop' and 'start' functionality from the Microsoft Service manager was working correctly however the 'restart' option was failing to restart. There is no change in behaviour with Geoteric 2022.1 but for clarification:

	<ul style="list-style-type: none"> • The environment variables that are present when the service starts (i.e. on install or machine start-up) are cached by Windows for that service. Deletion of any of these variables requires a manual restart of the service, otherwise there will not be an effect on the service. • If the desired behaviour is to force the service to update the environment variables, then deletion of those variables must be followed by a machine restart in order to see the changes applied. • This does not affect the licensing system
GT-3080 & GT-3074	Reset layout now includes the fault toolbar in cases where the fault toolbar was hidden or unavailable
GT-3104	Low range float seismic data could cause interpretations to return an incorrect horizon event type (e.g., picked on a peak gave a trough event type)
GT-3235	<p>Automatic Fault Surfaces Extraction Workflow</p> <p>Changed the default postfix for the fault surface cleaning volume. It will now be "<name of volume>_CleanFaults".</p> <p>Changed the postfix folder name for the fault surfaces from "extracted_faults_from_<name of input volume>" to "<name of input volume>" only.</p> <ul style="list-style-type: none"> • The number of characters in the output fault surface names may be very big, especially if the input volume name is very long. This can lead to issues with zipping files which has a Windows constraint of 256 characters. Whilst the changes here will help, it is recommended to keep input volumes names as short as possible
GT-3641	Missing environmental variables on the remote network server machine hosting Geoteric Process Manager would cause a crash and the service would be stopped without error messages. Missing environmental variables will now provide the correct error messages.
GT-3639	Geoteric Process Manager installer will give the Microsoft Visual Studio 2015-22 redistributables webpage link so that these can be installed onto any remote network server hosing the Geoteric Process Manager which has not previously had Geoteric installed and where these redistributables are required.