



Inversion 2017.1

Enhanced interpretation, reservoir prediction and geosteering*

Release Notes for GVERSE Inversion 2017.1

*Powered by
 **FracGeo**



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Introduction

LMKR is pleased to announce the release of the GVERSE™ Inversion 2017.1 plug-in for enhanced interpretation, reservoir prediction and geosteering*.

This document provides an introduction to the Inversion plug-in features and benefits. It also lists the system requirements necessary to install and run the plug-in.

What is GVERSE Inversion?

This plug-in is a colored inversion solution that provides a rapid, yet robust, way to derive geological details in the form of a relative impedance volume (rock hardness). When geosteering through a reservoir, the high resolution impedances calculated by the colored inversion ensure that the well is drilled through the ideal reservoir. This plug-in is part of the GVERSE application suite by LMKR (<http://www.lmkr.com/gverse>).

LMKR GVERSE consists of geoscience and engineering solutions focused on workflow optimization and enhancing productivity of teams working on diverse geological and geophysical projects. These applications help cut the processing time required for interpretations resulting in fast, easy to use scalable tools that are inter-operable with other known geoscience software suites; enabling a connected multi skilled workforce.

Main Features

Data Loading and Management

- Direct access to the required well data and seismic data from your GeoGraphix® projects
- Resulting impedance volume can be saved into GeoGraphix project database

Colored Inversion

- Minimizes the input required from user
- Calculates an operator to transform the seismic data to equivalent impedance cube
- Real-time inversion operator calibration by:
 - Displaying the amplitude spectrums of the seismic data and acoustic impedance logs used to construct the colored inversion operator
 - Previewing the resulting impedance on a given inline, crossline, or closest line to a selected well before launching the calculation over the area of interest.

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Benefits

- **High Resolution Results for Better Well Planning, Geosteering, and Completions**
Impedance (rock hardness) data provides a high resolution view of the reservoir and landing zone with the spatial resolution that inherently comes with seismic data. This information can be used to determine the best wells to drill, the optimum landing zones, and provide a better understanding of where and how completions should take place along a well.
- **Simple, Fast, and Robust Algorithm**
The only inputs for this inversion are the acoustic impedance logs and seismic data to use. With this information, an inversion operator is constructed to quickly transform the seismic amplitude into impedance volume.
- **Capability of GeoGraphix with FracGeo Technology**
Integration of GVERSE Inversion into GeoGraphix allows one to easily create and view the resulting impedance volume and use the derived reservoir information to easily optimize any well location, geosteering or completion plans.

System Requirements

The following sections list the system requirements for the Inversion plug-in.

Software

The software that must be installed on the system running the Inversion plug-in are as follows:

- GeoGraphix Discovery 2016.1.3 or 2015.1.5
- LMKR License Management Tool 2016.1 for Inversion license
The LMKR License Management Tool (LMT) must be installed to configure the Inversion license.
- Microsoft®.Net Framework 4.6.1
The Microsoft Net Framework 4.6.1 is packaged with the GVERSE Inversion installer. It is installed automatically during the installation process.
- Adobe Reader for selected help files (optional)

Operating System

To run the Inversion plug-in, you need one of the following operating systems installed on your system:

- Windows® 7 Professional x64
- Windows® 7 Enterprise x64
- Windows® 7 Ultimate x64
- Windows® 10 Professional x64
- Windows® 10 Enterprise x64
- Windows® 10 Ultimate x64

Note: It is recommend to use the latest Microsoft® service packs and security patches.

Hardware

The hardware requirements are as follows:

Minimum

- 2.4 GHz 64-bit processor
- 8 GB RAM
- NVidia GeForce 400 series
or ATI Radeon HD 5000 Series
or Intel HD Graphics in Intel Haswell processors
- 19-inch monitor

Recommended

- Quad 3.1 GHz 64-bit Intel class or better
- 16 GB RAM or greater
- NVidia GeForce GTX 970
- Dual 21-inch monitors

Licenses

The following licenses are required to run the Inversion plug-in:

- GeoGraphix Discovery 2016.1 or 2015.1 license
- GVERSE Inversion 2017.1 license

Note: Refer to the LMKR Customer Support Portal (<http://support.lmkr.com/>) for up-to-date information on the requirements.

Contacting LMKR Support

LMKR is committed to providing the highest level of technical customer support in the industry. With an average tenure of more than thirteen years, our highly trained and experienced staff of technical analysts is comprised of geoscientists, engineers, land professionals, petrophysicists, and system specialists.

Please refer to our Customer Support timings mentioned below to ensure that you have access to our support analysts assigned to your region. When getting in touch with LMKR support, please remember that real-time support will not be available during bank holidays or after office hours. If you do get in touch with LMKR Support outside of work hours, please leave a voice message with a brief description of the issue that you are facing. Your voice message will be used to automatically create a support case for you. This will enable our analysts to attend to your issue and provide you with a resolution as soon as possible

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Helpful Links

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