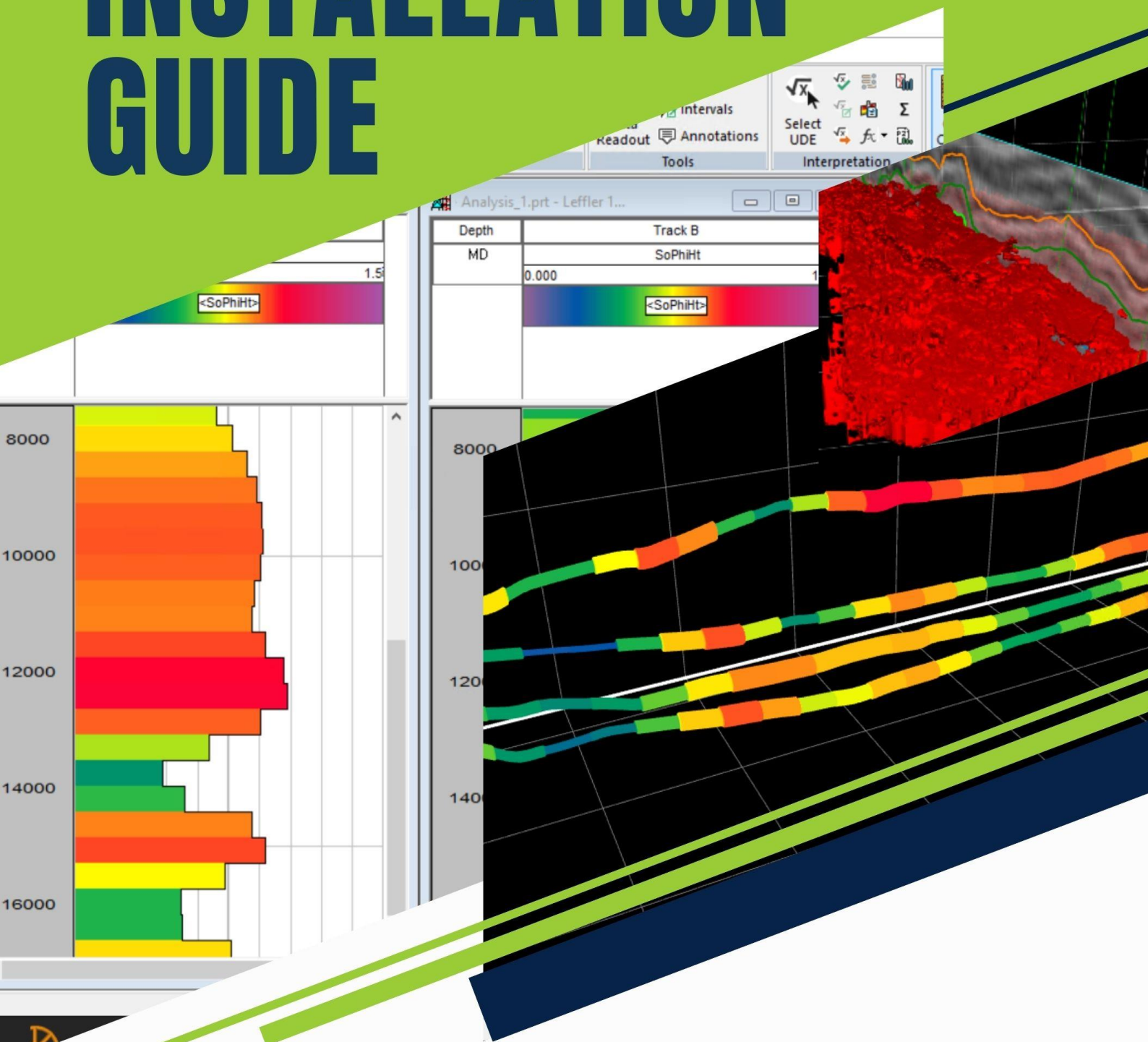


GVERSE® GeoGraphix®

# INSTALLATION GUIDE



GVERSE® GeoGraphix®  
**2022IR1**



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# Introduction

Welcome to the 2022.1 release of the **Discovery™**, **Landmark® Connectivity**, and **Seismic Modeling** software.

- **Discovery** includes the Discovery™ 2022.1 version of GVERSE® Petrophysics, GVERSE Geo+/smartSECTION®, and GVERSE® Geophysics (new and updated geophysical interpretation tool for GeoGraphix)
- **Landmark Connectivity** includes the WellXchange™, GridXchange and SeisXchange™ software.
- **Seismic Modeling** includes the 2022.1 version of the LogM™ and STRUCT™ software.

Discovery software is available through the **GVERSE GeoGraphix Support Portal** > [Downloads](#) page or, by request, on a DVD.

<b>Caution:</b>	
<b>General Installation Requirements</b>  - please refer to the <a href="#">System Requirements</a> for a complete list	<p>The following conditions must be met before you can install the Discovery, Landmark Connectivity, and Seismic Modeling software:</p> <ul style="list-style-type: none"><li>▪ You must have <b>Administrative Rights</b> to the local computer that will run the installation.</li><li>▪ Microsoft .NET 4.7.2 must be installed.</li><li>▪ If you are using GVERSE Geo+/smartSECTION on a <b>Windows® 10 64-bit</b> operating system, then .NET Framework 3.5 must be installed.</li><li>▪ Microsoft DirectX End-User Runtime (June 2010) is required to run Discovery 3D, Pro3D, GVERSE Geo+/smartSECTION, and GVERSE Geophysics.</li><li>▪ GVERSE Field Planner requires MATLAB Runtime R2018a (9.4).</li><li>▪ Must have networking installed including the <b>TCP/IP</b> protocol.</li><li>▪ To use this software, your computer must be running one of the following operating systems:<ul style="list-style-type: none"><li>○ <b>Windows® 10 Professional 64 bit</b></li><li>○ <b>Windows® 10 Enterprise 64 bit</b></li><li>○ <b>Windows® 7 Enterprise 64 bit</b></li><li>○ <b>Windows® 7 Ultimate 64 bit</b></li><li>○ <b>Windows® Server 2016</b></li><li>○ <b>Windows® Server 2019</b></li></ul></li><li>▪ If you are using Discovery on OpenWorks, then <b>OpenWorks for Windows 5000.10.7.0</b> must be installed. OpenWorks for Windows has two install options; you can use either the Full install option (recommended) or the Basic install option.</li><li>▪ If using GeoGraphix and GVERSE products on 4K monitor, <b>Windows® 10</b> must be available with latest updates installed.</li><li>▪ If you are working in a network environment, do not forget that for all computers to continue to work together in shared projects, ALL computers (clients and servers alike) must be updated to the same version of the software if any of them are updated. It is intentional that computers with different versions of the software cannot (under normal circumstances) and should not (in any case) be connected with each other.</li></ul>

The Release Notes document included with the download or on your DVD contains information on the exciting new enhancements and features in the release.

This installer is also used to install GVERSE Geo+, GVERSE Petrophysics, GVERSE Geophysics, GVERSE FieldPlanner, and GVERSE Planner.

This document includes very important information that you should read before installation:

- [Before You Begin Installation](#)
- [System Requirements](#)
- [Installation Overview and Step-by-Step Instructions](#)
- [Utilities](#)
- [Uninstall Instructions](#)

If you have any questions or issues with installation, do not hesitate to contact [Technical Support](#).

## Before You Begin Installation

Before you start the installation process, we recommend that you follow these guidelines.

1. If you are working in a network environment, install the License Server on one computer to be used by all client computers.
2. License requirements:
  - GeoGraphix: Users will require GeoGraphix license version 2022.1.
  - GVERSE Planner: Users will require GVERSE Planner license version 2022.1.
  - GVERSE Geophysics: Users will require GVERSE Geophysics license version 2022.1.
  - GVERSE Geo+: Users will require GVERSE Geo+ license version 2022.1.
  - GVERSE Field Planner: Users will require GVERSE Field Planner license version 2022.1.
  - GVERSE Petrophysics: Users will require GVERSE Petrophysics license version 2022.1.
  - Python API: Users will require Python license version 2022.1.

**Note:** The License Management Tool (LMT) 3.4 must be installed to configure GeoGraphix and GVERSE product licenses. Download the latest LMT from the **GVERSE GeoGraphix Support Portal > Downloads** page. See the [Licensing](#) section of this document for more information.

3. Make sure you have the current install obtained from GVERSE GeoGraphix or on the DVD and the most recent software update files (if applicable) at the time of installation.
4. Make complete backups or archives of all your projects. This is a very important step, **DO NOT SKIP THIS STEP**. Remember, a backup (such as from a tape) is only as good as the last time it was tested.
5. Backup any customized files from the **Data** directory (such as custom libraries, symbols, and coordinate system files). Do this only if there is ANY chance of going back to the previous version.
6. Test any project updates or functionality if desired in a non-production environment.
7. Uninstall any previous version before installing the version 2022.1.

8. Make sure that the [prerequisites](#) have been installed.

**Note:** If working in a network environment, do not forget that for all computers to continue to work together in shared projects, ALL computers (clients and servers alike) must be updated to the same version of the software if any of them are updated. It is intentional that computers with different versions of the software cannot (under normal circumstances) and should not (in any case) be connected with each other.

## System Requirements

The system requirements are provided as general guidelines. Hardware requirements will vary considerably, depending on the types of projects, project sizes, the number of users, and network infrastructure/traffic. Contact your technical sales representative or [technical support](#) to discuss your requirements.

- [Workstation:](#)
  - Geologic Suite (DataManager, GESXplorer, and Petrophysics)
  - Geophysical Suite (Geophysics, pStaX, and SCAN)

**Caution:** Landmark Connectivity or using Discovery version 2022.1 with Discovery on OpenWorks projects requires the 5000.10.7.0 version of OpenWorks for Windows.

- [Project Server:](#)
  - Geologic Suite (DataManager, GESXplorer, and Petrophysics)
  - Geophysical Suite (Geophysics, pStaX, and SCAN)

### Workstation:

### System Requirements

We recommend using the latest Microsoft® service packs and security patches. The following table lists the supported operating systems and the hardware requirements.

Supported Operating system	Memory	CPU
Windows® 10 Professional x64	8 GB RAM Minimum	Core i5 Minimum
Windows® 10 Enterprise x64	16+ GB RAM Recommended	Core i7 Quad-core and
Windows® 7 Professional x64	<b>Note:</b> 32 GB RAM recommended	above with latest
Windows® 7 Enterprise x64	for GVERSE Geophysics.	generation recommended
Windows® 7 Ultimate x64	SSD drives recommended	

## Graphics Requirements

Application Support Level	Graphic Card Requirements
All Discovery Applications including Discovery 3D, advanced 3D visualization (Pro 3D), and GVERSE Geo+	<ul style="list-style-type: none"><li>• 2 GB VRAM Minimum</li><li>• 4 GB VRAM Recommended</li><li>• DirectX 11 capable hardware. (see <b>Note 2 below</b>)</li></ul>
GVERSE Geophysics	<p><b>Minimum</b></p> <ul style="list-style-type: none"><li>• Any DirectX 11.1 capable card comparable with Nvidia® GeForce GTX 430 with 1GB VRAM. DirectX is not shipped with GeoGraphix 2022.1. You must download and install it separately.</li><li>• 1366 x 768 screen resolution</li></ul> <p><b>Recommended</b></p> <ul style="list-style-type: none"><li>• Any DirectX 11.1 capable card comparable with Nvidia® GeForce GTX 1060 with 6GB VRAM. DirectX is not shipped with GeoGraphix 2022.1. You must download and install it separately.</li><li>• 1920 x 1080 screen resolution</li></ul>

**Note 1:** Microsoft DirectX End-User Runtime (June 2010) is required to run Discovery 3D, advanced 3D visualization (Pro 3D), GVERSE Geo+ and GVERSE Geophysics.

**Note 2:** To run Discovery 3D, advanced 3D visualization (Pro 3D), and GVERSE Geo+, it is recommended that an NVIDIA DirectX 11 compatible card be used. We recommend using the latest video drivers and Microsoft updates for your system.

## Additional Requirements and Recommendations

- DVD - ROM required for media installation. You do not need this if you have downloaded the installation from the **GVERSE GeoGraphix Support Portal > [Downloads](#)** page.
- DCOM/Firewalls configured to allow remote access. Only necessary if sharing projects on the network. For DCOM configuration recommendations, refer to the **GVERSE GeoGraphix Support Portal > Knowledge Center > [White Papers](#)** page.
- Microsoft .NET Framework 4.7.2 runtime is required.



## Software Prerequisites

This release has several prerequisites that are required to run the software, as well as prerequisites that are used to enhance the software. The prerequisites can be downloaded from the GVERSE GeoGraphix Support Portal.

### *Microsoft .NET Framework 3.5*

This is specifically required if you are using GVERSE Geo+/smartSECTION on a Microsoft Windows® 10 operating system. The Microsoft .NET 3.5 can be downloaded from Microsoft's website and then installed. It is also available in the 3rd Party installers shipped with Discovery 2022.1.

### *MATLAB Runtime R2018a (9.4)*

GVERSE Field Planner requires MATLAB Runtime R2018a (9.4).

The MATLAB Runtime R2018a (9.4) software can be downloaded from MATLAB's website and then installed. It is also available in the Downloads section of the GVERSE GeoGraphix Support Portal.

### *Microsoft .NET Framework 4.7.2*

Discovery 2022.1 must have Microsoft's .NET 4.7.2 installed. The Microsoft .NET 4.7.2 can be downloaded from Microsoft's website, and then installed. It is also available in the 3rd Party installer shipped with Discovery 2022.1.

### *ESRI ArcGIS Runtime Engine*

The functionality within GeoAtlas related to geo-referenced images and CAD files requires the ESRI ArcGIS 10 Engine Runtime with ESRI ArcGIS 10.2.x through 10.8.x. ESRI ArcGIS license must be configured by running **ArcGIS Administrator** with administrative rights, and selecting the **ArcGIS Engine Runtime (Single Use)** option in the wizard. If the ArcGIS Engine is not installed, a message box will appear but the setup will continue.

The **ArcGISConfigurationTool.exe** utility is provided in **Utilities** shipped with GeoGraphix. IT Support teams can program and run this utility to remotely configure GeoGraphix on network machine(s) that have ArcGIS Runtime installed. For details, refer to the **Utilities** documentation.

### *ESRI ArcGIS Engine 10.6.1 Patch Installation*

If ESRI ArcGIS Engine 10.6.1 is installed on the machine, you must also install the ESRI ArcGIS Engine patch (ArcGIS-1061-E-BDP-Patch.msp) to ensure smooth execution of various Field Planner and GeoAtlas workflows. The patch can be downloaded from the ESRI website [here](#).

### *Microsoft DirectX 11 End-User Runtimes*

Discovery 3D, Pro3D, GVERSE Geo+/smartSECTION and GVERSE Geophysics require Microsoft's DirectX 11 June 2010 End-User Runtimes to work properly. The Discovery 3D application works only on the Windows 7 (64-bit) or higher operating system. It is not installed unless the computer has Windows 7 (64-bit) or higher. Further Discovery 3D requires a DirectX 11 compatible display card. DirectX 11 June 2010 End-User Runtimes can be installed by downloading the Discovery Third Party Installer.

## Optional Software Requirements

Tools	Software Requirements
For spreadsheet Import Utility in WellBase, SeisBase, and LeaseMap	Excel 2007, 2010, 2013, 2016 or 2019 (32 or 64 bit)  <b>Note:</b> Office 365 (Offline versions) are also supported.  In case the macros are not working in Excel, ensure the <b>gxdb.xla</b> file is present in the relevant Microsoft Office <i>Library</i> installation folder.
For Selected Help Files	Adobe Reader
For Discovery on OpenWorks, GridXchange, and SeisXchange	OpenWorks for Windows 5000.10.7.0 – Basic or Full (recommended) Installation available on Landmark’s LSM (See Notes below) and SeisWorks 5000.10 (for seismic workflows)  OpenWorks for Windows requires Oracle 12.1.0.2
For ESRI geo-referenced images and ESRI CAD file import in GeoAtlas	ESRI ArcGIS Runtime Engine 10.2.x through 10.8.x (included in the 3rd Party Installer).
For LOGarc™ Version 4.1.0.3 access in GVERSE Geo+/smartSECTION	To use the LOGarc™ feature, the LOGarc™ Version 4.1.0.3 software must be downloaded from IHS LogTech Canada, LTD and a valid account must be in place. You must have administrator rights to the computer on which you want to load the software.
GeoGraphix Plug-in for TIBCO® Spotfire® Analyst	Sportfire Version 10.6, 10.8 or 10.10 must be installed.

**Note for Discovery on OpenWorks:** The OpenWorks Full installation requires Hummingbird Exceed. The Oracle client installation in use with the OpenWorks Full installation requires that the “Administrator” option be selected. The “Administrator” option type includes the SQL Plus and the Oracle Database Utilities components, which are needed to run Discovery on OpenWorks, as part of the total OpenWorks package.

**Note:** Hummingbird Exceed is not required for the OpenWorks Basic installation. If the OpenWorks Basic installation is used, the Oracle client installation can use the “Administrator” option, which will include all of the needed components. Or, the Oracle client installation for the OpenWorks Basic installation can use the “Custom” installation type. However, with the Custom installation type, the following components must be installed:

- Oracle Database Utilities 12.1.0.2
- SQL \*Plus 12.1.0.2
- Oracle JDBC/THIN Interfaces 12.1.0.2
- Oracle Net 12.1.0.2

You may experience the following error related to Oracle installation:

The SQLLoader.exe error may generate when working with Filters in GeoGraphix due to a missing Oracle DLL file. This is a known issue of Oracle 12.1.0.2 where oranfsodm12.dll is not shipped with the installer.

**Workaround:** After Oracle installation, create a copy of the oraodm12.dll file, rename it as oranfsodm12.dll, and then place the renamed file in the BIN folder of both 32-bit and 64-bit Oracle installations.

## GeoGraphix Project Server:

### System Requirements

We recommend using the latest Microsoft service packs and security patches. The following table lists the operating systems which are supported.

Supported Operating system	Memory	CPU
Windows® Server 2016 Windows® Server 2019	32 GB RAM minimum 64+ GB RAM recommended SSD drives recommended	Intel Xeon Processor or equivalent Quad 2.4GHz 64-bit or better

### Additional Requirements and Recommendations

- DVD-ROM is required for media installation. You do not need this if you have downloaded the installation from the **GVERSE GeoGraphix Support Portal > [Downloads](#)** page.
- DCOM/Firewall must be configured to allow remote access. For DCOM configuration recommendations, refer to the **GVERSE GeoGraphix Support Portal > Knowledge Center > [White Papers](#)** page.

Server performance is subject to a large number of variables. It is impossible to give specific recommendations here, but these are some guiding principles to use. In general, multi-user performance of a GeoGraphix Project Server is best when the server is dedicated to GeoGraphix and not shared with other applications, especially database applications. In addition, consideration should be made for the number of GeoGraphix users and the size and number of concurrently accessed projects. At some point, having multiple project servers becomes a better solution than having all users on one server. Generally, somewhere between 10 and 20 users is when a second server might be suggested.

### Networking

Networking performance depends on the number of users trying to access a server simultaneously, as well as the bandwidth requirements for those users. Recommendations for server bandwidth typically specify server connectivity at a higher bandwidth than an individual user. For instance, users running at 100 Mbit should be accessing a server running on a 1-Gbit backbone. If users are at 1 Gbit, consider running multiple 1-Gbit connections or a single higher-bandwidth connection on the server.

## Database Cache

A large database cache is an important factor to consider when dealing with multiple users accessing large databases. The database engine is capable of addressing a practically unlimited amount of cache memory. The best way to size the memory is to estimate the memory requirements for other running applications and allow the database cache to dynamically allocate any remaining free memory. The engine will only allocate what it needs when using dynamic allocation up to the maximum specified. It is highly recommended that you let the database engine use as much cache memory as it requires on the host server. Increasing database cache memory is the quickest and most effective way to improve database-related performance on large network projects.

On a workstation, it might be appropriate to reserve 1 to 2 GB for the OS and file system cache and 2 to 4 GB for other running applications. On a dedicated project server, not much memory needs to be reserved for other applications. The ideal maximum varies by the project size, the number of users, and other load considerations. But as a general rule, the higher you can set the maximum, the better.

## Storage

A great deal of Discovery's access patterns on a server deal with file I/O. Database access, raster images, and seismic data are examples of files that benefit substantially from a fast disk sub-system. Server environments also place a high importance on data integrity and reliability. At a minimum, consider using a RAID 5 (striped with parity) array. As the size of disks increases, you may also want to consider a hot swap drive and/or RAID 6 (striped with dual parity). Using a controller card with its own cache can also help improve performance.

## Network Attached Storage (NAS), Storage Area Networks (SAN), and Other Non-Windows Storage Solutions

There are two typical methods used for accessing external storage devices from a project server: iSCSI and CIFS.

- iSCSI allocates a block of storage on the external device and makes it appear to be a physical disk on the project server. This has the advantage of a 100% compliant file system. However, since the external device sees the allocation as one big file, it makes backup and restoration of individual files using the external device's capabilities more difficult. Standard backup and restore procedures from the server will still work.
- Using CIFS for external storage devices depends greatly on the vendor's implementation of the CIFS protocol used by the Windows platform. In general, a 100% compliant implementation of CIFS for a performant system is required. In particular, the vendor's implementation of the "File Change/Notify" functionality has been problematic. Devices based on the Windows Storage Server should be 100% compatible, since it shares its components with Windows. Implementations based on UNIX/Linux are where problems occur, due to the fact that the kernel level support is not present. Due to these uncertainties with CIFS implementations, GVERSE GeoGraphix does not technically support CIFS.

# Installation

Discovery utilizes Microsoft Windows® Installer technology for installing the Discovery applications. Windows® Installer technology provides powerful features for installation and component configuration, network installations (distribution\deployment) and software removal\uninstallation.

**Note:** Have you read the [System Requirements](#)?

This installation guide provides step-by-step instructions for End User or Network Administrator installations:

- [End User Installation](#)
  - Install Discovery Application to a Single Workstation.
- [Network Administrator Installation](#)
  - Create License Service Server for Multiple Workstations.
  - Install the Discovery Applications to Multiple Workstations.
  - Create a Discovery Project Server (optional).

## End User Installation

This installation will add the Discovery applications to a Single Workstation. This installation is also used to install GVERSE Geo+, GVERSE Geophysics, GVERSE Petrophysics, GVERSE Planner and GVERSE Field Planner.

<b>Caution:</b>	
General Installation Requirements  Please refer to the <a href="#">System Requirements</a> for a complete list	<p>The following conditions must be met before you can install the software:</p> <ul style="list-style-type: none"><li>▪ You must have Administrative Rights to the local computer that will run the install.</li><li>▪ Microsoft .NET 4.7.2 must be installed.</li><li>▪ If you are using GVERSE Geo+/smartSECTION on a <b>Windows® 10</b> operating system, .NET Framework 3.5 must be installed.</li><li>▪ Must have networking installed including the <b>TCP/IP</b> protocol.</li><li>▪ This software should only be installed on <b>Windows® 7 or 10</b>, or <b>Windows® Server 2016 or 2019</b> operating systems.</li><li>▪ Microsoft DirectX End-User Runtime (June 2010) is required to run Discovery 3D, Pro3D, GVERSE Geo+/smartSECTION, and GVERSE Geophysics.</li><li>▪ GVERSE FieldPlanner requires MATLAB Runtime R2018a (9.4).</li></ul>

There are 8 or 10 installation steps, depending upon whether you perform a typical or custom install:

- STEP 1 - [Getting Started with the Discovery 2022.1 Release](#)
- STEP 2 - [InstallShield Wizard Startup](#)
- STEP 3 - [License Agreement](#)
- STEP 4 - [Customer Information](#)
- STEP 5 - [Setup Type \(Typical vs. Custom\)](#)
- Typical STEP 6 - [Select Log Units of Measurement](#)
- Typical STEP 7 - [Ready to Install the Program](#)
- Typical STEP 8 - [InstallShield Wizard Completed](#)
- Custom STEP 6 - [Custom Setup](#)
- Custom STEP 7 - [Local Projects Folder](#)
- Custom STEP 8 - [Log Units of Measurement](#)
- Custom STEP 9 - [Ready to Install the Program](#)
- Custom STEP 10 - [InstallShield Wizard Completed](#)

**Note:** GVERSE GeoGraphix licensing is installed before or after the above Discovery master installation steps. When Discovery applications are started through the Desktop shortcuts or Start Menu Programs, a licensing check is performed on the workstation. Please refer to the Product [licensing topic](#) for further details.

#### *End User Installation STEP 1- Getting Started with GVERSE GeoGraphix Download or Release DVD*

Before starting installation, make sure that all open applications are closed. Installation should be performed using an Administrator account.

If you have downloaded Discovery 2022.1, go to the **Download** folder and double-click on the **Discovery2022.1Setup.exe** file to begin. You will proceed directly to [STEP 2 - InstallShield Wizard Setup](#).

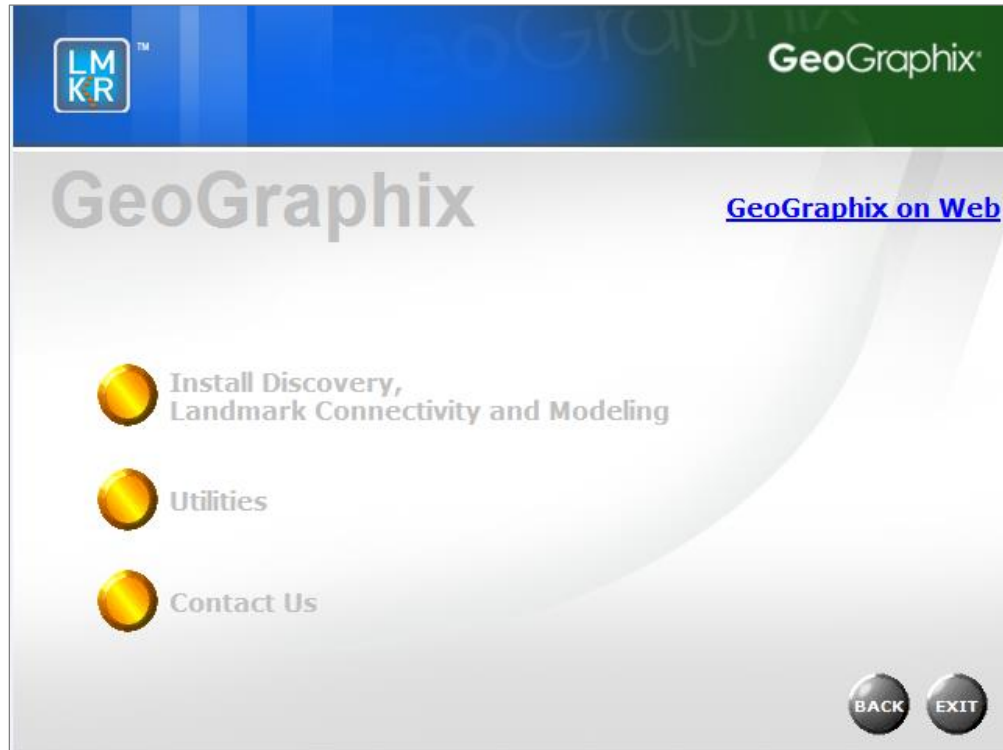
If you have ordered the **Discovery 2022.1 DVD**, continue through this step.

Insert the **Discovery/Landmark Connectivity/Seismic Modeling DVD-ROM** into the DVD-Drive.

The GeoGraphix splash screen appears for a few seconds.

**Note:** If the GeoGraphix splash screen does not appear automatically, go to the Start menu, and choose Run. In the Run dialog box, browse to the appropriate DVD-drive and select the Install.exe file. Click OK.

After the splash screen appears for a few seconds, the GeoGraphix install window appears.



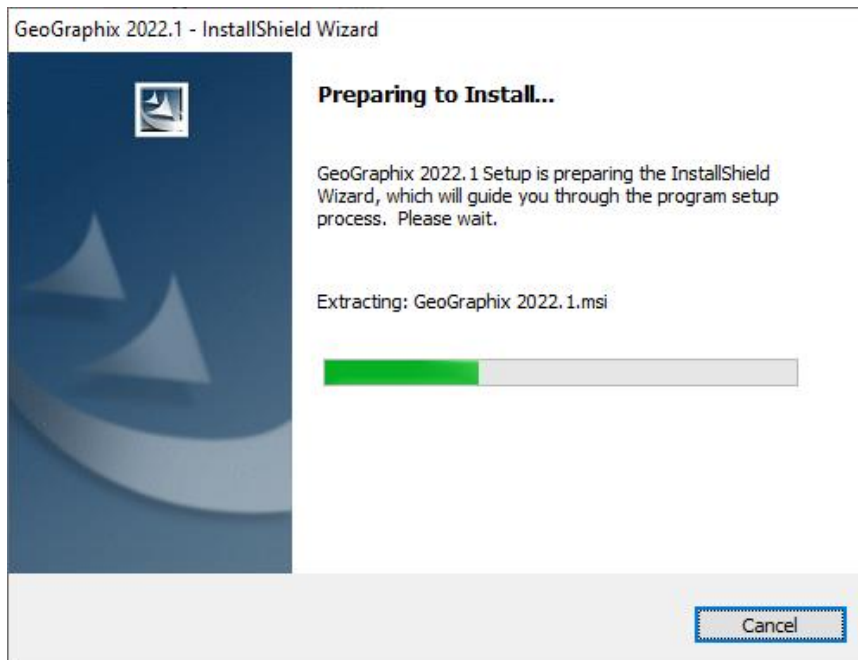
Click the first option,  
Installation.



to proceed to the next step in the End User

## End User Installation STEP 2 - InstallShield Wizard Startup

After clicking **Install Discovery, Landmark Connectivity, and Modeling** in the previous step, the InstallShield wizard is started.



The **Welcome to the InstallShield Wizard for GeoGraphix and GVERSE** step appears on your screen.



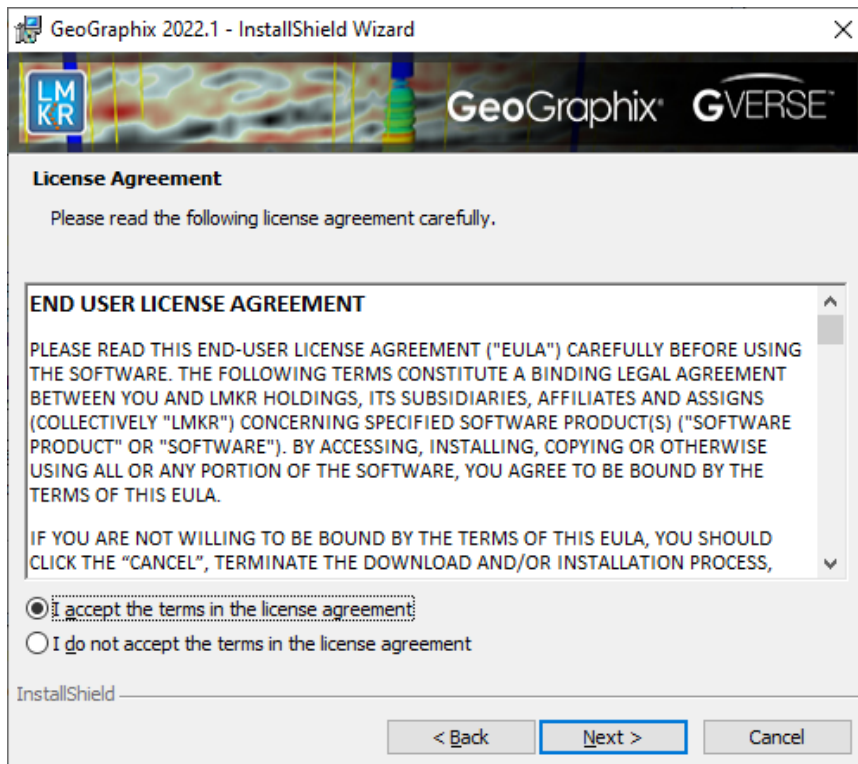
**Note:** Clicking the **Help** button will open the Installation Guide help window.

Click the **Next** button to proceed to the **License Agreement** step of the installer.



### End User Installation STEP 3 - License Agreement

The software license agreement is displayed in this step of wizard.

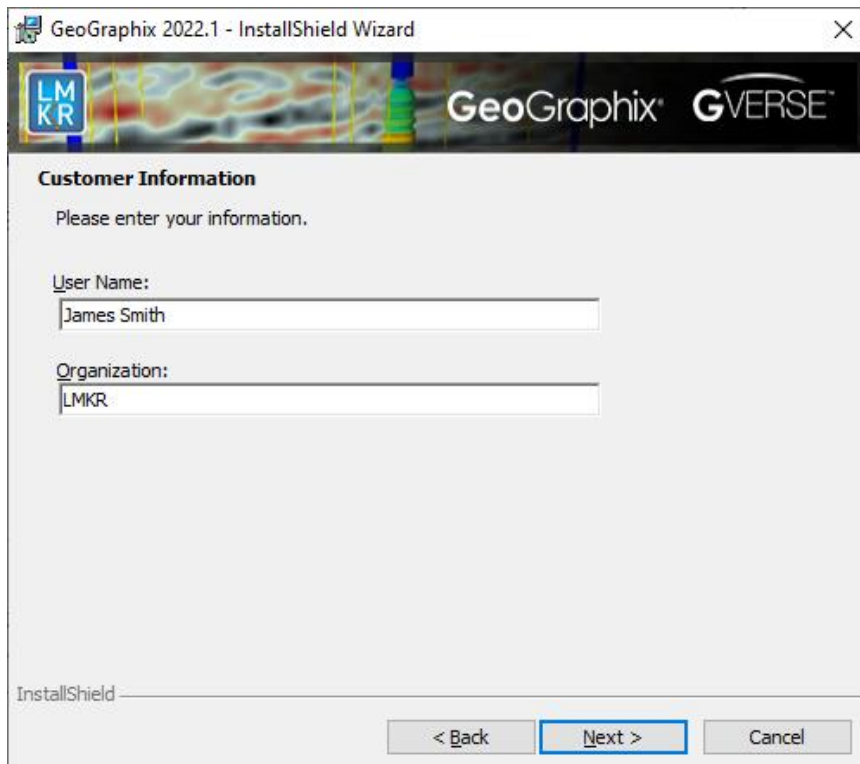


Select the **I accept the terms in the license agreement** option.

Click **Next** to proceed to the **Customer Information** step of the wizard.

#### *End User Installation STEP 4 - Customer Information*

Customer Information appears in this step of the wizard.



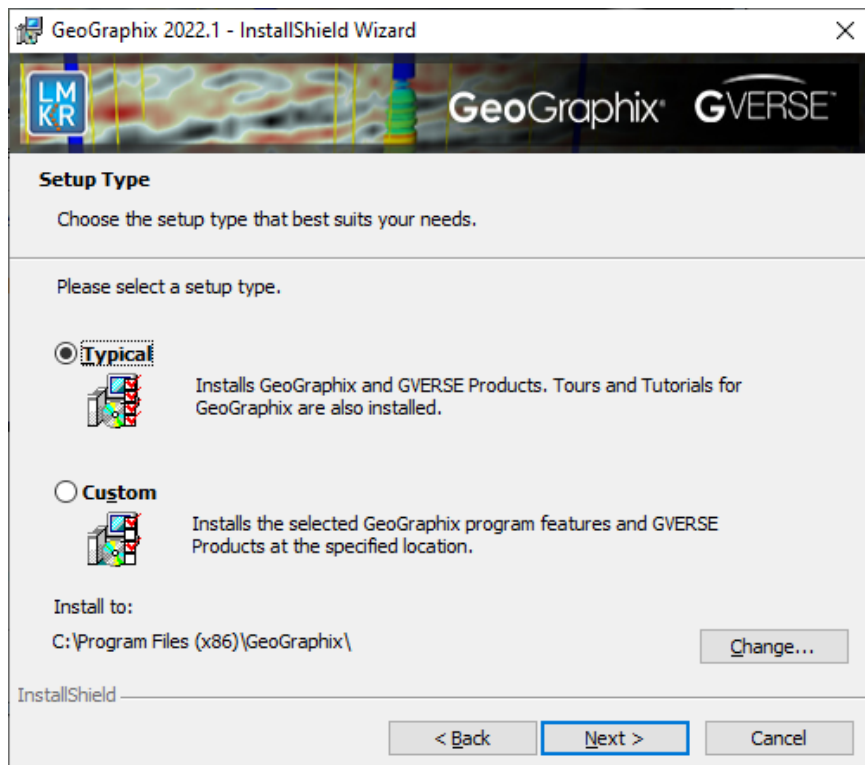
The screenshot shows the 'GeoGraphix 2022.1 - InstallShield Wizard' window. The title bar includes the application icon, the text 'GeoGraphix 2022.1 - InstallShield Wizard', and a close button. Below the title bar is a banner with the LMKR logo on the left, a colorful abstract graphic in the center, and the 'GeoGraphix' and 'GVERSE' logos on the right. The main content area is titled 'Customer Information' and contains the instruction 'Please enter your information.' Below this are two text input fields: 'User Name:' with the text 'James Smith' and 'Organization:' with the text 'LMKR'. At the bottom left of the main area is the 'InstallShield' logo. At the bottom right are three buttons: '< Back', 'Next >' (which is highlighted with a blue border), and 'Cancel'.

Enter your **User Name** and **Organization**.

Click **Next** to proceed to the **Setup Type** step of the wizard.

### End User Installation STEP 5 - Setup Type (Typical vs. Custom)

The type of setup (Typical vs. Custom) and the application destination folder is selected in this step of the wizard.



Options	Description
<b>Typical option:</b>	<p>Choosing this option will install:</p> <ul style="list-style-type: none"><li>• GVERSE products (Geo+, Field Planner and Planner)</li><li>• GeoGraphix (GeoGraphix, GVERSE Petrophysics, GVERSE Geophysics and smartSECTION), and Modeling (LogM, STRUCT)</li><li>• Tours and Tutorials for GeoGraphix</li></ul> <p><b>Note:</b> You must use the Custom option if you will run TracPlanner Xpress and you do not have OpenWorks for Windows installed on your computer. If you have OpenWorks for Windows installed, you can use the Typical install option.</p> <p><b>Note:</b> A local projects folder will be installed by default to: C:\ProgramData\Geographix\Projects (for Windows®). If a previous local projects folder is detected by the installation, then the local projects folder will be installed to the previous detected path/folder.</p>

<b>Custom option:</b>	Choosing this option then clicking Next will open a <a href="#">Custom Setup</a> dialog box to choose features to be installed.
<b>Install to:</b>	<p>This is the path/folder where applications will be installed on the computer.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• If GeoGraphix software has been installed on this computer before, then the "Install to:" will reflect the path/folder of the previous installation; if not, the default path is C:\Program Files (x86)\GeoGraphix.</li> <li>• GVERSE products will be installed on their default path C:\Program Files\LMKR\GVERSE.</li> </ul> <p>The <b>Change</b> command button can be used to change the path/folder destination of application.</p>
<b>Change command button:</b>	<p>Clicking this command button will open a standard windows <b>Browse/Open</b> dialog box to change application destination folder.</p> <p><b>Note:</b> The path/folder must be a local hard drive.</p>

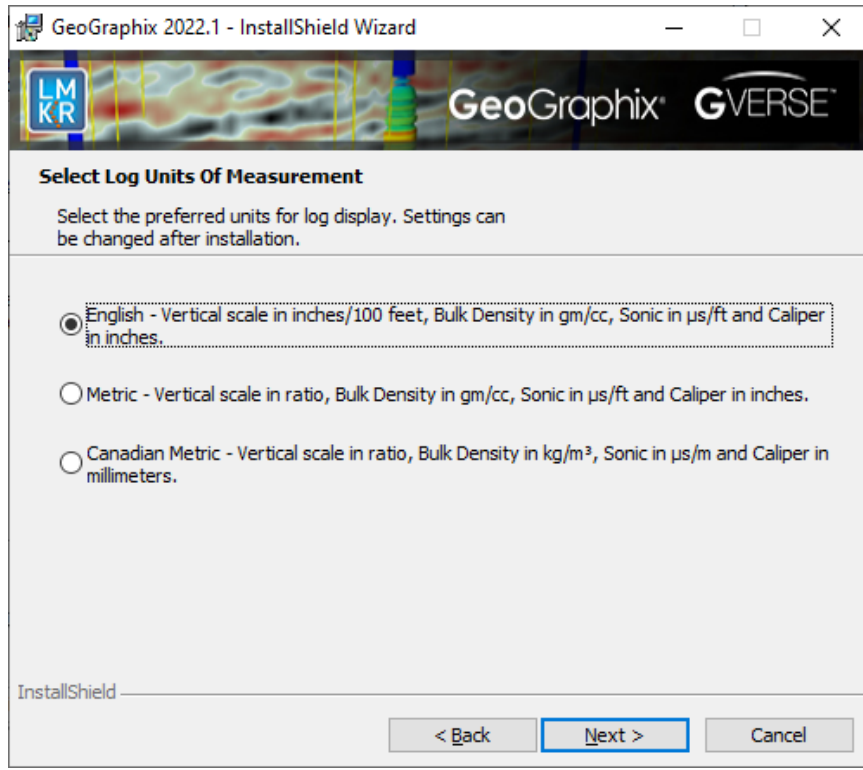
If the **Typical** option is selected, click **Next** to proceed to the **Select Log Units of Measurement** step of wizard.

If the **Custom** option is selected, click **Next** to proceed to the **Custom Setup** step of wizard.

## Typical

### *End User Installation Typical STEP 6 - Select Log Units of Measurement*

This step of the wizard determines which default log units will be setup for GVERSE Petrophysics and XSection.

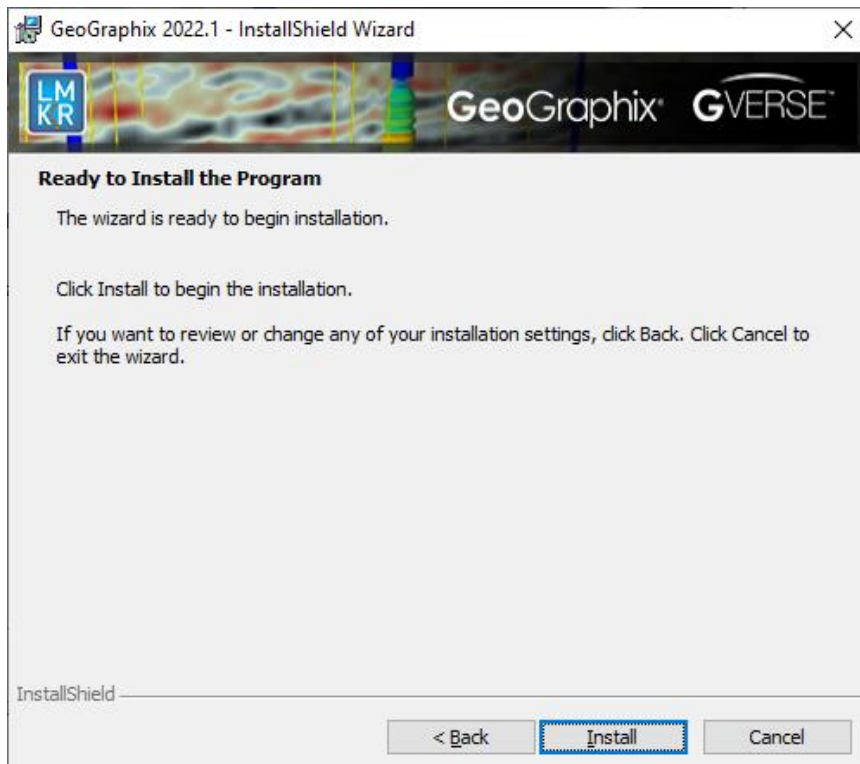


**Note:** The units can be changed in GVERSE Petrophysics and XSection after installation.

Click **Next** to proceed to the **Ready to Install the Program** step of the wizard.

### *End User Installation Typical STEP 7 - Ready to Install the Program*

This is the second to last step of the wizard.



Click **Install** to copy files and begin installing the software, or click **Back** to review and make any changes as necessary.

*End User Installation Typical STEP 8 - InstallShield Wizard Completed (FINAL STEP)*

After the **Install** button is clicked in the [Ready to Install the Program](#) step, files are installed to the workstation.

When the installation is finished, the **InstallShield Wizard Completed** dialog box appears:



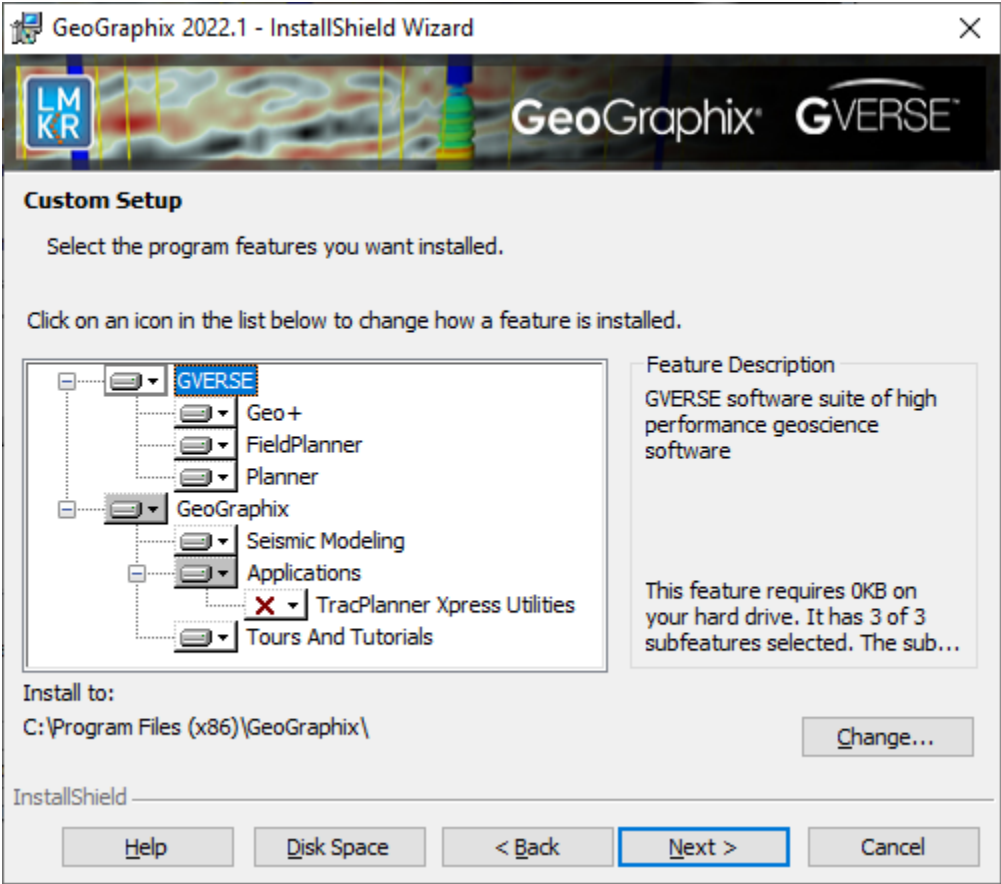
Click **Finish** to complete the installation. The software can now be started through Desktop shortcuts, or Start Menu Programs.

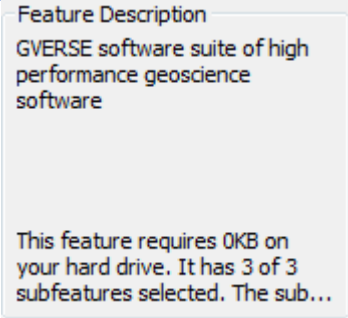

**Note:** GVERSE GeoGraphix licenses are installed after the master installation steps. When the Discovery applications are started through Desktop shortcuts or Start Menu Programs, a licensing check is performed on the workstation. Please refer to the [License Management Tool](#) section for further details.

Custom

End User Installation Custom STEP 6 - Custom Setup





This step of the wizard can be used to select certain features to be installed and change the application destination directory.



Options	Description
List Box and Feature Description:	<div>When a feature is selected in the list box, a description of the feature will appear at right in the Feature Description box.</div> <div></div>






Select features to be installed and click **Next** to proceed to the **Local Projects Folder** step of the wizard.








	 <b>Geo+</b>	<p>Feature Description</p> <p>GVERSE Geo+ application with integrated Map, 3D and Cross Section Views</p> <p>This feature requires 8317KB on your hard drive.</p>
	 <b>FieldPlanner</b>	<p>Feature Description</p> <p>GVERSE Field Planner application to create manual and automatic field plans for unconventional reservoirs</p> <p>This feature requires 103MB on your hard drive.</p>
	 <b>Planner</b>	<p>Feature Description</p> <p>GVERSE Planner application to calculate the trajectories for wells</p> <p>This feature requires 49MB on your hard drive.</p>
	 <b>GeoGraphix</b>	<p>Feature Description</p> <p>GeoGraphix applications, Project Services and Tours and Tutorials</p> <p>This feature requires 0KB on your hard drive. It has 3 of 3 subfeatures selected. The sub...</p>

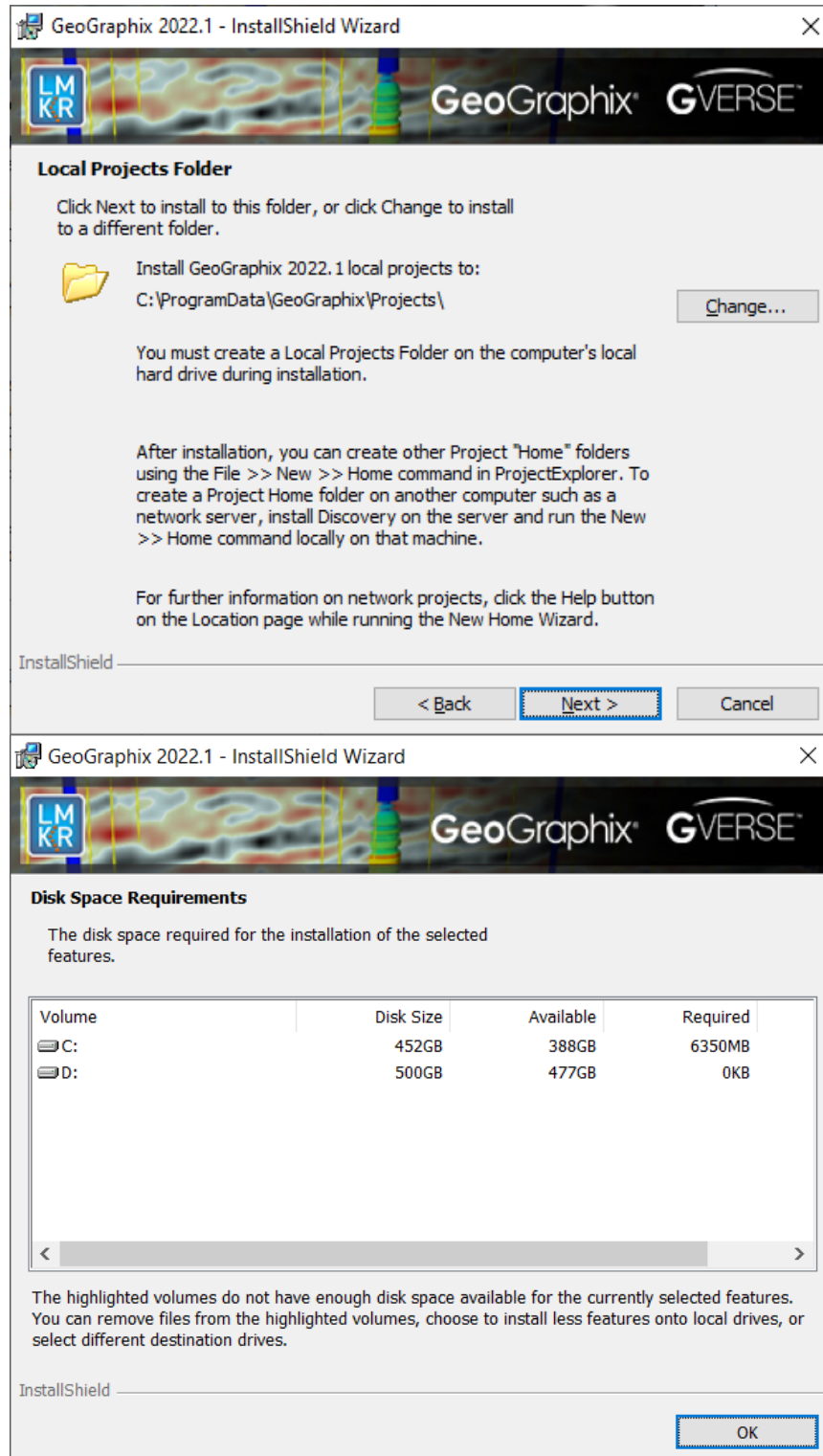
#### *End User Installation Custom STEP 7 - Local Projects Folder*

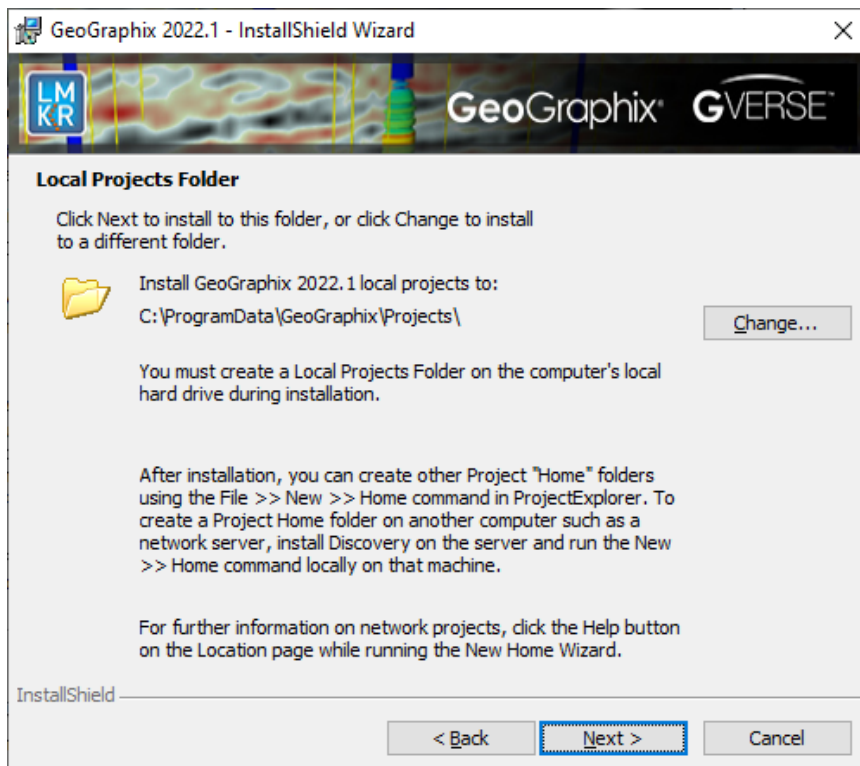
This step of the wizard determines where the local projects folder (path/folder) will be created during the installation.

	 <b>Seismic Modeling</b>	<div data-bbox="886 159 1239 474"> <p>Feature Description</p> <p>Seismic Modeling: LogM and Struct</p> <p>This feature requires 75MB on your hard drive.</p> </div>
	 <b>Applications</b>	<div data-bbox="886 512 1239 827"> <p>Feature Description</p> <p>GeoGraphix including GVERSE Petrophysics, GVERSE Geophysics, smartSECTION and 3D Viewer</p> <p>This feature requires 284MB on your hard drive. It has 0 of 1 subfeatures selected. The sub...</p> </div>
	<div data-bbox="407 879 813 947">  <b>Applications</b>   <b>TracPlanner Xpress Utilities</b> </div> <p><b>Note:</b> The TracPlanner Xpress Utility is not selected by default. To install the TracPlanner Xpress Utility, click the down arrow and select an install option from the drop-down list. Installation of this utility is not necessary if OpenWorks for Windows is already installed.</p>	<div data-bbox="886 879 1239 1194"> <p>Feature Description</p> <p>Utilities needed for GeoGraphix and TracPlanner such as pdbin.exe, services.dat, etc.</p> <p>This feature requires 0KB on your hard drive.</p> </div>
	 <b>Tours And Tutorials</b>	<div data-bbox="886 1268 1239 1583"> <p>Feature Description</p> <p>GeoGraphix Tours and Tutorials</p> <p>This feature requires 58MB on your hard drive.</p> </div> <p>GeoGraphix Tours and Tutorials include creating a "SampleFiles" directory and installing zip projects for 3 possible project areas (Moosehead, Powder and Stratton).</p>

	<p>Clicking the down arrow  icon will list options to install or not install the feature:</p> <div data-bbox="406 220 1266 388"> <p> This feature will be installed on local hard drive.</p> <p> This feature, and all subfeatures, will be installed on local hard drive.</p> <hr/> <p> This feature will not be installed.</p> </div> <p>Clicking the <b>Help</b> button on this Custom Setup dialog will bring up the <b>Custom Setup Tips</b> dialog.</p> 
Install to:	<p>This is the path/folder that will be used to install the applications on the computer.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• If GeoGraphix software has been installed on this computer before, then the "Install to:" description will reflect the path/folder of the previous installation to, if not the default path is C:\Program Files (x86)\GeoGraphix.</li> <li>• GVERSE products will be installed on their default path C:\Program Files\LMKR\GVERSE.</li> </ul>
Change button:	<p>Clicking this command button will open a standard Windows® <b>Browse/Open</b> dialog box to change the application destination folder.</p>

Disk Space  
button:





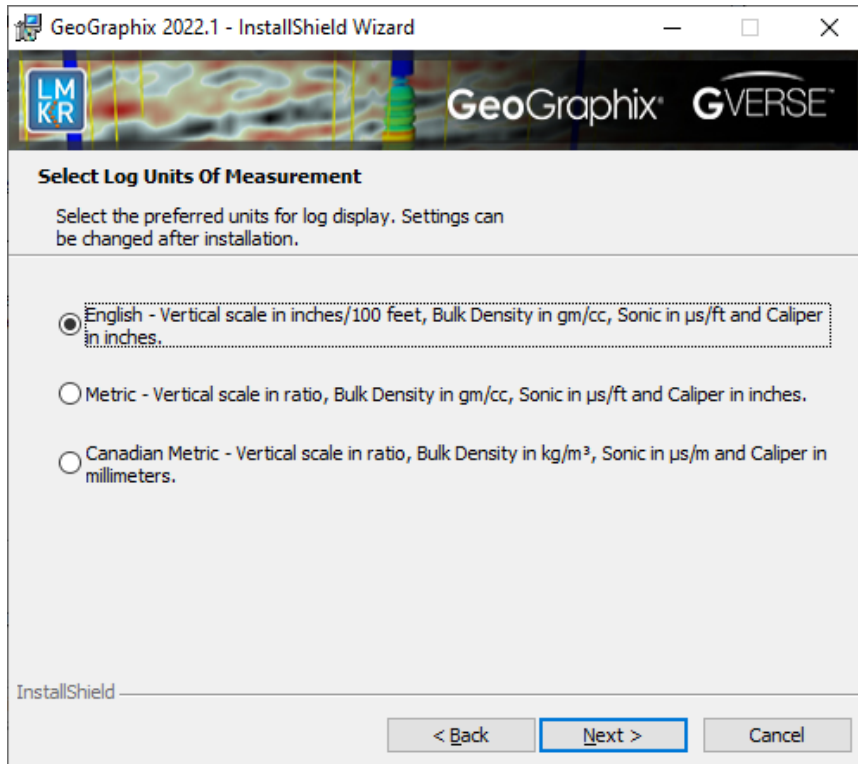
Clicking the **Change** command button will open a standard Windows® **Browse/Open** dialog box to change the application destination folder.

**Note:** The Local Projects Path/Folder must be a local hard drive.

Click **Next** to proceed to the **Log Units of Measurement** step of the wizard.

### End User Installation Custom STEP 8 - Log Units of Measurement

This step of the wizard determines which default log units will be setup for GVERSE Petrophysics and XSection.

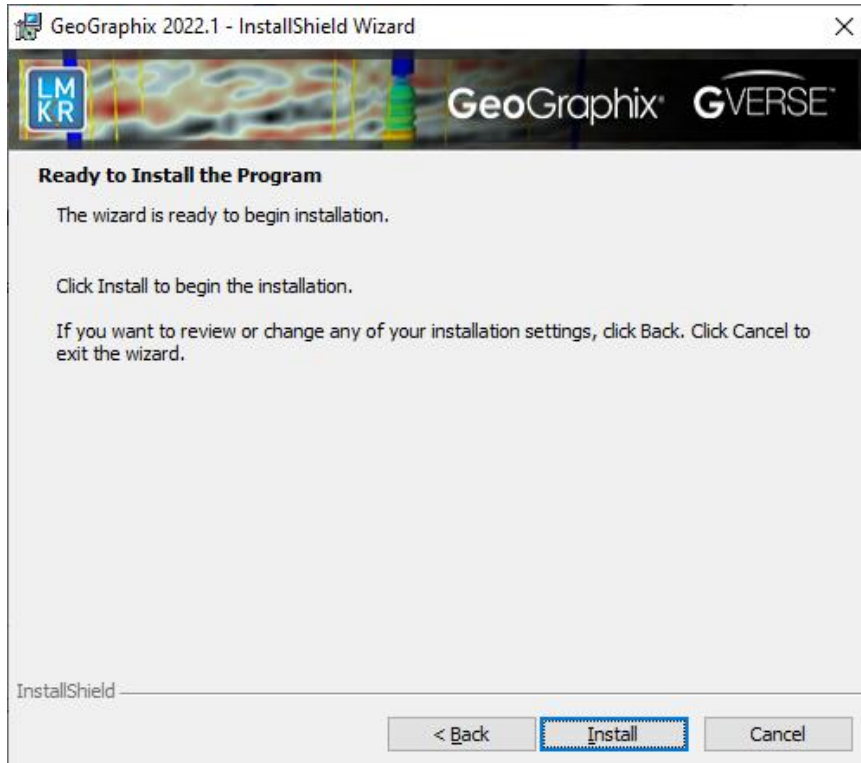


**Note:** The units can be changed in GVERSE Petrophysics and XSection after installation.

Select the appropriate **Units** option and click **Next** to proceed to the **Ready to Install the Program** step of the wizard.

### *End User Installation Custom STEP 9 - Ready to Install the Program*

This is the second to last step of the wizard.



Click **Install** to copy files and begin installing the software, or click **Back** to review and make any changes as necessary.

### *End User Installation Custom STEP 10 - InstallShield Wizard Completed (FINAL STEP)*

After the Install button is clicked in the **Ready to Install the Program** step, files are installed to the workstation.

When installation is finished, the InstallShield Wizard Completed dialog box appears.



Click **Finish** to exit the installation.

The installed software can now be started through Desktop shortcuts, or Start Menu Programs.

**Note:** GVERSE GeoGraphix licensing is installed before or after the Discovery master installation steps. When the Discovery applications are started through Desktop shortcuts or Start Menu Programs, a licensing check is performed on the workstation. Please refer to the [License Management Tool](#) section for further details.

## Network Administrator Installation

There are several possible installation configurations and methods that could be used for deploying Discovery in a network environment. The best method for your particular situation depends upon the number of users and your network environment.

There are at least 3 important components to consider in any network environment:

- [License Management Tool](#)
- [Workstation Installation](#)
- [Discovery Project Server \(Optional\)](#)

**Note:** If you only have the download of the setup and not the DVD media you will need to use the Workstation Setup files located on the Discovery Utilities under Extras/Workstation files.



### *GeoGraphix Server Configuration Tool*

This tool allows the user to easily configure a GeoGraphix server either by a Graphical Wizard Mode or a Command Line Mode. This way, the user doesn't need to manually configure the DCOM settings with every server installation of GeoGraphix. An IT Administrator can preferably use this tool in Command Line Mode for configuring the GeoGraphix server. This tool is accessible from ProjectExplorer Tools menu **Tools >> Configure Server**. For a detailed workflow, refer to the **ProjectExplorer** online help.

### *ArcGIS Auto-Configuration Utility*

This is a command line utility used to automatically configure GeoGraphix with the installed ArcGIS Runtime. The IT Support personnel can program this utility easily with any deployment/scripting tool such as **Microsoft System Center Configuration Manager (SCCM)**. An IT administrator can then run this utility to remotely configure ArcGIS Runtime on all network machines that have GeoGraphix installed. For details, refer to the **Utilities** documentation.

### *Save/Restore Custom System Settings*

You can save and restore your custom GeoGraphix settings when moving from one machine to another or upgrading to the next version of GeoGraphix. To do so, open ProjectExplorer, go to **Tools >> System Options**. Specify your settings in the **Systems Options** dialog box, and then click the **Save As** button. These settings are saved in the ggxsettings.cmd file. This file can be used to restore the custom settings on any machine. For details, refer to the ProjectExplorer online help.

If you have any questions or issues with your particular network environment, contact [GeoGraphix Technical Support](#).

## **Network License Server**

The License Management Tool must be installed to use Discovery and GVERSE Products in a network environment. Download the tool from the **GVERSE GeoGraphix Support Portal > Downloads** page and follow the installation instructions.

After the server is set up, when the **License Management Tool** runs on the client computer, choose the **I want to setup or manage a network license server on this computer** option and enter the required information.

For more information on the license wizard, see the [Licensing](#) section.

## Workstation Installation

### Network Administrator Installation

<b>Caution:</b>	
General Installation Requirements  - please refer to the <a href="#">System Requirements</a> for a complete list	<ul style="list-style-type: none"><li>▪ The following conditions must be met before you can install the Discovery 2022.1 software:<ul style="list-style-type: none"><li>▪ You must have <b>Administrative Rights</b> to the local computer that will run the install.</li><li>▪ Microsoft .NET 4.7.2 must be installed.</li><li>▪ Must have networking installed including the <b>TCP/IP</b> protocol.</li><li>▪ Microsoft DirectX End-User Runtime (June 2010) is required to run Discovery 3D, Pro3D and GVERSE Geo+/smartSECTION.</li><li>▪ GVERSE Field Planner requires MATLAB Runtime R2018a (9.4).</li><li>▪ This software should only be installed on <b>Windows® 7 or 10</b>, or <b>Windows® Server 2016 or 2019</b> operating systems.</li></ul></li></ul>

The workstation installation in a network environment can be initiated from the GVERSE GeoGraphix download or directly from the Release DVD or by creating an Application Distribution site:

- [Using GVERSE GeoGraphix download or Release DVD](#)
- [Using Application Distribution Site](#)

#### *Using GVERSE GeoGraphix Download or Release DVD*

Workstation installations directly from the GVERSE GeoGraphix download or the Release DVD are quite acceptable if you do not mind configuring the installation at each workstation. The installation could be shared on a network drive or carried from workstation to workstation.

The installation procedure for workstation installations directly from GVERSE GeoGraphix or the release DVD is identical to the [End User Installation](#).

**Note:** Licensing will need to be configured on each workstation. The configuration can be set with the [License Management Tool](#).

#### *Using the Application Distribution Site*

Workstation Installations with an Application Distribution Site can save considerable configuration time at the workstation and can even be automated to create unattended, silent installations for the workstation.

There are 6 steps involved with performing Workstation Installations using an Application Distribution Site:

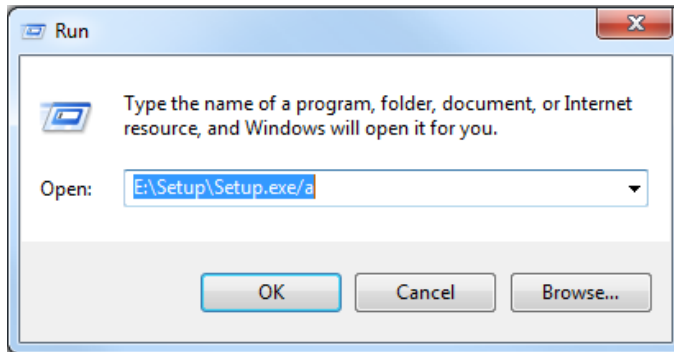
- STEP 1: [Administrative Install – Start >> Run](#)
- STEP 2: [Administrative Install – InstallShield Wizard Startup](#)
- STEP 3: [Administrative Install – Network Location](#)
- STEP 4: [Administrative Install – InstallShield Wizard Completed](#)
- STEP 5: [Configure Application Distribution Site](#)
- STEP 6: [Install to Workstations](#)

### Create Application Distribution Site STEP 1 – Administrative Install – Start >> Run

An administrative installation is generally started with a Run “setup.exe” command containing the “/a” parameter.

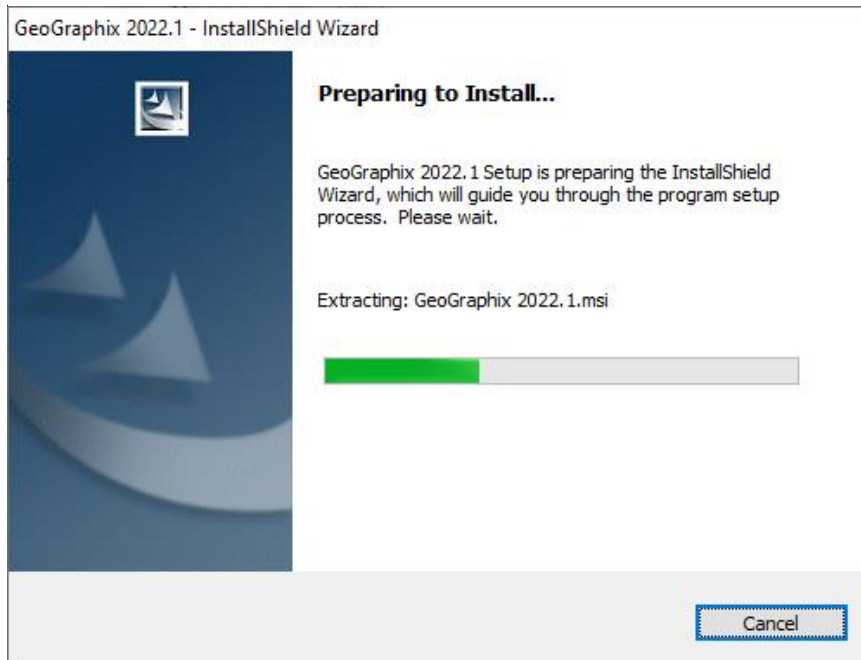
A Run command can be configured in the standard Windows® Run dialog box. This dialog box can be accessed from the Windows Taskbar **Start** menu and **Start >> Run**.

If the GeoGraphix Discovery 2022.1 DVD is in a DVD-Drive with assigned drive letter of “E”, then the command line would be the same as the one in the Run dialog box below:



## Create Application Distribution Site STEP 2 – Administrative Install – InstallShield Wizard Startup

After configuring the Run command in STEP 1 – Administrative Install – **Start >> Run**, the InstallShield wizard starts.



The Welcome to the InstallShield Wizard for Discovery 2022.1 appears on your screen.

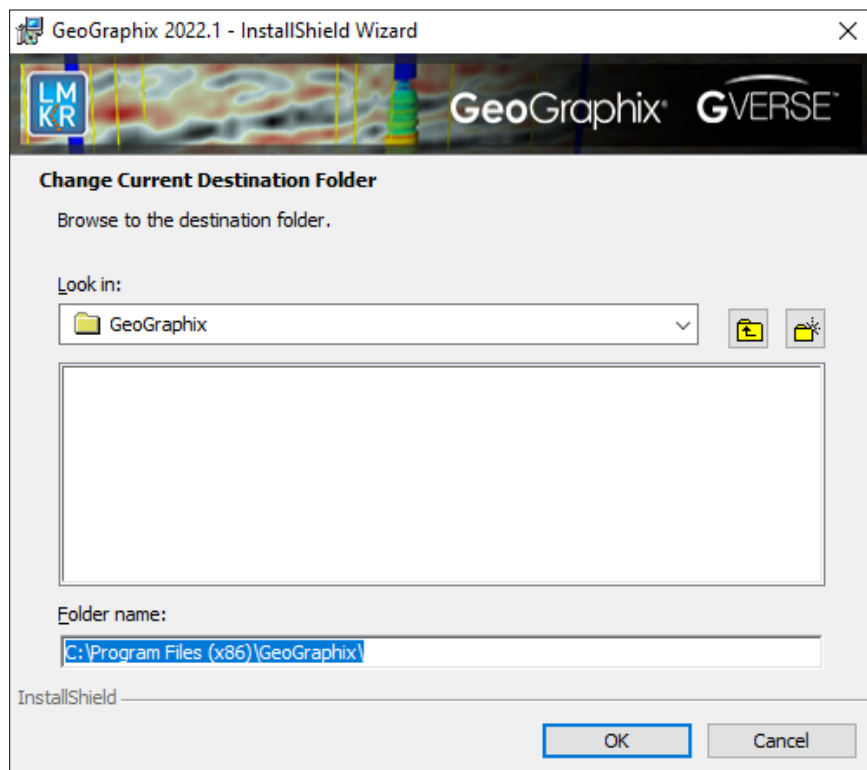




Click **Next** to proceed to the **Network Location** step of the wizard.

**Note:** Clicking the **Help** button will open the GeoGraphix Installation Guide help window.

### Create Application Distribution Site STEP 3 - Administrative Install - Network Location

This step of the wizard determines the location where the distribution site will be created on the network.



Option	Description
Network location:	<p>Specify the network mapped drive/path or UNC path where the distribution site will be created.</p> <p><b>Note:</b> A User running an administrative installation must have permissions to write to the designated Network location.</p> <p>Discovery Release Setup contents will be copied and decompressed to this network location.</p>
Look in:	<p>The <b>Look in</b> list box shows the current destination folder. Click the Down Arrow in the <b>Look in</b> list box to navigate to a new destination folder</p> <p><b>Note:</b> The New Folder command button  can be used to create new folders. Use the Up One Level command button  to move back to the previous folder selection.</p> <p>When a new destination is set, click <b>OK</b> to return to the <b>Network Location</b> dialog box.</p>

Click **Install** to copy files and create network distribution site.

#### Create Application Distribution Site STEP 4 - Administrative Install - InstallShield Wizard Completed

After **Install** is clicked in the Network Location step, installation files are decompressed and copied to the network location that was designated in STEP 3 - Administrative Install - Network Location.

And when the installation is finished, the InstallShield Wizard Completed dialog box appears:



The Network Application Distribution Site should contain the following folders and files at this point:

Name	Date modified	Type	Size
Setup	7/11/2019 6:05 PM	File folder	
Utilities	7/11/2019 6:05 PM	File folder	
AUTORUN.INF	10/23/2008 2:24 AM	Setup Information	1 KB
closing.bmp	9/23/1997 2:06 AM	Bitmap image	31 KB
Demo.dbd	4/30/2019 4:27 PM	DBD File	968 KB
Demo.dsaj	7/11/2019 4:59 PM	DSJ File	1 KB
ds32.dll	8/11/2000 3:25 PM	Application extens...	28 KB
Install.exe	11/14/2000 3:39 AM	Application	384 KB
Setup_Instructions.chm	7/10/2019 9:00 PM	Compiled HTML ...	2,282 KB

In the next step, the setup.ini of the application distribution site will be configured for distribution to the workstations.

**Note:** Running the setup.exe in the application distribution site could be used at a workstation to install Discovery software, but configuring the setup.ini can save time and even be automated to create an unattended, silent installation for the workstations.

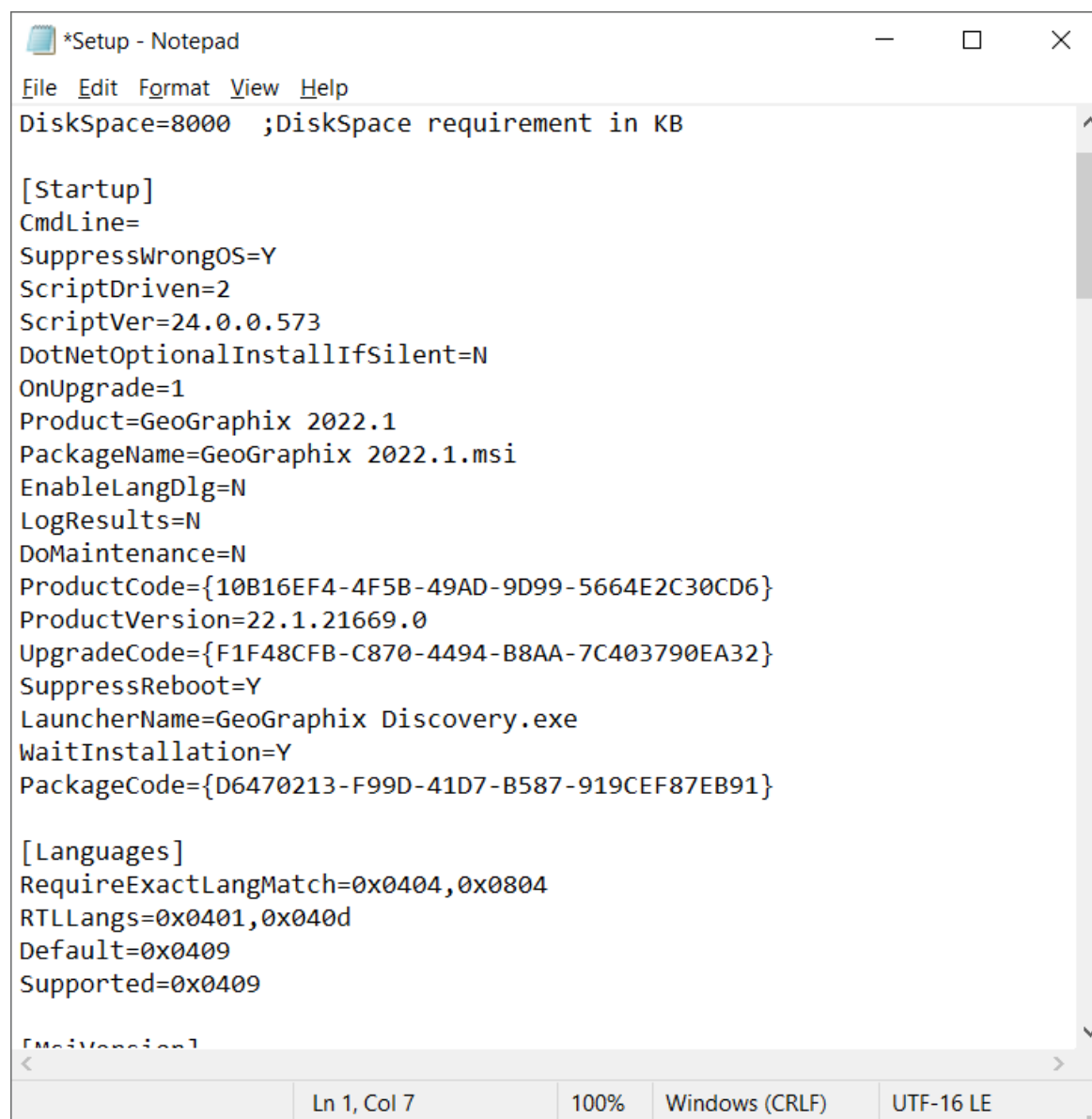
### Create Application Distribution Site STEP 5 - Configure Application Distribution Site

After all the necessary files have been copied and decompressed to the Application Distribution Site with the Administrative Install in the previous steps, the Application Distribution site needs to be configured for your particular network environment.

**Note:** If you only have the download of the setup and not the DVD media, you will need to use the Workstation Setup files located on the GeoGraphix Utilities under Extras\Workstation files.

This involves editing some of the existing command variables (such as, User Name, Company Name, etc.) or adding commands along with variables to the "**Setup.ini**" file on the Application Distribution Site.

Look for the [Startup] section in the "**Setup.ini**":



```
*Setup - Notepad
File Edit Format View Help
DiskSpace=8000 ;DiskSpace requirement in KB

[Startup]
CmdLine=
SuppressWrongOS=Y
ScriptDriven=2
ScriptVer=24.0.0.573
DotNetOptionalInstallIfSilent=N
OnUpgrade=1
Product=GeoGraphix 2022.1
PackageName=GeoGraphix 2022.1.msi
EnableLangDlg=N
LogResults=N
DoMaintenance=N
ProductCode={10B16EF4-4F5B-49AD-9D99-5664E2C30CD6}
ProductVersion=22.1.21669.0
UpgradeCode={F1F48CFB-C870-4494-B8AA-7C403790EA32}
SuppressReboot=Y
LauncherName=GeoGraphix Discovery.exe
WaitInstallation=Y
PackageCode={D6470213-F99D-41D7-B587-919CEF87EB91}

[Languages]
RequireExactLangMatch=0x0404,0x0804
RTLLangs=0x0401,0x040d
Default=0x0409
Supported=0x0409

[MultiVersion]
```

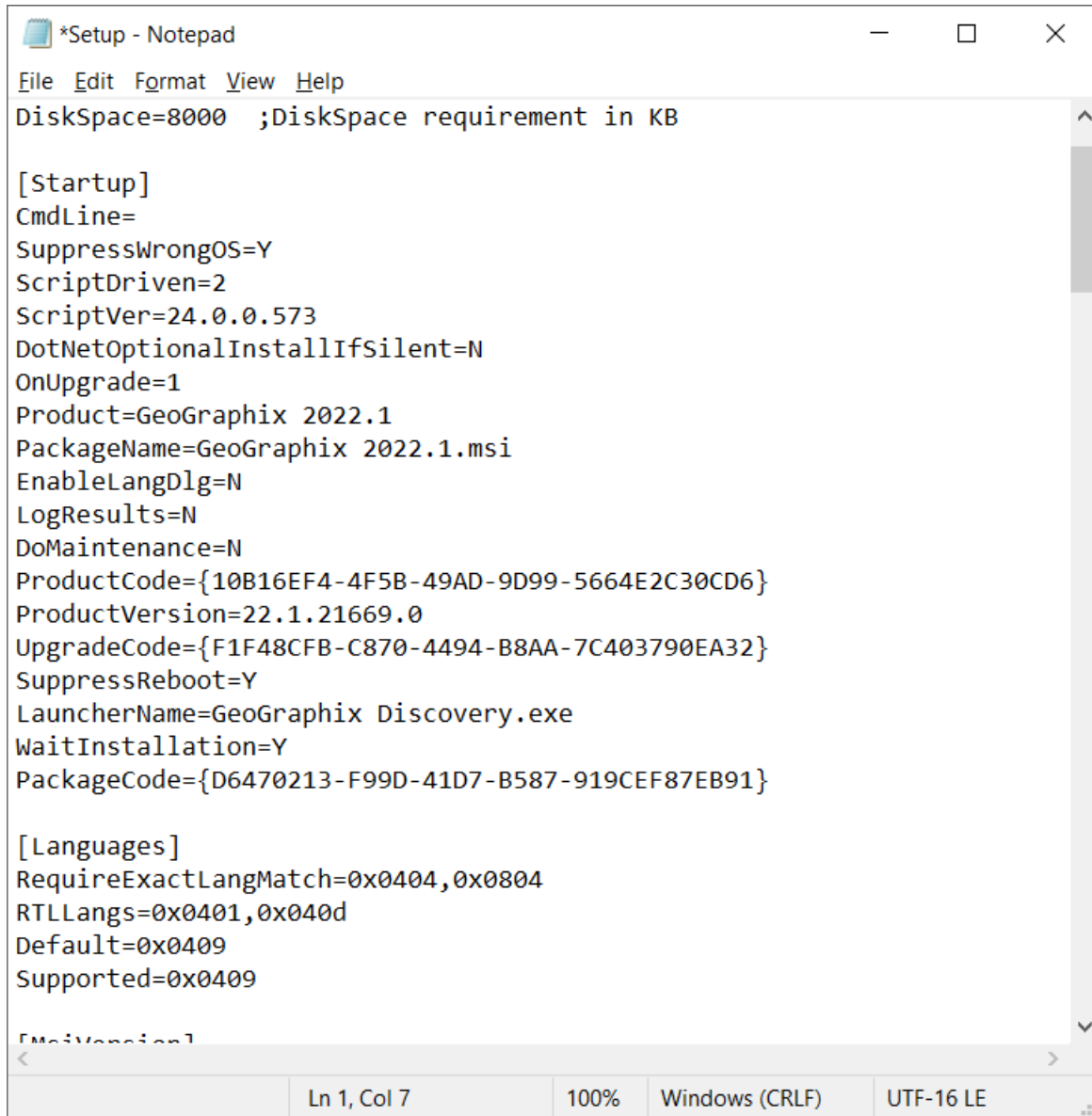
The following table lists some commands and variables that may be used on the CmdLine in the "Setup.ini":

Command	Variable (quotes required where shown)	Description
USERNAME	"Text string"	The variable value within quotes will be used for the User Name field in the <a href="#">Customer Information</a> dialog.
COMPANYNAME	"Text string"	The variable value within quotes will be used for the Organization field in <a href="#">Customer Information</a> dialog.
<b>ADDLOCAL</b> (This command can be used to install specific Discovery applications. It is very similar to choosing specific features in a <a href="#">custom</a> install. If this command is not used, then a <a href="#">typical</a> install is run.)	For Typical Install use the following: ADDLOCAL="ALL"  For Custom Install use the following: ADDLOCAL="ALL" REMOVE="GVGeomodeling,GVFPlanner,GVPlanner,Modeling,ToursAndTutorials,TracPlannerUtilities"  <b>Note:</b> You can specify any or multiple application names in the "REMOVE" string.  <b>Note:</b> Please ensure there are no spaces when specifying multiple application names.	This variable value would install all the necessary features for GeoGraphix only.  <b>Note:</b> If the ADDLOCAL command is used, then the ALLUSERS command must also be used. Moreover, instead of specifically mentioning the application names, the ALL keyword installs all the applications and REMOVE keyword removes a specific application.
ALLUSERS	1	If the ADDLOCAL command is used, then the ALLUSERS command must also be used. The ALLUSERS command enables the installation of GeoGraphix services.
PROJECTS	"Local Drive:\Folder"	This must be a local hard drive. This command can be used to designate a local projects folder which is essentially <a href="#">step 7 of the custom end user installation</a> .  <b>Note:</b> If this command is not used, a Projects folder



		will be installed by default to C:\Documents and Settings\All Users\Application Data\GeoGraphix\Projects. If a previous local projects folder is detected by the install, then the local projects folder will be installed to the previous detected path\folder.
<b>UNITS</b>	"English" OR "Metric" OR "CnMetric"	This command can be used to make selections normally made in <a href="#">step 8 of custom end user installation</a> .
<b>/q, /qn</b>	Not applicable	No UI seen during installation.
<b>/qb</b>	Not applicable	Basic UI seen during installation. qb! can be used to hide the Cancel button.
<b>/qr</b>	Not applicable	Reduced UI seen during installation. No modal dialog box displayed at the end of the installation.
<b>/qf</b>	Not applicable	Full UI seen during installation.
<b>/qn+</b>	Not applicable	No UI seen during installation except for a modal dialog box displayed at the end of the installation.
<b>/qb+</b>	Not applicable	Basic UI with a modal dialog box seen at the end of the installation. qb+! or qb!+ can be used to hide the Cancel button.
<b>/qb--</b>	Not applicable	Basic UI with no modal dialog boxes seen during installation.

After removing the comment sign (";") and editing or adding variables in CmdLine, your "Setup.ini" CmdLine may look similar to the following example (other commands can exist):



```
*Setup - Notepad
File Edit Format View Help
DiskSpace=8000 ;DiskSpace requirement in KB

[Startup]
CmdLine=
SuppressWrongOS=Y
ScriptDriven=2
ScriptVer=24.0.0.573
DotNetOptionalInstallIfSilent=N
OnUpgrade=1
Product=GeoGraphix 2022.1
PackageName=GeoGraphix 2022.1.msi
EnableLangDlg=N
LogResults=N
DoMaintenance=N
ProductCode={10B16EF4-4F5B-49AD-9D99-5664E2C30CD6}
ProductVersion=22.1.21669.0
UpgradeCode={F1F48CFB-C870-4494-B8AA-7C403790EA32}
SuppressReboot=Y
LauncherName=GeoGraphix Discovery.exe
WaitInstallation=Y
PackageCode={D6470213-F99D-41D7-B587-919CEF87EB91}

[Languages]
RequireExactLangMatch=0x0404,0x0804
RTLLangs=0x0401,0x040d
Default=0x0409
Supported=0x0409

[MultiVersion]
```

**Note:** Only a small portion of the "Setup.ini" is displayed above.

[Using Application Distribution Site - STEP 6 - Install to Workstations \(FINAL STEP\)](#)

After the application distribution site is configured for your network environment, Discovery applications can now be deployed to the workstations.

You can deploy Discovery applications to the workstations by sharing the application distribution site with the workstations and running "setup.exe" in the application distribution site (similar to the [End User Installation](#)).

OR

You may want to utilize scripts or 3rd party tools such as Microsoft® SMS or InstallShield® AdminStudio that take advantage of Microsoft® Windows Installer technology for workstation deployment.

This is the last step in a Workstation Installation using an Application Distribution Site.

### Discovery Project Server (Optional)

Creating a *Discovery* Project Server is an optional third component in a network administrator installation. It is a very important consideration if you want to store Discovery projects on a central server, then share those projects across the network for multiple users.

**Note:** A Workstation Installation will create a local projects folder on every workstation with GeoGraphix *Discovery* installed, so all workstations can create and store projects on their local hard drive. Local projects can also be shared between users on the network if the project properties in ProjectExplorer are set to network access. Please refer to the ProjectExplorer Help files for more information on local projects versus network projects.

A *Discovery* Project Server can be created with a custom installation using the Discovery 2022.1 download or Release DVD.

**Note:** This installation must be performed on the server that will become the *Discovery* Project Server. This server must have access to the [License Management Tool](#) (this server may also be the License Server).

There are 10 steps involved with creating a *Discovery* Project Server:

- STEP 1 - [Getting Started with Discovery download or Release DVD](#)
- STEP 2 - [InstallShield Wizard Startup](#)
- STEP 3 - [License Agreement](#)
- STEP 4 - [Customer Information](#)
- STEP 5 - [Setup Type \(Typical vs. Custom\)](#)
- STEP 6 - [Custom Setup](#)
- STEP 7 - [Local Projects Folder](#)
- STEP 8 - [Log Units of Measurement](#)
- STEP 9 - [Ready to Install the Program](#)
- STEP 10 - [InstallShield Wizard Completed](#)

### *Discovery Project Server - STEP 1 - Getting Started with the Discovery Download or Release DVD*

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

If you have downloaded Discovery 2022.1, go to the **download** folder and double-click on the **Discovery2022.1Setup.exe** file to begin. You will proceed directly to [STEP 2 - InstallShield Wizard Setup](#).

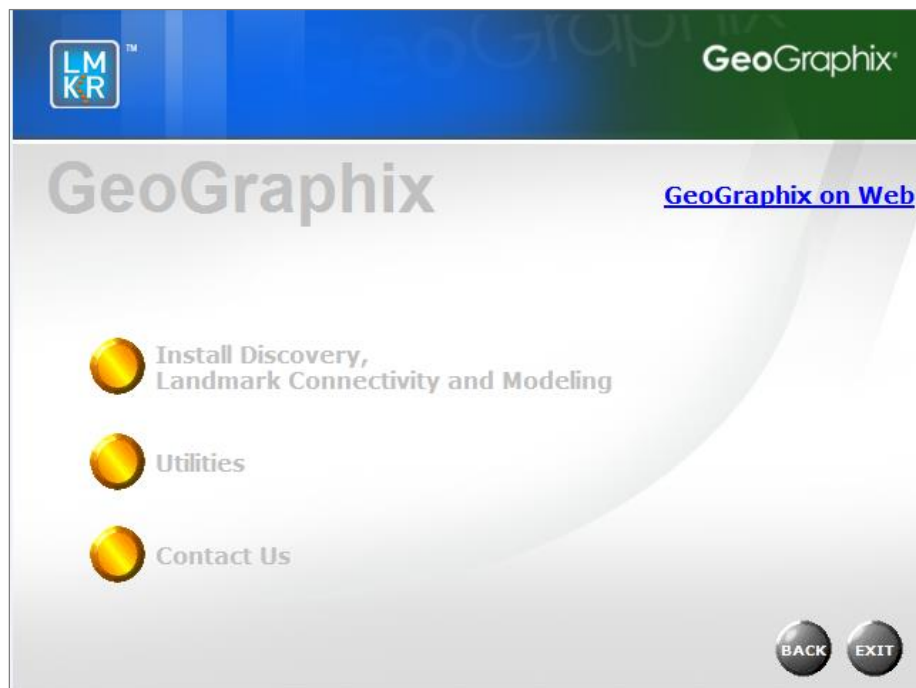
If you have ordered the **Discovery 2022.1 DVD**, continue through this step.

Insert the **Discovery/Landmark Connectivity/Seismic Modeling DVD-ROM** into the DVD-Drive.

The GeoGraphix splash screen appears for a few seconds.

**Note:** If the GeoGraphix splash screen does not appear automatically, go to the Start menu, and choose **Run**. In the Run dialog box, browse to the appropriate DVD-ROM drive and select the **Install.exe** file. Click **OK**.

After the Splash Screen appears for a few seconds, the GeoGraphix install window appears.



Click the first option,

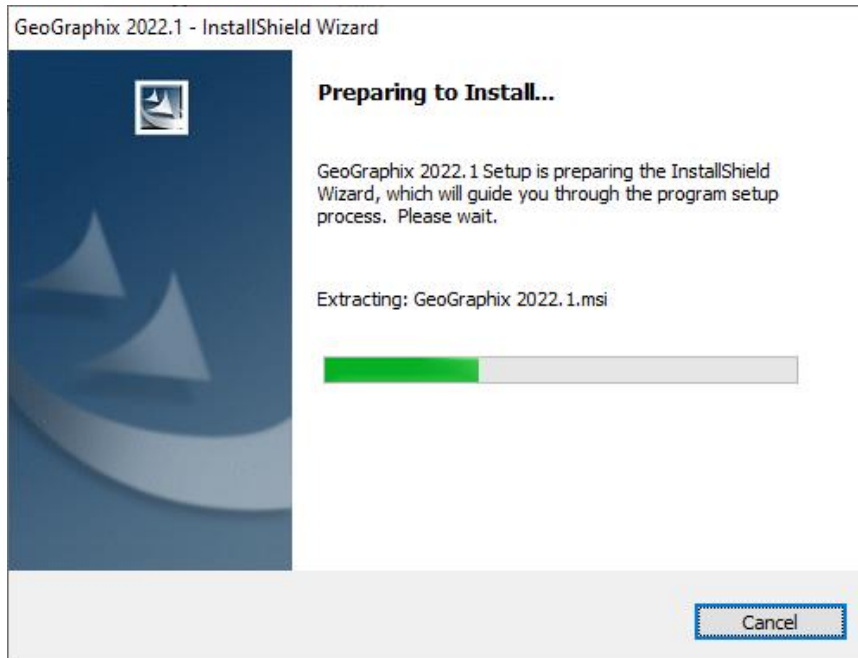


Discovery Project Server Installation.

to proceed to the next step in the

### *Discovery Project Server - STEP 2 - InstallShield Wizard Startup*

After clicking **Install Discovery, Landmark Connectivity, and Modeling** in the previous step, the InstallShield wizard starts.



The **Welcome to the InstallShield Wizard for GeoGraphix and GVERSE** appears on your screen.

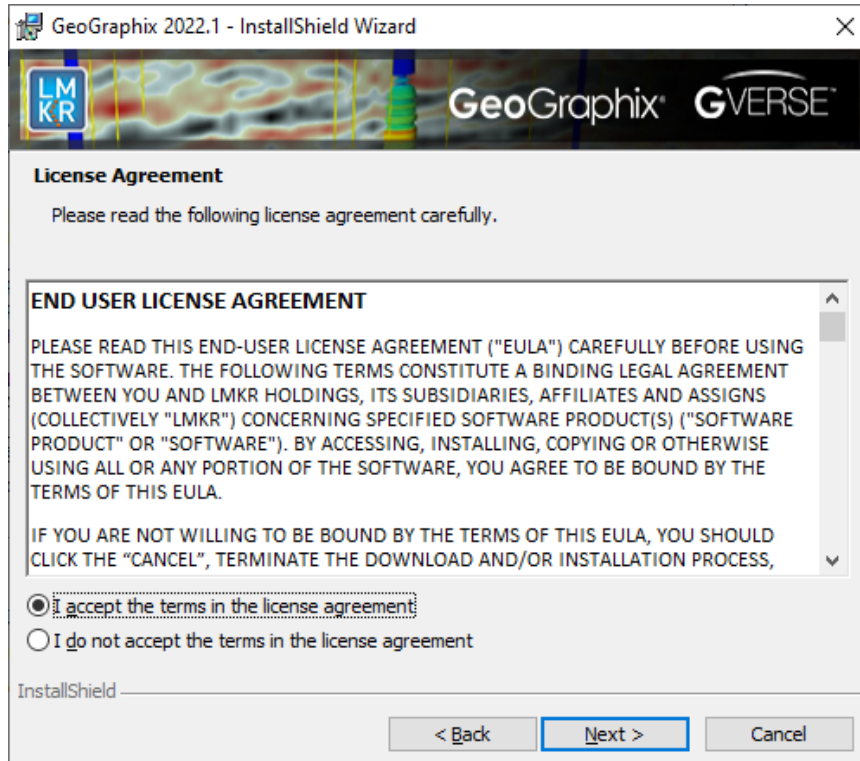


**Note:** Clicking the **Help** button will open the Installation Guide help window.

Click the **Next** button to proceed to the license agreement step of the installer.

### Discovery Project Server - STEP 3 - License Agreement

The software license agreement is displayed in this step of wizard.

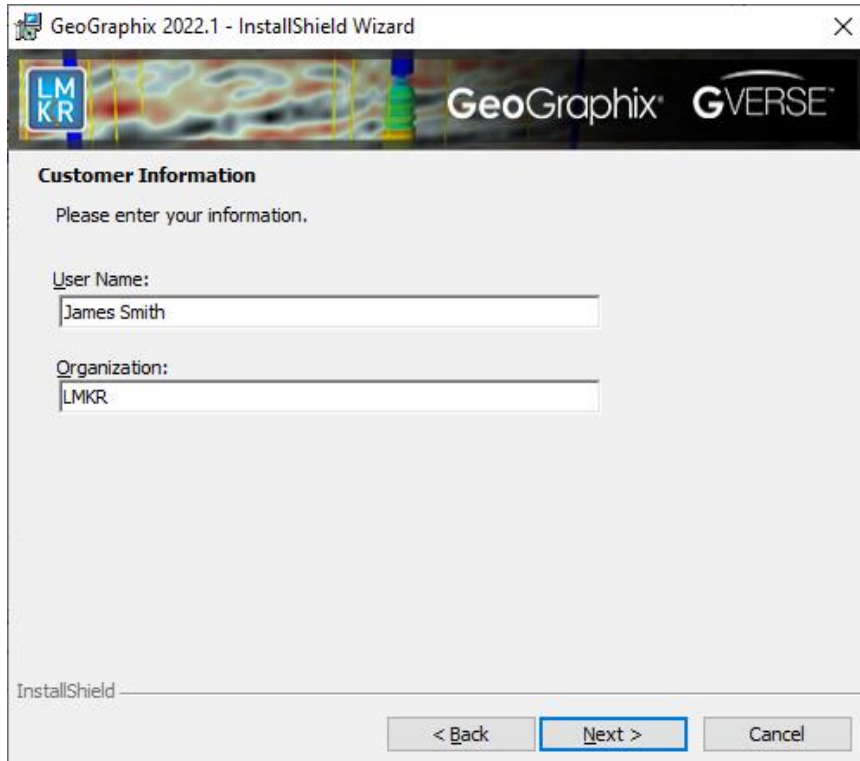


Select the **I accept the terms in the license agreement** radio button.

Click **Next** to proceed to the **Customer Information** step of the wizard.

#### Discovery Project Server - STEP 4 - Customer Information

Customer Information appears in this step of the wizard.



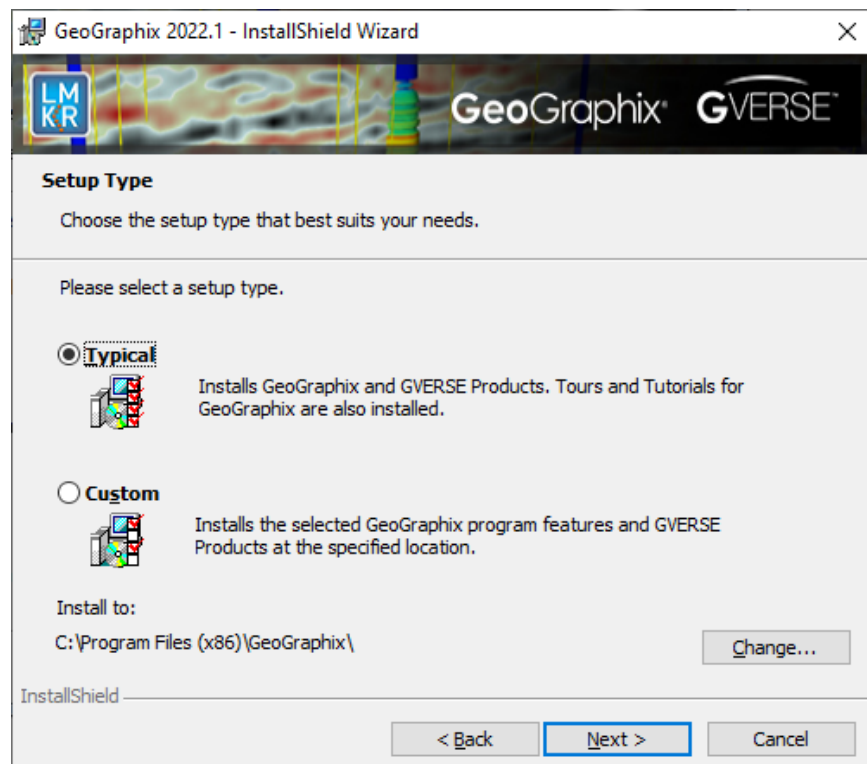
The image shows a screenshot of the 'GeoGraphix 2022.1 - InstallShield Wizard' window. The title bar at the top reads 'GeoGraphix 2022.1 - InstallShield Wizard' with a close button on the right. Below the title bar is a banner image featuring the 'LMKR' logo on the left and 'GeoGraphix' and 'GVERSE' logos on the right. The main content area is titled 'Customer Information' and contains the instruction 'Please enter your information.' Below this, there are two text input fields. The first is labeled 'User Name:' and contains the text 'James Smith'. The second is labeled 'Organization:' and contains the text 'LMKR'. At the bottom of the window, there is a status bar that says 'InstallShield'. To the right of the status bar are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

Enter your **User Name** and **Company Name**.

Click **Next** to proceed to the **Setup Type** step of the wizard.

### Discovery Project Server - STEP 5 - Setup Type (Typical vs. Custom)

The type of setup (Typical vs. Custom) and the application destination folder is selected in this step of the wizard.



Option	Description
Typical option:	<p>Choosing this option will install:</p> <ul style="list-style-type: none"><li>• GVERSE products (Geo+, Field Planner, Planner).</li><li>• GeoGraphix (GeoGraphix, GVERSE Petrophysics, GVERSE Geophysics and smartSECTION), and Modeling (LogM, STRUCT).</li><li>• Tours and Tutorials for GeoGraphix.</li></ul> <p><b>Note:</b> A local projects folder will be installed by default to: C:\ProgramData\GeoGraphix\Projects (for Windows®). If a previous local projects folder is detected by the install, then the local projects folder will be installed to the previous detected path\folder.</p>
Custom option:	<p>Choosing this option then clicking Next will open a <a href="#">Custom Setup</a> dialog box to choose features to be installed.</p>



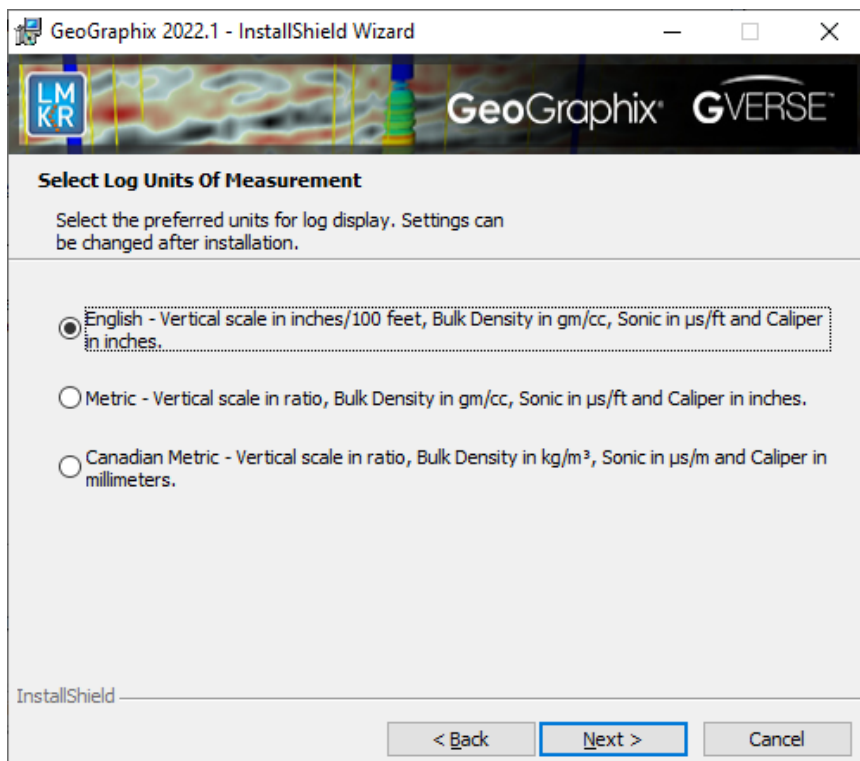
Install to:	<p>This is the path/folder where applications will be installed on the computer.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• If GeoGraphix software has been installed on this computer before, then the “Install to:” will reflect path/folder of the previous installed to, if not the default path id C:\Program Files (x86)\GeoGraphix.</li> <li>• GVERSE products will be installed on their default path C:\Program Files\LMKR\GVERSE.</li> </ul> <p>The <b>Change</b> command button can be used to change path/folder destination of the application.</p>
Change command button:	<p>Clicking this button will open a standard Windows® <b>Browse/Open</b> dialog box to change the application destination folder.</p> <p><b>Note:</b> The path/folder must be a local hard drive.</p>

To create a Discovery Project Server, select the **Custom** option and click **Next** to proceed to the **Custom Setup** step of the wizard.





**Note:** A Discovery Project Server can be created by using the Typical setup type and installing all the Discovery applications, but a Custom setup type may be preferred because the installation options can be customized.

#### *Discovery Project Server - STEP 6 - Custom Setup*






This step of the wizard can be used to select certain features to be installed and change the application destination directory.



For details on the various options available in this dialog, refer to the table below:


Option	Description	
List Box and Feature Description:	 <b>GVERSE</b>	<p>Feature Description</p> <p>GVERSE software suite of high performance geoscience software</p> <p>This feature requires 0KB on your hard drive. It has 3 of 3 subfeatures selected. The subfe...</p>
	 <b>Geo+</b>	<p>Feature Description</p> <p>GVERSE Geo+ application with integrated Map, 3D and Cross Section Views</p> <p>This feature requires 8317KB on your hard drive.</p>
	 <b>FieldPlanner</b>	<p>Feature Description</p> <p>GVERSE Field Planner application to create manual and automatic field plans for unconventional reservoirs</p> <p>This feature requires 103MB on your hard drive.</p>
	 <b>Planner</b>	<p>Feature Description</p> <p>GVERSE Planner application to calculate the trajectories for wells</p> <p>This feature requires 49MB on your hard drive.</p>

Select features to be installed and click **Next** to proceed to the **Local Projects Folder** step of the wizard.

	 <b>GeoGraphix</b>	<p><b>Feature Description</b> GeoGraphix applications, Project Services and Tours and Tutorials</p> <p>This feature requires 0KB on your hard drive. It has 3 of 3 subfeatures selected. The sub...</p>
	 <b>Seismic Modeling</b>	<p><b>Feature Description</b> Seismic Modeling: LogM and Struct</p> <p>This feature requires 75MB on your hard drive.</p>
	 <b>Applications</b>	<p><b>Feature Description</b> GeoGraphix including GVERSE Petrophysics, GVERSE Geophysics, smartSECTION and 3D Viewer</p> <p>This feature requires 284MB on your hard drive. It has 0 of 1 subfeatures selected. The sub...</p>
	<div>  Applications         <div>  <b>TracPlanner Xpress Utilities</b> </div> </div> <p><b>Note:</b> The TracPlanner Xpress Utility is not selected by default. To install the TracPlanner Xpress Utility, click the down arrow and select an installation option from the drop-down list. Installation of this utility is not necessary if OpenWorks for Windows is installed.</p>	<p><b>Feature Description</b> Utilities needed for GeoGraphix and TracPlanner such as pdbin.exe, services.dat, etc.</p> <p>This feature requires 0KB on your hard drive.</p>

#### *Discovery Project Server - STEP 7 - Local Projects Folder*

This step of the wizard determines the location where the local projects folder (path/folder) will be created during the installation.


**Tours And Tutorials**


Feature Description


GeoGraphix Tours and Tutorials


This feature requires 58MB on your hard drive.

Discovery Tours and Tutorials include creating a "SampleFiles" directory and installing zip projects for 3 possible project areas (Moosehead, Powder and Stratton).


Clicking the down arrow  icon will list options to install or not install the feature:


 This feature will be installed on local hard drive.


 This feature, and all subfeatures, will be installed on local hard drive.


 This feature will not be installed.


Clicking the **Help** button on this Custom Setup dialog will bring up the Custom Setup Tips dialog.






**GeoGraphix 2022.1 - InstallShield Wizard**

**Custom Setup Tips**

Custom Setup allows you to selectively install program features.

 The icon next to the feature name indicates the install state of the feature. Click the icon to drop down the install state menu for each feature.

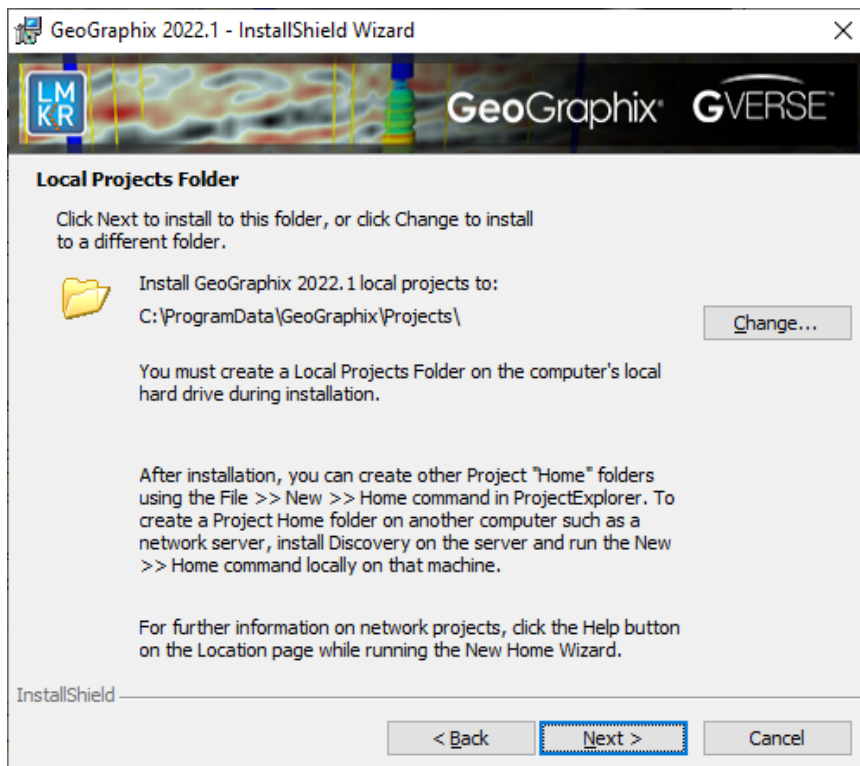
This install state means the feature...

-  Will be completely installed to the local hard drive.
-  Will have some subfeatures installed to the local hard drive. (Available only if the feature has subfeatures.)
-  Will not be installed.
-  Will be installed on first use. (Available only if the feature supports this option.)
-  Will be installed to run from the network. (Available only if the feature supports this option.)

InstallShield

**OK**

Install to:	<p>This is the path/folder where applications will be installed on the computer.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"><li>• If GeoGraphix software has been installed on this computer before, then the “Install to: “will reflect path/folder of the previous installed to, if not the default path id C:\Program Files (x86)\GeoGraphix.</li><li>• GVERSE products will be installed on their default path C:\Program Files\LMKR\GVERSE.</li></ul>												
Change command button:	Clicking this button will open a standard Windows® <b>Browse/Open</b> dialog box to change the application destination folder.												
Disk Space command button	<p>Clicking this button displays the Disk Space Requirements dialog box. This dialog box shows the capacity (<b>Disk Size</b>) of the drive where you plan to install the application, along with the <b>Available</b> disk space on the drive and the <b>Required</b> disk space for the application.</p> <p><b>Note:</b> The <b>Available</b> disk space is highlighted if the <b>Required</b> disk space for the application exceeds the <b>Available</b> disk space. Use any of the remedies suggested on the dialog box so you can complete the installation.</p> <div><div>GeoGraphix 2022.1 - InstallShield Wizard</div><div><div><div><div>LMKR</div><div>GeoGraphix®</div><div>GVERSE®</div></div></div><div><div><div><div><div>Disk Space Requirements</div><div>The disk space required for the installation of the selected features.</div><table><thead><tr><th>Volume</th><th>Disk Size</th><th>Available</th><th>Required</th></tr></thead><tbody><tr><td>C:</td><td>452GB</td><td>388GB</td><td>6350MB</td></tr><tr><td>D:</td><td>500GB</td><td>477GB</td><td>0KB</td></tr></tbody></table></div><div><div>The highlighted volumes do not have enough disk space available for the currently selected features. You can remove files from the highlighted volumes, choose to install less features onto local drives, or select different destination drives.</div><div>InstallShield</div><div>OK</div></div></div></div></div></div></div>	Volume	Disk Size	Available	Required	C:	452GB	388GB	6350MB	D:	500GB	477GB	0KB
Volume	Disk Size	Available	Required										
C:	452GB	388GB	6350MB										
D:	500GB	477GB	0KB										



Clicking the **Change** command button will open a **Change Current Destination Folder** dialog box where you can change the application destination folder.

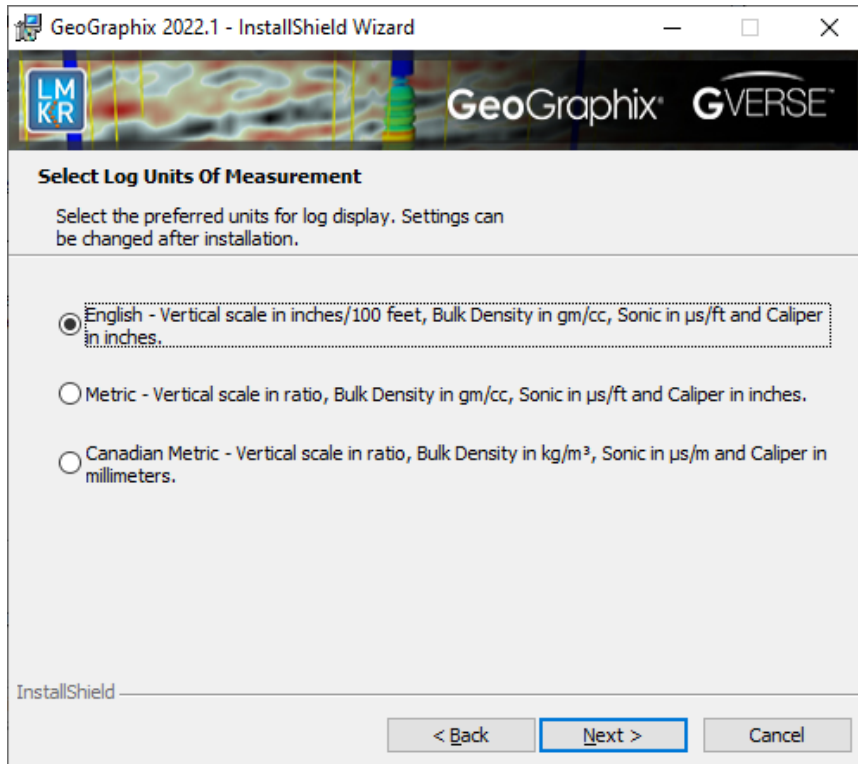
**Note:** The Local Projects Path\Folder must be a local hard drive.

After installation is complete (as the text in the dialog box indicates), projects on the Discovery Project Server can be organized in Homes using **ProjectExplorer >> File >> New >> Home**. More information regarding network projects can be found in the ProjectExplorer Help files.

Click **Next** to proceed to the **Log Units of Measurement** step of the wizard.

### Discovery Project Server - STEP 8 - Log Units of Measurement

This step of the wizard determines which default log units will be setup for GVERSE Petrophysics and XSection.

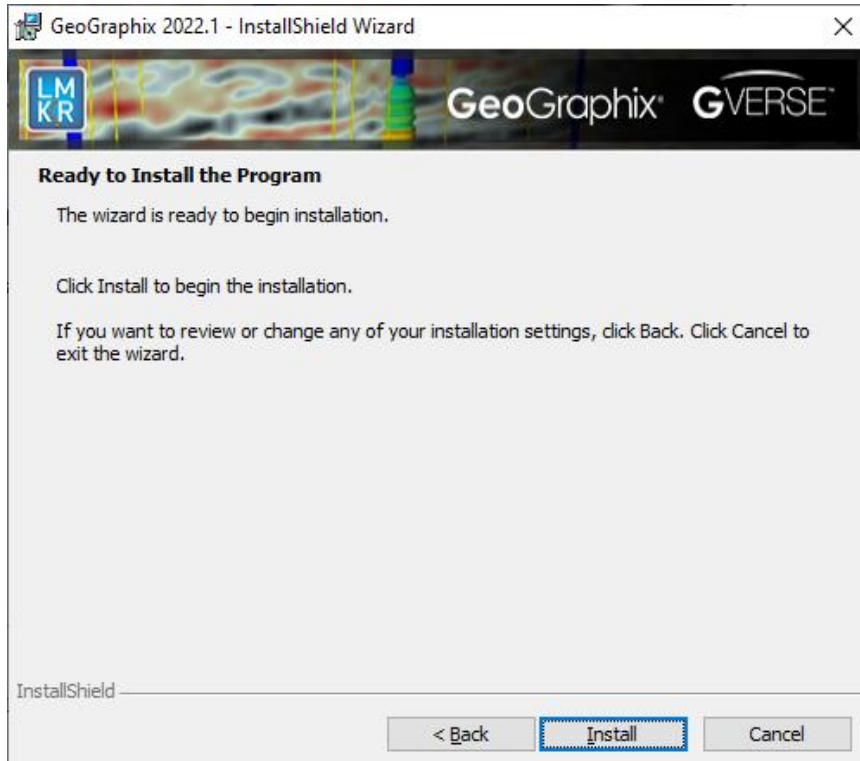


**Note:** The units can be changed in GVERSE Petrophysics and XSection after installation.

Select the appropriate **Units** option and click **Next** to proceed to the **Ready to Install the Program** step of the wizard.

### Discovery Project Server - STEP 9 - Ready to Install the Program

This is the second to last step of the wizard.



Click **Install** to copy files and begin installing the Discovery software, or click **Back** to review and make any changes as necessary.



### *Discovery Project Server - STEP 10 - InstallShield Wizard Completed (FINAL STEP)*

After the **Install** button is clicked in the Ready to Install the Program step, files are installed to the workstation.

When the installation is finished, the InstallShield Wizard Completed dialog box appears:



Click **Finish** to exit the installation.

Discovery can now be started through the desktop shortcuts or the Start menu.

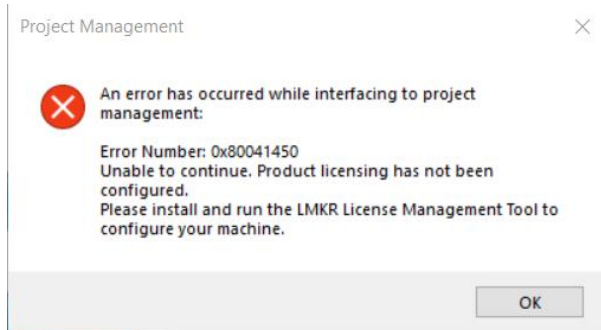
**Note:** The Discovery Project Server must now be configured to connect to the Licensing Management Tool. When the Discovery application is started through desktop shortcuts or the Start menu, a licensing check is performed on computer. Please refer to [Licensing Management Tool](#) for further details.

This is the final step in creating a Discovery Project Server. If necessary, other components in a Network Administrator Installation (such as Workstation Installations) may now be installed.

## Licensing

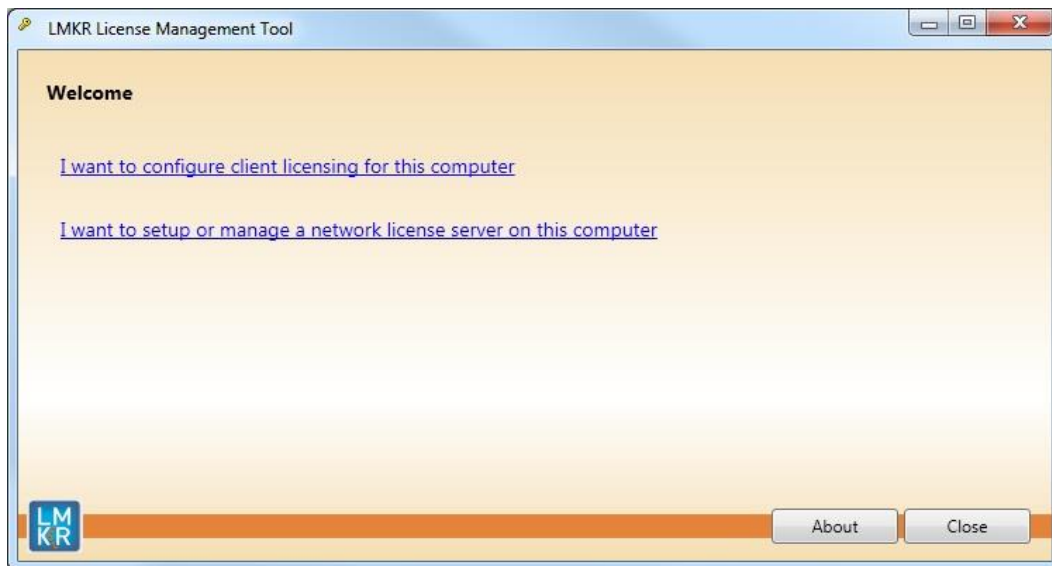
### License Management Tool

If no license is configured for Discovery and GVERSE products, the following message appears:



All of the licensing of Discovery and GVERSE products is configured using this tool. Use this tool to set a license for a single computer or to set up a network license on a server.

Once the License Management Tool is accessed, launch it by selecting **Start >> All Programs >> LMKR >> Licensing >> License Management Tool**.

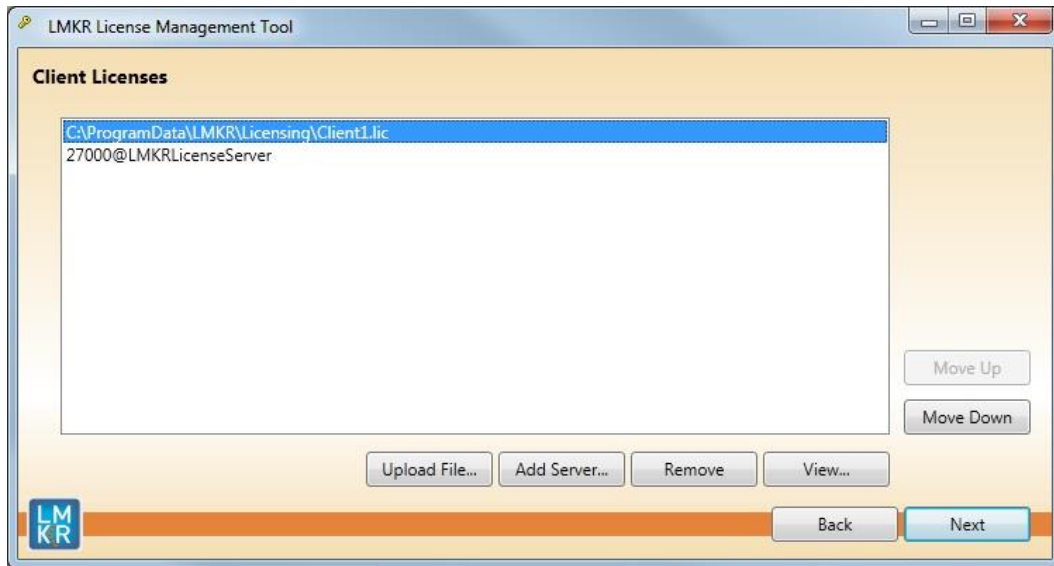


You can access a [client license](#) for a computer by clicking the **I want to configure client licensing for this computer** command on the Welcome Page.

You can set up a [network license](#) by clicking the **I want to setup or manage a network license server on this computer** command on the Welcome Page.

## Client License

Setup a client License by clicking the **I want to configure client licensing for this computer** option on the [Welcome page](#) of the License Management Tool.



Use this page to select a client license for installation from your local computer or from a server. Use the buttons at the bottom and the right-hand side of the window to add servers to the list, remove servers from the list, or move the servers up or down the list. The License Management Tool will look for license files on each server in order, from top to bottom.

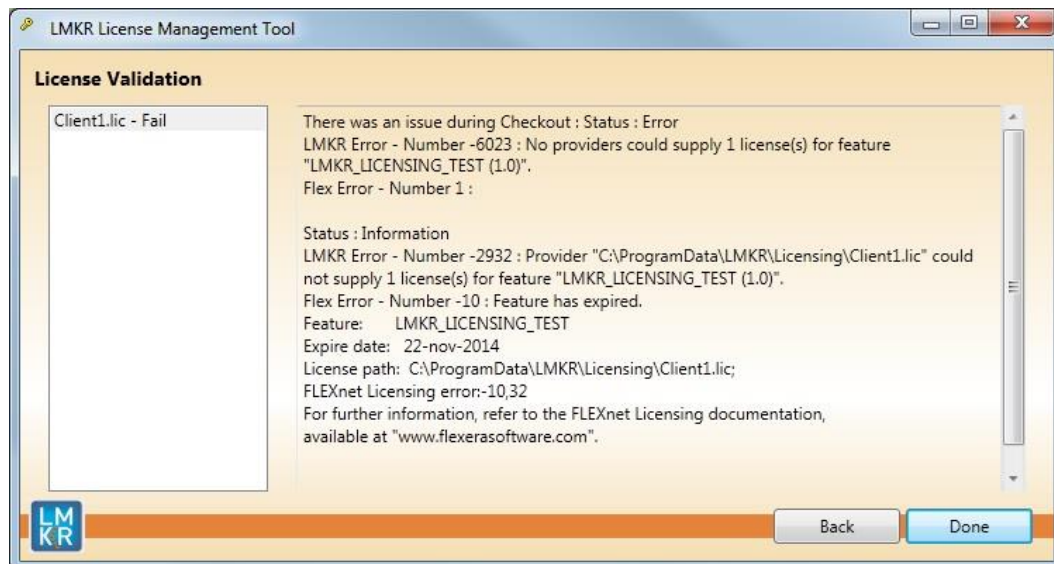
Click the **Upload File** button to begin the search for a license file locally.

Click the **Add Server** button to point to a client license on a server.

If you want to select a license file from a specific server, highlight that server in the list and click the **Upload File** button.

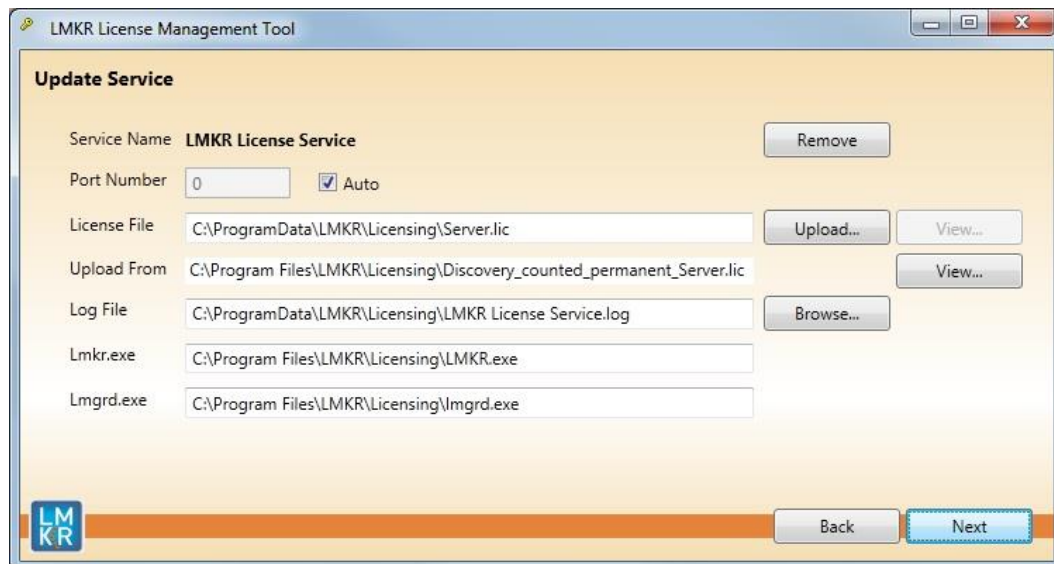
Click the **Next** button to view the validation of the license.

When license has been configured properly, the **License Validation** page will confirm that the license **Passed**. If the license is not valid or if the network connection is not functioning properly, the validation page will list the license as **Failed** (as shown below).



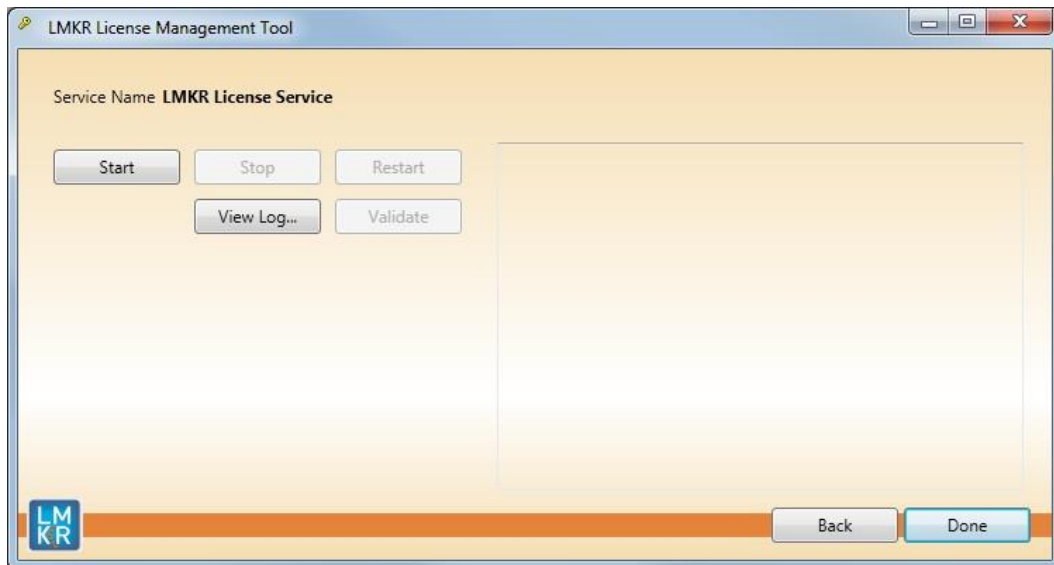
## Network License

You can configure a Network license by clicking the **I want to setup or manage a network license server on this computer** command on the [Welcome page](#) of the License Management Tool.



The **Update Service** page will appear showing the location of the license server. This page lists the location of where a license server is installed on the local computer.

Click the **Next** button to access the **Service Name** page where you can Start, Stop, Validate, or View the debug log.



## Landmark Connectivity Installation

Installing Landmark Connectivity will install the following Discovery applications/features:

- WellXchange
- GridXchange
- SeisXchange

Landmark Connectivity will be installed by default with the Discovery [Typical](#) setup type installation or can be custom installed by selecting the Landmark Connectivity feature in the Discovery [Custom](#) setup type of the installation.

### **Caution:**

**Note:** To run SeisXchange, and GridXchange, [Landmark OpenWorks for Windows 5000.10.7.0](#) and its associated software components must also be installed.

In addition, if you are utilizing SeisXchange, an NFS application such as Hummingbird® NFS Maestro must also be installed and the configuration of several components to access SeisWorks will be necessary. (This does not apply to WellXchange-OpenWorks Connect or GridXchange.)

Please refer to [Preparing the SeisXchange Environment](#) for further information if you will be utilizing SeisXchange and Geophysics on OpenWorks.

Go to: [OpenWorks for Windows](#)

Go to: [Preparing the SeisXchange Environment](#)

Return to: [Installation](#)

## OpenWorks for Windows

Please refer to the OpenWorks Installation Procedures for detailed, step-by-step instructions for installing OpenWorks for Windows. This document discusses installing all the software components associated with OpenWorks for Windows:

**Note:** Discovery on OpenWorks projects, GridXchange, and SeisXchange require OpenWorks for Windows.

**Note:** The OpenWorks full install requires Hummingbird Exceed. The Oracle client installation in use with OpenWorks Full requires that the "Administrator" option be selected. The "Administrator" option type includes the SQL Plus, the Oracle Database Utilities, and other components necessary to run Discovery on OpenWorks

**Note:** Hummingbird exceed is not required for the OpenWorks Basic install. If OpenWorks Basic installation is used, the Oracle client installation can use the "Administrator" option, which will include all of the needed components. Or, the Oracle client installation for the OpenWorks Basic installation can use the "Custom" installation type. However, with the Custom install type the following components must be installed:

- Oracle Database Utilities 12.1.0.2
- SQL \*Plus 12.1.0.2
- Oracle JDBC/THIN Interfaces 12.1.0.2
- Oracle Net 12.1.0.2

You may experience the following error related to Oracle installation:

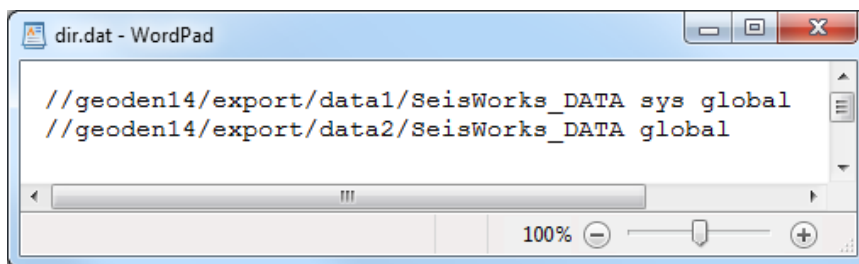
The SQLLoader.exe error may generate when working with Filters in GeoGraphix due to a missing Oracle DLL file. This is a known issue of Oracle 12.1.0.2 where oranfsodm12.dll is not shipped with the installer.

**Workaround:** After Oracle installation, create a copy of the oraodm12.dll file, rename it as oranfsodm12.dll, and then place the renamed file in the BIN folder of both 32-bit and 64-bit Oracle installations.

## Preparing the SeisXchange Environment


Once [OpenWorks for Windows](#) along with [Discovery](#) are in place, the installation and configuration of an NFS application, along with configuration of the dir.dat file to access SeisWorks, will be necessary if SeisXchange or Geophysics on OpenWorks will be utilized:

1. Install and configure the NFS application as necessary.
2. Export the required UNIX® /LINUX® SeisWorks file systems for NFS.
3. Verify that all the required NFS daemons are running on the UNIX® /LINUX® computer.
4. Configure the Windows® environment variable OW\_CONF\_DIR (which defaults to \$OWHOME/conf where the district.dat file is located), which will point to the location of the dir.dat file associated with the district.
5. Configure the dir.dat (example shown below) to find exported SeisWorks file systems.



## Utilities

You can install the Discovery 2022.1 Utilities from the download section of the Discovery 2022.1 Software from the **GVERSE GeoGraphix Support Portal** > [Downloads](#) page or from the Discovery 2022.1 Release DVD.

If you have downloaded Discovery 2022.1 from GVERSE GeoGraphix, see the **GeoGraphix Discovery 2022.1 Utilities Read Me** to install the Utilities. Click on the **Install Guide** button  to open the **GeoGraphix Discovery 2022.1 Utilities Read Me** file.

If you have downloaded Discovery 2022.1 from the GVERSE GeoGraphix website, go to the folder you specified to save the Utilities folder during the download, and double-click on the specific Utility executable file to begin.

If you have ordered the **Discovery 2022.1 DVD**, continue through this step.

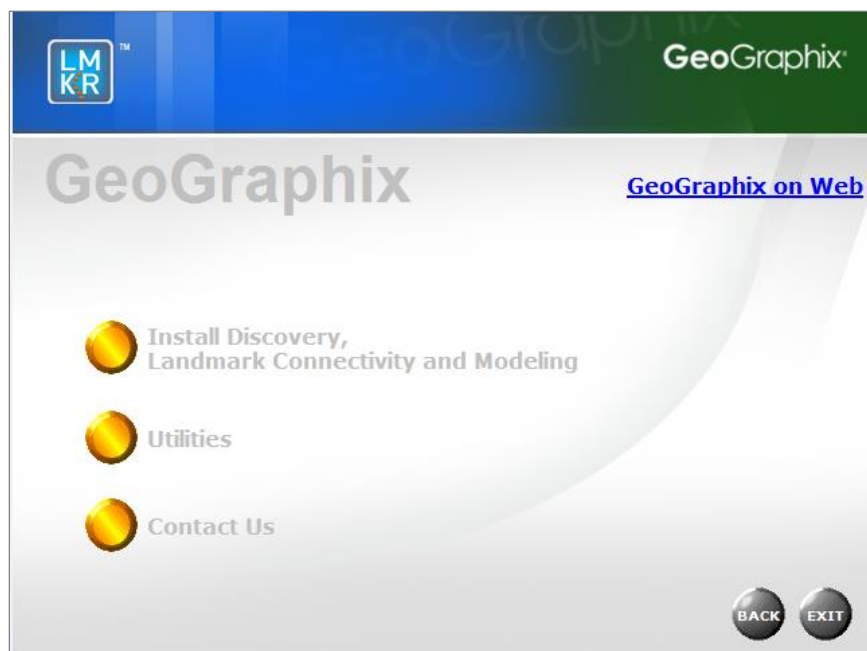
Insert the **Discovery/Landmark Connectivity/Seismic Modeling DVD-ROM** into the DVD-Drive.

If you have ordered the Discovery 2022.1 DVD insert the Discovery/Landmark Connectivity/Seismic Modeling DVD-ROM into the DVD-Drive.

The GeoGraphix splash screen appears for a few seconds.

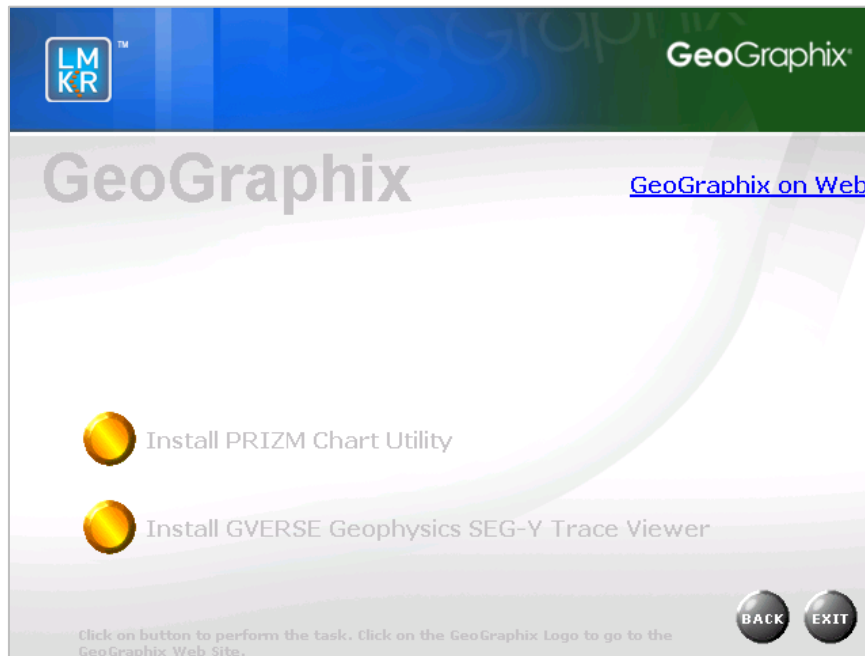
**Note:** If the GeoGraphix splash screen does not appear automatically, go to the Start menu, and choose **Run**. In the Run dialog box, browse to the appropriate DVD-ROM drive and select the **Install.exe** file. Click **OK**.

After the Splash Screen appears for a few seconds, the Install Options window appears.





Click the second option . The Utilities screen appears.



There are two utilities available on the Utilities screen:

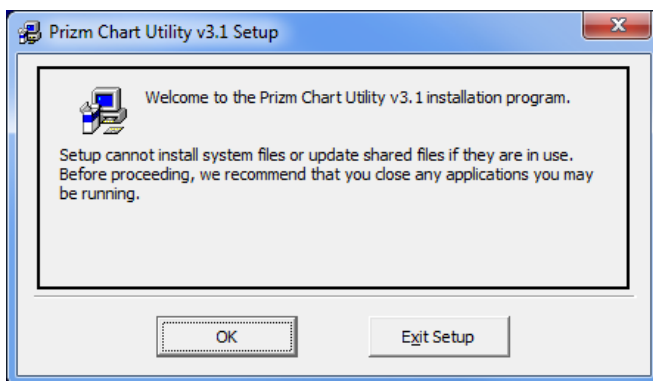
- [Install PRIZM Chart Utility](#)
- [Install GVERSE Geophysics SEG-Y Trace Viewer](#)

## Utilities - Install PRIZM Chart Utility

If you have downloaded the Discovery 2022.1 Utilities and used the default settings, the PRIZM Chart Utility folder will be in the **C:\Program Files (x86)\GeoGraphix\Utilities** folder (for a typical download on a **Windows®** (64-bit) operating systems). If you have not used the default settings during the download, navigate to the folder specified for saving the Utilities. Clicking **Setup.exe** in the **Prizm Chart Utility** folder will open the Prizm Chart Utility dialog box.

If you have the Discovery 2022.1 DVD, insert the DVD into the DVD drive and select the **Install PRIZM**

**Chart Utility** option  on the Utilities screen of the Discovery install screen or the release DVD to launch the PRIZM Chart Utility Setup program.



## Utilities - Install GVERSE Geophysics SEG-Y Trace Viewer

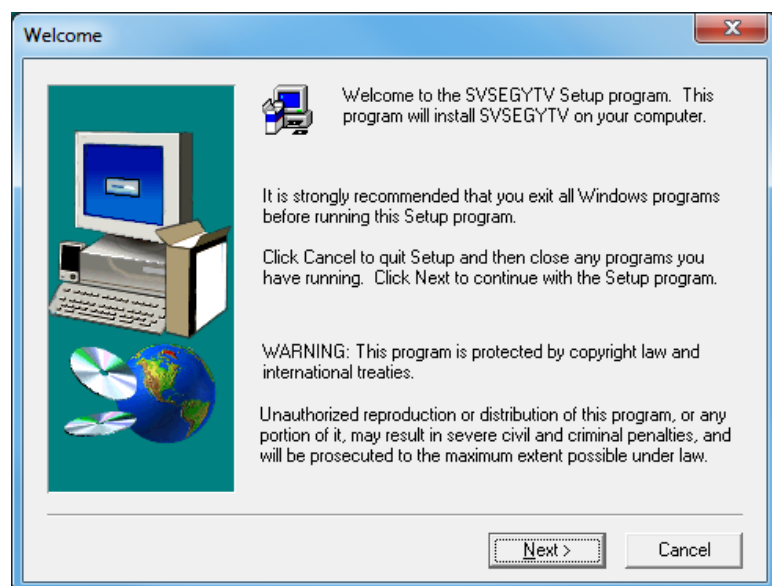
If you have downloaded the Discovery 2022.1 Utilities and used the default settings, the GVERSE Geophysics SEG-Y Tracer View Utility folder will be in the **C:\Program Files (x86)\GeoGraphix\Utilities** folder (for a typical download on a **Windows®** (64-bit) operating systems). If you have not used the default settings during the download, navigate to the folder specified for saving the Utilities. Clicking **Setup.exe** in the utility folder will open the Welcome dialog box.

If you have the Discovery 2022.1 DVD, insert the DVD into the DVD drive and select the **Install GVERSE**



Install GVERSE Geophysics SEG-Y Trace Viewer

**Geophysics SEG-Y Trace Viewer** option on the Utilities screen of the Discovery install screen or the release DVD to launch the GVERSE Geophysics SEG-Y Trace Viewer Setup program.



# Uninstalling GeoGraphix and GVERSE Products

Similar to uninstalling other Windows® applications, GeoGraphix and GVERSE Products can be removed from a computer using **Add/Remove Programs** in the Control Panel.

There are 3 simple steps to removing Discovery and GVERSE products from a Windows® computer:

**Note:** All GeoGraphix and GVERSE products should be closed or exited before completing the following steps.

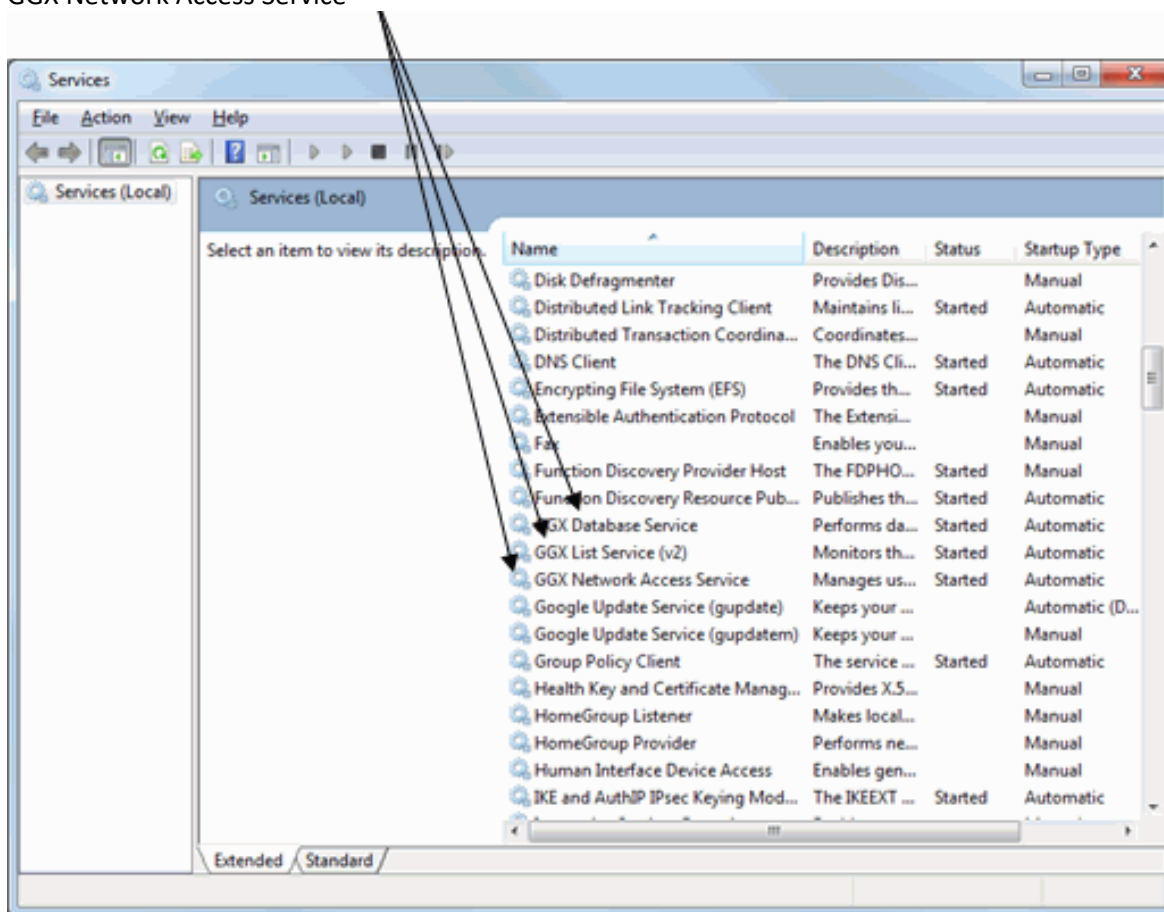
- STEP 1 - [Stopping GeoGraphix Services in Control Panel Services](#)
- STEP 2 - [Getting Started with Add/Remove Programs in Control Panel](#)
- STEP 3 - [Removing GeoGraphix and GVERSE Products](#)

## STEP 1 - Stopping GeoGraphix Services in Control Panel Services

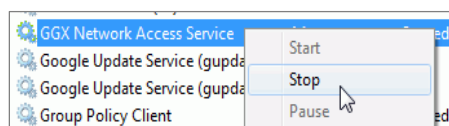
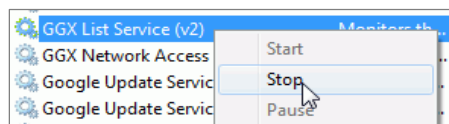
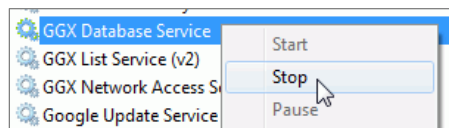
From the Windows® Taskbar, use **Start >> Control Panel >> Administrative Tools >> Services** to open the Services applet window.

There are three GeoGraphix Services that should be stopped before removing the GeoGraphix software:

- GGX Database Service
- GGX List Service (v2)
- GGX Network Access Service



If a Service is not stopped, highlight the Service, then right-click and choose **Stop** to stop the Service. All 3 Services should be stopped:



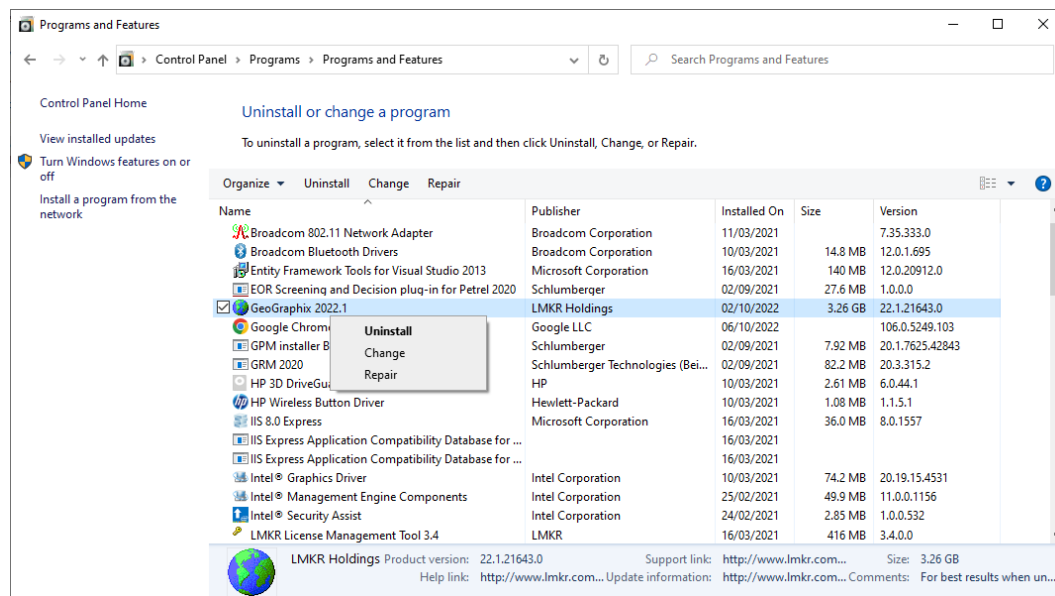
**Note:** It is recommended that the above GeoGraphix Services are stopped before removing the GeoGraphix software, but if the Services are not stopped, then the GeoGraphix Uninstall program stops the Services during the uninstall/removal process.

## STEP 2 - Getting Started with Programs and Features in Control Panel

To start uninstall/removal of GeoGraphix and GVERSE products, open the Programs and Features applet using **Start >> Control Panel >> Programs and Features**.

**Note:** If the Control Panel is set to View by: Category (rather than View by: Large icons or View by: Small icons), select Programs >> Uninstall a program.

In the Programs and Features window, highlight **GeoGraphix 2022.1**. Right-click and select **Uninstall** to remove the GeoGraphix software and the GVERSE products. You may also select the **Change** or **Repair** options to modify or repair the GeoGraphix software and GVERSE products.



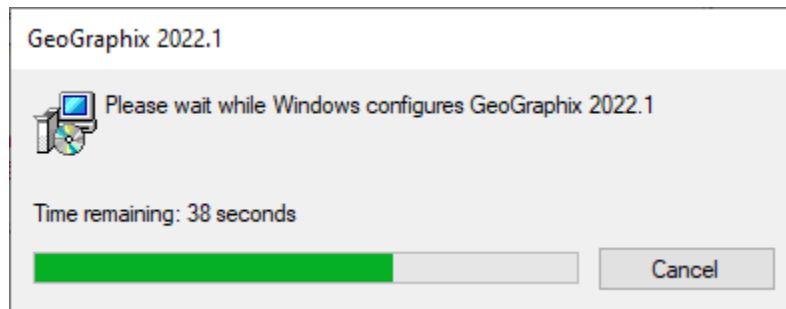
Click the **Uninstall** button to proceed to the next step of removing/uninstalling the GeoGraphix software and GVERSE products.

**Note:** The **Change** button can be used to modify or repair GeoGraphix and GVERSE installations.

- **Modify** can be used to add or remove specific GeoGraphix applications and GVERSE products.
- **Repair** re-installs GeoGraphix software and GVERSE products, repairing any files or registry entries that may be missing or damaged.

### *STEP 3 - Removing GeoGraphix and GVERSE products (FINAL STEP)*

After highlighting GeoGraphix 2022.1 and clicking the **Uninstall** command in the Programs and Features window, a progress bar will appear and GeoGraphix and GVERSE products will be removed from the computer.



**Note:** Some data and project file directories may be left on the hard drive. These directories are typically the following (may be different if software was installed without default directory locations):

- C:\Documents and Settings\All Users\Application Data\GeoGraphix
- C:\Program Files\GeoGraphix

This is the last step in uninstalling/removing the Discovery software from your computer.

## Contacting GVERSE GeoGraphix Support

We are 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 GVERSE GeoGraphix 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 GVERSE GeoGraphix 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

North and South America	Europe, Middle East & Africa
<p>Monday – Friday 8 am-6 pm CST* Toll Free (US/Canada) : +1 855 449 5657</p> <p><b>Colombia:</b> +57 1381 4908</p> <p><b>United States:</b> +1 303 295 0020</p> <p><b>Canada:</b> +1 587 233 4004</p> <p><i>*Excluding bank holidays</i></p>	<p><b>UK:</b> Monday - Friday 8 am – 5 pm* +44 20 3608 8042</p> <p><b>UAE:</b> Sunday - Thursday (Dubai GMT+4) 8 am – 5 pm* +971 4 3727 999</p> <p><i>*Excluding bank holidays</i></p>
Asia Pacific & Australian Continent	Southwest Asian countries
<p><b>Malaysia:</b> Monday - Friday (Kuala Lumpur GMT+8) 9 am – 6 pm* +60 32 300 8777</p> <p><i>*Excluding bank holidays</i></p>	<p><b>Pakistan:</b> Monday - Friday (Islamabad GMT+5) 9 am – 6 pm* +92 51 209 7400</p> <p><i>*Excluding bank holidays</i></p>

## Helpful Links

Name	Website Address
GVERSE GeoGraphix Homepage	<a href="http://www.gverse.com/geographix">http://www.gverse.com/geographix</a>