

# **GEOSYSTEMS License Tools**

## How-to-Use Guide

Software Version: 1.6

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#### **1 GEOSYSTEMS Software - Quick Guide**

The GEOSYSTEMS License Tools is the licensing administrator for all GEOSYSTEMS Software.

Setting up GEOSYSTEMS License Tools is done in one of two ways:

- For systems that host the licenses, this being either Standalone Systems or Dedicated License Servers, the GEOSYSTEMS License Tools must be installed, and the Windows service named GEOSYSTEMS License Service must be initialized.
- For systems that are Clients i.e., they receive their license from a licensing server. Only the GEOSYSTEMS License Tools need to be installed. There is no need to configure Windows service.

#### 1.1 Installation Steps of GEOSYSTEMS Software

The installation of GEOSYSTEMS Software follows these steps:

- 1. Installing the GEOSYSTEMS Software by running the dedicated installer.
- 2. In most cases GEOSYSTEMS License Tools will be automatically installed with the software installer.
- 3. If the automatic install did not happen, or a Dedicated Licensing Server is being configured then GEOSYSTEMS License Tools must be installed manually through the dedicated installer.
- 4. Use the GEOSYSTEMS License Tools to retrieve your HostID. Use the HostID to apply for the GEOSYSTEMS license file. (Standalone systems or Dedicated License Servers).
- 5. Once you have received the license file, install the license using the GEOSYSTEMS License Tools. (Standalone systems or Dedicated License Servers)
- 6. Connect to the License Server using GEOSYSTEMS License Tools (Client System)
- 7. Run the GEOSYSTEMS Software.

#### **1.2 Installation Prerequisites**

For the GEOSYSTEMS License Tools installation, full administration privileges are required.



System Type	What needs to be installed and configured
	Install <b>GEOSYSTEMS Software.</b> This typically includes the <b>GEOSYSTEMS</b> <b>License Tools.</b> (If not, use the GEOSYSTEMS License Tools Installer separately)
Standalone Systems	➔ Add the GEOSYSTEMS license file to the License Tools via Add Local License and make sure that the GEOSYSTEMS Windows Service starts up (check icon in lower right).
	Install <b>GEOSYSTEMS Software.</b> This includes the <b>GEOSYSTEMS License</b> <b>Tools</b> (If not use the GEOSYSTEMS License Tools Installer separately)
Client(s) in a Network	➔ Add the GEOSYSTEMS license file to the License Tools via Add Remote License Server.
	[For the Administrator: if necessary, open the required ports (Firewall) so the Client (the GEOSYSTEMS License Tools) can connect to retrieve the GEOSYSTEMS license file.]
	Install the GEOSYSTEMS License Tools
Remote License Server	➔ Add the GEOSYSTEMS license file to the License Tools via Add Local License and make sure that the GEOSYSTEMS Windows Service starts up.
	[For the Administrator: if necessary, open the required ports so the Client can connect to the Server to get the license file.]

#### **1.3 The GEOSYSTEMS Licensing – what must be installed where?**



#### 2 **GEOSYSTEMS** Licensing

GEOSYSTEMS has its own licensing for its software products.

It uses RLM from Reprise Soft, an equivalent licensing scheme to FlexNet, used by Hexagon.

Essentially the licensing consists of a Windows service providing the GEOSYSTEMS license. The tool to set up this service, is the GEOSYSTEMS License Tools, which must be installed on all systems where GEOSYSTEMS Software is supposed to run. In a client-server environment, it also needs to be installed on a License Server.

Note: Client Systems do not require the setup of Windows Service.

- GEOSYSTEMS licenses can be floating (concurrent) or node-locked.
- Client-server configurations are supported.
- Hardware keys / dongles are not supported.

#### 2.1 License Setup on Standalone System or Dedicated License Server

The following instructions are valid for the license setup on a standalone (local) system or on a dedicated (remote) license server.

After GEOSYSTEMS License Tools have been successfully installed, a new program can be found in the Windows Start Menu: GEOSYSTEMS GEOSYSTEMS License Tools 1.6.x.

The GEOSYSTEMS License Tools can now be started.

#### Once again full administration privileges are required.

## GEOSYSTEMS License Tool 1.6.2 – – × File Get HostID License Sources License Service About Show HostID C License Sources Available Products Ver Product Info Service status: O

#### Select Get HostID | Show HostID:



HostIDs found on your system will be shown.

¢	🏓 Sh	nows	HostIDs of this	computer				?	×
	Ho	stIDs			•	Туре	Description		
	> >	GE( DIS BIO	0050569db258 DSYSTEMS Dong K Serial S UUID	gle (not available)	l	LAN	Intel(R) 82574L	Giga	
				Copy selected ID		Close	]		

Select the ID whose usage is appropriate. Using the local LAN (Ethernet) is recommended. Click on *Copy selected HostID* to save the ID in the clipboard.

#### The HostID is specific to the Users hardware.

It must be sent to keycode@geosystems.de to request a GEOSYSTEMS license.

After receiving the unique for every HostID GEOSYSTEMS License file (\*.lic), import the local license using *Add local License* button.



After selection of the correct .lic file, the license is imported, and the GEOSYSTEMS license service will start automatically:



The GEOSYSTEMS License Tools display information about the licensed products.



File Get HostID License Sources License Service About				
		6	1	
License Sources	Available Produc	ts Versions	Product Info	Value
	1 atcoroperators	2020		
	2 noclouds	2020	_	
	3 noclouds_mosaic	2020	_	13
	4 rlm_server_enable_	vm 1.0	_	
	5 sentinelservice	1.0	_	
	6 uavoperators	2020		
< >>				
				Service status:

To retrieve detailed license information, click on the product name:

<u> </u>		C			Ĉ 🖗 🛔 :
License Sources	Available Products	Versions	Γ	Product Info	Value
	1 atcoroperators	2020	1	Name	atcoroperators
	2 noclouds	2020	2	Version	2020
	3 noclouds_mosaic	2020	3	Expiration date	31-dec-2021
	4 rlm_server_enable_vm	1.0	4	Number of Licenses	single node-locked
	5 sentinelservice	1.0	5	Customer info	GEOSYSTEMS IR Pluto
	6 uavoperators	2020	6	Contract info	Ticket 21-264

→ Now the GEOSYSTEMS License Tools can be closed. The Windows GEOSYSTEMS license service is started. The local copy of your **GEOSYSTEMS Software** is licensed and can be used.



In case the license cannot be found or is invalid, an Error Message is displayed with first hints where to look for probable reasons.



#### 2.1.1 Windows Service

This	can be	controlled	bv	checking	the	windows	services:
			~ ,	•			

Services					
File Action View	Help				
(+ +) 🛅 🖾 🖉	4 B 🖬 🖬 🕨 🖩 H 🕨				
Services (Local)	Services (Local)				
GEOSYSTEMS License Service		Name	Status	Startup Type	Log On As
		Carl Extensible Authentication Protocol		Manual	Local System
	Stop the service	💁 Fax		Manual	Network Se
	Restart the service	Service File History Service		Manual (Trigg	Local System
		Service FlexNet Licensing Service	Running	Automatic	Local System
		FlexNet Licensing Service 64	Running	Automatic	Local System
		Runction Discovery Provider Host		Manual	Local Service
		Sunction Discovery Resource Publication		Manual (Trigg	Local Service
		Geolocation Service	Running	Manual (Trigg	Local System
		CEOSYSTEMS License Service	Running	Automatic	Local System

#### 2.2 License Setup on a Client

Both – license server and client - must be visible within the network. Start the GEOSYSTEMS License Tools (located in the Start Menu: GEOSYSTEMS).

#### Full administration privileges are required.

Once the license source, on a dedicated (remote) license server, has been fully established, the client can connect to it via the GEOSYSTEMS License Tools (see below). If there are problems setting up the license server, please consult 2.1.



<b>7</b> (	) 🔄 🔟								
	Add Remote License Server					~			<b>6</b> 8 4
License Sources	C Add Remote Server			? ×	Versions			Product Info	Value
GEOSYST	Server Name:						i	Name	atcoroperators
	Knc	own Serv	ren	$\sim$			2	Version	
	Add Server		Cancel					Expiration date	31-dec-2021
		-	nni_server_enable	29111-150			4	Number of Licenses	single node-locked
		5	sentinelservice				5	Customer info	GEOSYSTEMS IR Pluto
		6	uavoperators				6	Contract info	Ticket 21-264

To do this, enter the server's name or IP address of the license server in the following menu:

🍼 Add Remote Server		?	$\times$
Server Name:	my-license-server		
	Known Server:		
Use custom port			
Add Server	Cancel		

If the server's name has been entered already it is available in the pull-down menu Known Server.

In case the **RLM daemon's port** has been changed (see chapter 3.1.1) it is also required to set this new port number in the *Add Remote Server* menu:

😎 Add Remote Server	?	$\times$
Server Name: my-license-server		
Known Server:		$\sim$
Use custom port 🗹 7044		
Add Server Cancel		

If the license from your license server is visible, you are ready to use the software on the client machine.

If the license remains unavailable, please check Chapter 3.1

Please note: In this case a local Windows service is not necessary, and the service status (lower right) shows *License Server not installed* 





GEOSYSTEMS License Tool 1.6.2 File Get HostID License Sources License Service About				- 0 X
		C		
License Sources	Available Products	Versions	Product Info	Value
<ul> <li>Geosystems HostID=302432DFA241_</li> <li>roam</li> </ul>	2 sentinelservice	1.0		
				Service status: 🏑

→ Now the GEOSYSTEMS License Tools can be closed. The local copy of the **GEOSYSTEMS Software** receives its license from the License Server and can be used.



#### 3 Advanced Configuration

#### 3.1 Ports and Firewall Configuration

This section is meant for system administrators or experienced users only.

#### 3.1.1 Port for the RLM Daemon (License Server Port)

The default port used for the RLM daemon on the **License Server** is port **5053**. If it is not available, the RML Daemon (rlm.exe) will not start up at all and the License service cannot be started. This can be seen in the log file:

01/17 14:12 (rlm) Port 5053 in use, waiting ...

In this case the GEOSYSTEMS License File (\_.lic) will have to be edited, and another available port must be chosen manually.

Example, e.g., changing port from 5053 to 7044:

HOST localhost e86a64df6366 <mark>5053</mark>
ISV geosystems
LICENSE geosystems rlm_server_enable_vm 1.0 permanent single hostid=e86a64df6366 issuer=GEOSYSTEMS customer="GEOSYSTEMS IR Pluto"
contract="Ticket 21-264" issued=17-may-2021 replace _ck=t51413d6te
+
HOST localhost e86a64df6366 <mark>7044</mark>
ISV geosystems
LICENSE geosystems <u>rlm_server_enable_vm</u> 1.0 permanent single <u>hostid</u> =e86a64df6366 issuer=GEOSYSTEMS customer="GEOSYSTEMS IR Pluto" contract="Ticket 21-264" issued=17-may-2021 replace _ck=f51413d6fe

Upon changing the port number, the service must be re-started:

U €→ Stop License Service Start License Service

**If a firewall is running:** Additionally, the new port needs to be added to the firewall by right clicking the License server in use, under the *License Source* tab and selecting the option *Add Ports to Firewall*:

File Get HostID License Sources License Service	About					
<u></u>	×			C		C V S ×
License Sources			Available Products	Versions	Product Info	Value
GEOSYSTEMS IR Pluto_HostID=e86a64df636	6_ATCOF	1	atcoroperators	2020		
my-license-server		_		2020		
A	dd Ports to emove Por	ts fi	ewall rom Firewall	2020		
		4	rlm_server_enable_vm	1.0		
		5	sentinelservice	1.0		
		6	uavoperators	2020		
<	>					
						Service status: 🏑 👔

#### 3.1.2 Port for the GEOSYSTEMS Vendor Daemon (Vendor Port) [for Administrators]

There is no default port which is used for the GEOSYSTEMS vendor daemon (ISV GEOSYSTEMS) on the License Server. It selects a different number whenever the program is started.



C GEOSYSTEMS License Tool 1.6.2 × File Get HostID License Sources License Service About θ **≤**→ (U) C  $\mathbf{x}$ × License Sources Available Products Versions Product Info Value 1 atcoroperators 2020 GEOSYSTEMS IR Pluto\_HostID=e86a64df6366\_ATCOF Floating License. HostID: e86a64df6366 License Server Port: 5053 2 noclouds 2020 Vendor: geosystems Vendor Port: not fixed 3 noclouds\_mosaic 2020 4 rlm\_server\_enable\_vm 1.0 5 sentinelservice 1.0 6 uavoperators 2020 < > Service status: 🟑

The bubble help over the License Source will show: Vendor Port: not fixed.

The random port automatically selected can be seen in the log file:

01/17 14:01 (rlm) Starting ISV servers: 01/17 14:01 (rlm) ... GEOSYSTEMS on port **57831** 

In case the automatically selected port is not appropriate, e.g., as it is interfering with the firewall configuration in the network (check firewall settings), it is possible to set a custom port for the GEOSYSTEMS License Server in use by editing the GEOSYSTEMS license file on the server (.lic) with a new port. A port number of **24000** is recommended for the ISV GEOSYSTEMS vendor daemon.

#### Example:

The part > port=24000 < must be added manually:

HOST localhost e86a64df6366 5053 ISV geosystems port=24000 LICENSE geosystems rlm\_server\_enable\_vm 1.0 permanent single hostid=e86a64df6366 issuer=GEOSYSTEMS customer="GEOSYSTEMS IR Pluto" contract="Ticket 21-264" issued=17-may-2021 replace \_ck=f51413d6fe

To make the License Server use the new port available the windows service needs to be re-started:

© S Stop License Service Start License Service

Now the Bubble Help over the License Source will show: Vendor Port: 24000





**If a firewall is running:** Additionally, the new port needs to be added to the firewall of the license server by right clicking on the *License Source* and selecting the option *Add Ports to Firewall*:

<b>9</b>		GEO
File Get HostID	License Sources	License Service Abo
🔍 P 🔮	🔄 💟	
		📀 🗙
License Sourc	es	Availal
Sinus ,		1 atcor
v	Add Ports to	Firewall
	Remove Por	ts from Firewall
l '		3 metam
		4 sentine

#### 3.1.3 Info about Ports (list the currently used ports)

With the command netstat -ano (entered in the Command Prompt) it is possible to check which ports are currently in use on your system.

#### 3.2 License Borrowing

The license borrowing mechanism allows the execution of GEOSYSTEMS software with centrally stored licenses, even if a connection to the license server is not possible. A typical scenario is if you are using a GEOSYSTEMS software outside of the company network.

For the activation of the license borrowing mechanism, a dedicated license ('rlm\_roam') is needed on the license server. If such a license has not been issued, please get into contact with GEOSYSTEMS support <u>support@geosystems.de</u>.



#### 4 Borrow License

3.

GEOSYSTEMS License Tool 1.6.2						_		×
File Get HostiD License Sources License Service About								
🔅 💌			C			Ĉ	<b>\$</b>	*
License Sources		Available Products	Versions	Product Info	Va	lue		
👰 baumbart	1	rlm_roam	1.0					
<ul> <li>Geosystems HostID=302432DFA241_</li> <li>roam</li> </ul>	2	sentinelservice	1.0					
						Serv	/ice status	

To borrow a license on a client the following steps are necessary. These steps must be executed for each product individually.

- 1. Make sure the client is connected to the License Server and the license server holds an active 'rlm\_roam' license.
- 2. Under Available Product' select the product which requires to be licensed via borrowing.

had

This will activate the button		v							
C GEOSYSTEMS License Tool 1.6.2							_		$\times$
File Get HostID License Sources License Service	e	About							
(*)				C			C	i di	×
License Sources		Available Products	Versions			Product Info	Valu	e	^
🔮 baumbart	1	rlm_roam	1.0		1	Name	sentinelservi	ce	
Geosystems HostID=302	2	sentinelservice	1.0		2	Version	1.0		
roam					3	Expiration date	04-jul-2021(	1)	
					4	Number of Licenses	5 1		
					5	Licenses in use	0		
					6	Customer info	Geosystems		
					7	Contract info	Ticket -kein-	(1)	~
							Service	e status:	, si

4. Selecting the button will open the following dialog which will enable license borrowing and the setting of the time span of borrowing for the selected software.

൙ License borrowing		?	×
Please specify the numb a license for the shown p return a license earlier if	er of days you are planing to borrow product/version. You can always no longer needed.		
Product:	sentinelservice		
Version:	1.0		
Time span of borrowing:	1 day(s)		
maximum possible:	30 day(s)		
			- 1
			- 1
	Request Licenses	Clos	se



- 5. By clicking on *Request License* one license for the selected product will be issued for the requested time span to the client machine. This license will appear as *in use* on the server. Other users of the license server will not be able to use it for the entire time span. Click on *Close* to finalize the borrowing.
- 6. After disconnecting from the license server, the license will nevertheless be available.

C GEOSYSTEMS License Tool 1.6.2		- 🗆 ×
File Get HostID License Sources License Service	About	
💽 👺 🚯 🔄 🔟		
· 🖉 🗶	C	€ 🗟 🗙
License Sources	Available Products Versions Product Info	Value
Cosinus	1 rlm_roam 1.0 1 Name	sentinelservice
Reaming	2 sentinelservice 1.0 2 Version	1.0
	3 Expiration date	17-jun-2021(1)
	4 Number of Lice	nses single node-locked
	5 Borrowed licens	es 1
	6 Customer info	Thomas(1)
		Service status: 💉 📑

A borrowed license will be returned automatically as soon as the requested time span is over. No
manual interaction is needed. This will also make the license available to others on the license
server.

#### 4.1.1 Return License

In case returning a borrowed license becomes necessary **before** the requested time span has elapsed, the following steps are necessary. These steps must be executed for each product individually.

- 1. Make sure the in use-client is again connected to the license server and the license server holds an active 'rlm\_roam' license.
- 2. Select the product for which a license had been borrowed earlier.

is will make this button	41	available.						
GEOSYSTEMS License Tool 1.6.2							- 🗆	$\times$
e Get HostID License Sources License Servi 4 🧐 🚱 🔄 🔟	се	About						
🔅 ×				C			C 🔍 🌢	×
License Sources		Available Products	Versions		Γ	Product Info	Value	^
🧕 baumbart		1 rlm_roam	1.0		1	Name	sentinelservice	
Geosystems Praktikant2_HostID=302	2	2 sentinelservice	1.0		2	Version	1.0	
ι roam					3	Expiration date	04-jul-2021(1)	
					4	Number of Licenses	1	
					5	Licenses in use	0	
					6	Customer info	Geosystems	
					7	Contract info	Ticket -kein-(1)	~



3. Click the button to return the borrowed license. The license server will make this license available to all other users.

In cases where it is impossible to establish a connection to the license server, it is possible to use this button to erase the license from your local system



**Please note:** This will not make the license available to others. The license will not be available to others until the requested time span has elapsed!



#### 5 The GEOSYSTEMS Licensing Tool – Explanation of the GUI

🤭 🗶			C			C 🗟 👌
License Sources	Available	Products	Versions		Product Info	Value
GEOSYSTEMS IR Pluto_HostID=e86a64df6366_ATCOF	1 atcoropera	tors 2020		1	Name	atcoroperators
	2 noclouds	2020		2	Version	2020
	3 noclouds_r	nosaic 2020		3	Expiration date	31-dec-2021
A	4 rlm_server_	enable_vm 1.0	B	4	Number of Licenses	single node-locke
	5 sentinelser	vice 1.0		5	Customer info	GEOSYSTEMS IR P
	6 uavoperato	ors 2020		6	Contract info	Ticket 21-264

- Section A displays the license source. A bubble help when pointing on the license source will display further information on e.g., the type, port, HostID.
- Section **B** displays the product and version.
- Section C displays the license details.

If no correct information is visible in one of the sections, use the refresh button

#### **Check License File**

- Double-clicking the License source will open the license file in your standard editor.
- The license (.lic), once imported from its original location, is written to C:\ProgramData\GS Licenses

#### Log File

- A log file is automatically created and written to C:\ProgramData\GS\_Licenses.
- It can be opened by clicking on the button from the GEOSYSTEMS License Tools.

#### Menu Buttons in the GEOSYSTEMS License Tools:

- Opens a Log-file in the standard editor
- Add a local license (on a standalone system on a dedicated license server)

Add a remote license server (on a client)

- Start license service
- Stop license service
- Reread selected license service
- Delete selected license source
- Refresh contents of respective section







Opens dialog for license borrowing. See section 3.2 for more information.

Only active when 'rlm\_roam' license has been issued!

Returns a borrowed license from local machine to server.

Removes a borrowed license from the local system if a connection to the server cannot be established anymore.

A new service GEOSYSTEMS License Service is created and started automatically:

Service status:	<u></u>	The service has not started
Service status:	, Si	The service is running
Service status:	Ø	License service is not installed

#### The license service can also be installed or removed manually:

File Get HostID License Sources License Service About			
🛛 💽 🚱 🔄 🔄 Start License Service			
U Stop License Service			
Advanced	k 🎒 Install License Service		CVG×
License Sources	Remove License Service	Product Info	Value
GEOSYSTEMS IR Pluto_HostID=e86a64df6366_ATCOF	1 atcoroperators 2020		
	2 noclouds 2020		
	3 noclouds_mosaic 2020		
	4 rim_server_enable_vm 1.0		
	5 sentinelservice 1.0		
	o uavoperators 2020		
			Service status: 📣 🔒

#### **Contact:**

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