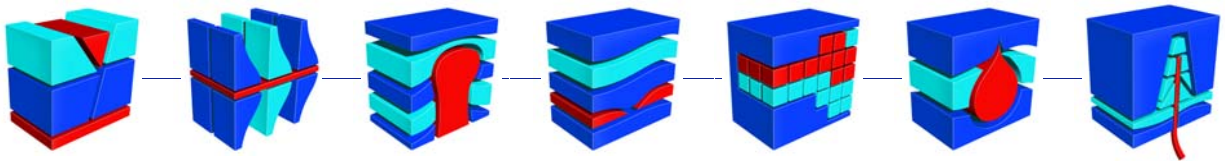


GOCAD Suite 2.1 Installation Guide



GOCAD Suite 2.1 Installation Guide

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Before You Begin

About This Guide

This guide explains how to install GOCAD Suite 2.1 and GOCAD Suite 2.1 Development Kit in both UNIX® and Microsoft® Windows® environments. Instructions in this guide assume familiarity with the operating system on which you are installing the program.

GOCAD Suite 2.1 includes the following products:

Discipline	Product
Geosciences	Base Module
Seismic Interpretation	Volume Interpretation
	Seismic Attribute Analysis
	Rock Volume Uncertainty Assessment (Alea)
Velocity Modeling	Velocity Modeling and Time-to-Depth Conversion
Geologic Interpretation	Stratigraphic Modeling and Fault Analysis
	Well Correlation and Stratigraphic Analysis
Reservoir Modeling	3D Reservoir Grid Builder
	Reservoir Properties
	Object Modeling
	Extended Upscaler
	Reservoir Risk Assessment (Jacta)
Reservoir Production	Production Risk Assessment – 3DSL Connection
	Production Risk Assessment – FrontSim Connection
Drilling Planner	Basic Well Planning
	Extended Well Planning
Complements	3D Magellan™ Mouse
	OpenSpirit™ Client

You install the entire suite, and a license server controls access according to the products you purchased. Instructions to install and configure the license server are included.



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Support	http://support.earthdecision.com/	



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Supported Operating Systems and Requirements

In this chapter

- "Common System Requirements," page 1-2
- "Additional Software Requirements," page 1-5
- "Specific Requirements for Supported Operating Systems," page 1-2

Overview

This chapter lists the hardware and software needed to run GOCAD Suite and GOCAD Suite Development Kit. It details requirements across all operating environments, specific requirements for each operating system, and additional software requirements.

1.1 Common System Requirements

This section lists minimum requirements and recommendations for all operating environments.

Memory	512 megabytes (MB) of RAM minimum 1 gigabyte (GB) or more highly recommended
Additional hard disk space for Development Kit	200 MB Note The 200 MB requirement for Development Kit installation is in addition to the hard disk space required by GOCAD Suite and listed in " Specific Requirements for Supported Operating Systems " on page 1-2. Hard disk usage for Earth GOCAD Suite varies significantly depending on the environment and operating system.
Pointing device	Three-button pointing device such as a mouse or trackball recommended

1.2 Specific Requirements for Supported Operating Systems

This section lists supported operating systems for each environment, and it lists environment-specific hardware requirements. For the most up-to-date list of system requirements, see the Technical Specifications page at <http://www.earthdecision.com/products/techspecs.html/>.

Microsoft Windows

Operating system	Windows XP Professional or Windows 2000 Professional
Processor	Intel® Pentium® III, 933 MHz minimum Pentium 4, Pentium Xeon™ 4, AMD Athlon™ XP or higher recommended Note GOCAD Suite 2.1.4 or later requires the SSE processor extension; it does not operate with earlier non-XP models of the AMD Athlon processor that do not support SSE.
Hard disk space for GOCAD Suite	250 MB
Graphics adapter	True Color Display Adapter, 1280 x 1024 resolution NVIDIA® GeForce®/Quadro® recommended
C++ compiler (for Development Kit only)	Microsoft Visual C++ 6.0, Service Pack 5



Linux

Operating system	Red Hat® Linux® Enterprise Workstation 3.0
Processor	Pentium 4, Xeon, or AMD Athlon XP or later recommended for 32-bit version Xeon or Opteron recommended for 64-bit version Note GOCAD Suite 2.1.4 or later requires the SSE processor extension; it does not operate with earlier non-XP models of the AMD Athlon processor that do not support SSE.
Hard disk space for GOCAD Suite	250 MB for 32-bit version 600 MB for 64-bit versions
Graphics adapter	True Color Display Adapter, 1280 x 1024 resolution NVIDIA® GeForce®/Quadro® recommended
C++ compiler (for Development Kit only)	GCC 3.2 or later for: <ul style="list-style-type: none">• Intel 32-bit version• Opteron and Xeon 64-bit version Intel C++ Commercial Compiler 9.0 for Itanium version

SGI IRIX

Operating system	IRIX® 6.5.9 or later Important To run GOCAD Suite 2.1, IRIX systems must have SGI patch 5377 (7.4 C++ runtime environment #2) installed. This patch can be downloaded from http://support.sgi.com/ (free subscription is required).
Processor	MIPS® R10000® 500 MHz minimum MIPS R12000® 600 MHz or higher recommended
Hard disk space for GOCAD Suite	400 MB
Graphics adapter	MXI, SE, SSE, MXE Graphic (Octane®), V6, V8, V10, V12 (Octane2™ and Fuel®) or later
C++ compiler (for Development Kit only)	SGI® C++ 7.4.2 or later



Sun Solaris

Operating system

Solaris® 2.6 or above for 32-bit version
Solaris 8 or above for 64-bit edition

Important To run GOCAD Suite 2.1, Solaris systems must have the following patches installed:

- For Solaris 2.6: patch 105591-20 or later
- For Solaris 7: patches 106327-22 or later and 106300-23 or later
- For Solaris 8: patches 108434-15 or later and 108435-15 or later

You can download these patches free of charge from <http://sunsolve.sun.com/>.

OpenGL® 1.2.1 or later is required, and the latest patches specific to your OpenGL version and graphic card must be installed. You can obtain full lists of patches per operating system at <http://sunsolve.sun.com/>.

Processor

UltraSPARC® III 900 MHz or higher recommended

Hard disk space for GOCAD Suite

400 MB

Graphics adapter

3D graphics adapter such as Sun™ Creator 3D, Elite 3D, Expert 3D, XVR Series

C++ compiler (for Development Kit only)

Sun Forte 6 update 2 (C++ 5.3)

Notes

- Upgrade packages for Forte 6 (C++ 5.1) and Forte 6 update 1 (C++ 5.2) can be downloaded free of charge from <http://www.sun.com/software/sundev/previous/fortran/>.
- Earth Decision currently does not support versions later than 5.3.
- Patch 104631-07 or later is required to develop on Solaris with C++ compiler. It fixes several crashes and compilation issues with the GOCAD development toolkit. This patch is independent of the Solaris release and can be applied to Solaris 2.6, Solaris 7, or Solaris 8.



1.3 Additional Software Requirements

Internet Explorer (Windows only)

Accessing Help on Windows requires Internet Explorer 4.0 or later. Java™ or JavaScript™ must be enabled to display the Help. If you want to use the Favorites feature in the Help to bookmark topics, Java and cookies must be enabled.

Netscape (UNIX only)

Accessing Help on UNIX requires a browser that supports Java and JavaScript. The most common UNIX operating systems provide a copy of either Netscape® or Mozilla®. All versions of Mozilla should be compatible with the Help.

Unfortunately, the Netscape version included in some versions of Solaris and IRIX may not be adequate.

If that is the case, you can download self-contained installations of Netscape 4.79 (for both Solaris and IRIX) and versions of Mozilla 1.4 (for Solaris 8 and IRIX) on the Earth Decision download site. These browsers are verified to work, and can be either installed locally for a given user or shared across your site.

More recent versions of Netscape for the Linux platform are available from:

<http://channels.netscape.com/ns/browsers/>

More recent versions of Mozilla for various operating systems are available from:

<http://www.mozilla.org/releases/>

Java or JavaScript must be enabled to display the Help. If you want to use the Favorites feature in the Help to bookmark topics, Java and cookies must be enabled.

Qt Enterprise License (Development Kit installation only)

Developers may need to purchase a Qt Enterprise License. For more information, see "About Qt" on page 4-3.





Installing GOCAD Suite

In this chapter

- "General Installation Process," page 2-2
- "Installing GOCAD Suite," page 2-4
- "Downloading Earth Decision Products," page 2-2
- "Starting GOCAD Suite," page 2-7

Overview

This chapter explains how to install and start GOCAD Suite in UNIX and Windows environments.

2.1 General Installation Process

Table 2–1 on page 2-2 summarizes the installation process, and it lists the section or chapter that provides additional information and instructions.

Table 2–1 General steps to install GOCAD Suite

Step	See
1 Download the GOCAD Suite software.	"Downloading Earth Decision Products" on page 2-2.
2 Install GOCAD Suite on the client computer.	"Installing GOCAD Suite" on page 2-4.
3 Install License Server 9.2 on the server computer for which the license file was issued.	Chapter 3, "Installing and Configuring License Server 9.2."
4 Start GOCAD Suite.	"Starting GOCAD Suite" on page 2-7.

2.2 Downloading Earth Decision Products

You can download GOCAD Suite 2.1 from the Earth Decision Web site. All products in the suite are packaged together.

The License Server program needs to be downloaded separately and installed on the computer that will serve licenses. For more information and instructions, see [Chapter 3, "Installing and Configuring License Server 9.2."](#) If you purchased GOCAD Suite Development Kit, it must be downloaded and installed separately also. For instructions, see [Chapter 4, "Installing Development Kit."](#)

Earth Decision products are available on CDs (by request). License Server is included on the CDs. If you have the CDs, you do not need to download the products. For more information, see ["To request GOCAD Suite on CD" on page 2-3.](#)

Note Online Help for UNIX is now included in UNIX packages and does not have to be downloaded separately.

About the GOCAD Suite packages

Table 2–2 on page 2-2 lists the available GOCAD Suite packages, which are sorted by operating system. Multiple packages are available for the same UNIX vendors to distinguish between a 32-bit and a 64-bit version of the software.

Table 2–2 GOCAD Suite packages

Operating system description	GOCAD Suite package to install
Microsoft Windows 2000 or Windows XP	EarthDecision-Suite-2.1.x-Windows-i86.msi
Red Hat Linux Advanced Workstation 3 (Intel 32 bits)	EarthDecision-Suite-2.1.x-Linux-i86.tar.gz
Red Hat Linux Advanced Workstation 3 (AMD Opteron and Intel Xeon 64 bits)	EarthDecision-Suite-2.1.x-Linux-amd64.tar.gz
Red Hat Linux Advanced Workstation 2.1 (Intel Itanium 2 64 bits)	EarthDecision-Suite-2.1.x-Linux-ia64.tar.gz
SGI IRIX 6.5.x (32 bits)	EarthDecision-Suite-2.1.x-Irix6-n32.tar.gz
SGI IRIX 6.5.x (64 bits)	EarthDecision-Suite-2.1.x-Irix6-64.tar.gz
Sun Solaris 2.6 or later (32 bits)	EarthDecision-Suite-2.1.x-Solaris-32.tar.gz
Sun Solaris 8 or later (64 bits)	EarthDecision-Suite-2.1.x-Solaris-64.tar.gz

Note You can run the 32-bit version of GOCAD Suite for IRIX and for Solaris on a 64-bit system. You can also run Intel 32-bit Linux on a 64-bit Opteron or Xeon system; however, running the Intel 32-bit Linux version on an Itanium system is not supported. You cannot run 64-bit versions of GOCAD Suite in a 32-bit environment.



To download Earth Decision products

Downloading any product from the Earth Decision Web site requires a login name and password. This login name and password are sent by e-mail along with the license file when you purchase a product. If you did not receive a login name and password, contact support at <http://support.earthdecision.com/>.

- 1 Go to the download page at <http://download.earthdecision.com/>.
- 2 Select the product you want to download.
- 3 Click the **Download** link that applies to your operating system.

Note All UNIX files are tar archives compressed with gzip. Windows files are either a Windows Installer (.msi) file or an executable (.exe) file.

- 4 When the dialog box opens, type the login name sent to you by e-mail in the **User name** box, type the supplied password in the **Password** box, and then click **OK**.

Note The user name and password entries are case-sensitive. If you did not receive a user name and password or if they do not work, contact support at <http://support.earthdecision.com/>.

- 5 When prompted to save or open the file, save the file to your hard disk drive.

To request GOCAD Suite on CD

CDs containing the GOCAD Suite packages are available by request.

- 1 Go to the download page at <http://download.earthdecision.com/>.
- 2 Click the **Request CD** link.
- 3 Enter your contact information.
- 4 Select the CD you want. The software comes on five CDs:

- GOCAD Suite: Windows
- GOCAD Suite: Linux
- GOCAD Suite: IRIX
- GOCAD Suite: Solaris
- GOCAD Suite Development Kit: All Environments (Linux, Windows, IRIX, and Solaris)

Packages on the CDs are sorted by operating system with the naming convention described in "[About the GOCAD Suite packages](#)" on page 2-2.

2.3 Installing GOCAD Suite

Separate instructions are included for UNIX and Windows environments. Complete the procedure that corresponds to your environment.

If you have not downloaded GOCAD Suite (and you do not have GOCAD Suite on CD), complete the procedure in "[Downloading Earth Decision Products](#)" on page 2-2 before you continue.

2.3.1 Installing GOCAD Suite on UNIX

All GOCAD Suite packages for UNIX are installed in the main installation directory by extracting a compressed archive. The required organization for all Earth Decision products is that they must reside under a common directory, called EarthDecision by default.

If you plan to use GOCAD Suite on different UNIX operating systems, you must download and install the package for each operating system. Multiple installations can reside in the same directory; the installation process takes care of this for you.

Removing earlier versions of GOCAD® to install a later GOCAD Suite package is not required.

Caution Do not move the EarthDecision directory contents. The subdirectories were specifically created by the installation process and must not change. You can rename the EarthDecision directory, but do not move or rename the subdirectories. Splitting the directories will cause failures when starting GOCAD Suite.

This section includes instructions to install GOCAD Suite on UNIX and an additional procedure to configure OpenSpirit Client, an optional module. You can skip the information and instructions regarding OpenSpirit Client if you do not have a license for it.

To install GOCAD Suite on UNIX

- 1 Do one of the following:
 - If you downloaded GOCAD Suite and the file is not in the directory where you want to install the program, copy the file to the installation directory.
 - If you are installing GOCAD Suite from CD, copy the package from the appropriate CD to the installation directory.
- 2 To move to the installation directory, type the following command where *installation_directory* is a placeholder for the actual directory name:
cd *installation_directory*
- 3 Type the following command to extract the files, where *operating_system* matches the operating system listed in the package name:
gunzip < EarthDecision-Suite-2.1.x-operating_system.tar.gz | tar xvf -

Installing the package creates the EarthDecision directory. The main executable is in EarthDecision/2.1.x/Gocad/bin.

Important You cannot start GOCAD Suite until License Server 9.2 and the license file are correctly installed on the server computer for which the license file was issued. For more information and instructions, see [Chapter 3, "Installing and Configuring License Server 9.2."](#)

Note During archive extraction on Solaris workstations, the operation can be interrupted by the operating system, indicating that the archive is corrupt. This can be due to archives which are not



complete. You can verify the size of the archives by checking them on the Earth Decision download Web page at <http://download.earthdecision.com/>. It may be necessary to apply the following patches on the **tar** extraction utility if the archives are complete:

- 105792-06 for Solaris 2.6
- 106987-03 for Solaris 7
- 110951-01 for Solaris 8

To configure OpenSpirit Client on UNIX

If you have an OpenSpirit Client license, you must specify where OpenSpirit (the third-party program licensed by OpenSpirit Corporation) is installed on your computer; otherwise, OpenSpirit Client will not be able to connect to it. Although there is more than one method for specifying the location of OpenSpirit, we recommend that you save the `OSP_HOME` environment variable in your user profile as explained in the following procedure. If you installed an earlier version of GOCAD Suite and already completed this procedure, you do not need to do it again.

On Windows, the OpenSpirit Windows installer sets the `OSP_HOME` environment variable on the computer automatically, so no additional configuration is necessary. The following procedure applies to UNIX and Linux operating systems only.

Note Another method for specifying where OpenSpirit is installed on your computer is to edit the `GocadOsp/lib/app-default/osp_home` file manually (the file is located in the installation directory for GOCAD Suite). This method was explained in earlier installation instructions for the OpenSpirit plug-in running under GOCAD 2.0.x. We recommend that you save the environment variable in your user profile instead. Otherwise, every time you install a new version of GOCAD Suite, you must edit the `osp_home` file. By using the following method, you only do the configuration once as long as you do not update OpenSpirit in a way that changes its location.

- Assuming OpenSpirit (the client program licensed by OpenSpirit Corporation) is installed in the `/appl/openspirit` directory, edit your UNIX or Linux user profile to set the environment variable `OSP_HOME` according to your shell type as follows:

- If you are using C shell, type:

```
setenv OSP_HOME /appl/openspirit
```

- If you are using the Korn or Bourne shell, type:

```
export OSP_HOME=/appl/openspirit
```

If OpenSpirit is installed in a different location, substitute the correct path.

Note If you want to use a different OpenSpirit installation temporarily, you can set the `OSP_HOME` variable in the shell you are starting GOCAD Suite from. Assuming OpenSpirit is installed in `appl/openspirit/openspirit-x.x.x`, for example:

- If you are using C shell:

```
setenv OSP_HOME /appl/openspirit/openspirit-x.x.x
```

- If you are using either the Korn or Bourne shell:


```
export OSP_HOME=/appl/openspirit/openspirit-x.x.x
```

2.3.2 Installing GOCAD Suite on Windows

Complete the following procedure to install GOCAD Suite on Windows.

To install GOCAD Suite on Windows

- 1 If you downloaded GOCAD Suite, double-click the downloaded file.
– or –

- 
- a If you are installing GOCAD Suite from CD, place the CD for the Windows version of GOCAD Suite in your CD drive, open My Computer, and double-click the CD name to display the CD contents.
 - b Open the **Suite** folder, and then double-click **EarthDecision-Suite-2.1.0-Windows-i86.msi**.

Either method opens the installation wizard. It may take a few moments for the installation wizard to open.

- 2 Follow the instructions in the installation wizard as they appear.

Important You cannot start GOCAD Suite until License Server 9.2 and the license file are correctly installed on the server computer for which the license file was issued. For more information and instructions, see [Chapter 3, "Installing and Configuring License Server 9.2."](#)

2.4 Starting GOCAD Suite

Complete the procedure that corresponds to your environment.

2.4.1 Starting GOCAD Suite on UNIX

You cannot start GOCAD Suite until License Server 9.2 and the license file are correctly installed on the server computer for which the license file was issued. For more information and instructions, see [Chapter 3, "Installing and Configuring License Server 9.2."](#)

After GOCAD Suite is installed, License Server is set up, and the license is configured, you can start GOCAD Suite and connect to License Server.

To start GOCAD Suite on UNIX

- 1 If you installed GOCAD Suite in the /opt directory, type the following command at a command prompt:

```
/opt/EarthDecision/2.1.x/Gocad/bin/Gocad
```

Note If you installed GOCAD Suite in a different location, substitute the correct path.

[Table 2–3 on page 2-7](#) lists frequently used options you can add to this command.

- 2 If you are starting GOCAD Suite for the first time and the **FLEXlm License Finder** dialog box opens, do the following:
 - a Select **Specify the License Server**, and then click **Next**.
 - b Type a *port@host* value where *port* is the TCP/IP number (typically 27000) and *host* is the name of the server computer on which License Server is installed. If you do not know this information, contact your license administrator.
 - c Click **OK**.

After you connect to License Server, the **Open Existing or New Project** dialog box opens.

- 3 Click **New Project**, find and open a folder, type a name in the **File name** box, and then click **Save** to open the **Project Modules Selector**.
- 4 Do one of the following:
 - To select all available products, click **Select All**, and then click **OK**.
 - To select products manually, click each tab and select the check box next to the products you want to load, and then click **OK**.

A splash screen appears as the program loads the selected products. GOCAD Suite opens and prompts you to choose project units.

- 5 In the **Initialize Project Units** dialog box, select from the options and then click **OK**. For more information about the project units, see the *User Guide, Part I: Base Module*.

Tip For more information about starting the program, creating a project, and opening existing projects, see the *User Guide, Part I: Base Module*.

Table 2–3 Startup options

Main options	Description
-help	Lists all the options you can use when starting GOCAD Suite.
-64	Starts the program in 64-bit mode. This option is needed only if you installed both the 32-bit version and a 64-bit version. The program starts by default in 32-bit mode if both are installed. To use the 64-bit version, you must add the -64 option. ¹

Main options	Description
-all-plugins	Loads all the products you have purchased. ²

1. You can run the 32-bit version of GOCAD Suite for IRIX and for Solaris on a 64-bit system. You can also run Intel 32-bit Linux on a 64-bit Opteron or Xeon system; however, running the Intel 32-bit Linux version on an Itanium system is not supported. You cannot run 64-bit versions of GOCAD Suite in a 32-bit environment.

2. If you use this option, **Project Module Selector** does not appear during startup.

2.4.2 Starting GOCAD Suite on Windows

You cannot start GOCAD Suite until License Server 9.2 and the license file are correctly installed on the server computer for which the license file was issued. For more information and instructions, see [Chapter 3, "Installing and Configuring License Server 9.2."](#)

After GOCAD Suite is installed, License Server is set up, and the license is configured, you can start GOCAD Suite and connect to License Server.

To start GOCAD Suite on Windows

- 1 On the Windows taskbar, click the **Start** button, point to **All Programs** (or **Programs** for Windows 2000), point to **GOCAD Suite 2.1.x**, and then click **GOCAD Suite 2.1.x** (or click **GOCAD Viewer 2.1.x** if you purchased only the 3D Viewer product).
- 2 If you are starting GOCAD Suite for the first time and the **FLEXlm License Finder** dialog box opens, do the following:
 - a Select **Specify the License Server**, and then click **Next**.
 - b Type a *port@host* value where *port* is the TCP/IP number (typically 27000) and *host* is the name of the computer on which License Server is installed. If you do not know this information, contact your license administrator.
 - c Click **OK**.

After you connect to License Server, the **Open Existing or New Project** dialog box opens.

- 3 Click **New Project**, find and open a folder, type a name in the **File name** box, and then click **Save** to open the **Project Modules Selector**.
- 4 Do one of the following:
 - To select all available products, click **Select All**, and then click **OK**.
 - To select products manually, click each tab and select the check box next to the products you want to load, and then click **OK**.

A splash screen appears as the program loads the selected products. GOCAD Suite opens and prompts you to choose project units.

- 5 In the **Initialize Project Units** dialog box, select from the options and then click **OK**. For more information about the project units, see the *User Guide, Part I: Base Module*.

Tip For more information about starting the program, creating a project, and opening existing projects, see the *User Guide, Part I: Base Module*.



Installing and Configuring License Server 9.2

In this chapter

- "About License Server," page 3-2
- "About Configuring Licenses for GOCAD Suite 2.1," page 3-3
- "Installing or Upgrading License Server 9.2 on UNIX," page 3-6
- "Installing or Upgrading License Server 9.2 on Windows," page 3-9
- "Setting Up the License Option File—Basic Developer (Developer Based) Product Only," page 3-15
- "Updating the License File," page 3-16
- "Frequently Asked Questions About License Server," page 3-17

Overview

This chapter describes how to install the license server program and configure it. This chapter includes procedures for both UNIX and Windows environments.



3.1 About License Server

A license server is a program that makes software licenses available to a given program. GOCAD Suite 2.1 uses a license server based on FLEXlm from Macrovision Ltd. to control program usage according to the licenses purchased. Because the license server is built with FLEXlm version 9.2, we refer to our product as License Server 9.2.

Important GOCAD Suite 2.1.x will only work with License Server 9.2 or later. If you are already using a license server released by Earth Decision, you must upgrade to this version.

License Server is distributed as a separate package and must be downloaded separately.

License Server is backward-compatible with earlier licenses: The latest version of the License Server can provide licenses for an earlier version of an Earth Decision product, such as GOCAD 2.0.x.



3.2 About Configuring Licenses for GOCAD Suite 2.1

All Earth Decision programs are licensed. You must have a license for the product you have installed before you can use it.

This section provides information about licenses and is for system administrators and users. See "License Types" on page 3-3 for a description of the different types of licenses, followed by license file components.

Note For more information on License Server administration tools, see the *FLEXIm End User Guide*. The user guide is available on the Macrovision Web site at the following address:

<http://www.macrovision.com/services/support/flexIm/enduser.pdf/>

3.2.1 License Concepts

A *license server* is a software service located on a computer whose job it is to dispatch licenses to *client* programs.

GOCAD Suite is a client program that connects to the license server to gain authorization to access certain software features. GOCAD Suite 2.1 uses a program called License Server 9.2.

License Server 9.2 and GOCAD Suite can be installed on the *same* computer. License Server must be installed on the computer for which the license file was issued. This computer is listed on the SERVER line in the license file. For more information and an example, see "SERVER lines" on page 3-4.

3.2.2 License Types

Licenses for Earth Decision products are server-based, which means a license server must be installed before you can run the program. The licenses can be permanent or temporary. They have a limited number of *tokens*, which are the number of available concurrent usages. Client computers connect to License Server to gain the right to run the licensed software.

There are two types of licenses:

- **Shared.** If you receive a shared license, License Server is installed on a computer connected to a network. GOCAD Suite can be run on the same computer, or it can run on another computer and use the network to connect to License Server. License Server must be run on the computer for which the license was issued. This computer is listed on the SERVER line in the license file. For an example, see "SERVER lines" on page 3-4.
- **Host-locked.** If you receive a host-locked license, GOCAD Suite can only be used on one computer. License Server and GOCAD Suite can run on that computer only. The computer for which the license is issued is listed on the SERVER line and in the INCREMENT paragraph in the license file. For more information and examples, see "License File Components" on page 3-4. Host-locked licenses typically are issued for running GOCAD Suite on a notebook that is not connected to a network.

3.2.3 License File Components

License files are text files, and are composed of paragraphs and lines of text. Understanding the license files is helpful when troubleshooting problems or talking to Earth Decision Support.

SERVER and VENDOR Lines

SERVER lines

License Server must be installed on the computer listed on this line. There is one line for a standard license server or three lines for a triple redundancy server setup. Triple redundancy means that if one server fails, the two remaining servers can take over and perform as the license server. Each of the three servers stores the same information and must be able to communicate through the network at any time.

```
SERVER license-server 123456789012 27000
```

where:

license-server is the server name. (This can be changed by the license administrator.)

123456789012 is the server computer FLEXlm Host ID. (Do not change this. Any change invalidates the license.)

27000 is the TCP/IP port number. (This can be changed by the license administrator.)

License Server listens to at least one TCP/IP port so that clients can connect to the license server on that port. By default, the TCP/IP port used by License Server is 27000.

If a third-party product license server is using the 27000 default port, you may have to change the port from 27000 to an unused one.

If you change the port, it must be communicated to end users because this information is needed when starting GOCAD Suite for the first time. See "[Starting GOCAD Suite](#)" on page 2-7.

VENDOR lines

There can be one line for all server-based license files for Earth Decision products.

```
VENDOR gocadlmd
```

where:

gocadlmd is the name of the licenses service program specific for Earth Decision products.

INCREMENT Paragraphs

INCREMENT paragraphs define the characteristics of the license: its duration, the number of tokens, and so on. The license file includes an increment for each product or feature you purchased.

Important Any change to the INCREMENT paragraph invalidates the license.

```
INCREMENT gocad_base gocadlmd 200512.31 31-dec-2005 50 \  
5BCF5BEB731B HOSTID=1234567890ab SUPERSEDE \  
ISSUED=16-Aug-2005 ck=118 SN=... \  
START=10-May-2005 SIGN=... \  
SIGN2=...
```

where:

gocad_base is the feature name corresponding to this increment.

200512.31 is the maintenance expiration date. This license allows users to run Earth Decision products released before that date.

31-dec-2005 is the license expiration date. The date is "permanent" for permanent licenses.

50 is the number of tokens (available concurrent usages) in the license

In addition:

HOSTID=1234567890ab This indicates that the INCREMENT package is locked on the server computer that has FLEXlm Host ID 1234567890ab. This line is present on all host-locked licenses.

3.3 Installing or Upgrading License Server 9.2 on UNIX

The following sections detail the procedures to either upgrade from an earlier version of License Server or perform a fresh installation in a UNIX environment.

It is only necessary to install License Server 9.2 on the server computer for which the license file was issued. In larger organizations, License Server is installed on a server computer while GOCAD Suite is installed on many client computers. If your computer is one of the client computers, you do not need to install License Server on it.

If you are a previous License Server user upgrading to the latest release, see "[Removing an Earlier Version of License Server](#)" on page 3-6. If you are performing a new installation, complete the procedures in "[Installing a New License Server](#)" on page 3-6.

3.3.1 Removing an Earlier Version of License Server

This section includes instructions to remove the License Server that controlled access to an earlier version of Earth Decision products.

A license server may not be on your computer if you were using a license file installed on a remote server or if you were using a type of license (called a node-locked, serverless license) that did not require a license server.

To remove an earlier version of License Server

- 1 Type the following command in the directory where the License Server is installed to shut it down:

lmdown

- 2 Make sure that the script that starts the License Server at boot time is disabled.
- 3 Make sure to keep a copy of your license file and name it gocadlmd.lic.
- 4 If you have an option file for the Basic Developer (Developer Based) license, write down the list of logins authorized to access the license.

Note The option file format has been modified for GOCAD Suite 2.1. You will need the list of logins to configure the Basic Developer (Developer Based) license as explained in "[Setting Up the License Option File— Basic Developer \(Developer Based\) Product Only](#)" on page 3-15.

- 5 Remove all the files in the EarthDecision/licenses directory that were distributed with the previous version of the License Server. These files include lmgrd.exe, gocadlmd.exe, lmutil.exe.

After you remove the earlier version of the License Server, you are ready to install version 9.2.

3.3.2 Installing a New License Server

Complete the following procedures to install a new License Server in a UNIX environment.

To create a dedicated account for License Server

For security reasons, we recommend that you do not start License Server as root. We suggest that you create a dedicated account (for example, earthdecision) with restricted rights on the server computer. Use this account each time you want to stop or restart License Server or install new licenses.

To download License Server files

- If you do not have GOCAD Suite on CD, download one of the License Server packages on the Earth Decision download site at <http://download.earthdecision.com/>. Download the package that corresponds to your operating system.

Note License Server packages for all supported operating systems are distributed on all GOCAD Suite CDs.

To install License Server

- 1 Do one of the following:
 - If you downloaded License Server and the file is not in the directory where you want to install the program, copy the file to the installation directory.
 - If you are installing License Server from CD, copy the package from a GOCAD Suite CD to the installation directory. (License Server packages for all supported operating systems are distributed on all GOCAD Suite CDs.)
- 2 Type the following command to move to the installation directory, where *installation_directory* is a placeholder for the actual directory name:

```
cd installation_directory
```

- 3 Type the following command to extract the License Server files, where *operating_system* matches the operating system listed in the package name:

```
gunzip < LicenseServer-9.2.operating_system.tar.gz | tar xvf -
```

This creates a directory named EarthDecision/licenses, which contains all License Server programs and utilities.

To install the license file

- Copy the license file you received from Earth Decision to the directory EarthDecision/licenses. Rename the license file gocadlmd.lic.

Important The SERVER line on the license file must reflect the name of the computer for which the license file was issued. If this is not the case, the SERVER line must be edited. For more information, see "SERVER lines" on page 3-4.

To set up the license option file— Basic Developer (Developer Based) only

If you have a Basic Developer (Developer Based) license, you must also set up a license option file. For instructions, see "Setting Up the License Option File— Basic Developer (Developer Based) Product Only" on page 3-15.

To start License Server

- Do one of the following to start License Server:
 - If you are using the C shell, type a command similar to the following:


```
cd EarthDecision/licenses  
./lmgd -c gocadlmd.lic >& gocadlmd.log
```

- If you are using either the Korn or Bourne shell, type a command similar to the following:

```
cd EarthDecision/licenses  
./lmgd -c gocadlmd.lic > gocadlmd.log 2>&1
```

License Server starts in the background and logs the server output to the file EarthDecision/licenses/gocadlmd.log.

We recommend that you configure your computer to run the License Server automatically at system startup.



You can check the content of `gocadlmd.log` for any error messages. If there are error messages and you need assistance, contact Earth Decision Support at <http://support.earthdecision.com/>. Make sure to include a copy of the `gocadlmd.log` file in your support request.

Note `lmgrd` is the License Server daemon.

3.3.3 Stopping License Server

The following instructions explain how to stop License Server in a UNIX environment.

To stop the License Server

- Type the following commands to stop the License Server:

```
cd EarthDecision/licenses  
lmdown
```

3.4 Installing or Upgrading License Server 9.2 on Windows

The following sections detail the procedures needed to either upgrade from an older version of the License Server or perform a fresh installation in a Microsoft Windows environment.

It is only necessary to install License Server 9.2 on the server computer for which the license file was issued. In larger organizations, License Server is installed on a server computer while GOCAD Suite is installed on many client computers. If your computer is one of the client computers, you do not need to install License Server on it.

If you are a previous License Manager user upgrading to the latest release, see "[Removing an Earlier Version of the License Server](#)" on page 3-9. If you are performing a new installation, follow the procedures in "[Installing a New License Server](#)" on page 3-10.

3.4.1 Removing an Earlier Version of the License Server

This section includes instructions to remove the license server that controlled access to an earlier version of Earth Decision products.

A license server may not be on your computer if you were using a license file installed on a remote server or if you were using a type of license (called a node-locked, serverless license) that did not require a license server.

To deactivate the License Server

- 1 Make sure to keep a copy of your license file and name it gocadlmd.lic. You should be able to find your license file in C:\Program Files\EarthDecision\Licenses.
- 2 If you have an option file for the Basic Developer (Developer Based) license, write down the list of logins authorized to access the license.

Note The option file format has been modified for GOCAD Suite 2.1. You will need the list of logins to configure the Basic Developer (Developer Based) license as explained in "[Setting Up the License Option File— Basic Developer \(Developer Based\) Product Only](#)" on page 3-15.

- 3 To start the License Server configuration tool, point to **All Programs**, point to **GOCAD 2.0.x**, point to **Utilities**, and then click **License Server Configuration Utility**.

– or –

Locate and run lmttools.exe.

- 4 On the **Service/License File** tab, select **Configuration Using Services**.
- 5 On the **Configure Services** tab, clear the **Start Server at Power Up** and **Use Services** check boxes.
- 6 Restart your computer.

To remove the License Server

- 1 On the Windows taskbar, click **Start**, click **Control Panel**, and then double-click **Add or Remove Programs**.
- 2 Select **FLEXlm License Server x.x** (the earlier version of FLEXlm), and then click **Remove**.

- 3 When prompted to confirm that you want to remove the FLEXIm License Server, click **Yes**.

After you remove the earlier version of the License Server, you are ready to install version 9.2.

3.4.2 Installing Dongle Device Drivers

Dongle licenses require that special drivers be installed on the computer to which the dongle is attached. Dongle licenses only work with Microsoft Windows operating systems. The type of dongle is determined by the FLEX ID, which is labeled on the dongle itself.

The dongle drivers can be downloaded from the Earth Decision download site, and they are included on the GOCAD Suite CD for the Windows environment. The drivers are set up by an automatic installation program.

To download the dongle device drivers (dongle license only)

- If you do not have GOCAD Suite on CD, download the Dongle Driver package on the Earth Decision download site at <http://download.earthdecision.com/>.

To install Dongle Drivers (dongle license only)

- 1 If you downloaded the Dongle Drivers, double-click the downloaded file.
 - or –
 - a If you are installing the Dongle Drivers from CD, place the GOCAD Suite CD for Windows in your CD drive, open My Computer, and then double-click the CD name to display its contents.
 - b Open the **DongleDrivers** folder, and then double-click **DongleDrivers-2.0-Windows.exe**.
- 2 Follow the instructions in the installation wizard as they appear.

3.4.3 Installing a New License Server

Complete the following procedures to install the new License Server in the Windows environment.

Important You must have Administrator privileges to install License Server.

To download License Server files

- If you do not have GOCAD Suite on CD, download the License Server package for Windows on the Earth Decision download site at <http://download.earthdecision.com/>.

Note License Server packages for all supported operating systems are distributed on all GOCAD Suite CDs.

To install License Server

- 1 If you downloaded License Server, double-click the downloaded file.
 - or –
 - a If you are installing License Server from CD, place an GOCAD Suite CD in your CD drive, open My Computer, and double-click the CD name to display its contents.

(License Server packages for all supported operating systems are distributed on all GOCAD Suite CDs.)

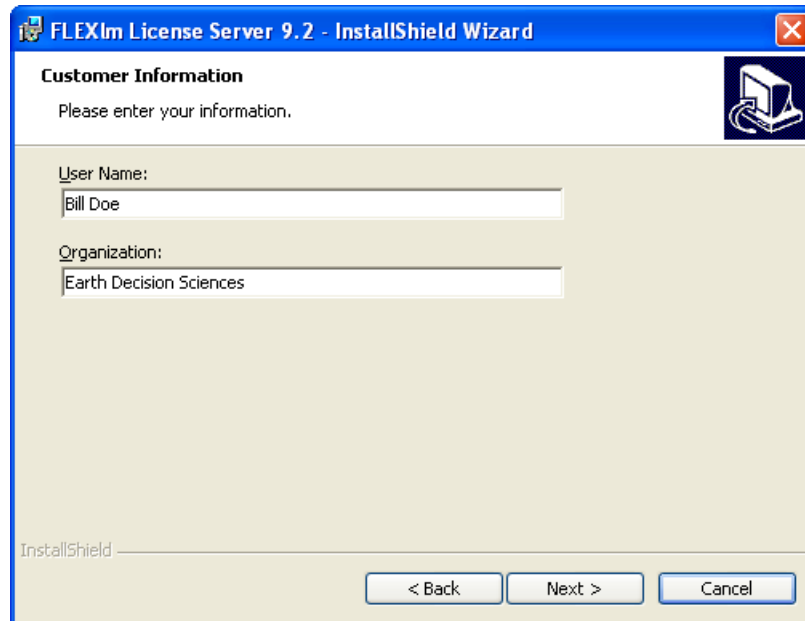
- b Open the **LicenseServer** folder, and then double-click **LicenseServer-9.2-Windows-i86.exe**.
- 2 When the **InstallShield Wizard** opens, click **Next**.



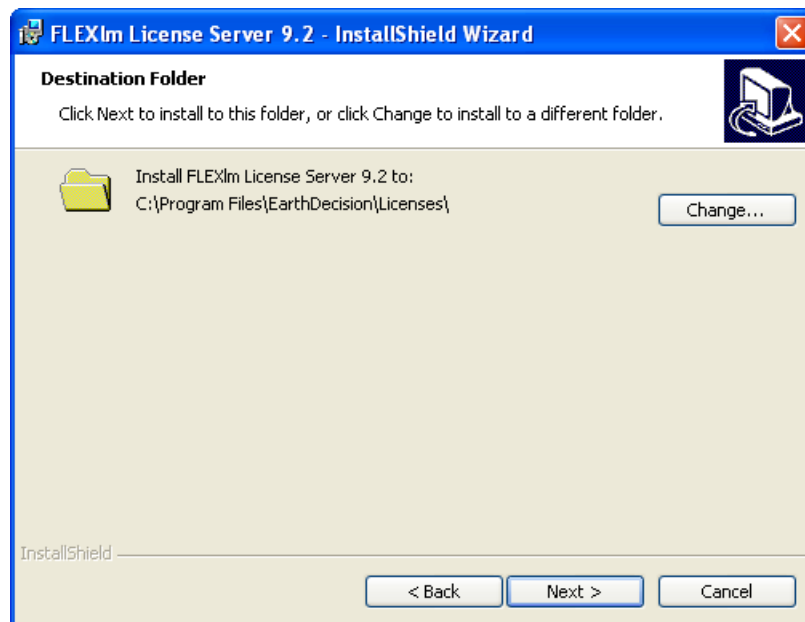
- 3 Read the license agreement; if you accept, click **I accept the terms in the license agreement**, and then click **Next**.



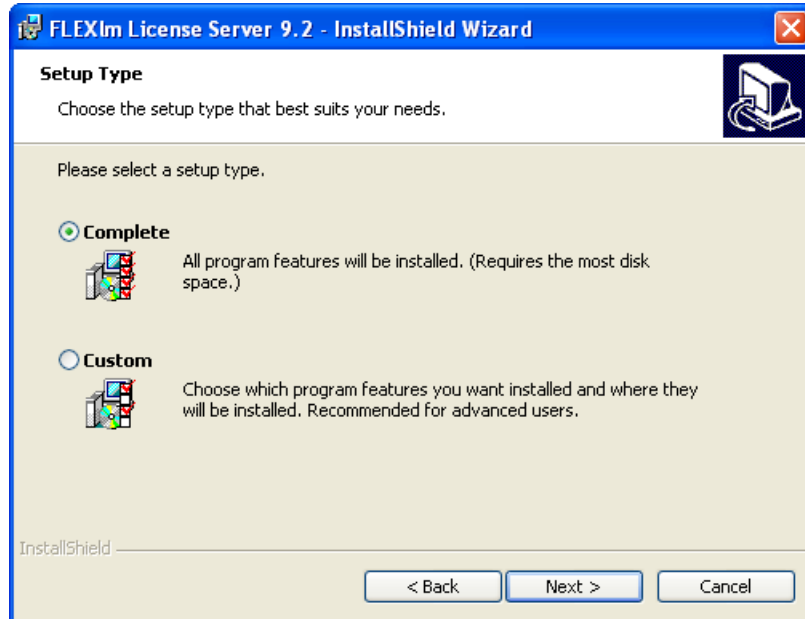
- 4 Type your user name and organization in the appropriate boxes, and then click **Next**.



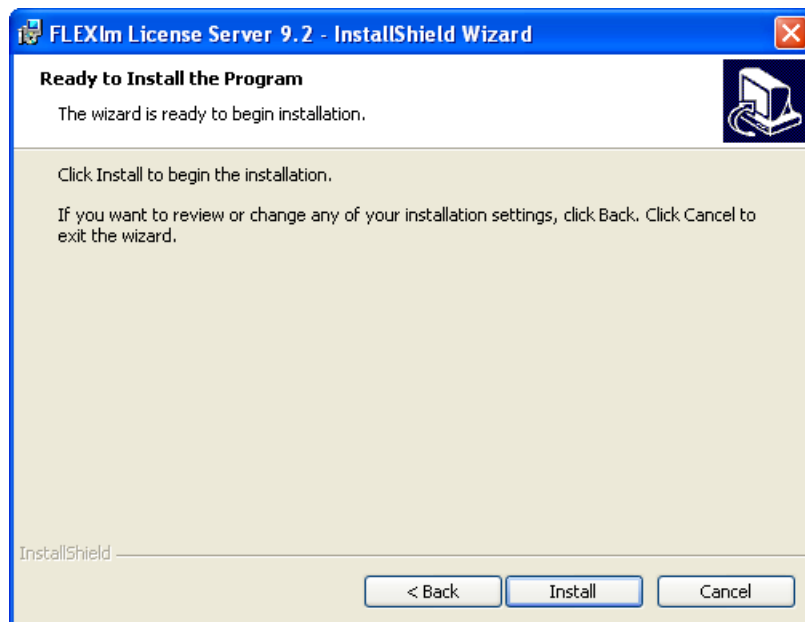
- 5 Select the folder where you want to install the License Server, and then click **Next**.



- 6 Select **Complete**, and then click **Next**.



- 7 Click **Install** to start the installation process.



- 8 Click **Finish** when the process is complete.

To install the license file

- Copy the license file you received from Earth Decision as gocadlmd.lic into the folder: C:\Program Files\EarthDecision\Licenses.

Important The SERVER line on the license file must reflect the name of the computer for which the license file was issued. If this is not the case, the SERVER line must be edited. For more information, see "SERVER lines" on page 3-4.



To set up the license option file— Basic Developer (Developer Based) only

If you have a Basic Developer (Developer Based) license, you must also set up a license option file. For instructions, see "Setting Up the License Option File— Basic Developer (Developer Based) Product Only" on page 3-15.

To finish License Server configuration

- 1 Click **Start**, point to **All Programs**, point to **Earth Decision License Server**, and then click **License Server Configuration Utility**. A dialog box with several tabs appears.
- 2 On the **Service/License File** tab, click **Configure Using Services**, and then click **Earth Decision License Server** in the list.
- 3 On the **Config Services** tab, select the **Use Services** and **Start Server at Power Up** check boxes.
- 4 Click the **Save Service** button.
- 5 Restart your computer.

You can check the content of gocadlmd.log located in C:\Program Files\EarthDecision\Licenses for any error messages. If there are error messages and you need assistance, contact Earth Decision support at <http://support.earthdecision.com/>. Make sure to include a copy of the gocadlmd.log file in your support request.

3.5 Setting Up the License Option File— Basic Developer (Developer Based) Product Only

The Basic Developer (Developer Based) license requires that you specify the login names of the license users in an option file. The option file must be named `gocadlmd.opt`, and it must be in the same directory as `gocadlmd.lic`. This file can be modified at any time without affecting the validity of the license; however, License Server must be restarted if you modify the file.

To set up the license option file— Basic Developer (Developer Based) only

- 1 Uncomment the GROUP line in the `gocadlmd.opt` file distributed with the License Server package, and modify the list of logins authorized to access the Development Kit.

```
# Earth Decision License Server Option File
#
# Uncomment the following GROUP line if you have purchased
# a "Basic Developer (Developer Based)" license.
# The following line should contain the list of
# logins authorized to access the license.
#
# GROUP Developers login1 login2 login3 — GROUP line
#
.
.
.
#EOF
```

Note You cannot specify more users than the number of licenses granted in the license file. This number can be checked by looking on the INCREMENT line of the license file for the Basic Developer (Developer Based) product. If you specify fewer users than the number of licenses granted in the license file, the remaining licenses *will not* be available.

- 2 Restart License Server.

Note You must restart License Server every time you modify the option file. Reloading the server with the `Imreread` command is not sufficient.



3.6 Updating the License File

This section explains how to update the license file. Updating the license file is necessary if, for example, you purchase a new Earth Decision product or renew your maintenance contract. Earth Decision always sends you a new license file that fully replaces all previously issued license files. You do not combine license files.

Complete the procedure for your environment. Instructions assume License Server 9.2 is running already.

To replace the license file on UNIX

- 1 In the EarthDecision/licenses directory, replace the current license file named gocadlmd.lic with the new license file.
- 2 Rename the new license file **gocadlmd.lic**.
- 3 Restart License Server 9.2. For instructions, see "[To start License Server](#)" on page 3-7.

To replace the license file on Windows

- 1 In the EarthDecision\Licenses folder, replace the current license file named gocadlmd.lic with the new license file.
- 2 Rename the new license file **gocadlmd.lic**.
- 3 Restart your computer.

3.7 Frequently Asked Questions About License Server

This section provides answers to the following questions that are frequently asked about License Server:

- "How Do I Find the Host ID for My Computer?," page 3-17
- "How Do I Switch from One License Server to Another?," page 3-18
- "Why Did License Server Report an Invalid Host ID when I Disconnected My Notebook?," page 3-19
- "What Is the GOCADLMD_LICENSE_FILE Environment Variable?," page 3-19

3.7.1 How Do I Find the Host ID for My Computer?

The Host ID is an 8-character (Sun Solaris, SGI IRIX) or 12-character (Microsoft Windows, Linux) hexadecimal number. This is not the workstation's IP address, nor is it the serial number.

To get the Host ID on Windows

Although there are other methods, use the following one to ensure you get the required Host ID.

- 1 On the Windows taskbar, click **Start**, and then click **Run**.
- 2 Type **cmd** and then click **OK** to open a command prompt.
- 3 Type **ipconfig/all**, and then press ENTER to get the following output:

```
Windows IP Configuration

    Host Name . . . . . : mycomputer
    Primary Dns Suffix . . . . . : mycompany.com
    Node Type . . . . . : Unknown
    IP Routing Enabled. . . . . : No
    WINS Proxy Enabled. . . . . : No
    DNS Suffix Search List. . . . . : mycompany.com

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix . . : mycompany.com
    Description . . . . . : Broadcom 440x 10/100
Integrated Controller
    Physical Address. . . . . : 00-0D-56-AF-18-0F
    Dhcp Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . . : Yes
    IP Address. . . . . : 10.1.13.32
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 10.1.1.1
    DHCP Server . . . . . : 10.1.10.57
    DNS Servers . . . . . : 10.1.10.57
    . . . . . : 10.1.10.24
    Lease Obtained. . . . . : Friday, September 24, 2004
    Lease Expires . . . . . : Monday, September 27, 2004
```

- 4 Send the complete resulting output to the person who requested the Host ID.

Note Be sure to send the full contents of ipconfig/all, especially if your computer is a notebook. To generate a license, Earth Decision requires the physical address: the Host ID of the fixed Ethernet card, not the wireless one.

To get the Host ID on UNIX

Retrieve the Host ID by using the `lmhostid` utility, which you can download from the Earth Decision download site. Running `lmhostid` within UNIX gives you an 8-character Host ID (Sun Solaris, SGI IRIX) or 12-character Host ID (Linux).

Although there are several UNIX "hostid" commands, they return a number that does not correspond to the required Host ID. Only the following method is the accurate one.

- 1 Download `lmhostid` for your operating system from the Earth Decision download site at <http://download.earthdecision.com/>.

- 2 Type the following command at a command prompt to set execution rights on the `lmhostid` utility:

```
chmod u+x lmhostid-9.2-operating_system
```

- 3 Type the following command at a command prompt to rename the `lmhostid` utility:

```
mv lmhostid-9.2-operating_system lmhostid
```

- 4 Type the following command at a command prompt to run the `lmhostid` utility:

```
lmhostid
```

Running `lmhostid` gives you results similar to the following:

```
% lmhostid
lmhostid -Copyright (C) 1989-2002 Globetrotter Software, Inc.
The FLEXlm host ID of this machine is "12345678"
```

- 5 Send the resulting output to the person who requested the Host ID.

3.7.2 How Do I Switch from One License Server to Another?

The information on the License Server you are using is stored in the registry on Windows and in `$HOME/.flexlmrc` on UNIX. On Windows, to switch from one license server to another, you need to delete this information from the registry. On UNIX you need to remove the file `$HOME/.flexlmrc`. You might want to do this, for example, to switch from the License Server on your computer to one on a network.

To switch from one License Server to another on Windows

- 1 Click the **Start** button, click **Run**, type **regedit**, and then click **OK**.
- 2 In the **Registry Editor**, click the **Edit** menu, and then click **Find**.
- 3 In the **Find** dialog box, type **GOCADLMD_LICENSE_FILE**, and then click **Find Next**.
- 4 When the list of files appears, delete **GOCADLMD_LICENSE_FILE**.

When you start GOCAD Suite, the **FLEXlm License Finder** dialog box opens and you are prompted to specify the license server. For instructions to specify the license server, see "To start GOCAD Suite on Windows" on page 2-8.

To switch from one License Server to another on UNIX

- Type the following command at a command prompt, and then press ENTER:

```
rm $HOME/.flexlmrc
```

When you start GOCAD Suite, the **FLEXlm License Finder** dialog box opens and you are prompted to specify the license server. For instructions to specify the license server, see "To start GOCAD Suite on UNIX" on page 2-7.



3.7.3 Why Did License Server Report an Invalid Host ID when I Disconnected My Notebook?

TCP/IP capabilities are disabled when a Windows 2000 notebook is disconnected from a network. Therefore, disconnecting a notebook causes License Server to become inoperative. To correct this problem, see Microsoft knowledge base article - 239924: "How to Disable Media Sense for TCP/IP in Windows," available at <http://support.microsoft.com/support/kb/articles/Q239/9/24.asp>.

3.7.4 What Is the GOCADLMD_LICENSE_FILE Environment Variable?

GOCADLMD_LICENSE_FILE is an environment variable that can specify explicitly where GOCAD Suite searches for license information. Its value is a *port@host* value where *port* is the TCP/IP number and *host* is a server name—for example, *server.mycompany.com* or an IP address such as 123.45.678.90.

Setting this environment variable is not required to use GOCAD Suite. This environment variable should only be used for troubleshooting your License Server. To switch from one license server to another, see "How Do I Switch from One License Server to Another?" on page 3-18.





Installing Development Kit

In this chapter

- "About Developer Products," page 4-2
- "General Installation Process," page 4-2
- "About Qt," page 4-3
- "Installing GOCAD Suite Development Kit," page 4-3
- "Setting Up the GOCAD_LICENSE Environment Variable," page 4-5

Overview

Development Kit is a product that developers can use to build modules based on Earth Decision technology. This chapter explains how to install and configure GOCAD Suite Development Kit in Windows and UNIX environments.

4.1 About Developer Products

Earth Decision offers three developer products:

- **Corporate Developer.** Contains only the features to run the developer tools. You will also need a license for the Base Module product to use Corporate Developer.
- **Basic Developer.** Incorporates a subset of Base Module functionalities. Your Basic Developer license should only be used for module or plug-in development and test purposes. For modeling or consulting purposes, purchase Base Module. Basic Developer can be shared among developers in an organization.
- **Basic Developer (Developer-Based).** This product is the same as Basic Developer, except that instead of being shared among developers in an organization, the license is locked to a specific user.

All of these products are packaged together in the GOCAD Suite Development Kit, and therefore you will not need to download multiple packages.

4.2 General Installation Process

If you have not done so already, install GOCAD Suite. For instructions, see "[Installing GOCAD Suite](#)" on page 2-4.

[Table 4–1 on page 4-2](#) summarizes the Development Kit installation process, and it lists the section or chapter that provides additional information and instructions.

Table 4–1 General steps to install Development Kit

Step	See
1 Purchase a Qt Enterprise License if required by your environment.	" About Qt " on page 4-3
2 Download the GOCAD Suite Development Kit software.	" Downloading Earth Decision Products " on page 2-2
3 Install GOCAD Suite Development Kit on the client computer where you have installed GOCAD Suite.	" Installing GOCAD Suite Development Kit " on page 4-3
4 For each developer who will use Basic Developer or Basic Developer (Developer Based) products, set up the GOCAD_LICENSE environment variable.	" Setting Up the GOCAD_LICENSE Environment Variable " on page 4-5
5 If you are using Basic Developer (Developer Based), set up the license server option file to contain the developers' user names.	" Setting Up the License Option File— Basic Developer (Developer Based) Product Only " on page 3-15

4.3 About Qt

Do I need to purchase a Qt Enterprise license?

On UNIX, Development Kit contains Qt libraries and header files that will allow you to create modules and plug-ins. Most developments on UNIX do not require the purchase of a Qt Enterprise license from Trolltech. However, if your development uses the Qt utilities moc and uic, you will need to purchase a Qt Enterprise license from Trolltech.

On Windows, a Qt Enterprise License is required to develop with Development Kit.

To obtain and install Qt

If you determined that you need to purchase a Qt Enterprise License, complete the following procedure:

- 1 Purchase a Qt Enterprise License from Trolltech. This can be done from their Web site at <http://www.trolltech.com/products/purchase/>.
- 2 Forward the e-mail confirming that you have purchased Qt Enterprise License from Trolltech to Earth Decision support. Upon reception, Earth Decision will send you the login name and password you will need to download Earth Decision Qt 3.3.2 Libraries.
- 3 Download the Earth Decision Qt 3.3.2 Libraries. For instructions to download packages, see "[Downloading Earth Decision Products](#)" on page 2-2.
- 4 Extract the downloaded file into the EarthDecision directory.

4.4 Installing GOCAD Suite Development Kit

Separate instructions are included for UNIX and Windows environments. Complete the procedure that corresponds to your environment.

If you have not downloaded GOCAD Suite Development Kit (and you do not have GOCAD Suite Development Kit on CD), complete the procedure in "[Downloading Earth Decision Products](#)" on page 2-2 before you continue.


4.4.1 Installing Development Kit on UNIX

All GOCAD Suite Development Kit packages for UNIX are installed in the main installation directory by extracting a compressed archive. The required organization for all Earth Decision products is that they must reside under a common directory, called EarthDecision by default.

If you plan to use GOCAD Suite Development Kit on different UNIX operating systems, you must download and install the package for each operating system. Multiple installations can reside in the same directory; the installation process takes care of this for you.

Important You must install Development Kit where you installed GOCAD Suite.

- 1 Do one of the following:
 - If you downloaded Development Kit and the file is not in the directory where you want to install the program, copy the file to the installation directory.
 - If you are installing Development Kit from CD, copy the package from the appropriate CD to the installation directory.

- 
- 2 Type the following command to move to the installation directory, where *installation_directory* is a placeholder for the actual directory name:
cd *installation_directory*
 - 3 Type the following command to extract the files, where *operating_system* matches the operating system listed in the package name:
gunzip < EarthDecision-Suite-2.1.x-Devkit-*operating_system*.tar.gz | tar xvf -

4.4.2 Installing Development Kit on Windows

Complete the following steps to install GOCAD Suite Development Kit on Windows.

To install the GOCAD Suite Development Kit on Windows

- 1 If you downloaded GOCAD Suite Development Kit, double-click the downloaded file.
– or –
 - a If you are installing GOCAD Suite Development Kit from CD, place the Development Kit CD in your CD drive, open My Computer, and double-click the CD name to display the CD contents.
 - b Open the **DevelopmentKit** folder, and then double-click **EarthDecision-Suite-2.1.0-Devkit-Windows-i86-vs6.msi**.Either method opens the installation wizard.
- 2 Follow the instructions in the installation wizard as they appear.

4.5 Setting Up the GOCAD_LICENSE Environment Variable

If you have a Basic Developer or Basic Developer (Developer Based) license, you will need to set the GOCAD_LICENSE environment variable to dsl for each developer who will use the product.

If you have a Corporate Developer license, do not set the GOCAD_LICENSE environment variable.

To set GOCAD_LICENSE environment variable on UNIX

- Do one of the following:
 - If you are using C Shell, type the following command at a command prompt:
setenv GOCAD_LICENSE dsl
 - If you are using Korn Shell, type the following command at a command prompt:
export GOCAD_LICENSE=dsl

To set GOCAD_LICENSE environment variable on Windows

- 1 Right-click **My Computer**, and then select **Properties** to open the **System Properties** dialog box.
- 2 Click the **Advanced** tab, and then click the **Environment Variables** button.
- 3 In the User Variables section at the top, click the **New** button to open the **New User Variable** dialog box.
- 4 In the **Variable name** box, type **GOCAD_LICENSE**.
- 5 In the **Variable value** box, type **dsl**.
- 6 Click **OK**.





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