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Badley Geoscience Limited

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STRUCTURAL GEOLOGY | FAULT SEAL |
GEODYNAMICS

Introducing T7 AI Faults with Structural QC

Badleys are pleased to release the latest instalment of our flagship software T7, version 7.310. This update includes our unique, structurally consistent AI fault interpretation module. Below is an overview of this and additional functionality enhancements available in the latest T7 patch. Note that supported clients will require an additional licence feature to enable AI Faults. We will be in contact with you shortly but if you wish to upgrade immediately, please contact **Support**.

As always, should you have any requests for new functionality then please **contact us** with your suggestions and we will endeavour to include them into our development plan.

T7.310 Main Features

The main new feature in the T7.310 patch is an AI-based fault identification procedure with automated and geo-intelligent fault surface extraction from the AI-generated indicator volume. The resulting fault geometry is QC'd using our existing fault-displacement attribute which is calculated directly from the reflectivity volume and is independent of horizon interpretation. Once calculated, the fault surfaces are easily converted to segments for editing, if required.

These features are described in more detail below:
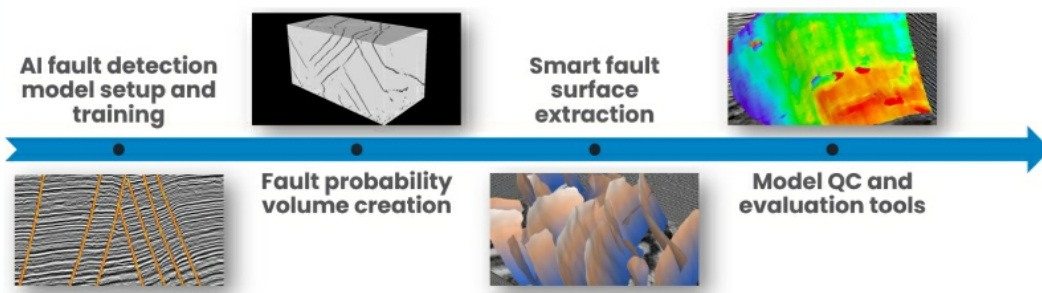

1. AI Fault Indentification:

- New AI auto-fault identification tool using deep learning for semantic segmentation on seismic amplitude volumes.
- Featuring a step-by-step user interface, pre-trained models, and model training capabilities.
- Workflow includes model creation, training, inference, processing, and output.

Training   Running   Results
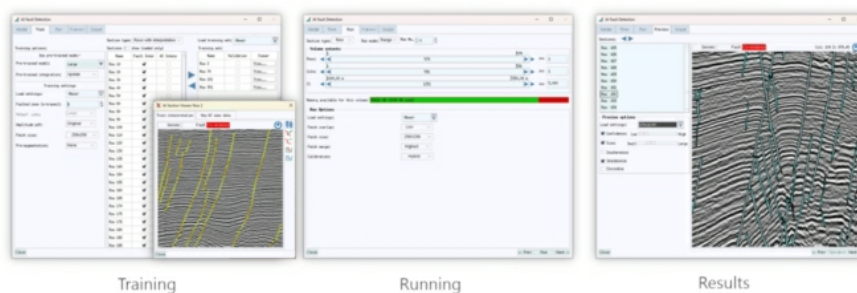
**2. Automated Fault Surface Extraction:**

- Tool for extracting fault surfaces as tri-meshes from fault indicator volumes.
- Operates on volumes generated through T7 (AI Fault Probability) or third-party systems.
- Includes advanced controls for fine-tuning the extraction process.

Functional Enhancements:
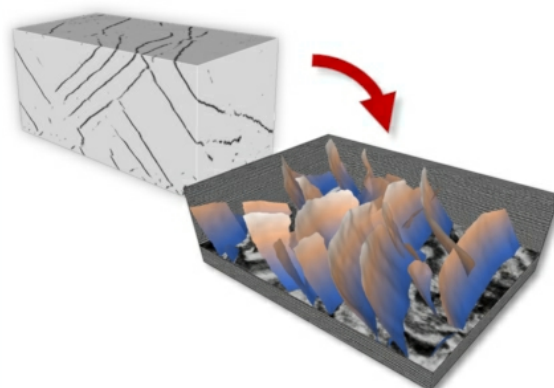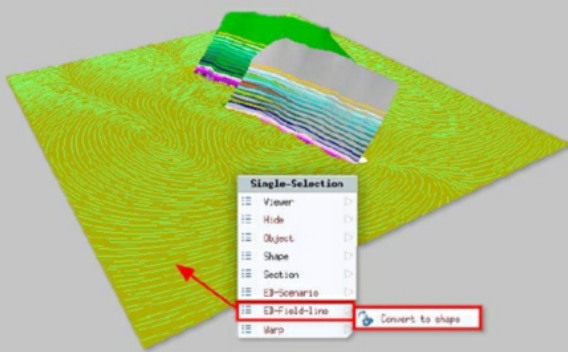
1. T7.3 extended the creation of FRAC field lines in StressTester to include FaultED (Boundary Element Modelling geomechanical fracture prediction). These can now be converted to Shapes to allow for ease of translation to other systems.
2. Basemap grids now show indicators for sections loaded into the Interpret module.
3. Display Method Attribute Histogram: New tool for creating quick histograms of data displayed in the Volume Editor.

1. You can now save viewer contents to a PNG file with customizable image size.
2. Polygon Centre-Lines: Control display of polygon centre-lines in the Volume Editor's Model & Map module. Export options for ASCII and Petrel formats.
3. New support for importing and exporting ASCII colourmap files in the Colour Map Editor.
4. Data-Offset for Wells and Surveys: Extended utility to apply geometric transformations to Well and Survey data.
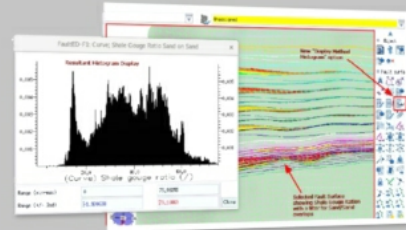
Important Notes:

- T7.310 is a patch release and must be installed on an existing 7.30x installation.
- T7.3x uses FlexNet 11.18.2 for licensing.
- Backup projects before using them with T7.310 as database upgrades are irreversible.
- Contact support@badleys.co.uk for license feature requests and eligibility.
- For detailed descriptions and instructions, please refer to the T7 user manual.

If you would like to talk to us about the new release of T7.310 or if you would like to hear how Badleys can aid your company/department though exploration challenges, please feel free to contact us at support to arrange a discussion/web-meeting.