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General Information About Floating Licenses

- The License Manager for an ExtendSim 10 Floating license is specific to:
  - The product that is installed on the Client devices: ExtendSim Pro, ExtendSim DE, ExtendSim CP, or Analysis RunTime.
  - ExtendSim 10 and above. (ExtendSim 9 and earlier used a different License Manager. Contact Andritz Inc. if you need information about ExtendSim 9.)
- After activation, the License Manager runs as a service process that remains running as long as the system is up (regardless of user logins and logouts), and restarts automatically when the Server is rebooted.
- When first launched and at midnight local time each day, the License Manager rereads its *extendsim.lic* license file on the Server, then opens port 5053 to receive license requests from ExtendSim on Client devices.
- Reports:
  - The license file (*extendsim.lic*) describes the license granted.
  - The License Manager (*ExtendSimLicServer*) generates configurable usage reports. It also provides debug logs for diagnosing licensing inconsistencies or failures. They are written to the same directory that contains the License Manager, as long as this directory is writable. If it is not writable, the log files will be written to \\Windows\system32.
- CAUTIONS:
  - The License Manager is bound to the Server it is installed on, either through the hard disk hardware serial number, the BIOS id, or some other hostID. You must contact us before trying to "move" the License Manager to a different Server.
  - NEVER run the License Manager as a privileged user/administrator.
  - The license file (*extendsim.lic*) cannot be placed in a path where any component of the pathname contains the "@" character.

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General Questions About Floating Licenses

What happens after we renew the annual Maintenance & Support Plan (MSP) or change the number of concurrent users?
For Client devices to get the updated license information, you will need to reactivate the License Manager. After you renew MSP and we've updated the license database, we will notify you that you can reactivate the License Manager. Reactivation of the License Manager will also update the license file (*extendsim.lic*) on the Server and license information for ExtendSim on Client devices. For more information, see the document titled *Reactivating • Floating Licenses*.

Can we have a Network license of ExtendSim 9 as well as its upgrade, a Floating license of 10, running concurrently?
Absolutely. In fact, you will *need* both during the transition period while you convert your files from 9 to 10. The transition period should not exceed six (6) months. Deployment of the software after that period shall not exceed the licensed quantity of ExtendSim 10.

How do we uninstall the License Manager for an ExtendSim 9 Network license?
For release 9, run the "Remove ExtendSim Server.exe" file in the Server's ExtendSimServer folder. You should get two messages: *License Successfully Removed* and *Service Successfully Removed*. Then use Windows Settings to uninstall the ExtendSim Server files.

Is the Floating license an internally-hosted solution?
Yes, the Floating license is hosted and managed on your premises and is managed over your network. It will only connect to the internet as discussed below.

Does **the Floating license connect with the internet?**
- If activation is automatic (i.e., can occur over the internet), there is a one-time web-based exchange of encrypted information to activate the License Manager. From then on, the Floating license communicates over the internet once a month to check if it is still valid. All other communication is internal to your system.

- If activation is manual, no connection to the internet is required for either the License Manager on the Server or ExtendSim on Client devices. Subsequent to installation and manual activation, the Client only communicates over your network with the License Manager on your Server, and the License Manager internally validates the license file and receives license requests from Client devices.

License Manager on Server

**Can the Server where the License Manager is installed be a virtual machine?**
> Yes.

Can the License Manager be installed on the same device as ExtendSim?
> Yes. One device can be both Server and Client.

Verifying the ExtendSimLicServer is running as a Service.
- Go to Computer Management on the License Server.
- In the list that appears, double-click Services and Applications, then double-click Services.
- In the list that appears, scroll to *ExtendSimLicServer* and verify it is Running.
- If it is not running, you may need to install the License Manager with Administrative privileges, temporarily disable virus protection and other security features before installing it, or unblock the ISV port.
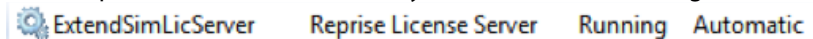
Starting the Service manually if the License Manager fails to automatically start the Service.
> The License Manager installer not only creates the Service but sets it to start automatically. To do this manually:
> 1. Open an administrative CMD line window:
> - Open *Command Prompt as Administrator* (Enter CMD in the Search box and simultaneously click Ctrl+Shift+Enter. For the Windows Command Processor click "Allow").
> - At the command line, enter "CD C:\ExtendSimFloatingLicenseServer" (assuming that is the directory where the License Manager was installed) and press the Enter key.
> - At the new command line, enter "rlm -install_service -dlog logfile -service_name extendsimlicserver". (Note the spaces after RLM, service, dlog, logfile, and name). Press Enter.
> - Close the window.
> 2. Go to Computer Management on the License Server.
> - Go to the *Services and Applications/Services* section.
> - Select *ExtendSimLicServer* in the list of Services and **Start** the Service.
> - Right-click *ExtendSimLicServer* to access its Properties and set the startup type to Automatic.

Changing the default port (5053) used for communication between the License Manager and ExtendSim.
> You can edit the license to use a different port than the default port (5053). However, how you do that depends on your situation:
> - If you received the *extendsim.lic* file while doing a manual activation but haven't resumed the activation process, directly change the port number in the file and save that change before proceeding. Then complete the activation procedure. Copy the updated *extendsim.lic* file to each Client and unblock the new port on Client devices.
> - If you have already finished the process of activating the License Manager, you must edit your existing *extendsim.lic* file using the RLSA window.
>   1. Using a browser, open the RLSA window as indicated at *Part 2 • Activate License Manager* of the separate document *Installing & Activating ExtendSim Floating Licenses*.
>   2. On the left side of the RLSA window, click the **Edit License Files** command. (Note: The "License File to Edit" should be *extendsim.lic*.)
>   3. In the window that appears, click the **Edit License File** button.
>   4. In the license file field, change "5053" (the default port number) to a different number. Note that the new port must be unblocked inbound and outbound for both the License Server and the Client devices.
>   5. Click the Update License File button. The window should report "license file extendsim.lic written".
>   6. On the left-hand side of the RLSA window, click the **Reread/Restart Servers** command.
>   7. For the ISV, select *extendsim*, then click the **Reread/Restart** button to restart the License Manager.
>   8. If successful, the window will display the message "Reread command sent to extendsim". This indicates that the new port will be added as an alternate port.
>   9. Copy the updated *extendsim.lic* file to each Client and unblock the new port on Client devices.

License Manager on Server - continued

Changing the port for the ISV Server.

When the License Manager was activated, a default port (51006) was assigned as the ISV Server port, as shown in the Status command. ***We recommend unblocking and using this port since it will not change when the Server restarts or the license is reactivated.*** Also, if you set a different ISV port, you might need to reset it each time the license is reactivated.

ISV Servers					
Name	port	Running	Restarts	Server Status	License Usage
extendsim	51006	Yes	0	extendsim	extendsim

To set a different ISV port, use the RLSA window to edit your already-activated *extendsim.lic* license file:

1. Using a browser, open the RLSA window as indicated at *Part 2 • Activate License Manager* of the separate document *Installing & Activating ExtendSim Floating Licenses*.

2. On the left side of the RLSA window, click the **Edit License Files** command. (Note: The "License File to Edit" should be *extendsim.lic*.)

3. In the window that appears, click the **Edit License File** button.

4. In the license file field, change the number for the ISV extendsim port to be the unblocked port you've chosen. It should now read "ISV extendsim port=nnnnn", where *nnnnn* is your unblocked port, as shown here.

> HOST   ITlserver f06da4f564f7 5053
> ISV   extendsim port=nnnnn
> LICENSE   extendsim exprv10fl 10.0 permanent 1

5. In the RLSA window, click the **Update License File** button. The window should report "license file extendsim.lic written".

6. On the left-hand side of the RLSA window, click the **Reread/Restart Servers** command (this restarts the License Manager, not your Server).

7. For the ISV, select *extendsim*, then click the **Reread/Restart** button to restart the License Manager.

8. If successful, the window will display the message "Reread command sent to extendsim". This indicates that the new port will be added as an alternate port.

9. Click the Status command on the left side of the RLSA window to verify that the new ISV port is running. If it isn't listed or isn't running, and you've followed the directions correctly, you will need to restart the Server.

10. You do not need to copy the updated *extendsim.lic* file to each Client, but each Client does need to have that ISV port open for outbound access.

Can I move the License Manager from one Server to another?

Not directly. Before you try to move the License Manager, contact us at Sales.ExtendSim@Andritz.com or 1.408.365.0305. We will revoke the current license so you can install and activate on the new Server. Then you must remove the License Manager from the original server using the instructions below, install and activate the License Manager on the new Server, and send a new license file to all Client devices..

Removing the License Manager for an ExtendSim 10 Floating License.

1. Stop the Service *(instructions for Windows 10; others differ)*
   - Right-click on the Server's Start command and choose **Computer Management**.
   - In the list that appears, double-click **Services and Applications**.
   - Double-click **Services**.
   - In the list that appears, scroll to **ExtendSimLicServer**.
   - Stop the ExtendSimLicServer service (right-click to select **Stop**).
   - Close the Computer Management window.

2. Remove the Service
   - Open Command Prompt as Administrator (Enter CMD in the Search box and simultaneously click Ctrl+Shift+Enter.
   - Click *Yes* in the User Account Control window to enable Windows Command Processor.
   - At the command line enter **SC delete ExtendSimLicServer** and press the Enter key.
   - If successful, the Service will be removed and you can close the window.

3. Uninstall *ExtendSim Floating License Manager* using Windows Settings > Apps > Apps and features, then delete the folder *ExtendSimFloatingLicenseServer* (located by default at the root of the C drive).

Note: Before reinstalling using a newer ExtendSim Server License Manager, you must first uninstall the previous License Manager as described above.

ExtendSim on Client Devices

Can a Client device be a virtual machine?
Yes. Be sure the virtual machine has a static (not dynamic) MAC address, has the correct permissions so that ExtendSim can be installed without security issues and that the location where user-modifiable files will be installed has read-write access so the license file can be read and end-users can open, run, and save models.

Can ExtendSim be installed on the same server as the License Manager?
Yes. The Server can also be used as a Client.

Do I need to uninstall ExtendSim 9 from Client devices when I install 10?
No. Both releases can be installed on the same Client device. In fact, we suggest you don't uninstall ExtendSim 9 until you've finished converting your files to 10.

How does the Client installation of ExtendSim know where the Server's License Manager is?
ExtendSim uses port 5053 and the license file (*extendsim.lic*) that you copy to the Client device to automatically find the Server. If ExtendSim can't find the Server, it asks you to browse to the Server (path, IP address, computer name, or URL). It saves the info in a *host.lic* file on the Client device so it doesn't ask again. *Note: the URL must be resolvable to an external IP address.*

Can a Client device tell which Server has the License Manager?
Yes. Go to Documents/ExtendSim and open the *Host.lic* file. It contains the name of the Server.

Checking Out and Checking In Client Licenses (Roaming).
• To temporarily disconnect a Client device from the network, use the Help > Floating License > Check Out a Floating License command.
• To check a roaming license back in, use the Help > Floating License > Check In a Floating License command.
• Roaming licenses can be checked back in at any time. They are automatically checked in at the end of the roaming period (the default period is 30 days).
• If the server node name or port number is changed after a license has been checked out for roaming, you will not be able to return the license early. However, it will return automatically on the "return by" date, which is usually 30 days after checkout.

Updating Client licenses when there is an incremental release of ExtendSim (e.g. from 10.x to 10.y).
1. If you are using ExtendSim 10.0.4 or later, use the ExtendSim Updater at www.ExtendSim.com/download10updater.
2. If you are using ExtendSim 10 released prior to 10.0.4:
   • For ExtendSim Pro, DE, or CP - the Trial version of ExtendSim is your updater. Download the Trial version of the package you purchased from https://www.ExtendSim.com/products/trials and install over your current installation of ExtendSim 10 using the same name and installing to the same location as the current installation. This updates ExtendSim without affecting the license file.
   • For ExtendSim Analysis RunTime - contact the ExtendSim Team to obtain the newer release.
   Note: When using the Trial version to update, if you subsequently launch ExtendSim and get a message that the license has not been activated, it means that you have not installed over the current installation but in fact have two installations of ExtendSim. Uninstall the update and reinstall it so that it replaces the files at the current location.

Uninstalling ExtendSim from a Client device.
1. First, return the license if it has been temporarily checked out from the network. To do this, connect the Client device to the server that hosts the License Manager. Use the command Help > Floating License > Check In a Floating License. This restores the number of concurrent users the Server allows.
2. Use the Windows Settings > Apps and Features to uninstall ExtendSim 10.
3. Then delete the two folders: Documents/ExtendSim and Program Files/ExtendSim.

ExtendSim on Client Devices - continued

Renewing the Maintenance & Support Plan (MSP) on a Client. *(Does not apply to Analysis RunTime Floating Licenses.)*
1. The renewal date for the Floating License's Maintenance and Support Plan (MSP) is shown on the ExtendSim startup screen (Help > About ExtendSim). Prior to the renewal date, the application will occasionally present a reminder message upon launch.
2. Contact the ExtendSim Team at Andritz Inc. or your ExtendSim Distributor to renew your MSP. Client devices will automatically be updated once the License Manager on the Server has been updated, as discussed below.

What happens after we renew the annual Maintenance & Support Plan or change the number of concurrent users?
- For Client devices to get the updated license information, you will need to reactivate the License Manager.
- After you renew MSP and we've updated the license database, we will notify you that you can reactivate the License Manager. Reactivating the License Manager will also update the license file (*extendsim.lic*) on the Server and license information for ExtendSim on Client devices.
- Note: you do not need to send new license files to existing Client devices as the License Manager will automatically update Client devices.
- See the document titled *Reactivating • Floating Licenses*.

Issues That Might Occur

License Manager Issues

RLM.exe has already been installed on the Server.
> If RLM is already running on the Server where you want to install the License Manager for ExtendSim, see pages 8 and 9 of this document for complete details on installing RLM for ExtendSim.

> *For complete details and solutions for these issues, please see the FAQs at ExtendSim.com/support/FAQs.*

Error generating license -105.
> There is a basic issue preventing automatic activation. Manual activation is required.

Client/Server Issues

All of a sudden Clients can no longer communicate with the License Manager.
> If ExtendSim has been working fine on Client devices, then all of a sudden Clients are no longer able to communicate with the License Manager on the Server, make sure the ISV port has not changed.

Connection refused at server (-111)" message.
> At least one of the two required ports (5053 or the ISV port) is blocked for outbound access on the Client device.

Issues When Installing, Launching, or Opening ExtendSim

Bad HTTP transaction.
> Your system is blocking receipt of the activation data. Manual activation is required.

Bad server hostname or bad hostname for network connect.
> These messages indicate that ExtendSim could not resolve an issue with the name of the Server and you will need to use the IP address instead.

ComponentTransferData or Codebase failed to register.
> ExtendSim was not installed on Client devices with Administrative privileges.

RightClickConnect database is missing error message.
> A needed DLL was not registered in the Windows Registry due to inadequate privileges.

Documents folder not found or lp_solve(0) Error_system error code:2 error messages.
> Needed files cannot be located or the end user does not have the correct permission for those files.

The Activation Dialog appears after ExtendSim has already been launched.
> The license file (*extendsim.lic*) has been moved or removed or you have multiple installations of the same product (which is not allowed).

**If you're unable to solve your issue using the above information,
generate a debug log from the License Manager on the Server by following these instructions:**

- Open the Reprise License Server Administration (RLSA) window in a browser. (To learn how to do that, see *Step 2: Activation of the License Manager* in the document *Installing and Activating • Floating Licenses*.)

- On the left side of the RLSA window, click the Diagnostics command.

- In the main window, click the Run Diagnostics button and wait for the window to report that the diagnostics were written.

- Locate and open the text file named *rlmdiag.txt*; it will be placed where the License Manager is installed (by default, C:/ExtendSimFloatingLicenseServer).

- This report contains information about License Manager activities over time. See if there's any discrepancies or anomalies that might indicate the cause of your issues. If you can't readily find the issue, we are happy to help. Send the debugging log file to us with a description of your issues by creating a support ticket in the ExtendSim Support Portal at https://extendsim.com/support-ticket.

Reprise License Manger (RLM)
Already Installed on Server

The installation instructions assume you will install RLM on a Server that isn't already running RLM, which is the best and easiest method.
However, if you must use a Server that is already running RLM, DO NOT use the **ExtendSimServerLicenseManager** installer unless instructed below.

The Floating license of ExtendSim uses the x64_W4 (64-bit Windows 7+) RLM platform.

- If your Server is using a different RLM platform, you must install RLM on a separate Server. To do that, follow the ExtendSim Floating license Installation instructions.

- If your Server is using the x64_w4 RLM platform, proceed to *Case 1* or *Case 2* below, as appropriate.

Case 1 • If the currently running RLM is platform x64_w4 AND is version 12 or greater

Step 1 • Install the ISV Settings File on the Server
1. DO NOT INSTALL THE EXTENDSIM LICENSE MANAGER ON THE SERVER.
2. Obtain an ISV settings file (*extendsim.set*) from the ExtendSim Team at Andritz Inc.
3. Place the *extendsim.set* file in the same directory where the other RLM-using product has installed RLM.exe and their license and settings files.

Step 2 • Activate the License
1. Follow the instructions for *Part 2 • Activate License Manager* in the separate document *Installing & Activating • Floating Licenses*.
2. Activation will either be automatic or manual.
3. Make a copy of the *extendsim.lic* file for use in activating ExtendSim on each Client device.
   - Since RLM was already running, the *extendsim.lic* license file will be located in the same folder where you placed the *extendsim.set* file.
   - If you subsequently edit the license file, you might need to distribute the modified file to Client devices.

Step 3 • Install and Activate ExtendSim on Client devices
1. Follow the instructions for *Part 3 • Clients: Install ExtendSim*, in the document *Installing & Activating • Floating Licenses.*
2. Follow the instructions for *Part 4 • Clients: Activate ExtendSim*, in that same document.

NOTE: With this option, the License Manager (RLM) will run as a Service under the existing Service's name. The Service will not be named *ExtendSimLicServer*.

Case 2 • If the currently running RLM is platform x64_w4 AND is earlier than version 12

Step 1 • Stop and remove the currently running RLM Service
1. Determine the name of the existing RLM Service (the Service used by the other RLM-managed products).
2. Stop that Service. (Instructions for stopping that Service under Windows 10; others differ:)
   - Right-click on the Server's *Start* command and choose *Computer Management*.
   - In the list that appears, double-click *Services and Applications*.
   - Double-click *Services*.
   - In the list that appears, scroll to the name of the identified RLM Service.
   - Stop that Service (right-click select Stop).
   - Close the Computer Management window.
3. Remove the currently running RLM Service.
   - Open Command Prompt as Administrator (Enter CMD in the Search box and simultaneously click Ctrl+Shift+Enter).
   - Click *Yes* in the User Account Control window to enable Windows Command Processor.
   - At the command line, enter *SC* delete xyz (where xyz is the name of the identified RLM Service) and press Enter.
   - If successful, the Service will be removed and you can close the window.

Case 2 • If the currently running version of RLM is earlier than release 12 - continued

Step 2 • Install the License Manager (RLM.exe) used by ExtendSim
1. Use the *ExtendSimServerLicenseManager* installer (obtained via link or download from the ExtendSim Store) and follow its instructions to install the files on the Server.
2. If you encounter security issues when installing, see *Issues That Might Occur* earlier in this document.
3. By default the installer creates a folder named *ExtendSimFloatingLicenseServer* that is placed at the root of the Server's C drive (C:/ExtendSimFloatingLicenseServer).
   • The folder can be installed on a drive other than the C drive, but it must be installed at the root of the drive and it must be named ExtendSimFloatingLicenseServer.
   • The folder contains the RLM Svc folder and three files: *extendsim.set*, *logfile*, and *RLM.exe*.
4. After installation, the License Manager (*RLM.exe*) silently runs in the background as a Service named *ExtendSimLicServer*.
5. Before proceeding, we suggest you verify that *ExtendSimLicServer* is running as a Service.
6. Copy the all the settings and license files (but not RLM.exe) from the previous RLM server folder to the *ExtendSimFloatingLicenseServer* folder, which by default will be located at the root of the C drive.

Step 3 • Activate the License Manager
1. Follow the instructions for *Part 2 • Activate License Manager* in the document *Installing & Activating • Floating Licenses*.
2. Activation will either be automatic or manual.
3. Make a copy of the *extendsim.lic* file for use in activating ExtendSim on each Client device.
   • The *extendsim.lic* license file will be located by default at C:/ExtendSimFloatingLicenseServer.
   • If you subsequently edit the license file, such as changing the ISV port, you might need to distribute the modified file to the Client devices.

Step 4 • Install and Activate ExtendSim on Client devices
1. To install on Client devices, follow the instructions for *Part 3 • Clients: Install ExtendSim*, in the separate document *Installing & Activating • Floating Licenses*.
2. Then, to activate ExtendSim on Client devices, follow the instructions in *Part4 • Clients: Activate ExtendSim*.

What if I don't know if RLM is already running on the Server?

If you installed the License Manager without following these instructions, the diagnostic log file will report something similar to:

(rlm)   ...error binding UDP port 5053, port in use
(rlm)   This is probably due to another copy of RLM running
(rlm)   While not fatal, this instance of RLM won't respond
(rlm)   to broadcast requests.

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