INSTALLATION GUIDE

Inversion

Enhanced interpretation, reservoir prediction and geosteering*

Installation Guide for GVERSE Inversion 2017.3

*Powered by FracGeo

LMKR

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LMKR Holdings
Corporate Headquarters
Unit No. B1501, Latifa Tower
Sheikh Zayed Road, Dubai, UAE P.O.
Box 62163
Phone: +971 4 372 7900
FAX: +971 4 358 6386
Internet: www.lmkr.com

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Introduction

LMKR is pleased to announce the release of the GVERSE® Inversion 2017.3 plug-in for enhanced interpretation, reservoir prediction and geosteering*. The plug-in is a colored inversion solution that provides a rapid, yet robust, way to derive geological details in the form of relative or absolute impedance (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 the productivity of the 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.

This document guides you through the installation and license configuration processes of the plug-in. It also lists the system requirements necessary to install and run the plug-in.

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® 2017.3
- 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

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

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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 license version 2017.1
- GVERSE Inversion license version 2017.1

Note: Refer to the LMKR Customer Support > Knowledge Center > System Requirements page for up-to-date information on the requirements.

Installation

This section guides you through the installation and uninstallation processes of the Inversion plug-in.

Installing GVERSE Inversion

Prior to installation, please make sure that supported version of GeoGraphix is installed on the system.

To install the Inversion plug-in:

1. Download the software from the **LMKR Support Portal >** **Downloads** page.
2. Navigate to the location where you downloaded the installation setup.

   Note: Before starting the installation, please make sure that all open applications are closed.

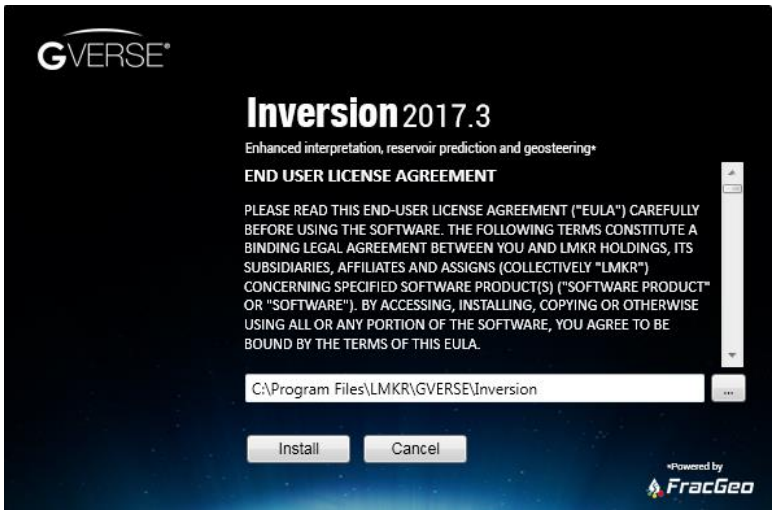
3. Double-click the Inversion plug-in setup executable file (EXE).

   The Installation Wizard dialog displays.

Note: If the Microsoft .NET Framework 4.6.1 is not installed on your computer, a message displays asking if you wish to install it (ensure you have the correct permissions) or decline. Click Install to go ahead with the .Net Framework installation. If you decline, the installation wizard is closed down and the plug-in is not installed.

4. Click **Next**.

   The End User License Agreement dialog displays.



5. If you agree to the license agreement, then click **Install**.

   The installation process initiates and the dialog displays the installation progress.

When the installation finishes, the Exit dialog displays.

6. Click **Exit** to complete the installation.

Uninstalling GVERSE Inversion

GeoGraphix must be closed before removing the Inversion plug-in.

To uninstall the Inversion plug-in:

1. From the **Windows Start** menu, select **Control Panel**.

   The Control Panel window displays.

2. From **Programs**, select **Uninstall a Program**.

   The Programs and Features window displays.

3. In the list of applications, double-click **GVERSE Inversion 2017.3 for GeoGraphix 2017.3**.

   The dialog to uninstall the Inversion plug-in displays.

4. Click **Uninstall**.

   The uninstall process initiates and the dialog displays the uninstallation progress.

   Once the Inversion plug-in is uninstalled from your system, the 'Uninstallation complete' message displays.

5. Click **Exit** to finish the uninstallation.

Licensing

To run the Inversion plug-in, you need a valid LMKR license. Please contact COS@lmkr.com to request a license. Once you receive the license, use the LMT to configure it for a single system or to set up a network license on a server. This can be done either before or after the plug-in installation.

If a license file is not configured, then the plug-in does not open and an error message displays. In this case, you must configure the license using the LMT, and then re-launch the Inversion plug-in.

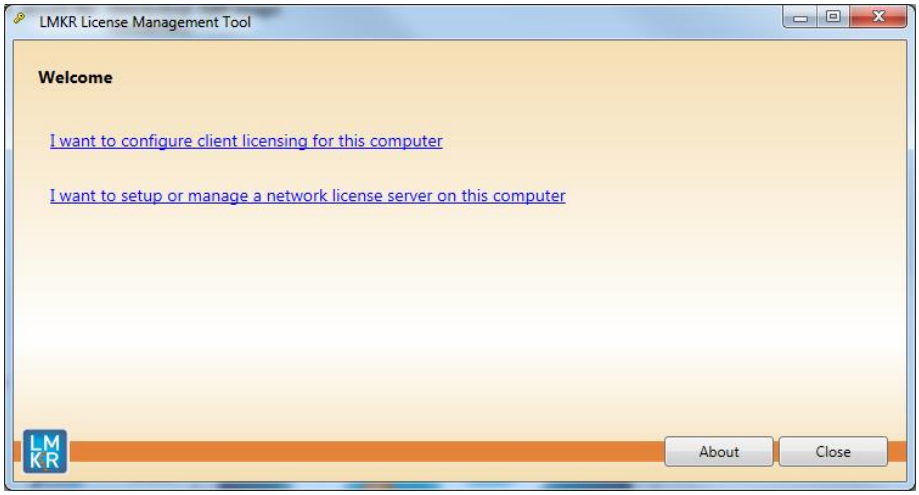
This section provides basic information on how to configure the plug-in license using the LMT. For detailed information on how to install the LMT and configure the plug-in license, refer to the LMT Installation document.

Configuring the License

To configure the Inversion plug-in license:

1. Obtain your license file from COS@lmkr.com.
2. Download the LMT from the **LMKR Support Portal > Downloads** page.
3. Install the LMT. Once installed, launch the LMT from **Start**>>**All Programs**>>**LMKR**>>**Licensing**>> **License Management Tool**.

   The LMKR License Management Tool Welcome dialog displays.



4. In this dialog, you can either:

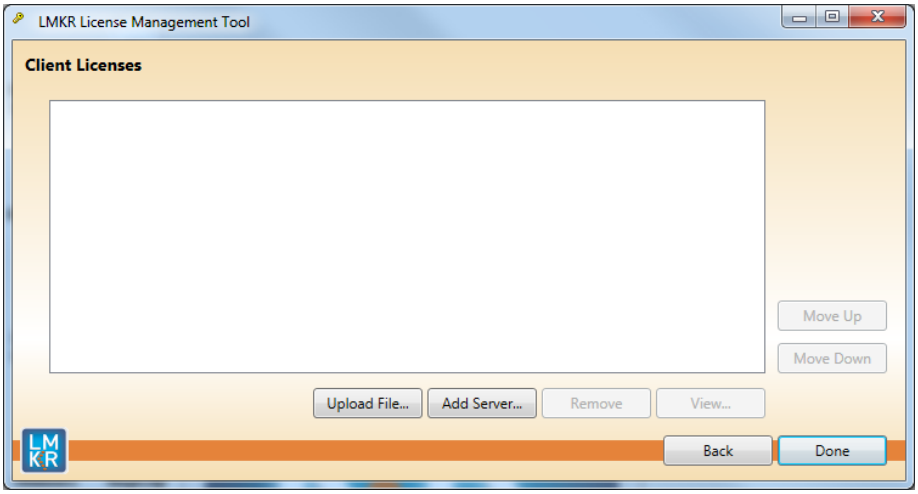
   - Click **I want to configure client licensing for this computer** to configure a client side license on the current system.

   Or

   - Click **I want to setup or manage a network license server on this computer** to setup a license server.

Configure a Client Side License

After clicking **I want to configure client licensing for this computer**, the Client Licenses dialog displays.



5. In this dialog, you can either:

   - Click **Upload file** to select a standalone client license file.

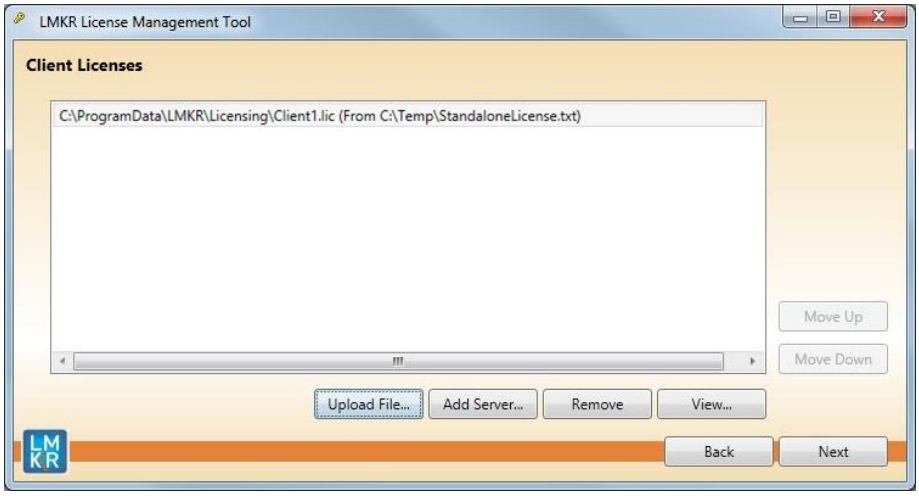
   Or

   - Click **Add Server** to connect to an existing license server.

Select a Standalone Client License File

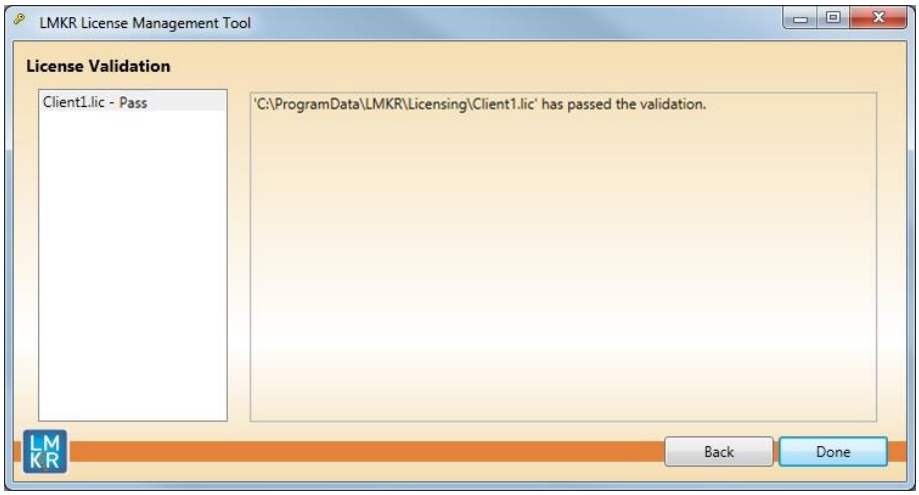
6. Click **Upload File**, browse to select the license you received from LMKR, and then click **Open**.

   The selected license displays.



7. Click **Next**.

   On successful license configuration, the 'Pass' message displays as shown in the image below.



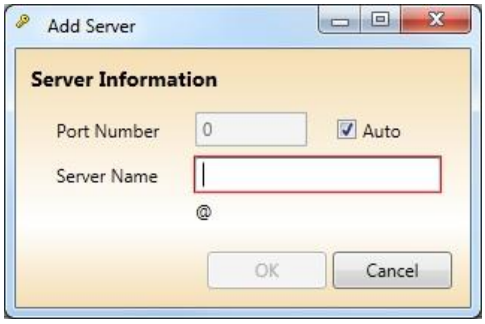
   Note: If an error occurs, please contact support@lmkr.com for assistance.

8. Click **Done** when finished.

Connect to an Existing License Server

6. Click **Add Server**.

   The Add Server dialog displays.



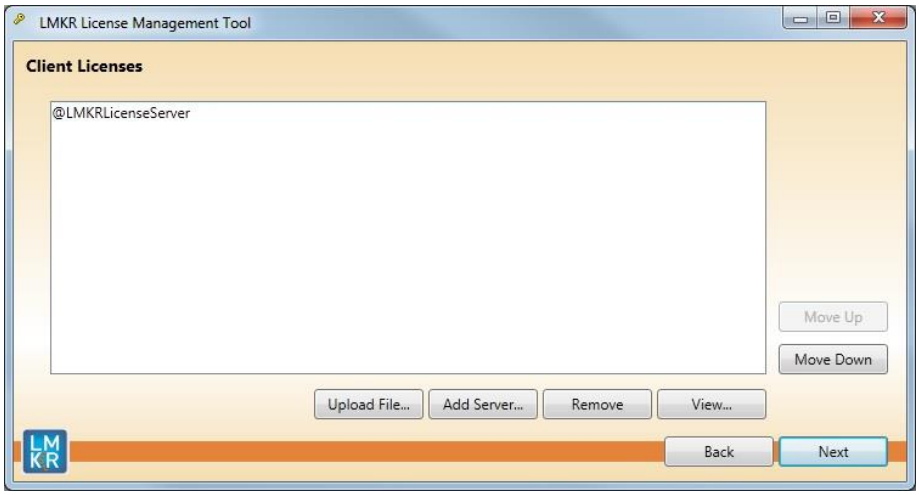
7. In this dialog, specify the following:

   - **Port Number:** If a specific port is required, clear the **Auto** checkbox, and then enter the port number that matches the port number being used by the LMKR license server (contact your network administrator for more information).
   - **Server Name:** Enter the name or the IP address of the license server

   Note: By default, the Auto option is selected where the port is automatically detected. This option is used only when the license server uses a port from within the block of ports specific for Flexera FLEXnet Licensing ranging from 27000 to 27009.

8. Click **OK**.

   The selected LMKR license server displays in this dialog.

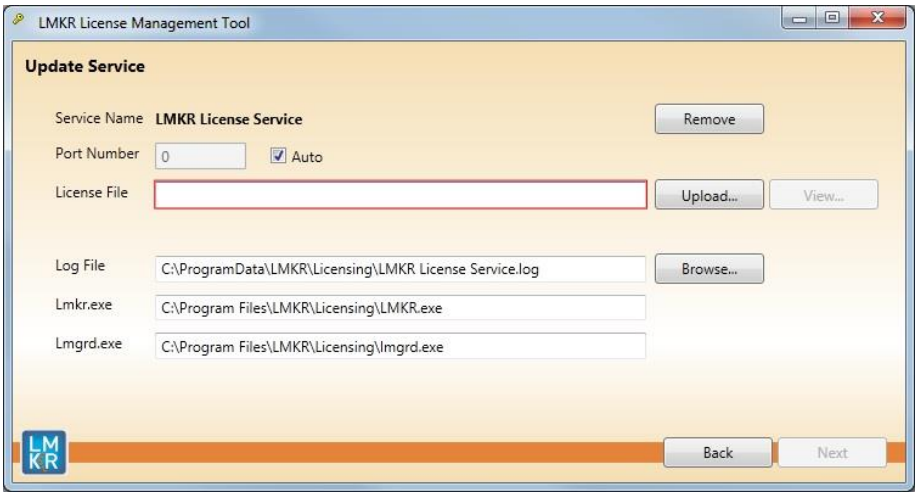


9. Click **Next**.
10. Click **Done** once finished.

Setup a License Server

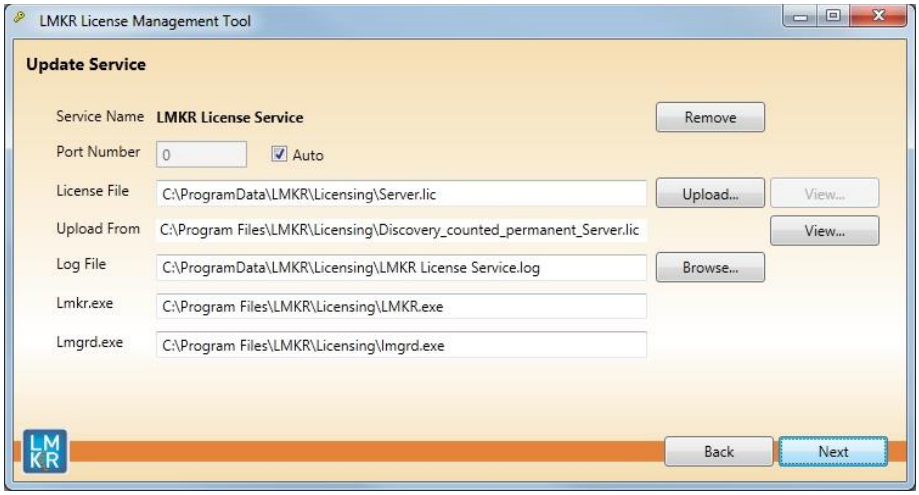
This is only performed on the system running the LMKR license server.

After clicking **I want to setup or manage a network license server on this computer**, the Update Service dialog displays.



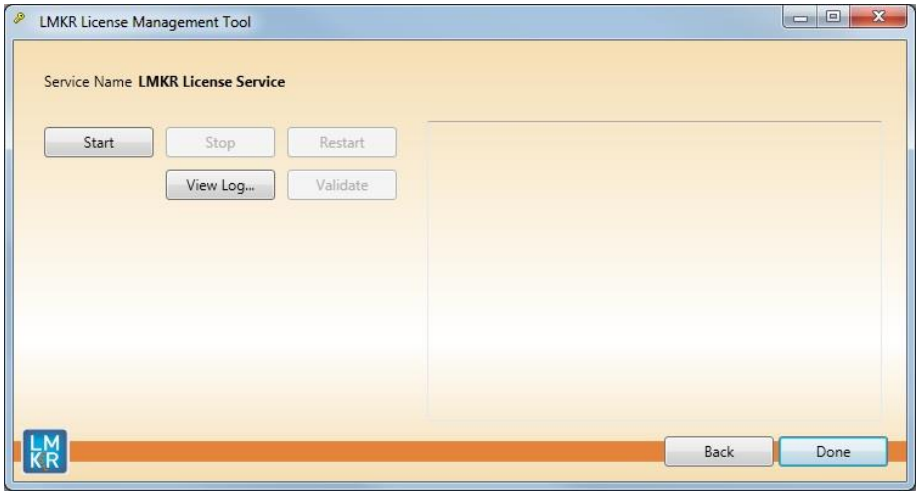
5. In this dialog, specify the following:

   - **Port Number:** If a specific port is required by your network administrator, clear the **Auto** checkbox, and then enter the port number.
   - **License File:** Click **Upload** to upload a new license file. The license file that is uploaded is renamed as Server.lic. This file is saved in the C:\ProgramData\LMKR\Licensing folder.
   - **Log File:** Click **Browse** to select a location to save the log file.



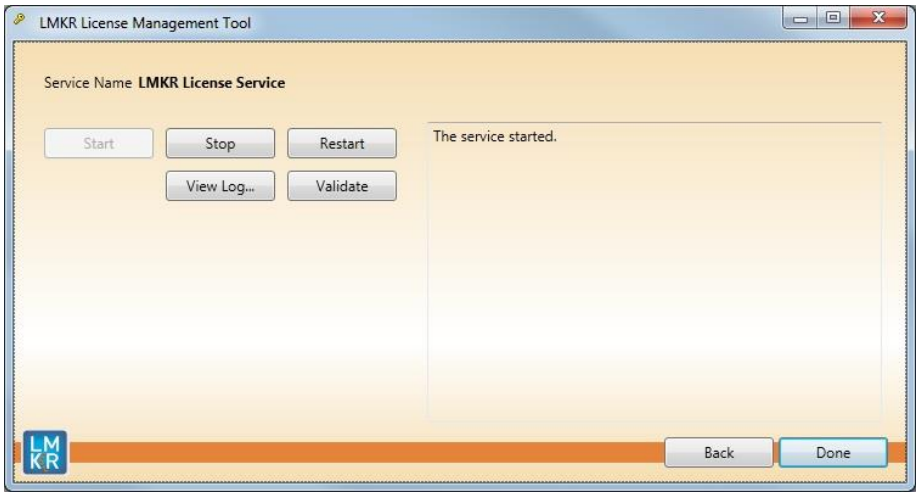
6. Click **Next**.

   The LMKR License Server is then installed as a Windows Service.



7. Click **Start** to initiate the **LMKR License Service**.

   The 'The service started' message displays on the dialog.



   Note: If an error appears, contact support@lmkr.com for assistance.

8. Click **Done** once finished.

Third Party Acknowledgements

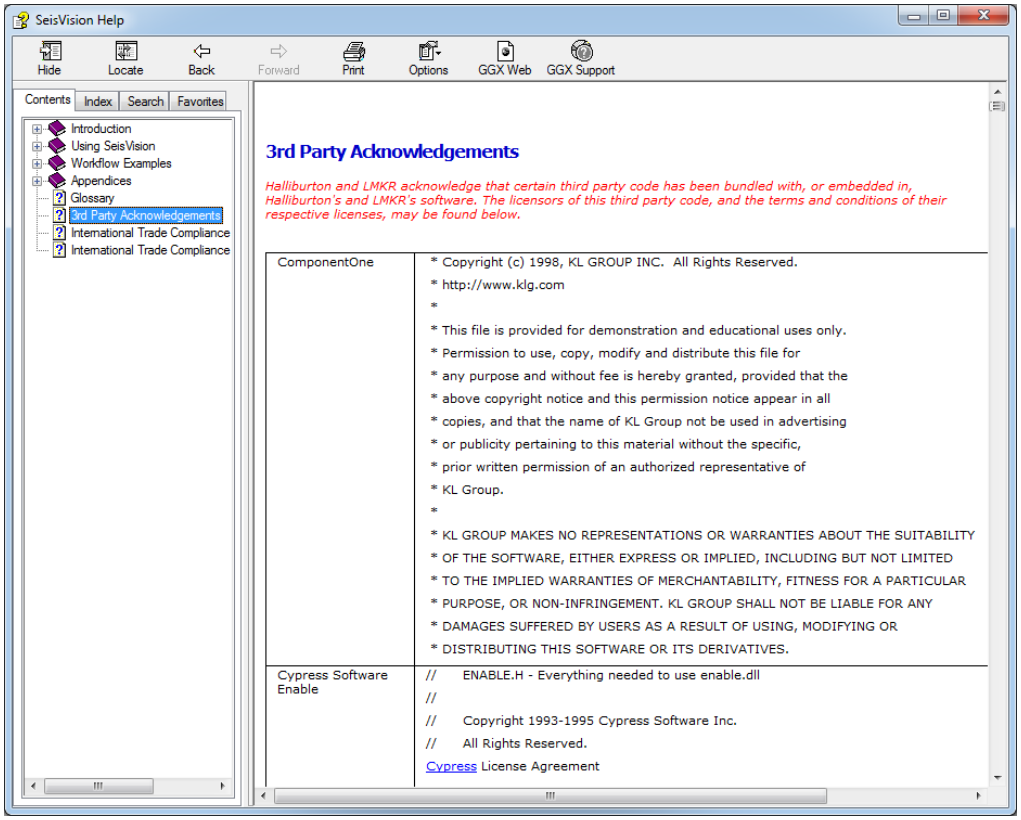
LMKR acknowledges that certain third party code has been bundled with, or embedded in, its software. The licensors of this third party code, and the terms and conditions of their respective licenses, may be found in the help file.

To access the 3rd party license agreements:

1. To access the online help, click the **Help** menu located on the SeisVision menu bar.

   The Help window displays.

2. In the **Contents** pane, locate the **3rd Party Acknowledgements** help topic as shown in the image below.



International Trade Compliance

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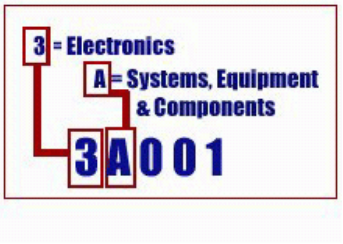
The ECCNs provided here (if available) represent LMKR's opinion of the correct classification for the product today (based on the original software and/or original hardware). Classifications are subject to change. If you have any questions or need assistance please contact us at support@lmkr.com.

Under the U.S. Export Administration Regulations (EAR), the U.S. Government assigns your organization or client, as exporter/importer of record, responsibility for determining the correct authorization for the item at the time of export/import. Restrictions may apply to shipments based on the products, the customer, or the country of destination, and an export license may be required by the Department of Commerce prior to shipment. The U.S. Bureau of Industry and Security provides a website to assist you with determining the need for a license and with information regarding where to obtain help. The URL is: http://www.bis.doc.gov.

Definitions

CCATS (Commodity Classification Automated Tracking System) - the tracking number assigned by the U.S. Bureau of Industry and Security (BIS) to products formally reviewed and classified by the government. The CCATS provides information concerning export/re-export authorizations, available exceptions, and conditions.

ECCN - Export Control Classification Number - The ECCN is an alpha-numeric code, e.g., 3A001, that describes a particular item or type of item, and shows the controls placed on that item. The CCL (Commerce Control List) is divided into ten broad categories, and each category is further subdivided into five product groups. The CCL is available on the EAR Website.



The ECCN number, License Type, and the CCATS Numbers for this product are included in the table below. Also included is the date the table was last updated.

Product/Component/R5000	EAR Number	License	Last Updated On
GVERSE Inversion	EAR99	EAR	08/06/2017

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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Monday – Friday 8 am-6 pm CST* Toll Free (US/Canada) : +1 855 GGX LMKR (449 5657) **Colombia:** +57 1381 4908 **United States:** +1 303 295 0020 **Canada:** +1 587 233 4004 **Excluding bank holidays*	**UK:** Monday - Friday 8 am – 5 pm* +44 20 3608 8042 **UAE:** Sunday - Thursday (Dubai GMT+4) 8 am – 5 pm* +971 4 3727 999 **Excluding bank holidays*
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Name	Website Address
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LMKR GVERSE	http://www.lmkr.com/gverse/
LMKR Support Portal	http://support.lmkr.com