

# Geoteric 2020.2 Release Notes

Discover a deeper level of subsurface understanding with increased speed and accuracy.

In September 2020, Collaborative AI 2020.1 revolutionised traditional fault interpretation workflows by integrating existing geological interpretation with AI.

With Geoteric 2020.2, updates to the performance, installation process, data access and licensing of Collaborative AI enables faster and easier fault framework interpretation using deep learning and AI.

This is a Windows release for Collaborative AI 2020.2.

## Key areas of updates in Geoteric 2020.2

- Update to Collaborative AI Faults
  - Performance
  - Shared file storage and network file access
  - GPU memory allocation
  - Licensing

### Performance

Collaborative AI 2020.2 delivers a 90% reduction in processing time for inline and crossline AI fault detection. A full volume AI fault detection extraction is now also up to 90% faster.

### Shared file storage and network file access

The Collaborative AI Server can now access projects using both mapped drives and UNC paths. Previously some IT infrastructure configurations prevented the server from accessing projects stored on certain types of networks. Access is now given to the shared network, UNC paths and different user permission configurations, giving improved deployment and operability.

### GPU memory allocation

The Collaborative AI Server is now launched from within Geoteric and does not run as a Windows Service. This means that both the user and the software have control for GPU memory access.

Whilst GPU memory is still required during processing. It is taken only once the process is started and can be freed at user-discretion once the process has completed. The GPU memory allocation is not permanent and will be released when directed by the user to be closed, or when closing Geoteric and these actions do not require administrator privileges.

These changes simplify the deployment and installation of the software and improve security.

### Licensing

The 2020.2 Collaborative AI license is checked in and out by returning the license when Geoteric is closed. If Geoteric is closed before the processing is complete, the processing will stop, the service is shut down, and the license is freed.

## Collaborative AI Faults

AI is a powerful new tool for fault detection and extraction in addition to conventional workflows. Geoteric includes Collaborative AI interpretation techniques to extract fault information via customised deep learning convolutional neural networks (CNNs). The networks have been pre-trained to recognise faults from different seismic basins and with varying data quality. Therefore, the input can be seismic amplitude from any region or geological environment, quantity, or scale, in time or depth. The output is an AI confidence visualisation which can be examined using the many volume visualisation techniques within Geoteric.

Fine-tuning is possible using interpreted fault sticks which are added to the network during the calculation.

An interpreter can add more geological knowledge by fine-tuning the network to the geological environment by using interpreted fault sticks.