License Server Installation Guide

January 14, 2026

Contents

Preface

Note: This guide applies to RiverWare version 9.6 and later. For information on the license server for RiverWare 9.2 to 9.5, see
https://www.riverware.org/guides/RWLicenseServerInstallation-RW92-95.pdf

About This Guide

This guide is for RiverWare license server administrators. It describes how to install the RiverWare floating license server on a Windows host. This document is not applicable to users who have a node-locked, dongle, or cloud license.

RiverWare documentation is available at the RiverWare site:

https://riverware.org

RiverWare Installation and License User's Guide

For information on how to install RiverWare and how to start RiverWare using a node-locked license, floating license, or license dongle, see
https://riverware.org/guides/RWInstallLicenseUG.pdf

RLM License Administration Manual

For RiverWare license server administrators. Reprise Software publishes generic information about configuring and managing the RLM License Server. Some information in the Reprise documentation may not apply to the RiverWare license server.

Online:
https://reprisesoftware.com/docs/admin/basics-admin.html
PDF version:
https://reprisesoftware.com/wp-content/uploads/2025/v17-0/License_Admin_Manual.pdf

Reprise also has an RLM support page which provides software licensing technical resources that may answer your RLM questions and assist you with troubleshoot licensing issues.

https://reprisesoftware.com/support/admin/

Support Information

For help with RiverWare installation and licensing, email RiverWare Installation Support.

installsupport@colorado.edu

After RiverWare is successfully installed, for help-desk type support using the software, email RiverWare Technical Support.

riverware-support@colorado.edu

Support time must be purchased from CADSWES. See the RiverWare licensing page for more information.

https://riverware.org/riverware/LicensingRW/index.html

Introduction

The RiverWare floating license requires the RiverWare license server manager to be running on a designated license server machine at all times. The license server manager is a program that handles license requests from client computers.

The license server is the computer that manages the license, while the client PCs run the RiverWare application. The server machine is used to run the license server programs, and it is not necessary to run the RiverWare applications. End users typically install RiverWare on their own computers that are clients of the server machine.

The following steps are required to set up a floating license server. Detailed instructions follow.

1. Obtain the license server program files.
2. Start the license server

   This step is used to test your license file. It validates the license by starting the license server on the specified machine. This is done through a Command Prompt window.

3. Install the license server as a Windows Service

   This step is for installing the RiverWare license server as a Windows service. The service keeps the license server process active continuously without interruption and restarts the process automatically when the machine is rebooted. This process is done through a Command Prompt window.

4. Start the license service

   Installing the license server as a Windows Service does not start the license server. You need to either reboot the server machine or start the service manually.

Once the license server is operational, the embedded RLM Web Server can be used to perform most server administration tasks. You only need a web browser to use the web-based interface, which allows you to access the license server from any platform. Refer to **RLM Web Server** for instructions.

Note: The steps and the screenshots in this guide may vary slightly on your computer depending on the configuration of your system, and the versions of RiverWare and Windows you are running.

Obtain the License Server Program Files

The license server program files are included in each RiverWare release. Download and install the latest RiverWare release and find them in the sub-folder "LMrlm" under the directory where RiverWare is installed. The required license server program files are: cadswes.set, rlm.exe, rlm.opt, rlm.pw, and rlmutil.exe.

Different RLM versions were incorporated into different RiverWare versions. RiverWare 9.6 includes RLM 17.0.

Users are strongly recommended to run the license server using the most recent RLM server programs included in the latest RiverWare release.

The RLM server is backward compatible, allowing earlier RiverWare versions on client PCs to communicate with the newer license server version operating on the server host. As a result, RiverWare application end users are not required to upgrade to the same RiverWare version that includes the server programs that were used to run the license server.

Start the License Server

This step is for testing your license file. Administrator privilege is not required to run the RiverWare license server. However, your organization may have set up specific access restrictions for performing some administrative tasks.

Instructions

- Log on to the server machine.
- Create a specific folder that will be used exclusively for running and maintaining the RiverWare license server. This step is necessary because your license is valid for all RiverWare versions, not tied to any specific RiverWare version. It is recommended to have a designated folder for storing and running the license server programs. This folder should be kept separate from any of the RiverWare installation folders.
  - Create the specific license server folder. For example: C:\rwlicserver. (This folder will be referred to as the RiverWare license server folder in the rest of this guide.)
  - Copy all the license server program files (in the LMrlm folder) and your cadswes.lic file to the RiverWare license server folder you have just created.
- Specify port number in your cadswes.lic file. This step is optional.

  RiverWare license file is always issued without the TCP/IP port numbers specified. If your firewall requires that port numbers be specified to allow access, you need to add the port numbers to the license file. Make sure your firewall allows connection to both the RLM port number as well as the CADSWES port number.
  - Before modifying your cadswes.lic file, make a copy of it and rename it cadswes.txt (in case you need to restore the original).
  - Open the cadswes.lic file in a text editor, such as Notepad or WordPad.
  - To specify the RLM port, add the port number to the end of the HOST line, as below. If not specified, it is defaulted to use port number 5053.

    Syntax:

      HOST <hostname> <hostid> <port-number>

    For example:

HOST rwlicserver 123456ABCDEF 9725

- To specify the CADSWES port, add the port number to the end of the ISV line, as below. If not specified, RLM server randomly selects an open port to use when starting the server.

  Syntax:

  ISV cadswes port=<port-number>

  For example:

  ISV cadswes port=9726

- The following ports should be avoided.

  * 1 - 1024

    Most operating systems reserve these and require admin/root permissions.

  * Ports ending in 80 or 443 (e.g. 8080, 8443)

    These are common ports that applications bind to for web interfaces.

- Launch a Command Prompt window and change to the RiverWare license server folder you have just created. Execute the following command to start the license server. It is recommended to specify the full directory path.

  Syntax:

  rlm -c <license-file> -dlog <log-file>

  * Option -c specifies the license file (cadswes.lic) location.

  * Option -dlog specifies the debug log file location.

  For example:

  rlm -c C:\rwlicserver\cadswes.lic -dlog C:\rwlicserver\debug.log

- If you do not want to start the RLM web server, add the option -nows in the rlm command. For example,

  rlm -c C:\rwlicserver\cadswes.lic -dlog C:\rwlicserver\debug.log -nows

  Refer to chapter [RLM Web Server](#) for more information.

- Keep the Command Prompt window open and check to see if the RiverWare license server has started properly. Try one of the following options:

  - Start a RiverWare application on the server machine and/or client machines.
  - Open the Windows Task Manager and look for the active rlm.exe process.
  - View the debug.log file. You should see the following towards the end of the log file:

    03/09 13:05 (cadswes) Server started on hostname (hostid: #####) for:
    03/09 13:05 (cadswes)   riverware rlm_roam
    03/09 13:05 (cadswes)
    03/09 13:05 (cadswes) License files:
    03/09 13:05 (cadswes)   C:\rwlicserver\cadswes.lic

- If you encounter an error and need to restart the server, clear out the RLM server process first. Refer to [Shut Down the License Server](#) for instructions.

Install the License Server as a Windows Service

If you start the license server from a normal Command Prompt window, the license server will be shut down when you close the Command Prompt window that started the license server. To keep the license server up and running at all times, install the license server as a Windows service process. This process is done from a Command Prompt window.

It should be noted that installing Windows services generally requires administrator privileges. When you try to install the RiverWare license service as a regular user, you may receive the following error:

> Error: Access to Service Control Manager denied

Instructions

- Start a Command Prompt window as an administrator. This can be done by right click on the Command Prompt shortcut, select Run as administrator.
- Change to the RiverWare license server folder you have just created.

    For example,

    > cd C:\rwlicserver

- Execute the following command to install the service.

    Syntax:

    > rlm -install_service -service_name <name> -c <license-file> -dlog <log-file>

    For example, (The following is one continuing line.)

    > rlm -install_service -service_name riverwarelicenseservice -c C:\rwlicserver\cadswes.lic -dlog C:\rwlicserver\riverwarelicenseservice.log

- Press the Return. The service is installed when you get the cursor back without any error message.
- Refer to chapter *The License Server > Running the rlm server as a service on Windows* in the [RLM License Administration Manual](#) for complete details.

Start the Windows Service

Installing the license server as a Windows Service does not start the license server. You need to either reboot the server machine or start the service manually.

If you cannot start the service as an administrator. You need to set the RLM Service username to a non-admin account, as user NETWORK SERVICE, for starting the service. See instructions below.

Instructions

There are two ways to start the service manually.

1. Using command sc (service control) from the Command Prompt window.

   Enter the following command in the same Command Prompt window where you installed the service and in the same folder.
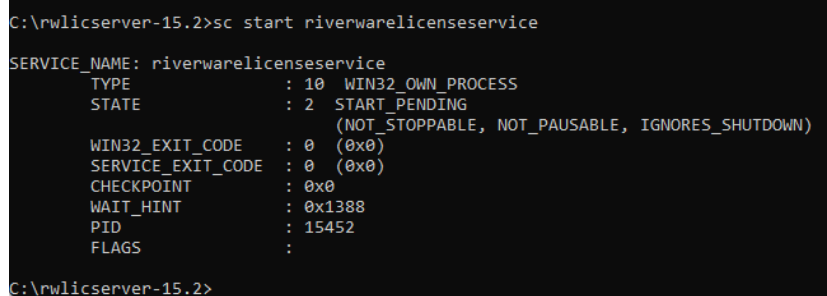   Syntax:

   > sc start <service-name>

   For example:

   > sc start riverwarelicenseservice

   You should see a message returned similar to the one below.

   ```
   C:\rwlicserver-15.2>sc start riverwarelicenseservice

   SERVICE_NAME: riverwarelicenseservice
           TYPE               : 10  WIN32_OWN_PROCESS
           STATE              : 2   START_PENDING
                                    (NOT_STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN)
           WIN32_EXIT_CODE    : 0   (0x0)
           SERVICE_EXIT_CODE  : 0   (0x0)
           CHECKPOINT         : 0x0
           WAIT_HINT          : 0x1388
           PID                : 15452
           FLAGS              :

   C:\rwlicserver-15.2>
   ```
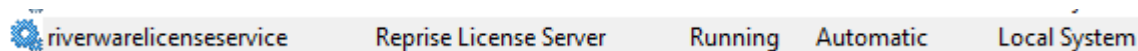
2. Start from the Services window.

   – Select the Windows Start icon. Select Settings > Control Panel > Windows Tools. Right click on the Services, select Run as administrator. The Services window will open.
   -OR-
   Select the Windows Start icon. In the "Search" box, enter Services. Right click on the Services from the drop-down list, select Run as administrator. The Services window will open.

   – From the Services window, under the Name column, find and select the service name you just installed. (The riverwarelicenseservice in the example above.)
   – Select the Start the service.

3. Confirm the service has started.

   From the Services window, the status for your service shows "Running" as shown below.

   | riverwarelicenseservice | Reprise License Server | Running | Automatic | Local System |

Shut Down the License Server

This step clears out the server process. It is safe to execute it even when no server is running. This step is recommended when:

- You need to restart the server from the license server folder where it was started from. You may need to do this when you test your license file.
- You need to shut down the current server in order to start a new server with the new cadswes.lic file you received. The current server is the one that was started with the previous cadswes.lic file by the server's Windows service.

Instructions

- Launch a Command Prompt window and change to the RiverWare license server folder where the license server was started from. This is where the program rlmutil.exe is located.
- Execute the following command to shut down the license server.

  rlmutil rlmdown RLM

  - Note that "RLM" is in upper cases.
  - Enter y to the question: shutting down RLM - are you sure? [y/n]:

Delete the Installed Windows Service

The active license server needs to be shut down first before the service can be deleted. Refer to **Shut Down the License Server** for instructions.

Instructions

- Launch a Command Prompt window as an administrator. This can be done by right click on the Command Prompt shortcut, select Run as administrator.
- Change to the license server folder which contains the server programs and the cadswes.lic used for the installed service.

  For example,
  cd C:\rwlicserver

- Execute the following command to delete the service.

  Syntax:
  rlm -delete_service -service_name <name> -c <license-file> -dlog <log-file>

  For example, (The following is one continuing line.)
  rlm -delete_service -service_name riverwarelicenseservice -c C:\rwlicserver\cadswes.lic -dlog C:\rwlicserver\riverwarelicenseservice.log

Start RiverWare on a Client Computer

Instructions

- For RiverWare end users to check out a license when starting RiverWare on a client machine, a copy of the current cadswes.lic needs to be present in the parent directory (i.e.,

one level up) of the RiverWare installation directory. For example, if RiverWare 9.6 is installed in: C:\Program Files\CADSWES\RiverWare 9.6 folder (riverware.exe is in the C:\Program Files\CADSWES\RiverWare 9.6 folder), then the license file needs to be at: C:\Program Files\CADSWES\cadswes.lic

- The content of the cadswes.lic file on a client computer can be one of the following:

    – a full copy of the original cadswes.lic file
    – contains only the HOST line from the original cadswes.lic file

- Your license works for all versions of RiverWare. Therefore, we recommend end users to install all versions of RiverWare in subfolders under a single parent folder and save the license file in the parent folder. By using this folder organization, you only need to maintain one copy of the license file. As an example:

  C:\Program Files\CADSWES\cadswes.lic
  C:\Program Files\CADSWES\RiverWare 9.5\
  C:\Program Files\CADSWES\RiverWare 9.6\

- The cadswes.lic is a plain text file. Do not make any changes to its contents (except for adding the port numbers), and do not save it to any other format.
- Make sure that there are no other files that have a file name extension of .lic exist in the same directory where cadswes.lic file is located.
- After RiverWare has started successfully on a client machine, users can identify where RiverWare obtained the license by doing the following:

    – In the RiverWare Workspace window, click Help > About RiverWare....
    – Under License, the "File" displays the location of the license file; the "Expires" displays the expiration date and the number of days remaining until the license expires.

- To check out a license temporarily from the network and use RiverWare offline, refer to the chapter *Running RiverWare With a Floating License > Using a Roaming License* in the [Installation and License User's Guide](#).

RLM Web Server

Introduction

The RLM embedded web server is a web-based administration tool for monitoring license usage. The web server interface can be started on any machine on your network, not just on your server machine.

It should be noted that using the web server interface is completely optional. If you do not want to use the web server interface, follow the instructions in section [Disable the RLM Web Server.](#)

Start the Web Server

- By default, the RLM web server is started automatically on port 5054 when the RLM license server is started. If you need to use a different port for running the RLM web server, specify the port number by using the -ws option when you execute the rlm command (the command for starting the RLM license server):

  Syntax:

  > rlm -c <license-file> -dlog <log-file> -ws ####

  For example,

  > rlm -c C:\rwlicserver\cadswes.lic -dlog C:\rwlicserver\debug.log -ws 9727

- To start the web server interface after starting the license server, open a browser window and input the RLM web server's hostname and port number in the address bar.

  Syntax:
  https://ServerHostName:PortNumber
  For example:
  https://rwlicserver:5054

  - 5054 is the default port number for web server.
  - HTTP access is disabled starting with RLM 16.1. HTTPS is used by default and users must enter the URL with HTTPS.
  - For RLM 15.2 and earlier versions, you may need to use http://hostname:<port_number> to access the web server interface.

- HTTPS is enabled by default and will generate a self-signed certificate (rlm-cert.pem) and key (rlm-key.pem) on startup if they do not exist. To use your own certificate and key, refer to chapter "Enabling HTTPS in the RLM Web Server" in the RLM License Administration Manual published by Reprise, which is linked below:

  https://reprisesoftware.com/docs/admin/basics-admin.html

- Due to the self-signed nature of the automatically generated certificate, your browser will likely display a warning before you can get to the web server. Traffic to the web server will still be encrypted.

- Logins are required to access the web interface. On initial login you will be prompted to set a new password. The default login is:

  Username: admin
  Password: admin
  Keep a careful record of the new password. If you lose it, you must reset it by deleting the C:\ProgramData\Reprise\.rlmdb file. Along with that, it will reset all web interface credentials. The password and any other settings (e.g.: users, logins) is preserved in the C:\ProgramData\Reprise\.rlmdb file between releases.

- To view the status of cadswes server, select cadswes from the Server list on the License Server Status page.

For detailed information on how to set up and operate a floating license server, refer to the RLM License Administration Manual published by Reprise, which is linked below:

https://reprisesoftware.com/docs/admin/basics-admin.html

From the menu on the left under License Administration, select Administration Basics > The RLM Web Server. This manual is also available by selecting the Documentation link on the top of the License Server Status page. (Not all of information in this manual applies to the RiverWare license server.)

Disable the RLM Web Server

Using the RLM web server is optional. You do not have to use it. When starting the license server, the web server is automatically started. If you do not want to use the web server, deactivate it using the "-nows" (no web server) option when starting the license server. The option instructs the rlm server not to start the embedded web server.

To disable the web server, add the option to the end of the command line when starting the license server. As an example,

rlm -c C:\rwlicserver\cadswes.lic -dlog C:\rwlicserver\debug.log -nows