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# GEOiD

## in a network

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## General

# Prefatory note

### Prefatory note

This manual includes a detailed description of the software program GEOiD in a network environment. The manual is written for users of all level.

GEOiD is the most user-friendly and flexible solution for take-off quantities in the office environment of very small to very large companies. The product characterized by its simplicity in use, flexibility, versatility and integration with other software products and ultimately GEOiD is implemented very fast.

With help of the preferences, you may organize the application to your own needs. With the Symbol Editor and the Export set Editor, you easily set definitions that are to be re-used. You may adapt GEOiD to your working method and are thus very flexible. This is also the big difference with suppliers of integrated 'take-off solutions' for which the use of calculation software is determined. With GEOiD you determine yourselves!

### The history of GEO's Quantity Information System

Already 30 years now, the take-off software of GEO is a definition in the Netherlands and far outside. Originally started as a land surveying- and estimating office for damage on buildings, GEO found out that the method of quantity estimating was very labour intensive and time consuming and in many cases, it still is. In 1978, the first solution came with the take-off software HOEVEEL (HOW MANY red) developed in the program language Basic. The take-off software HOEVEEL evolved in the coming years from a purely alphanumeric user interface into a combined graphic environment. Mid 90 tees, the tendency raised to integrate GEO's take-off software wit cost-estimating software and spreadsheets (Lotus, Excel etc). In addition, the need to reproduce information became stricter. From this need take-off software emerged with international names like QUASt (QUAntity Assistant) and QUINQ (Quantity INQuiry). Both software names and features merged in 1998 into the QUINQ Software suite. The QUINQ Software suite developed in the program language Delphi.

After completing two important migration phases, the new software suite called **GEOiD Software suite** released early 2008. Flexibility to the user is one of the major ingredients that indicate the GEOiD Software suite. 'iD' derived from identification, refers to the unique way in which GEOiD enables information to be traceable right back to it's source. The GEOiD Software suite included **GEOiD** for takeoffs from digital and paper drawing, **GEOiD-Traditional** for takeoffs from paper drawing, the add-on **GEOiD-Seqpro** to layout floors, roofs and ceilings and the **GEOiD-Viewer** to exchange GEOiD data in the most comfortable way.

Parallel to the development of take-off software, GEO worked in corporation with an American company on the development of a sonic digitiser, which should be applicable for use on cost-estimating departments. In the mid 80 tees, GEO came with her own GEO:LAT in two mobile versions named GEO:LAT-I and II. Although by now replaced by the in 1991 introduced American model, the name GEO:LAT is a synonym for fast, simple and flexible taking off quantities.

After the buy out in 1998 by undersigned, the method of development, support and sales where changed rapidly into a more project oriented, customer related, flexible and future based approach. For you an organisation emerged with whom you more easily communicate and which is more than ever able to realise your wishes. For us the turn around has lead to a substantial growth in the number of GEO-Measuring-system users.

The GEOiD version that lies before you is the result of our combined efforts with your opinion and experience as guideline. Again, with this version, we expect to have anticipated to your distinct appreciation, namely simplicity!

**Erwin R. Robijn**  
Managing director

## License types

# The PCL license

### Introduction

The Personal Computer License, in short PCL license is a PC oriented license. To identify the PC, ID1 and ID2 information from the PC is used by GEO to compose a security file QUINQS.DLL. The file QUINQS.DLL, determines which software functions are enabled for use.

### Condition

In case of a PCL license, the file QUINQS.DLL should be present in the GEOiD system sub directory in the Programdata folder on every workstation or server, where GEOiD is installed and must be used.

Current security procedure in GEOiD is based on unique and permanent MAC address. This means that no matter whether COL or PCL license are used, every workstation and/or server should have a stable MAC address that is not changed with every restart. The GEOiD software will not work properly without a permanent MAC address. In order to control the MAC address we advise you to follow the instructions in the section '**Locking a MAC-Address**' in paragraph "**Installation of the COL-Server**" on page 16.

### Attention

Since the IPCONFIG application (in command prompt) does not show the possible changes in the MAC-address, it is not appropriate to test with.

### Note

Instead of the PCL license, an increasing number of users are using the COrporate License server, in short COL server license. The COL server license is a favourite from administrator's perspective - lower investment costs and great flexibility.

### See also:

"The COL server license" on page 5

"Introduction to the GEOiD-COL server" on page 6

"Conditions for a standard network installation" on page 20

"Conditions for a Citrix server installation" on page 23

## License types

# The COL server license



### Introduction

The COrporate server License, in short COL server license is a license type for which on a (central) server, a control application is active that validates requests coming from work stations on the number of available GEOiD licenses and what software functions are enabled for use.

### Condition

In case of a COL server license, the COL server program **LNS.exe**, should be installed on the server for the corresponding IP subnet. The COL server should communicate freely with those local PC's or with the application server (Citrix of Terminal Service), on which GEOiD should work. See "Port settings" on page 15.

The COL server dictates that software licenses must be identical. For example all software licenses must be GEOiD, or they all must be GEOiD-Traditional or GEOiD-Seqpro. Combinations of one type of software license with another type are thus not possible.

Installation of more than one COL server is not supported.

### Note

Instead of the COL server license, a PCL license can be used if the GEOiD license is used on one PC only and there is no need to use the GEOiD license on other workstations.

### See also:

"The PCL license" on page 4

"Introduction to the GEOiD-COL server" on page 6

"Conditions for a standard network installation" on page 20

"Conditions for a Citrix server installation" on page 23

## GEOiD-COL server

# Introduction to the GEOiD-COL server



### Introduction

The GEOiD-COL server is an application providing an easy and fast way to manage the GEOiD licenses within a company or organisation. The license server is very advantageous because it decreases exploitation costs.

### Objective

This application is appropriate to use in companies and institutions, where the GEOiD software has to be installed and used at several locations. Distribution, administration and control of software and license information are centralised and less complicated.

### Characteristics

The GEOiD-COL server, also referred to as COL-Server, provides a direct overview of all the clients, using the GEOiD software. The limit on the number of licenses is automatically indicated because the COL-Server dynamically updates the available number of licenses. In case a new user tries to obtain a license while the server license limit is reached, a request to one of the active users can be sent to log-out and the new user can log in as soon a license is free for use.

The COL-Server is a configurable standard system, which, if necessary, can be fine-tuned for you by GEO. Due to its simple set-up, the COL-Server application is highly secure.

### See also:

"The COL server license" on page 5

"Introduction to the GEOiD-COL server" on page 6

"Client" on page 7

"The information window" on page 10

"In a Citrix Metaframe server environment" on page 14

"Installation of the COL-Server" on page 16

## Client



### Introduction

This paragraph provides information for GEOiD users, who use the software in combination with a COL-Server.

- If the GEOiD software is installed via the **COL license** option, the local QUINQS.dll file (if present) will be renamed into QUINQS\_PCLxx\_DLL where xx is a subsequent number.
- On starting GEOiD, a message “**Busy connecting to the COL-Server**” pops-up;
- If the connection between GEOiD and the COL-Server are properly established and a license is granted, the GEOiD-Main window opens and the application is ready to use. An extra start up dialog pops-up if the connection is not established or a free license is not available on the COL-Server. The following options are provided in this case:



Select **GEOiD Viewer** in order to start GEOiD in GEOiD-Viewer mode (no license needed);

Or

- Select **Reconnect** for a new attempt to establish a connection with the COL-Server;

Or

- Select **Stop application** in order to cancel GEOiD start-up.

### What must be done if the connection with the COL-Server fails?

If the connection between GEOiD and the COL-Server fails in the process of work, a rescue dialog pops-up, offering several options:

- **Save drawing as** – to save current data;
- **Retry** – to try completing the last action attempted before connection failed (e.g. Connection failed on attempt to start the Report module. This will be the operation reattempted);
- **Reconnect** – tries to re-establish the connection between GEOiD and the COL-Server. Depending on the network structure and the network traffic at the specific moment, this operation may require certain time;
- **Stop application** - closes GEOiD.

### See also:

“The COL server license” on page 5

## Describing window sections



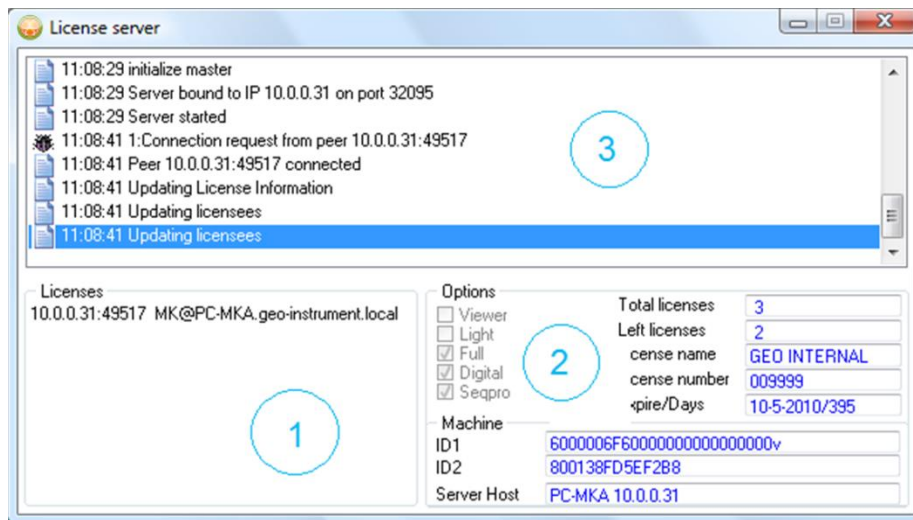
### Introduction

This paragraph presents a detailed technical description of the COL-Server.

### Sections

The COL-Server screen consists of the following sections:

- (1) The license leases
- (2) Granted licenses information
- (3) The logbook



The separate window sections will be explained in detail in the following paragraphs.

### See also:

- "License leases" on page 9
- "The information window" on page 10
- "The logbook" on page 12



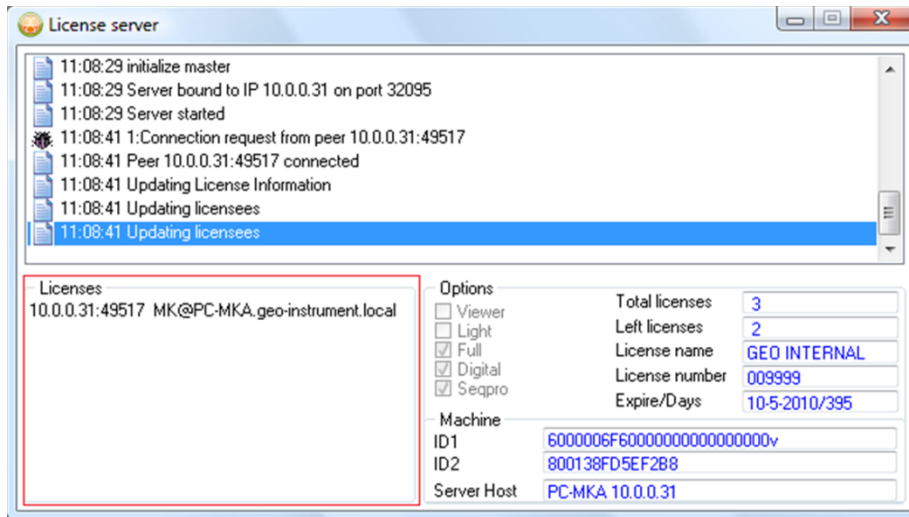
## License leases



### Introduction

The **license lease** section displays all the connections between the COL-Server and the GEOiD clients that are active at the specific moment. The client information is presented in the format: IP:PORT GEBRUIKER@URI.

### Licenses section



### See also:

"The information window" on page 10

"The logbook" on page 12

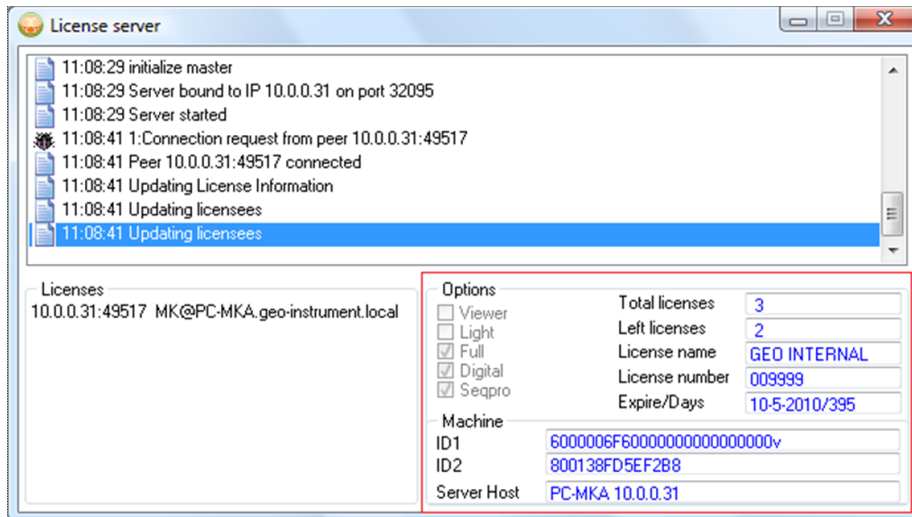
## The information window



### Introduction

The information window presents data regarding type and duration of license granted, total number of licenses and number of licenses still available.

### The Information window



#### Options

Presents the specific characteristics of the license granted:

- GEOiD-Viewer;
- GEOiD-SBV; (Indicated by Light)
- GEOiD-Full (Traditional);
- GEOiD-Digital (both GEOiD-Full and Digital are checked);
- GEOiD-Seqpro to construct and calculate layouts for ceilings and floors.

#### Total licenses

The total number of GEOiD licenses included.

#### Licenses left

The actual number of licenses that are available.

#### License name

The company name or person as stated in the COL-Server registration.

#### License number

The corresponding license number as generated by GEO.

#### Expiration date/Days

Displays the expiration date and the number of days left until the current COL-Server license becomes invalid and the Password must be renewed.

#### ID1

The first COL-Server identification number.

#### ID2

The second COL-Server identification number.

#### Server host

Server name and IP adres.

GEO generates a unique access code for the use of the COL-Server application on the indicated company server, based on the identification numbers.

**Note**

The GEOiD software can then be used after an access code (incorporated by GEO in the file QUINQS.DLL) is requested, via our license page on the website, and installed.

**See also:**

"License leases" on page 9

"The logbook" on page 12

## GEOiD-COL server

# The logbook

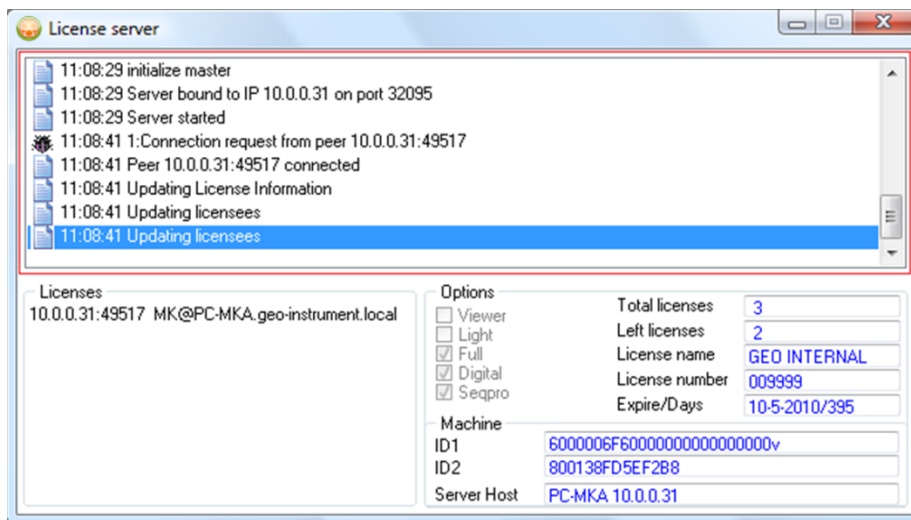


### Introduction

The COL-Server logbook contains specific information about adjustments made possible for your organisation. In addition, the logbook contains essential debug information that provides fast solutions to possible problems. The COL-Server software also facilitates making an external logbook. See “The external logbook” on page 13.

This paragraph provides detailed instructions on how to save the contents of the Logbook.

### Section Logbook

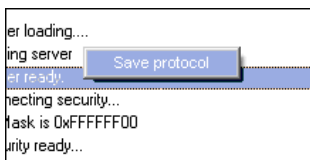


Position the cursor in the Logbook section.

- Press the **right mouse button**.

A floating **Save protocol** button pops-up.

### Save logbook



Click the **Save protocol** button.

- Enter a **file name**.

Now the logbook content is saved.

### See also:

“License leases” on page 9

“The information window” on page 10

“The external logbook” on page 13

## The external logbook



### Introduction

The external COL-Server logbook contains specific information about adjustments executed for your organisation. In addition, the external logbook contains essential debug information, which facilitates providing fast solutions to eventual problems. The external logbook is available as of GEOiD-COL server version V1.4.5.253.

This paragraph describes how to *activate* the external Logbook.

### Activating the external logbook

- The external logbook is activated by adding "/L" as start parameter to LNS.exe.

For example: C:\Program Files (x86)\GEOiD-Col\LNS.exe /L

The external logbook function enables the production of 4 logbooks maximum that are saved in the %temp% directory. The logbooks are labeled: Logbook.txt and Logbook.bak0 up to \*.bak3 where Logbook.txt is the most recent one and \*.bak3 the oldest one.

Alternatively the above mentioned parameter can be included in the file AsNtService.ini. The default location of logbooks is the temporary directory, usually C:\Windows\Temp.

### Attention

The external logbook may not be used in a productive environment because the COL-Server writes each action onto the hard disk which in turn may negatively influence the server performance. The external logbook may only be changed if directed by GEO's support desk.

### See also:

"License leases" on page 9

"The information window" on page 10

"The logbook" on page 12

## In a Citrix Metaframe server environment



### Introduction

A user request has been submitted to adjust GEOiD appropriately for work in a Citrix environment. GEO does not have a test Citrix environment of its own. We therefore rely on feedback from our users. All efforts, invested in implementing behaviour that differ from the standard GEOiD installation demands, are considered tailor made and charged accordingly.

This and the following paragraphs, will describe the GEOiD-COL server installation in a Citrix MetaFrame environment.

### Citrix test environment

Information about the Citrix environment in which GEOiD and GEOiD-COL server are tested:

- Citrix Presentation Server 4.0;
- The user-session is performed through an ICA Client.

### See also:

"Client" on page 7

"The information window" on page 10

"Conditions for a Citrix server installation" on page 23

## GEOiD-COL server

# Port settings



### Introduction

Problems may occur when starting several sessions on virtual machines (defined on a *Citrix Presentation Server*, depending on the configuration). GEOiD needs two ports for every session started. Ports are set in GEOiD by default as port 32094 and 32096 (ports are fixed to prevent security leaks). For every session mutex objects are created too. The COL server uses port 32095 and 32097.

Always consult GEO's support desk first before you want to adjust the settings.

Depending on the specific situation, an overview of possible port settings are described below.

### Port settings

Port settings should be adjusted by the Administrator in the **GEOID.INI** file. Port settings are not available and therefore can not be edit in the GEOiD Preferences dialog.

#### Fixed port

Set GEOID.INI to work with "fixed port":

```
[MTLS]
BindArpcMaxPort=1;"0";;0
BindArpcMinPort=1;"0";;0
BindArpcPort=1;"32096";;0
```

#### Floating port

Set GEOID.INI to work with "fluctuating port":

```
[MTLS]
BindArpcMaxPort=1;"0";;0
BindArpcMinPort=1;"0";;0
BindArpcPort=1;"0";;0
```

#### Port range

Set GEOID.INI to work with "port range":

```
[MTLS]
BindArpcMaxPort=1;"32196";;0
BindArpcMinPort=1;"32096";;0
BindArpcPort=1;"0";;0
```

### Attention

Security leaks in firewalls may occur when setting a fluctuating port or port range.

### Network mask

Set LNS.INI to work with "network mask":

```
[CONNECTION]
ArpMask=1;"0xFFFFFFFF";;0
```

Set every client GEOID.INI to work with "network mask":

```
[MTLS]
ArpMask=1;"0xFFFFFFFF";;0
```

The values for the GEOID.INI ArpMask and the LNS.INI ArpMask must match.

### See also:

"Client" on page 7

"The information window" on page 10

"Installation of the COL-Server" on page 16

"Conditions for a Citrix server installation" on page 23

## Installation

# Installation of the COL-Server



### Introduction

The COL-Server is server software made by GEO Instrument that does not need any specific configuration. GEO can make proper adjustments for your organisation if needed. New functionality will be implemented in future versions of the server software based on your suggestions.

### 1) Download, register, installation and start the COL-Server:



Download the GEOiD COL-Server software called **GEOiD\_ColServer\_Setup.exe** from <http://www.geo-instrument.com/GEOiD.asp>;

- Activate the file **GEOiD\_ColServer\_Setup.exe**
- Click the **Next > button**;
- Select the **Program directory** e.g. C:\Program files (x86)\GEOiD-COL and click the **Next > button**;
- Select a **Program group** and click the **Next > button**;
- Determine whether to install a **Short cut on your desktop** and click the **Next > button**;
- Click the **Next > button** to install the COL-Server;
- After installing GEOiD\_ColServer\_Setup.exe, you can start the **LNS.exe** via "**Start-Programs-GEOiD-COL**";
- The COL-Server software opens with the message "Security Database Fault";
- Go to <http://www.geo-instrument.com/Weblicense.asp> and enter the required information:

**Username:**

**Password:**

- Copy **ID1** and **ID2** from the COL-Server window and paste it in the identical web page entry fields;
- Enter the **server name** (including IP-Address);
- Press the **download button** and save the COL-Server license in **C:\Program Files (x86)\GEOiD-COL** (default);
- Restart de COL-server;
- The COL-Server is now ready to respond to GEOiD license requests.

### Install COL-Server as Service

Alternatively you may install the COL-Server as a Service. The sub folder "SVC" located in the COL-Server installation folder contains the following three files:

AsNtService.exe

AsNtService.ini

Info.txt

The file Info.txt includes information on how to install the COL-Server as Service and which settings need to be addressed in the file AsNtService.ini.

### Virtual Server

ID's may be different after a server restart in case the COL-Server is installed on a virtual server. You should lock the CPU and MAC address to prevent ID's from changing.

### Locking the CPU



Open the **Cluster Edit settings**;

- Select **Vmware DRS/ Virtual options**;
- Select the virtual machine where the GEOiD COL-Server is running on;
- Check **Disabled**.

The virtual machine will no longer be moved automatically to a diferent vmware server.

### Locking a MAC address



Use static MAC address instead of dynamic ones.

- Open the **Properties of a virtual NIC** and select **Static MAC address**;
- The first three octets of a MAC address (00-15-5d) are registered by Microsoft for Hyper-V and should be left unchanged;
- For the following three octets you need to check if the MAC address is not in use elsewhere to prevent MAC address conflicts.

### Note

Operation on Windows 2000 (servers) is not warranted.



## 2) Installation procedure local software:



Download the GEOiD software from <http://www.geo-instrument.com/GEOiD.asp>;

- Install GEOiD **with Administrator rights**;
- If previously a local license was used (for example for demo purposes), please remove the file **QuinqS.dll** from the folder C:\Programdata\GEOiD\System;
- If GEOiD doesn't start and instead the message 'COL-server cannot be found' is displayed, check "5) The Client still has no connection with the server" on page 29 for more information. The best result is achieved by checking "4) Directed COL-Server connection" on page 28.

### See also:

"The COL server license" on page 5

"Introduction to the GEOiD-COL server" on page 6

"Client" on page 7

"The information window" on page 10

"In a Citrix Metaframe server environment" on page 14

## Options

# Options

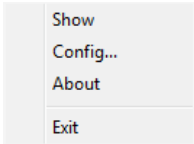


### Introduction

Default COL-Server settings can be changed for example to use a specific network card or port. Changing default settings is almost always initiated by problems that are registered in the COL-Server logbook. See “The logbook” on page 12 and “The external logbook” on page 13.

This paragraph describes the settings.

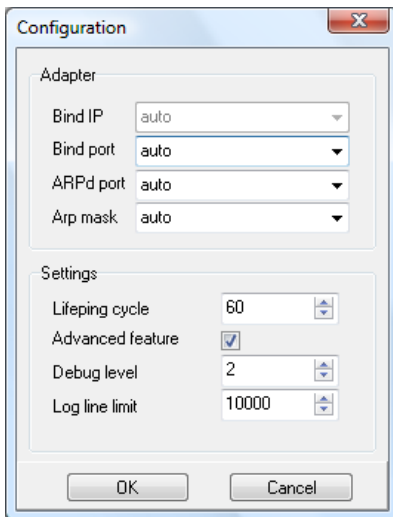
### Window Opties



Position the **mouse pointer** on the **COL-Server icon in the systray**.

- Click the **right mouse button**.
- Select **Config....**

### The configuration window



### Attention

Settings may only be changed when directed to by GEO's support desk.

## Adapter settings



**Bind IP:** Not in use.

- **Bind port:** Port for license requests.
- **ARPD port:** Port for address requests.
- **Arp mask:** Network Subnet mask.

To use the above adapter settings it is required to use Directed COL server connection on the clients. See: "4) Directed COL-Server connection" on page 28.

- **Lifeping cycle:** Interval in which the connection is checked.
- **Advanced feature:** Activates advanced features.
- **Debug level:** Set the extension of the **log window**.
- **Log line limit:** **Log window** settings limits.

### See also:

"The logbook" on page 12

"The external logbook" on page 13

"4) Directed COL-Server connection" on page 28

## Conditions

# Conditions for a standard network installation



### Introduction

In this paragraph, we describe the conditions for a standard network installation.

### Conditions

1. Using the GEOiD software is possible only if a proper license is available.
2. In case GEOiD is used on a Windows 2003 Server, Service Pack 1 must be installed on the Windows 2003 Server.
3. The current security procedure in GEOiD is based on a unique and permanent MAC address. This means that no matter whether COL or PCL license is used, every work station and/or server should have a stable MAC address, which does not change with every restart. The GEOiD software will not work properly without a permanent MAC address. In order to control the MAC address we advise you to follow the instructions in the section '**Locking a MAC-Address**' in paragraph "**Installation of the COL-Server**" on page 16.
4. GEOiD supports two versions of the GEOID.INI file – one in the %AllUserProfile%\GEOiD\System (on the server or PC, where GEOiD is installed) and one locally in the %AppData%\GEOiD path. When starting GEOiD settings will be loaded from the GEOID.INI file if it exists in the local path, otherwise settings will be loaded from the GEOID.INI file in the %AllUserProfile%\GEOiD\System directory. When GEOiD is closed GEOiD will attempt to refresh INI files in both locations.

Setting the %AllUserProfile%\GEOiD\System directory GEOID.INI file as *read only* will protect it from user changes. In this case, every user will be provided the opportunity to preserve his/her own configuration settings without interfering with the configuration settings of the other users.

If company policy is to maintain uniform configuration settings for all users, then the local %AppData%\GEOiD\GEOID.INI file should be write-protected as well.

5. The COL-Server dictates that software licenses must be identical. For example all software licenses must be GEOiD, or all must be GEOiD-SBV. Combinations of one type of software license with another type are not possible.
6. Installation of more than one COL-Server is not supported.
7. Make sure to set your display settings to use 32-bit color depth when working in a server environment regardless whether you are connecting over RDP or working directly in Citrix or Terminal Server.

### Attention

Since the IPCONFIG application (in command prompt) does not show the possible changes in the MAC-address it is not appropriate to test with.

### Central distribution of GEOiD

If GEOiD is to be distributed centrally, we strongly advise you to start the application and define a set of standard settings (file locations, line/hatching types and colours, table lay-outs, etc.) After this is done, close GEOiD. The defined standard settings will be saved in the GEOID.INI file.

You can protect predefined settings from unwanted changes by changing the properties of the GEOiD.INI file to "read-only".

### Note

Local settings may still be changed by user.

GEOiD will load the original default settings from the application folder if started for the first time and if the local GEOiD.INI file is deleted.

- Set the appropriate (network) file locations in the corresponding variables in the *Directories* section of GEOID.INI:

#### [Directories]

```
DataDir=1;"m:\Calculaties\QuinqData";;0
ExportsetDir=1;" m:\Calculaties\Export";;0
FilterDir=1;" m:\Calculaties\Filter";;0
ImportFiles=1;" m:\Calculaties\Data";;0
MenuDir=1;" m:\Calculaties\Menus";;0
SymbolDir=1;" m:\Calculaties\Symbolen";;0
TemplateDir=1;" m:\Calculaties\Template";;0
```

#### Changing environment variables

File locations can be defined using environment variables as well. During the installation of GEOiD a new environment variable, *QUINQDIR* will be added to the system and a value, corresponding to the GEOiD root directory will be assigned to it. Changing the

value of this environment variable in the system can provide a quick and accurate solution for adjusting file locations. Default values for file locations are:

**[Directories]**

DataDir=1;"%QUINQDIR%\Data";;0  
ExportsetDir=1;"%QUINQDIR%\Export";;0  
FilterDir=1;"%QUINQDIR%\Filter";;0  
ImportFiles=1;"%QUINQDIR%\Data";;0  
MenuDir=1;"%QUINQDIR%\Menus";;0  
SymbolDir=1;"%QUINQDIR%\Symbolen";;0  
TemplateDir=1;"%QUINQDIR%\Template";;0

**Note**

Changing the QUINQDIR variable value in the system to 'm:\Cost\_estimation' has the same effect as adjusting every path separately in the GEOiD Preferences dialog or directly in the GEOID.INI file.

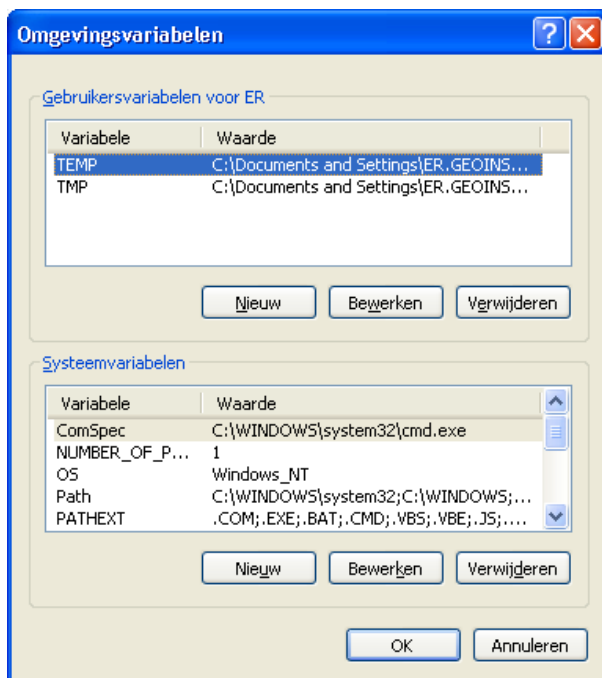
**Method**

The QUINQDIR environment variable value can be changed in the system by following the next steps:



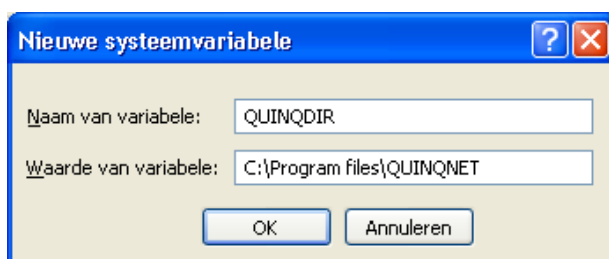
Go to the desktop and click with the **right mouse button** on **This computer icon**.

- Select **Properties** from the context menu. The System properties dialog opens.
- Select the **Advanced tab sheet**.
- Click the button **Environment variables**. The Environment variables dialog opens.



Click the button **New/Edit**. This will invoke the New (Edit) environment variable dialog.

- Enter the **variable name and value** as shown in the picture (Replace QUINQNET with GEOiD) below and click **OK** to close the dialog.



#### Centrally disabling the GEOiD auto-update function

- Open the file GEOiD.INI in the application folder and search for the line: **UpdateCheckInterval=1;"30";;0**
- Change the line as follows: **UpdateCheckInterval=1;"0";;0**
- **Save the file.**
- Distribute a login script for the users that should delete the **%APPDATA%\GEOiD\GEOiD.INI file** at user log in. Make sure GEOiD is not running.

#### Note

As a result of the procedure described above, user will loose all previously defined personal settings. During the start of GEOiD, settings will be read from the application folder and applied. User will work with these specific settings from this moment onwards.

#### See also:

"Introduction to the GEOiD-COL server" on page 6

"Installation of the COL-Server" on page 16

"Conditions for a Citrix server installation" on page 23

## Conditions

# Conditions for a Citrix server installation



### Introduction

In this paragraph, we describe the conditions for a Citrix server installation.

### Conditions

1. A GEOiD software license is required to use the GEOiD software.
2. If the GEOiD software is to be used on a CITRIX server, the Microsoft .NET Framework must be installed on the server. In addition, read, write and edit rights must be granted for the GEOiD directory and its subdirectories.
3. If GEOiD is to be installed in a so-called Citrix farm, then the same GEOiD installation should be performed on every server that belongs to the Citrix farm. For example 10 server machines result in 10 separate GEOiD installations.
4. Depending on the by *load balancing*, a specific instance of the GEOiD software (from the currently selected *Application Server*) is started. For the user it appears as if the GEOiD software is always started with configuration settings that are different from his personal ones. In order to prevent this, the GEOiD application attempts to save the settings both in the program (server) directory and in the local `%AppData%\GEOiD` directory.

#### Overview of GEOiD files, containing configuration setting:

GEOiD.INI; GEOiD.mnu.

5. Standard paths for essential program modules should be set properly in GEOiD to prevent error messages caused by faulty path references. For more detailed information refer to the GEOiD manual, paragraph **Options – tab sheet File locations**.

#### Using the GEO:LAT sonic digitiser

6. The administrator must activate the “**com-port mapping**” for this server and must redirect the com port to the client, using for example “**net use com1: \\client\com1:**”. In case of Windows Terminal server “**net use com1: \\tsclient\com1:**” must be applied.
7. Starting several GEOiD sessions on virtual machines defined on a *Citrix Presentation Server* may cause problems depending on the configuration. GEOiD needs two ports set in GEOiD by default as port 32094 and 32096 for every session that is started. Ports are fixed to prevent security leaks. For every session mutex objects are created too. See “Port settings” on page 15.

#### See also:

“Introduction to the GEOiD-COL server” on page 6

“Conditions for a standard network installation” on page 20

## Connection problems

### General



#### Introduction

Research work must be performed if GEOiD experiences problems while trying to connect to the COL-Server. The main focus of the investigation is port communication.

Contact our Support desk for more information.

#### Investigation topics

Port communications are investigated by GEO in collaboration with user. Depending on the outcome more investigation may be required. The investigation includes the following four topics:

1. Directed COL-Server connection;
2. Testing fluctuating port (settings);
3. Testing the broadcast (settings);
4. Testing fixed port (settings);
5. Investigation on site.

#### See also:

"Port settings" on page 15

"1) Testing fixed port (settings)" on page 25

"2) Testing fluctuating port (settings)" on page 26

"3) Testing the broadcast (settings)" on page 27

"4) Directed COL-Server connection" on page 28

"5) The Client still has no connection with the server" on page 29



## Connection problems

# 1) Testing fixed port (settings)



### Introduction

This paragraph describes the procedure of testing the fixed ports using the test software provided by GEO. This test should only be performed after consulting GEO. The test results will be analyzed by GEO and evaluated with user.

### Required time

The test takes approximately 15 minutes.

### Requirements

The test software LNS\_Client. Located in %AllUserProfile%\GEOiD\System on user machines and in the GEOiD COL-Server directory.

### Method

- **Close all the COL server related applications** - LNS.exe and LNS\_Client.exe;
- **Start the LNS.exe software on the server;**
- **Start the LNS\_Client.exe software on each Client;**
- **Start the LNS\_Client.exe software on the server** as well;
- In every LNS\_Client application activate the connection by selecting the main menu-item **LNS**, sub-item **Connect**.
- **Save the LNS.exe logbook from the Server** by clicking the **right mouse button** in the (log) window and select **save protocol**.
- Save the LNS\_Client.exe logbook of each client and the LNS\_Client.exe logbook of the server - click the **Save memo** button.

### The test results

Send the following information to GEO:

- A) One logbook of LNS.exe;
- B) Two logbooks of LNS\_Client.exe running on Client machines;
- C) One logbook of LNS\_Client.exe running on the Server.

### The result of our investigation

GEO will analyse the results and evaluate them with you. If the problem is still not solved, GEO and user will decide whether to continue the investigation with a second test on port settings. See "Connection problems" on page 24.

### See also:

- "Port settings" on page 15
- "Connection problems" on page 24
- "1) Testing fixed port (settings)" on page 25
- "2) Testing fluctuating port (settings)" on page 26
- "3) Testing the broadcast (settings)" on page 27
- "4) Directed COL-Server connection" on page 28
- "5) The Client still has no connection with the server" on page 29

## Connection problems

# 2) Testing fluctuating port (settings)



### Introduction

This paragraph describes the procedure of testing fluctuating ports using the test software provided by GEO. This test should only be performed after consulting GEO. The test results will be analyzed by GEO and evaluated with user.

### Required time

The test takes approximately 15 minutes.

### Requirements

The test software LNS\_Client. Located in %AllUserProfile%\GEOiD\System on user machines and in the GEOiD COL-Server directory.

### Changing LNS\_Client.INI to use a fluctuating port

- Close all LNS\_Client.exe instances;
- Change each LNS\_Client.ini file as follows:

```
[Connection]
BindArpcMaxPort=1;"0";;0
BindArpcMinPort=1;"0";;0
BindArpcPort=1;"0";;0
```

### Method

- Start the **LNS.exe software on the server**;
- Start the **LNS\_Client.exe software on each Client**;
- Start the **LNS\_Client.exe software on the server as well**;
- In every LNS-Client application **activate the connection** by selecting the main menu -item **LNS**, sub-item **Connect**.
- **Save the LNS.exe logbook** from the Server by clicking the **right mouse button** in the (log) window and select **save protocol**.
- Save the **LNS\_Client.exe logbook of each client** and the **LNS\_Client.exe logbook of the server** by clicking the **Save memo** button.

### The test results

Send the following information to GEO:

- A) One logbook of LNS.exe;
- B) Two logbooks of LNS\_Client.exe running on Client machines;
- C) One logbook of LNS\_Client.exe running on the Server.

### The result of our investigation

GEO will analyse the results and evaluate them with user. If the problem is still not solved, GEO and user will decide whether to continue the investigation on site. See "Connection problems" on page 24.

### See also:

- "Port settings" on page 15
- "Connection problems" on page 24
- "1) Testing fixed port (settings)" on page 25
- "2) Testing fluctuating port (settings)" on page 26
- "3) Testing the broadcast (settings)" on page 27
- "4) Directed COL-Server connection" on page 28
- "5) The Client still has no connection with the server" on page 29

## 3) Testing the broadcast (settings)



### Introduction

The most common reason for non-communication is that no packages are sent to or received from the server. This is network configuration related and must be examined by user.

### Required time

The test takes approximately 15 minutes.

### Requirements

The required information can be found in the logs of the 'Node' that provides the connection.

The test software LNS\_Client. Located in %AllUserProfile%\GEOiD\System on user machines and in the GEOiD COL-Server directory.

### See also:

"Connection problems" on page 24

"1) Testing fixed port (settings)" on page 25

"2) Testing fluctuating port (settings)" on page 26

"3) Testing the broadcast (settings)" on page 27

"4) Directed COL-Server connection" on page 28

"5) The Client still has no connection with the server" on page 29

## 4) Directed COL-Server connection



### Introduction

The "Directed COL-Server connection" functionality is introduced to enable the use of GEOiD in combination with a COL-Server in networks if broadcasting is not available. In order to make use of this new feature, the variables described below should be included in the GEOiD.INI file located on the user PC or on the server in case of workstations. This method is preferred above changing the Port settings manually.

### Variables

[MTLS]

COLServerDirectedHost=1;fileserver1.domain;;0

**COLServerDirectedPort=1;32095;;0**

Or

[MTLS]

COLServerDirectedHost=1;10.0.0.50;;0

**COLServerDirectedPort=1;32095;;0**

Variable COLServerDirectedHost should contain the IP-address or host name of the machine where the COL-Server application is installed. Variable COLServerDirectedPort should contain the value of the corresponding port.

### See also:

"Connection problems" on page 24

"1) Testing fixed port (settings)" on page 25

"2) Testing fluctuating port (settings)" on page 26

"3) Testing the broadcast (settings)" on page 27

"4) Directed COL-Server connection" on page 28

"5) The Client still has no connection with the server" on page 29

## Connection problems

# 5) The Client still has no connection with the server



### Introduction

Most common reason for non-communication is that no packages are sent to or received from the server. This is network configuration related and must be examined on site by GEO. For costs involved for on-site support please contact GEO's Support desk.

### Firewall

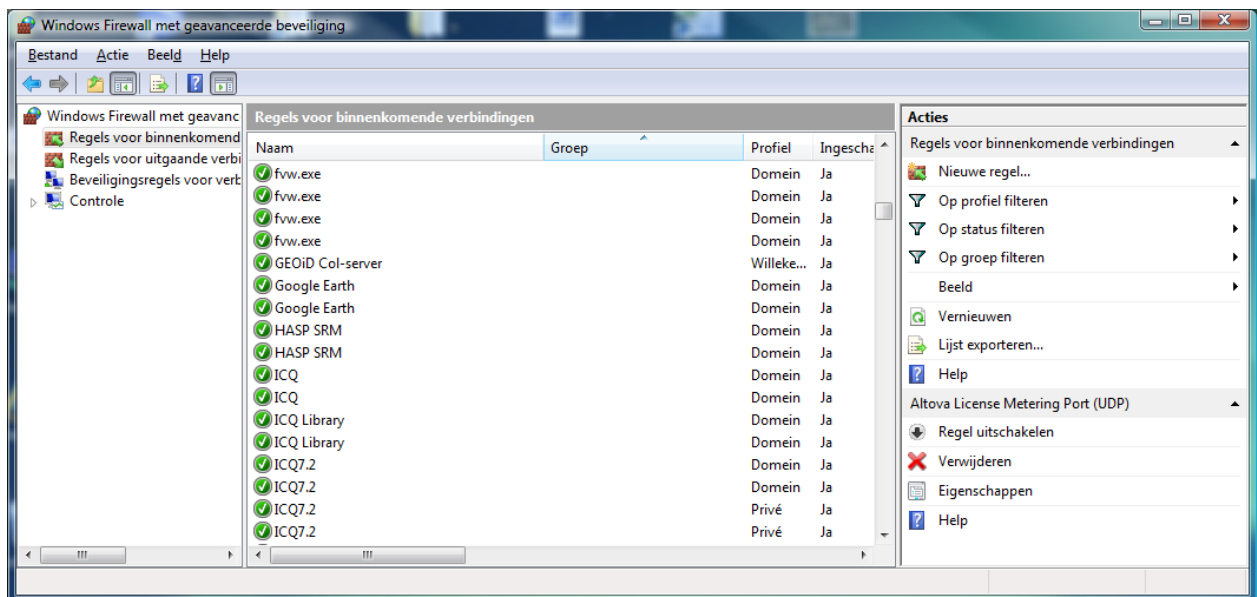
Firewall blockades must be cleared to enable communication between COL-Server and GEOiD.

### Firewall inbound rule definition

In Windows 2008 R2 Windows Firewall by default blocks communication between COL-Server and GEOiD client. An Inbound rule needs to be defined in Windows Firewall to clear this blocking.

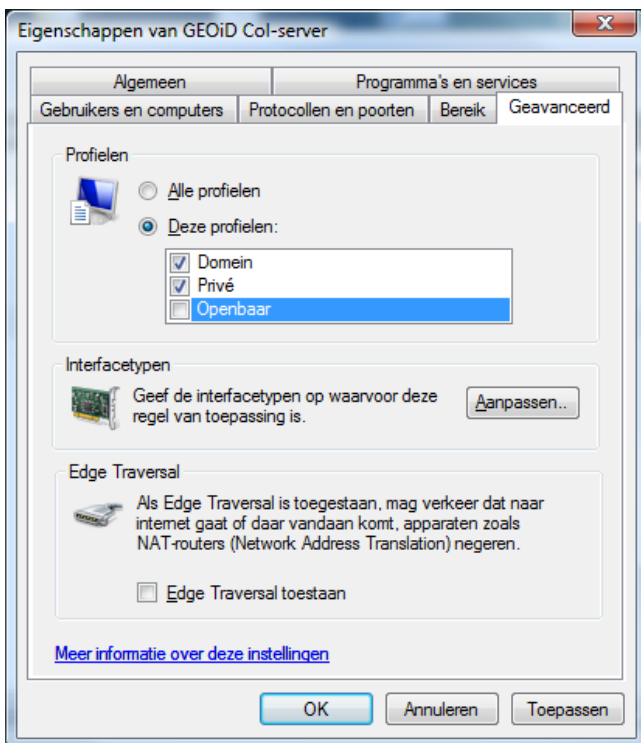
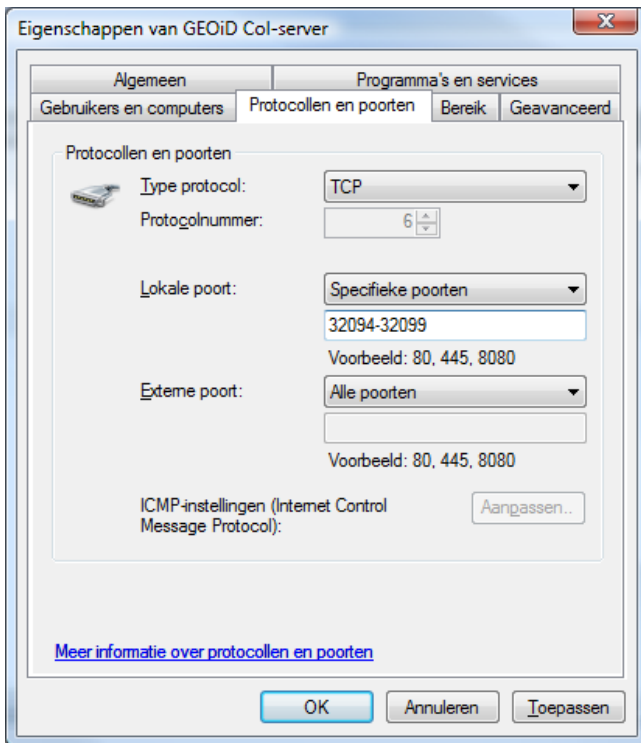


**Open Server Manager – Configuration – Windows Firewall – Inbound Rules;**



**Right click on Inbound rules;**

- Select **New rule**;
- Copy the settings from the following pictures.



Open port 137 on the GEOiD client if communication is blocked.

**See also:**

- “Connection problems” on page 24
- “1) Testing fixed port (settings)” on page 25
- “2) Testing fluctuating port (settings)” on page 26
- “3) Testing the broadcast (settings)” on page 27
- “4) Directed COL-Server connection” on page 28
- “5) The Client still has no connection with the server” on page 29

## Temporary use for stand alone PC



### Introduction

You may request for temporary use of GEOiD software if the COL-Server is not functioning properly due to technical problems. The temporary use always refers to the stand alone PC of end-user. Temporary use is evaluated with end-user, ICT manager and GEO.

This paragraph describes the procedure for temporary use.

### Method

- The GEOiD software 32 bit must be installed on the stand alone PC of end-user. The GEOiD software is offered for download on GEO's support page <http://www.geo-instrument.com/GEOiD.asp>;
- Start GEOiD using the short cut on your desktop or by GEOiD.exe in the GEOiD program directory usually located in C:\Program files (x86)\GEOiD;
- Call GEO's support desk and apply information on the current procedure.

### Period of temporary use

The GEOiD software is made available for temporary use for a period of one week or one month depending on the situation.

### See also:

"Connection problems" on page 24

"1) Testing fixed port (settings)" on page 25

"2) Testing fluctuating port (settings)" on page 26

"3) Testing the broadcast (settings)" on page 27

"4) Directed COL-Server connection" on page 28

"5) The Client still has no connection with the server" on page 29

## Your remarks

# Remarks

### Introduction

Write down your remarks and wishes and pass them on to GEO. By doing so, you enable us to optimise procedures and information exchange.



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