RISA Installation and Licensing

General Reference Manual

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RISA Tech, Inc.

26632 Towne Centre Drive, Suite 210

Foothill Ranch, California 92610

(949) 951-5815
(949) 951-5848 (FAX)
risa.com

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Before You Begin

Thank you for purchasing RISA Software. Before you install this software please review the following system requirements below:

System Requirements (RISA Applications)

Operating System

One of the following operating systems is required:

- Microsoft Windows 10 (64 bit only)
- Microsoft Windows 8.1 (64 bit only)
- Microsoft Windows 7 SP1 (64 bit only)

Internet (Subscription License Only)

An internet connection is required to launch the program. The internet connection must be maintained as long as the program is open, although brief internet outages (a few minutes) do not affect the user's ability to keep the program open.

System Requirements (Network Server)

This applies only to a server with RISA's perpetual Network Licensing.

Operating System Requirements

One of the following operating systems is required:

- Microsoft Windows Server 2012 R2
- Microsoft Windows Server 2012
- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows 10 (64 bit only)
- Microsoft Windows 8.1 (64 bit only)
- Microsoft Windows 7 SP1 (64 bit only)

License Manager Requirements

RISA requires the Sentinel RMS 8.6.1 (or 9.1) license manager in the installation. If you are running an older version of the license manager then you will be prompted to update using the License Server Update utility.

Note

- You can not have multiple versions of the Sentinel license manager service on a single server, or the license manager will not properly work.
- RISA uses a customized version of the Sentinel RMS 8.6.1 (or 9.1) license management service. Thus, to run RISA on your server you must install RISA's license manager. However, nearly all other software that uses the Sentinel license manager can be run from the RISA customized version.
- There is one license manager called Sentinel HASP that can be run concurrently with RISA's customized license manager.
- This install no longer packages the network client install. There is a separate install for the clients that is a standalone version.

Sentinel USB Key

RISA uses a Sentinel USB Key for licensing. This key may be plugged into any USB port on the machine. When functioning properly the key will light up green or red when plugged into a running machine.

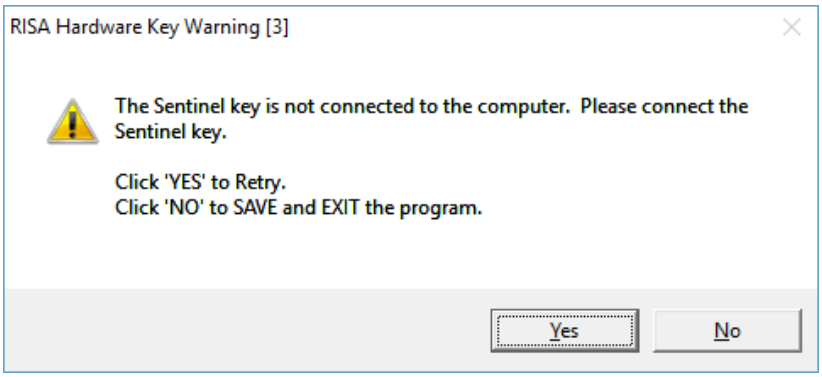
The design of Sentinel's keys has changed over the years. The oldest Sentinel USB Keys are purple, and typically do not have an adhesive label attached. Newer ones are black. The newest keys are purple and have a much more compact size to them. The black keys and new purple keys have an adhesive label designating their Key ID. See the image below:

Note:

- If trying to determine whether a USB key is a RISA key, the presence of the serial # SRB11137 usually signifies it is a RISA key.
- Safenet Sentinel Superpro keys, in rare instances, may have a problem being read when plugged into a USB 3.0 port. If you run into this issue please use a USB 2.0 port instead.

Launching the RISA Product

When launching a RISA standalone product the product will search for a connected Sentinel USB Key. If no key is found then the following dialog box is displayed (Warning 3):



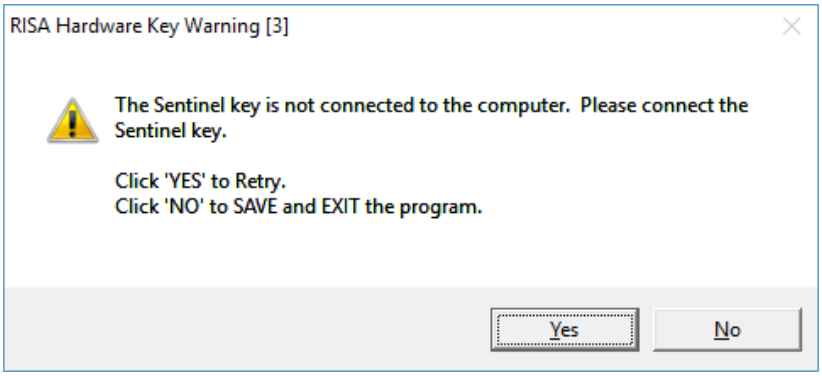
The user can check the key then click **Yes** to try again, or click **No** to exit.

Note:

- In rare circumstances Warning **L:26** will accompany this message. If this occurs it is letting you know that there is a license file issue that is not authorizing the program. Either time tampering or UAC problems are occurring.
- In very rare circumstances Warning **L:509** will accompany this message. If this occurs it is letting you know that there is a license file issue in combination with a license file that is not authorizing the program. The latest version of the RISA Key Manager was not used in generating the Locking Criteria.

Removing the Key

RISA Products periodically check to ensure that the Sentinel USB Key is plugged in. Removing the Sentinel USB Key during the operation of a RISA standalone product will eventually cause the following dialog box to be displayed:



Once this dialog box is displayed, no additional work may be done within the RISA Product until the key is inserted. Clicking the **No** button on the dialog box displayed above will automatically save the file (overwriting the previous version of the file) and exit the program immediately.

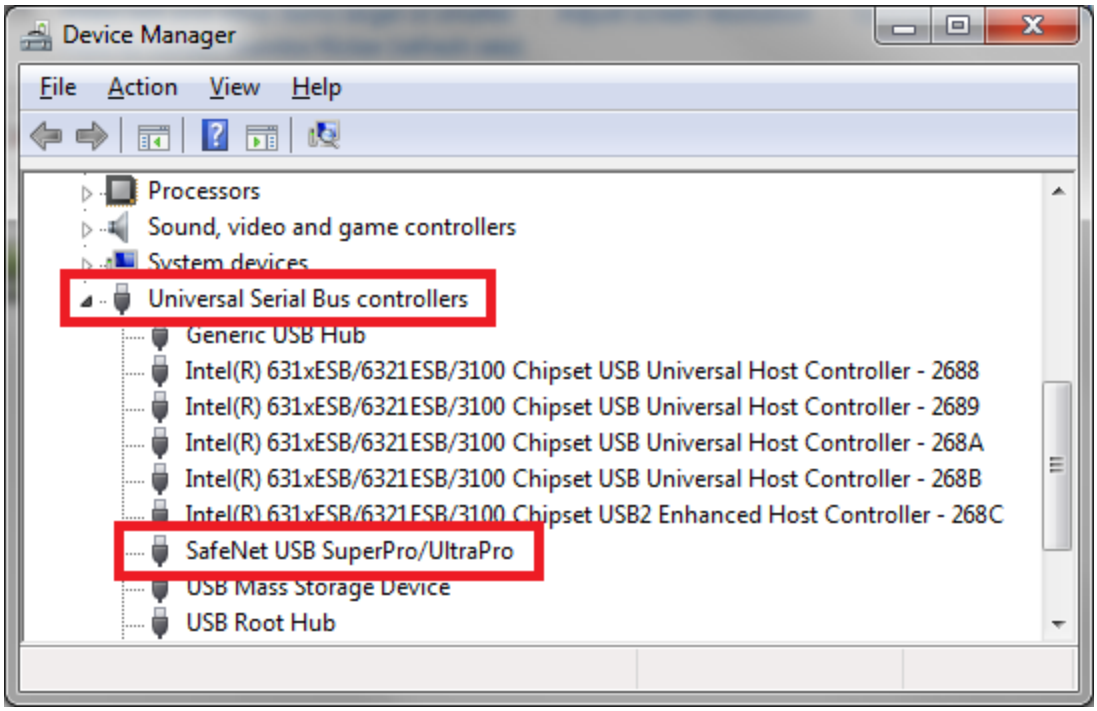
Remote Desktop

Standalone licenses allow access through Remote Desktop for all current RISA programs except RISASection.

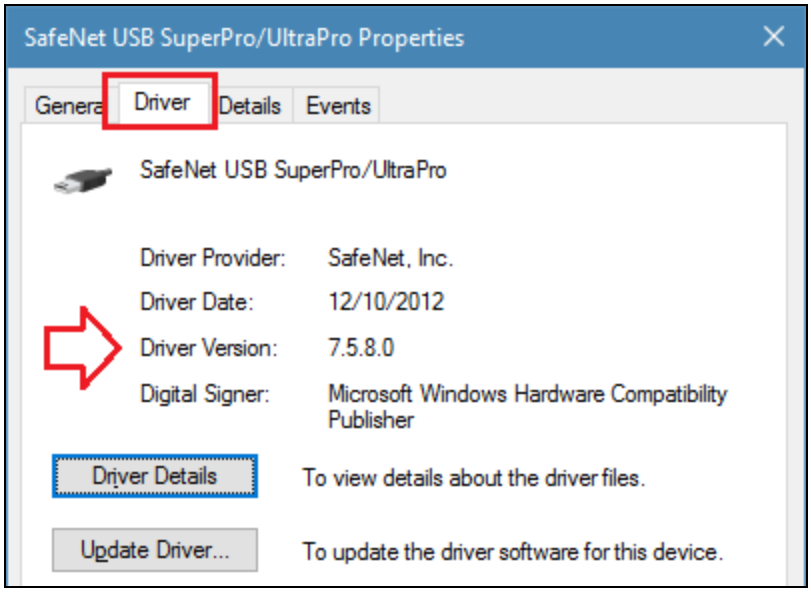
Key Driver

A Sentinel driver is necessary for the machine to read the USB key. This driver must be installed prior to plugging in the key. The latest **Sentinel System Driver** (also called the **Sentinel Protection Installer**) can be obtained from the RISA Product Licensing website, and is always included in both the Network server and Standalone Perpetual installs (this install is ran from the **SetupSPI.exe** located in the *RISA\Sentinel Protection Installer* folder).

To confirm that your machine is running the latest driver open the **Device Manager**, which is accessible through the Windows **Control Panel**. If the key is plugged in and the correct driver is installed then it will be listed under the Universal Serial Bus controllers as a **SafeNet USB SuperPro/UltraPro** device



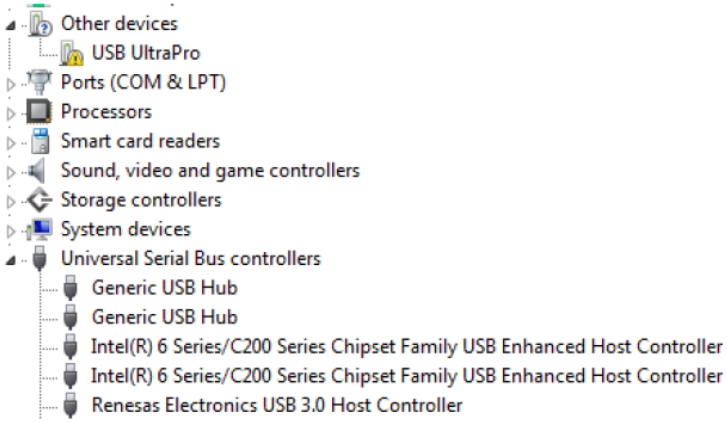
Double-click on the **SafeNet USB SuperPro/UltraPro** device to view its properties. Clicking on the **Driver** tab will reveal the **Driver Version**:



Manual Driver Installation

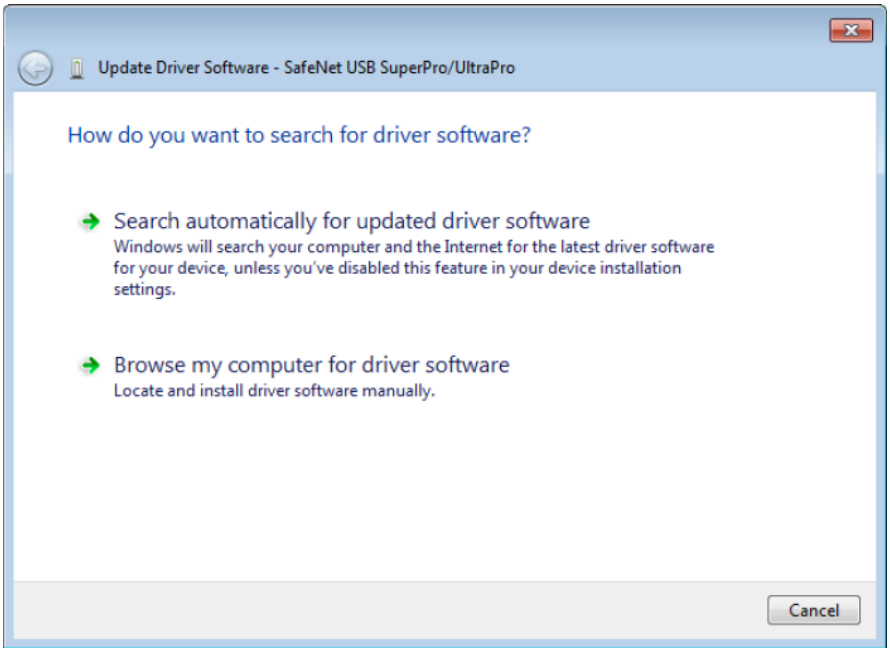
There are times when the driver has some difficulty installing. In these cases it may be necessary to manually install the Sentinel Driver. To do this:

1. In the device manager highlight the entry for the USB key. It may appear as **USB UltraPro** or **USB SuperPro** and have yellow triangle on it to indicate an incomplete driver install.

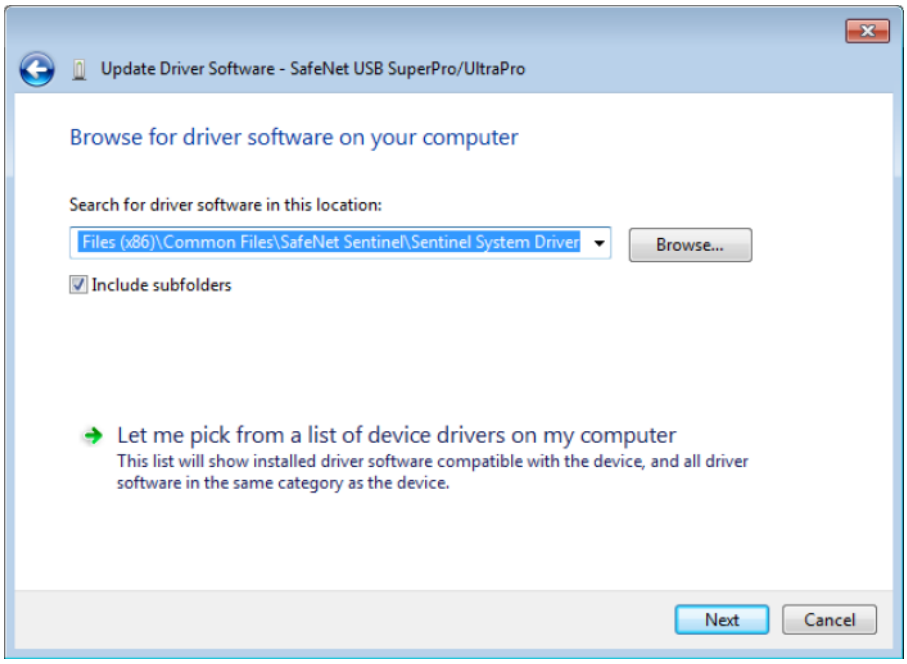


2. Now right-click to bring up a menu as shown below and choose **Update Driver Software...**

3. You should get **Update Driver Software** dialog shown below. Select the **Browse my computer for driver software** option:



4. The browse dialog below will come up. Browse to following location: ***C:\Program Files (x86)\Common Files\SafeNet Sentinel\Sentinel System Driver***
5. Click **Next** on the dialog and the driver software should install.



SSD Cleanup

There are instances when uninstalling the key driver will leave remnants of information in the registry. This will sometimes cause problems in reading the key when a new version of the key driver is installed. In this instance it may be required to run the SSD Cleanup utility to fix this problem. This file is called **SSDCleanup.exe**.

It is located here (by default): **C:\Program Files\RISA\Sentinel System Driver\x64**

Note:

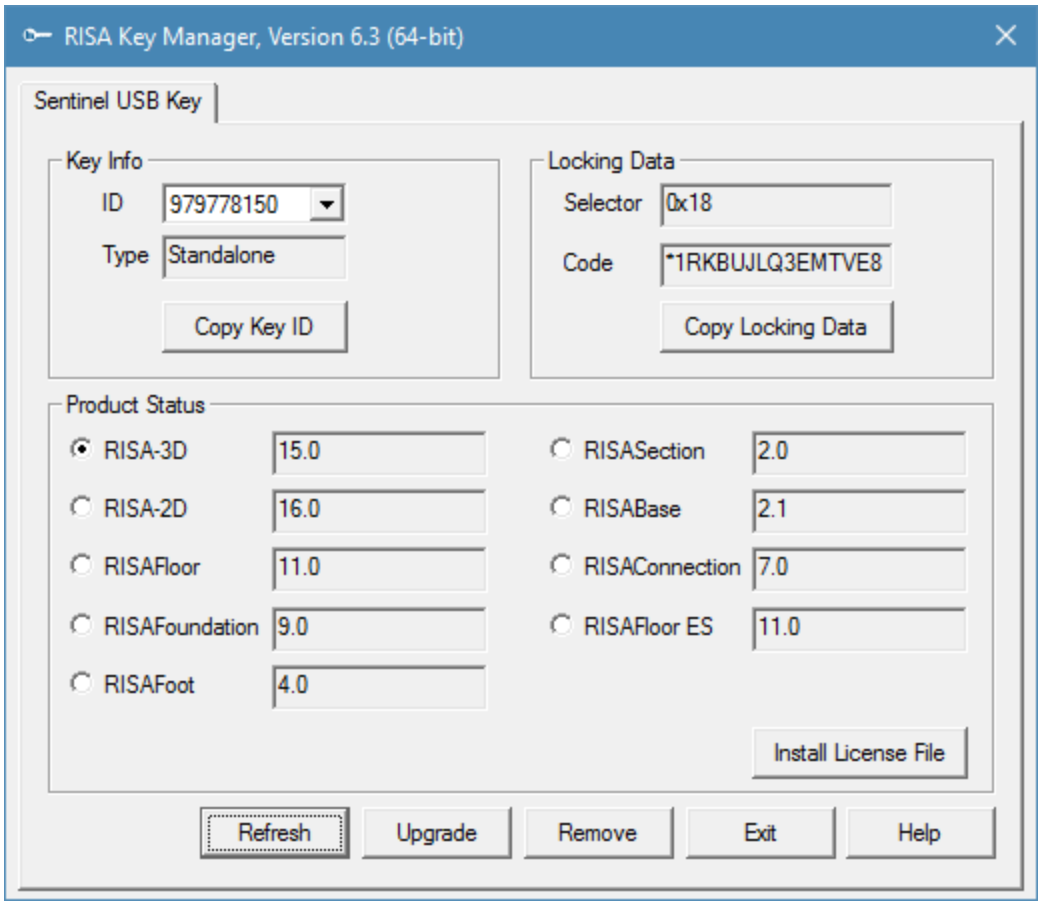
- If RISA has been installed to a location other than *C:\Program Files* then you will find a Sentinel System Driver subfolder in that other location (e.g. *C:\RISA*)

So the typical way to fix key driver issues is as follows:

1. Uninstall the key driver from the machine.
2. Run the SSD Cleanup utility (SSDCleanup.exe or SSDCleanupx64.exe).
3. Re-install the key driver by running the SetupSPI.exe from the **C:\Program Files\RISA\Sentinel System Driver** folder

RISA Key Manager

The RISA Key Manager is a utility which allows you to interact with the Sentinel USB licensing key. A shortcut to this utility can be found in the Windows Start Menu.



For Sentinel USB Keys (Standalone or Network Server) the Key Manager is used mainly for these purposes:

- Upgrading a standalone key for a new version
- Upgrading a network key for a new program

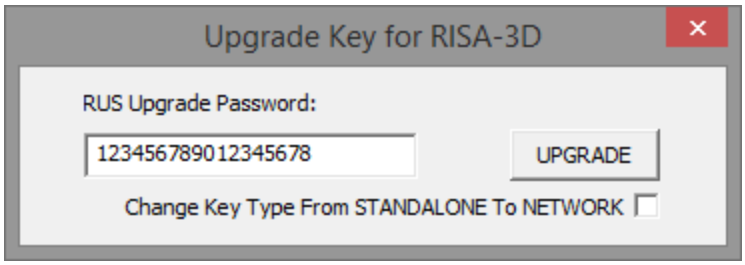
Additional capabilities include:

- Copying the locking data from a computer
- Converting a key from standalone to network and vice versa
- Removing a feature from the key and sending RISA a removal confirmation code

Uses For the RISA Key Manager

Upgrading a Standalone Key for a New Version (Perpetual License Only)

For each major version of the program the Sentinel USB Key must be upgraded to the newer version. This can be done by clicking the radio button of the program you are updating, pressing the **Upgrade** button and inputting the RUS password. The RUS password can be found in an e-mail from RISA. Once you have input the RUS password, then press **Upgrade** and the key will then be upgraded.



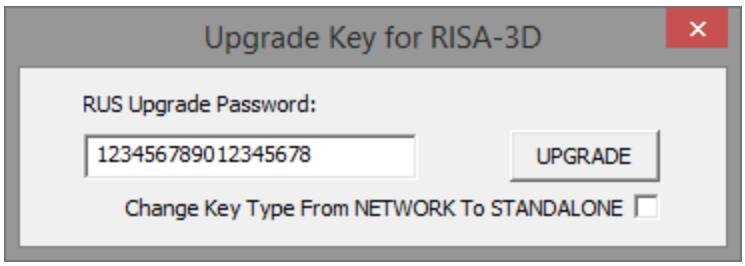
After this process you should then see the updated version next to that program and your key is then upgraded.

Note:

- Minor releases do not require an update to the key. For example, an update of RISA-3D from 15.0.0 to 15.0.1 will not require an update to the key.
- If you upgrade the key and you get a message stating *Unable to update Sentinel key. The currently authorized program version exceeds the upgrade version*, this means that the key is already up to date for the version of the RUS password you entered.

Upgrading a Network Key for a New Program (Perpetual License Only)

A network Sentinel USB Key only has to be authorized for a program once. After the key is authorized, then version upgrades do NOT require the key to be updated. If you own a network version of RISA-3D and then purchase a network version of RISAFloor, then you WILL need to update your key for RISAFloor. This is done by clicking the radio button of the program you are updating, pressing the **Upgrade** button and inputting the RUS password. The RUS password can be found in an e-mail from RISA.. Once you have input the RUS password, then press **Upgrade** and the key will then be upgraded.



Note:

- If you upgrade the key and you get a message stating *Unable to update Sentinel key. The currently authorized program version exceeds the upgrade version*, this means that the key is already been authorized for that program.

Miscellaneous Uses

Copying the Locking Data from a Computer

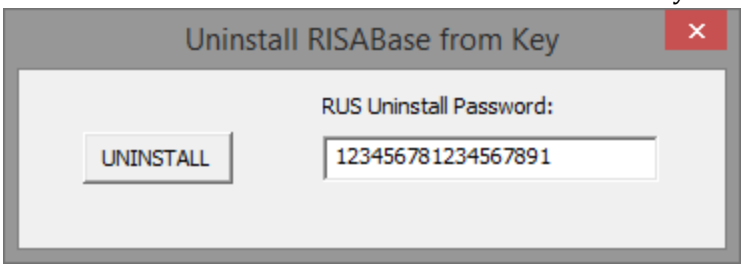
The locking data is a code that is specific to your computer. RISA may request that you can press the "Copy Locking Data" button and it will copy this information to your clipboard. You can then open up an e-mail and paste (CTRL-V) the locking data into an e-mail.

Converting a Key from Standalone to Network and Vice-Versa

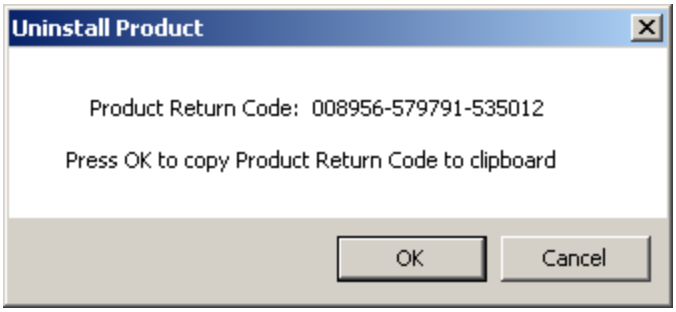
If your company switches from standalone licensing to network licensing or vice versa then RISA will send you an RUS password to convert your Sentinel USB Key. To do this follow the **Upgrade** procedure above, except make sure to check the "Change Key Type..." check box.

Removing a Program from the Key and Sending RISA a Removal Confirmation Code

When reconfiguring licenses sometimes there is a need to remove a program from the key. This can be done by:

- Clicking the radio button of the program you wish to install and press the **Remove** button.
- Enter the RUS Uninstall Password that has been e-mailed to you from RISA and press the **Uninstall** button. 

- You be asked if you wish to continue. Press the **Yes** button.
- It will then tell you that the program has been uninstalled.
- A final screen will come up with a **Product Return Code** that MUST be sent to RISA to confirm that the program has been uninstalled.



Network Server Installation Instructions

This topic is meant to provide step by step instructions for the installation of the Network Server version of the RISA programs. This Network Server Install includes the Network License Service Install.

Note:

- If you have a Standalone perpetual or Subscription license, please see the Standalone Install topic.
- *This install no longer packages the network client install. There is a separate install for the clients that is a standalone version.*

Where to get the Install

Contact license@risa.com to request an installation link, which we will email quickly.

Installation Instructions (Server Machine)

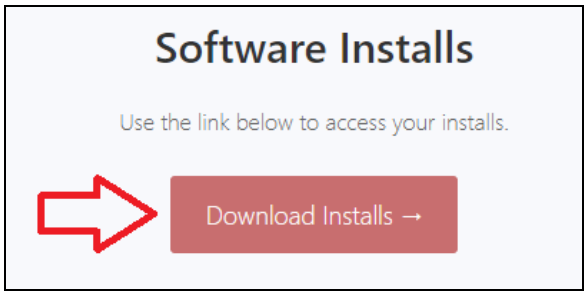
Below are the step-by-step instructions for each step of the install on the server.

Note:

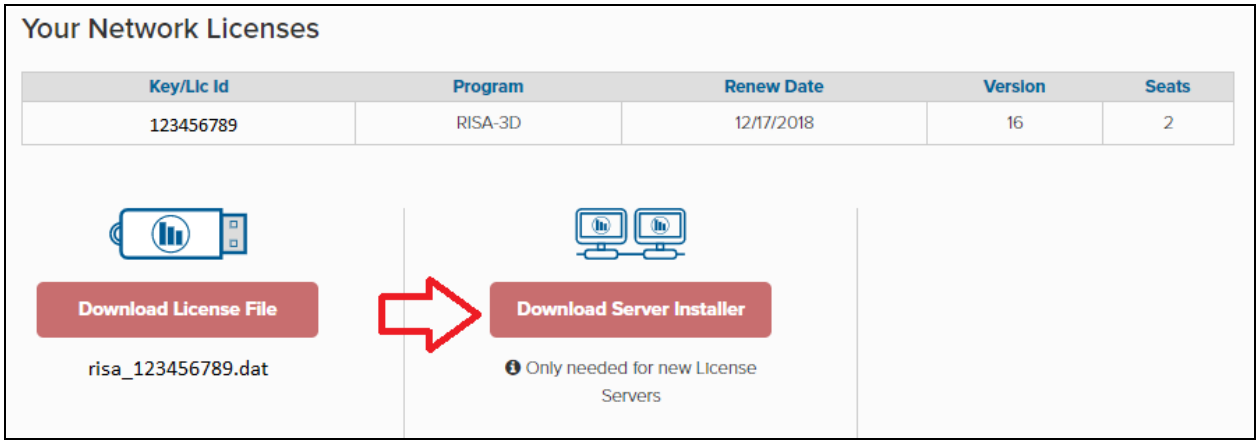
- You must be an Administrator on the machine in order to run this install.

Downloading the Install

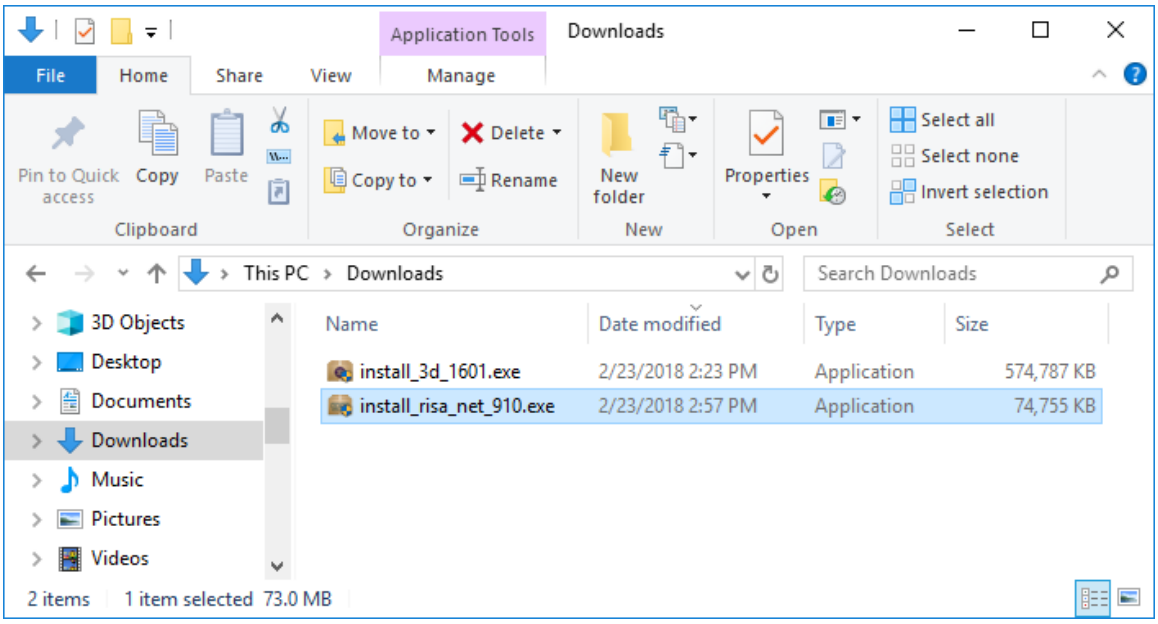
1. Go to the Installation web page (from a link in the e-mail that was sent to you):



2. Click on the **Download Install** link and it will download:



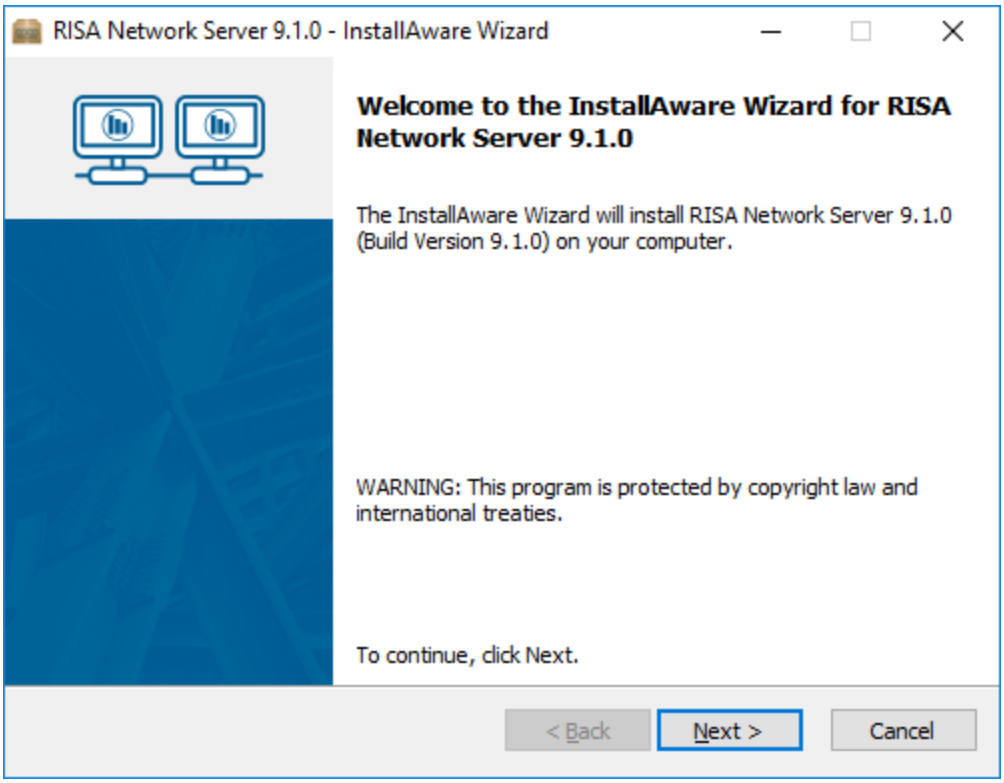
3. After it finishes downloading, click on the downloaded file to run the installation (the example below is from Windows Downloads folder):



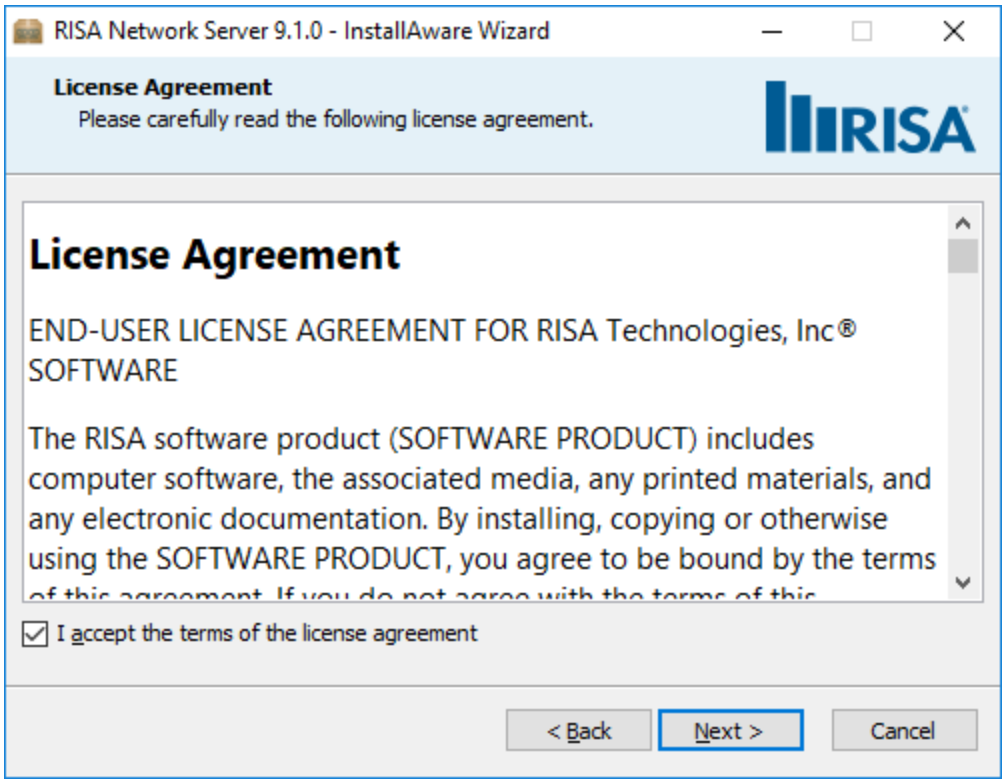
2. If you receive a User Account Control/security message click **Yes** to continue with the installation.

Installation Procedure

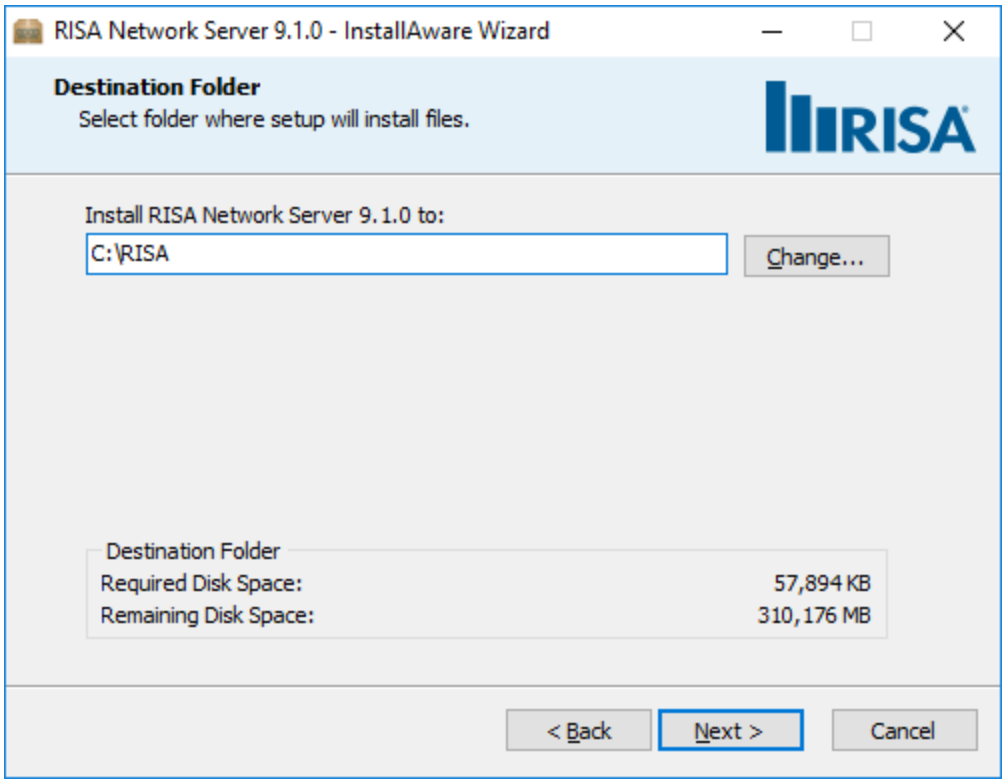
1. From the Welcome screen, click **Next**:



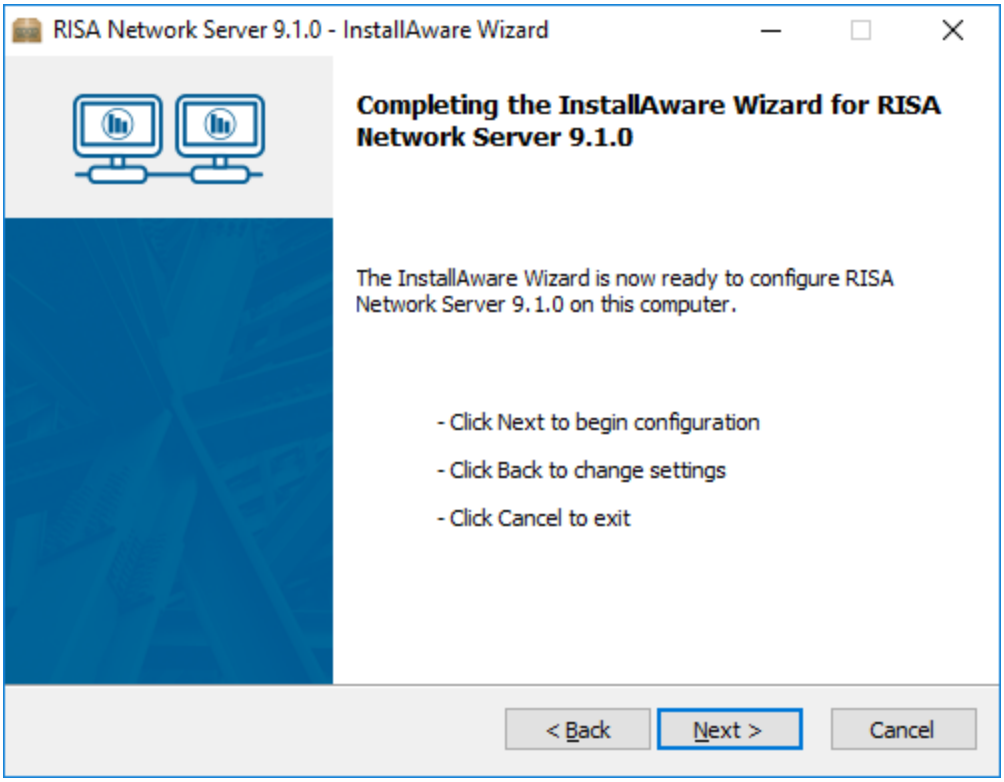
2. Accept the terms of the license agreement and click **Next**:



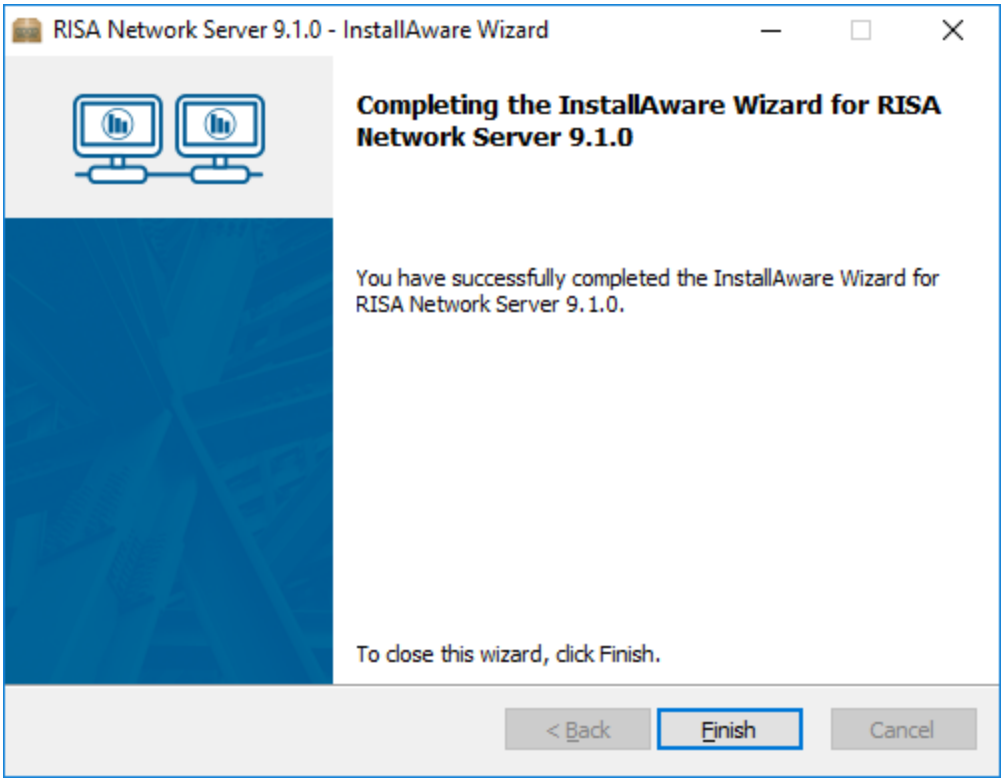
3. Select the install location and click**Next.**:



4. Click **Next** on the Completing the Install screen:

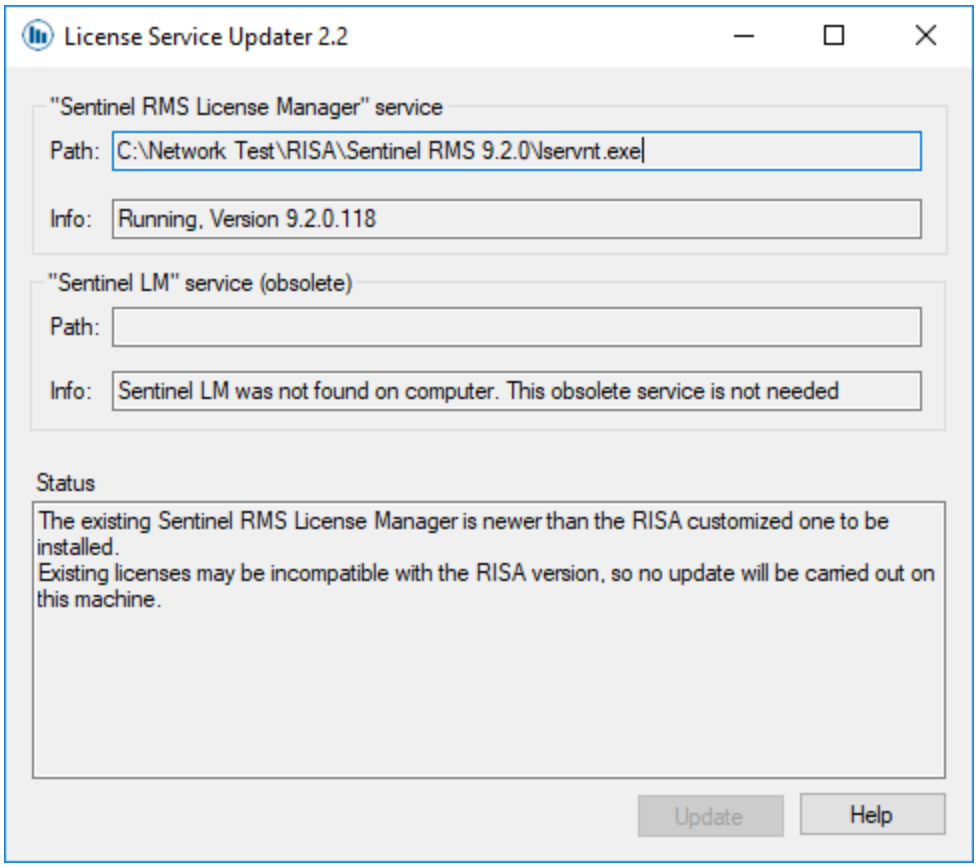


5. The Setup Status window will display. When finished, the Completing the InstallAware dialog will display:



6. The **Update Sentinel License Management Service** feature will also launch simultaneously. This starts the License Service Updater. Refer to the topic titled License Service Updater for more information on

using this utility. Click **Update** if older installs have been found. Otherwise, click **Exit**:



7. Administer the licenses by adding the new license file to the WLMAdmin utility. This is described in the License Administration topic.
8. Install the program on a client machine. This is described in the Application Installation topic.

Network Perpetual Licensing

RISA network products are licensed with a License Server. This server distributes licenses to the Client Machines.

Launching the RISA Product on a Client Machine

When launching a RISA network product the program will search for a connected Standalone Sentinel USB Key. If no key is found then the program will search the subnet for a License Server. If a License Server is found then the program will check out a license (if available).

If no license server is found, or if no licenses are available, you are presented with the option to enter Demo mode. If you believe that this is happening in error the two general problems are:

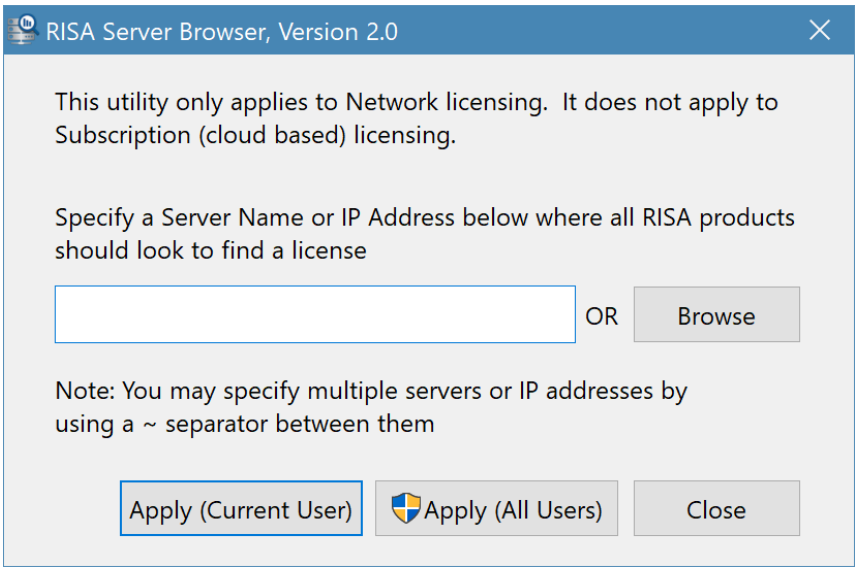
- A firewall is blocking communication. To fix this problem you must set an exception for UDP port 5093 on both the server and client for both inbound and outbound.
- The license broadcast is timing out. To fix this follow the **Pointing a Client Machine to a License Server** section below.

Pointing a Client Machine to a License Server

If no license server is found by the Client Machine then it may be necessary to point the Client Machine to the License Server.

Current Versions of all RISA Products (except RISASection)

Go to the Windows Start Menu and open the **RISA Server Browser:**

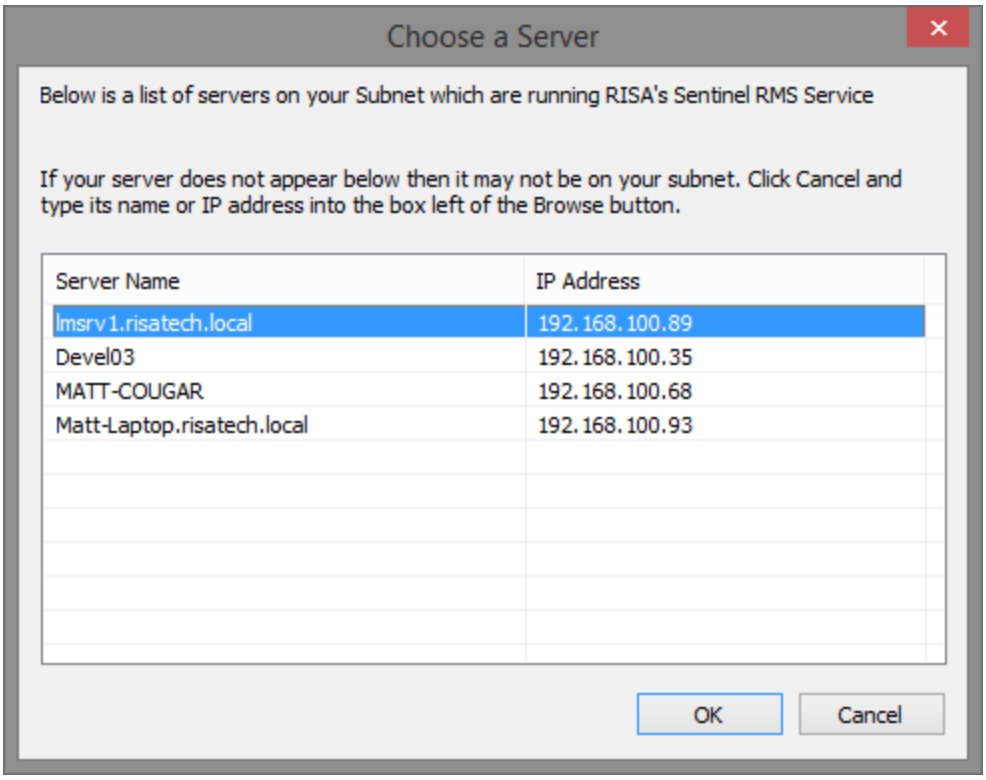


Choose whether you want to point all of your RISA products to the same server or whether you only want to point a specific RISA product to this license server.

Note:

- This utility will not work for RISASection.
- If you have multiple license servers that run RISA products you may enter multiple IP addresses or DNS names. Each name must be separated by a ~ (tilde) symbol.

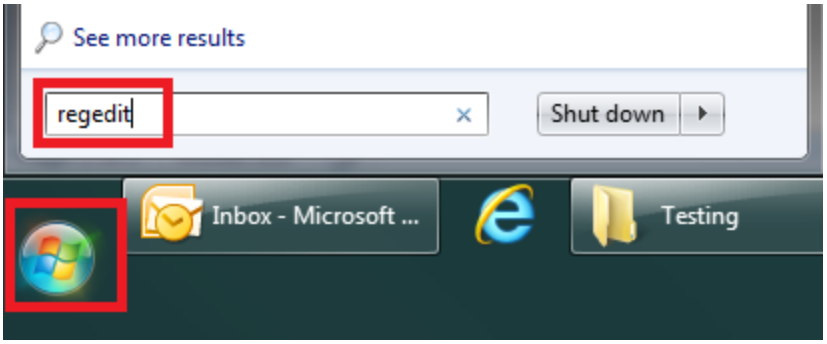
To point to a specific license server, enter the server name or IP address in the text box, or click the **Browse** button to view a list of available servers. Click on the name of the server and click **OK** to use that server.



You may apply the settings to the user who is currently logged in, or apply the settings to all users on the computer (including future users). IT Administrators logged in as themselves should apply to All Users so that other users get these settings when they are logged in.

RISASection

To do this, open the Registry Editor on the Client Machine by clicking on the Windows **Start Button**, clicking in the **Search box**, and typing **regedit**, then hit **Enter**.



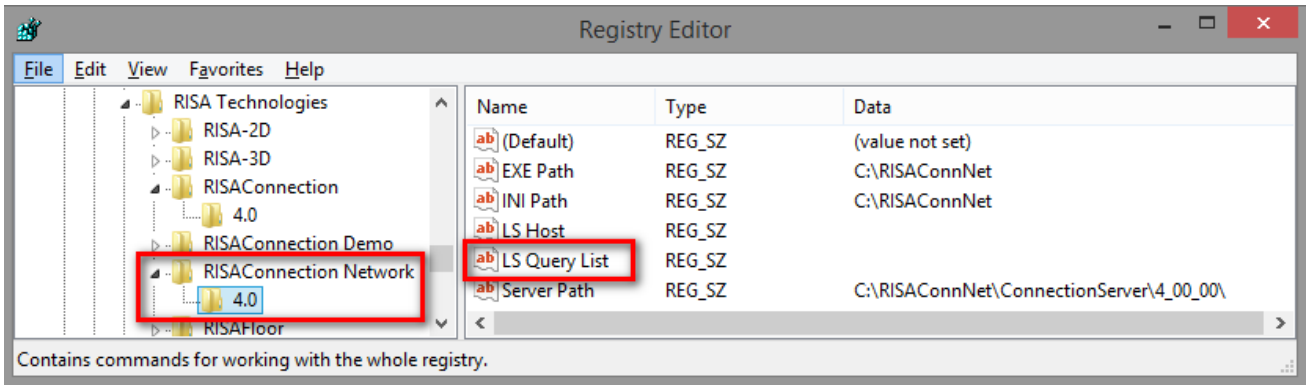
Note:

- The instructions above are valid for Windows 7. If you are running a different version of Windows then the procedure may be slightly different.

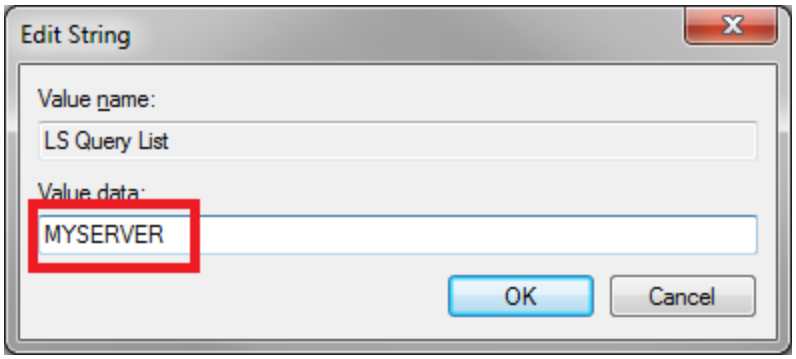
Check the following two locations on the left side of the Registry Editor:

HKEY_LOCAL_MACHINE\SOFTWARE\RISA Technologies\RISASection Network\2.0

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\RISA Technologies\RISASection Network\2.0



Double-click on the LS Query List registry entry to edit it:



Under **Value Data** enter either the **DNS Name** or **IP address** of your license server. Then hit **OK** and exit the registry editor. This will point your client machine directly at the license server.

Note:

- Current versions of RISA products except RISASection use a : (colon) or ~(tilde) character as the delim-inator when specifying multiple servers in the LS Query List
- RISASection uses a : (colon) to separate the server entries. This was changed to better support the default IP settings for Windows 7 (which can use the colon as part of the IP address).

How Network Licenses Work on a Client Machine

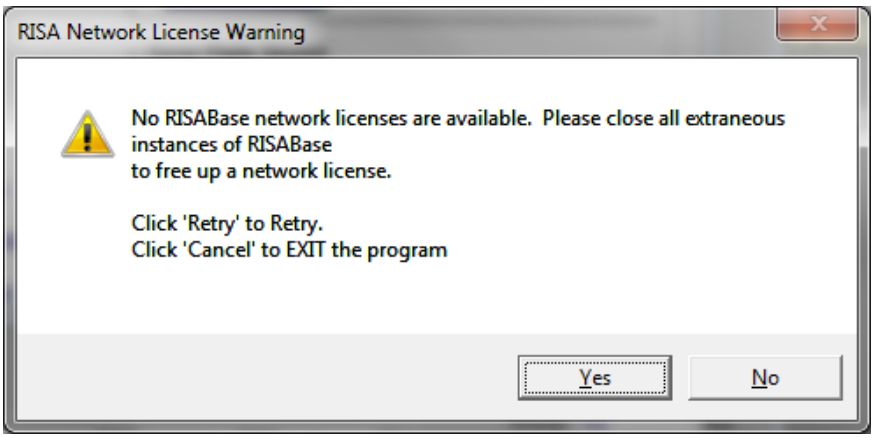
When a network client machine opens a RISA product a license gets checked out from the server. From that point on there is a "heartbeat" for the license where it intermittently checks in on the network server. Here are some details on that behavior.

- The license will “expire” after 5 minutes if the server doesn’t receive a "renewal request" in that time, and the license will be returned to the pool of available licenses on the server.
- A "renewal request" is initiated after at least 2 minutes has passed when a new file is opened, when a model is solved, and at many other times during use of the RISA product. The timer is then reset after triggering the "renewal request".
- If none of these "renewal request" triggers occur the program will automatically renew at 4 minutes, thus giving the network client machine a full minute before the license will expire. This 4 minute renewal request will happen even mid-solution to guarantee the license is still available.
- If the program is closed the license is then automatically checked back in and made available to another user.
- If the program is still open but a "renewal request" is not successful then after 5 minutes that license will be made available to other users. Reasons this may happen:
    1. A network connectivity issue where the client machine loses connection with the server or there is sufficient lag to cause an issue.

2. An idle or asleep computer that is non-responsive to any Windows message. It is not certain whether a renewal request could be achieved if the computer using the RISA product is in this state. Adjusting the Power Settings on the machine may help if this is causing the problem.
3. If either of these cases happens you may see a dialog similar to what's shown in the image below, or a Save and Close option may be given.

Losing Network Connection

RISA Products periodically check the connection to the License Server. Severing this connection during the operation of a RISA network product will eventually cause the following dialog box to be displayed:



Once this dialog box is displayed, no additional work may be done within the RISA Product until the network connection (and the license from the License Server) is restored. Click **Yes** to have the program search for a license. Clicking the **No** button on the dialog box displayed above will present the option to save the file (overwriting the previous version of the file) and exit the program immediately. If you point the client directly to a license server machine this can remedy this problem.

VPN Configuration Regarding MTU Settings

First of all, when looking for a license on a client machine over a VPN, the LS Query List registry setting must be set using the RISA Server Browser utility. Beyond that, however, there are maximum transmission unit (MTU) settings that may affect the connectivity between the client machine and the license management server.

MTU's are the size of the largest packet the network can transmit. The MTU send/receive size must both be the same value for the client machine, and these must also be the same for the server computer. Refer to the Licensing Error Messages section and the Miscellaneous VPN issues topic for more information on this subject.

Sentinel Service

RISA uses a customized version of the Sentinel RMS 8.6.1 (or 9.1) license manager to maintain and distribute licenses. The non-customized version of Sentinel RMS, which is used by other software vendors, is not compatible with RISA licensing. However, the customized version of Sentinel RMS is typically compatible with the licensing of other software vendors.

Compatibility

The RISA customized version of Sentinel RMS *cannot* be run in conjunction with any of the following services:

- Non-customized versions of Sentinel RMS
- Any version of Sentinel LM
- Any version of Sentinel LM or RMS which has been customized by other third parties (e.g. Eagle Point)

Loading (Adding) the Sentinel Service

The steps below describe the process to load the Sentinel Service:

1. Open the list of **Services**. This can be accessed through the **Administrative Tools** portion of the Windows **Control Panel**.
2. Confirm that no existing Sentinel services (i.e. Sentinel LM or RMS) are running. If any such service is running then it must be unloaded (removed).
3. Run the **LoadLS.exe** Utility (default installation folder is **C:\RISA\Sentinel RMS 8.6.1 (or 9.1)**)
4. Click the **Add** button, then click **OK**

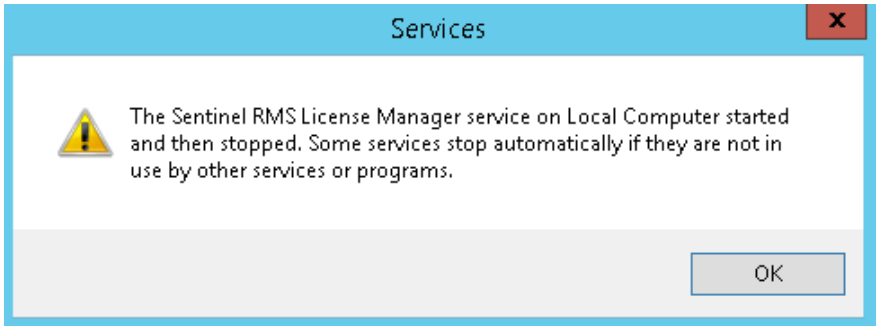
Unloading (Removing) a Sentinel Service

The steps below describe the process to unload a Sentinel Service:

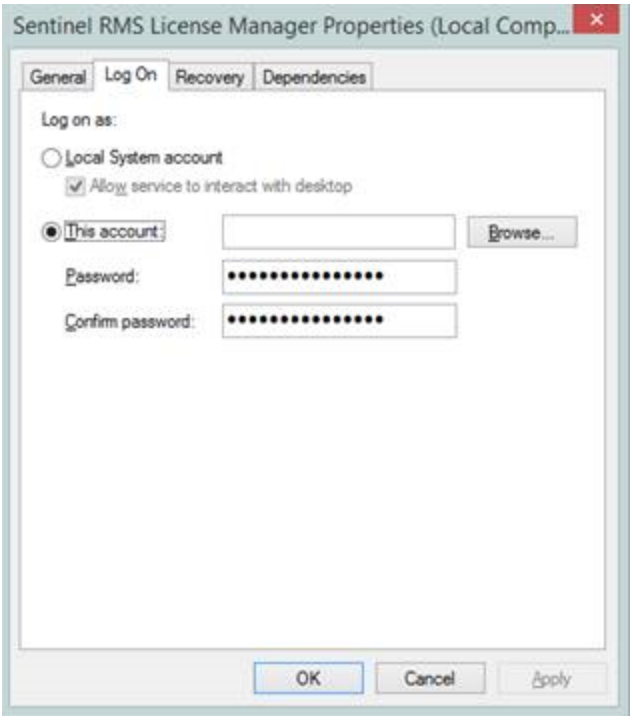
1. Open the list of **Services**. This can be accessed through the **Administrative Tools** portion of the Windows **Control Panel**.
2. Double-click on the Service to be unloaded.
3. Check for the service's **Path to Executable** and navigate to that folder in Windows Explorer.
4. Run the **LoadLS.exe** Utility which should be present in that folder
5. Click the **Remove** button, then click **OK**

Troubleshooting

In rare circumstances it could be possible that the Sentinel Service may start and then immediately stop, giving the error below:



In that situation one solution we've found is to go into *Administrative Tools - Services* and double-click on the problematic service. From the *Log On* tab using the **Domain Administrator** account to log in has been shown to fix this issue.

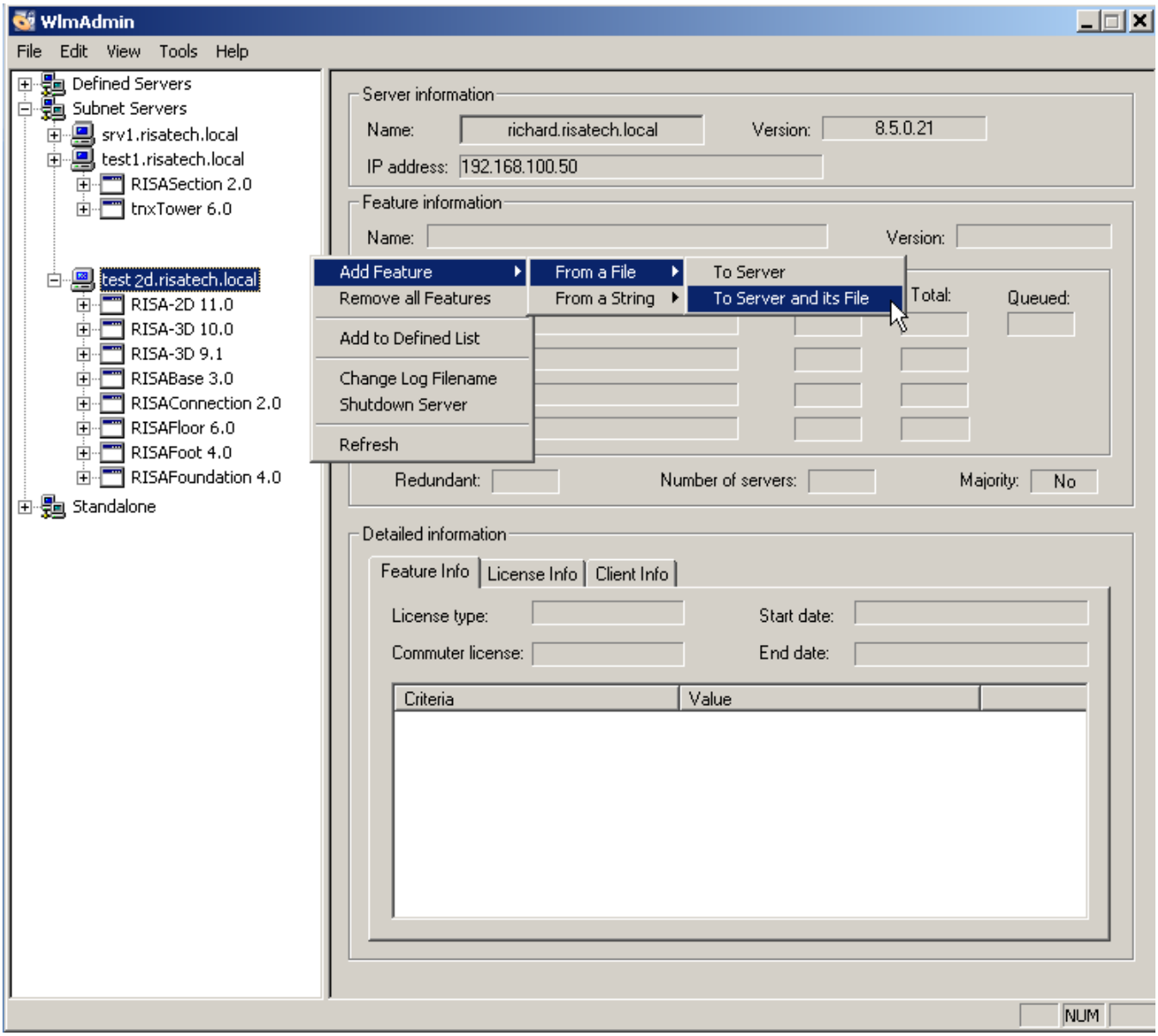


License Administration

The utility used for administering licenses on the license management server is the **WLMAdmin.exe**. This utility is primarily used for adding new programs (or versions) onto the existing license management server. However, it may also be used for reviewing which users have a license checked out and whether that license is a commuted license and when it is scheduled to be returned.

This utility will be located on the License Management Server in the "\Sentinel RMS 8.6.1 (or 9.1)\" sub-directory of the main install directory (usually C:\RISA\). This utility will also be located on the network Client computer in the "\Sentinel RMS\" sub-directory of the main install directory (usually C:\RISA\). The utility may be run from either location.

Loading (Adding) a License File Using the Sub-Net Server Tree



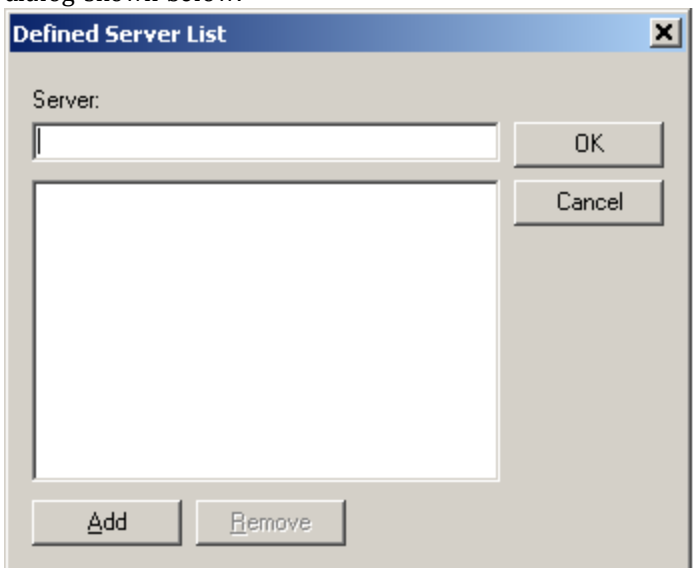
To add in a new license file for a new program or a new version of an existing program:

1. Make sure that you have a copy of your new license file in an accessible location. If you do not have a copy of this license file, e-mail license@risa.com to request a license file.
2. Execute the WlmAdmin utility and open the Subnet Servers tree on the left hand side of the WlmAdmin dialog. This can be done by double-clicking on the Subnet Servers text or by clicking the plus sign next to the text.
   Note: If the License Server is accessible by subnet broadcast that computer should appear under Subnet Servers. If it is not listed, refer to the section below titled Using the Defined Server List for more information.
3. If the Sentinel RMS license management service is up and running on the server, then the name of the server should now be shown in the sub-net server tree. Right click on the name of the License Server and select (as shown in the image above):
   Add Feature => From a File => To Server and its File
4. An **Open** dialog will come up. Browse to the license file and open it. The name of the license file should be "RISA_LM_KeyID" where KeyID is the ID number of your SuperPro USB key.
5. If the license file loads successfully, a message indicating how many licenses were successfully loaded will be displayed similar to what is shown below. If the licensing file is not accepted, see Appendix B - Network Installation Error Messages.
6. Once the license has been accepted, Sentinel RMS should now be able to issue network license tokens for your RISA programs.

Loading a License Using the Defined Server List

There are many reasons why the License Management Server may not listed under the list of subnet servers. Chief among them is that the computer running the WLMAdmin utility may not reside on the same subnet, or that there may be some firewall which is preventing communication between the client and the server. In these cases, the easiest solution is to add the License Management Server to the list of defined servers. This can be accomplished by doing the following:

1. Make sure that you have a copy of your new license file in an accessible location. If you do not have a copy of this license file, e-mail license@risa.com to request a license file.
2. Run WlmAdmin utility and select Edit -=> Defined Server List from the Main Menu Toolbar to bring up the dialog shown below:

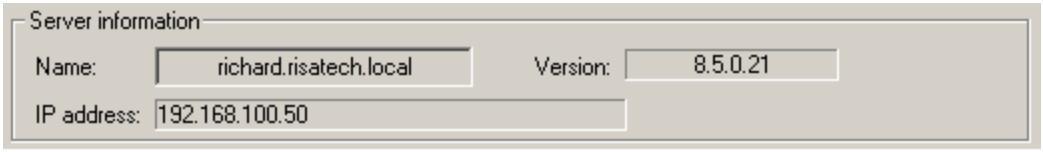


3. Type in either the IP address or the DNS name of the license management server, then click Add and OK.
4. The server should now appear in the Defined Server list. Right click on the name of the License Server and select

Add Feature => From a File => To Server and its File

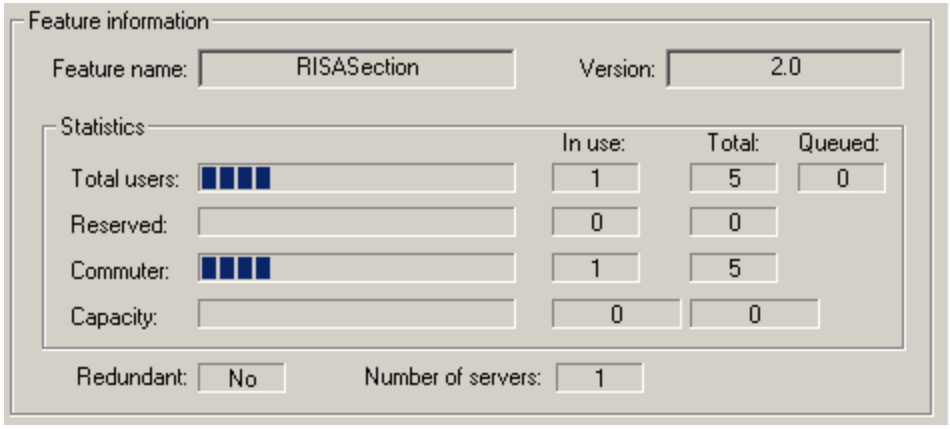
5. If the license file loads successfully, a message indicating how many licenses were successfully loaded will be displayed similar to what is shown below. If the licensing file is not accepted, see see Appendix B - Network Installation Error Messages.
6. Once the license has been accepted, Sentinel RMS should now be able to issue network license tokens for your RISA programs.

Server Information



This is a section of the WLMAdmin window that reports information about the license management server. It reports the version of the license management server, the name and the IP address.

Feature Information

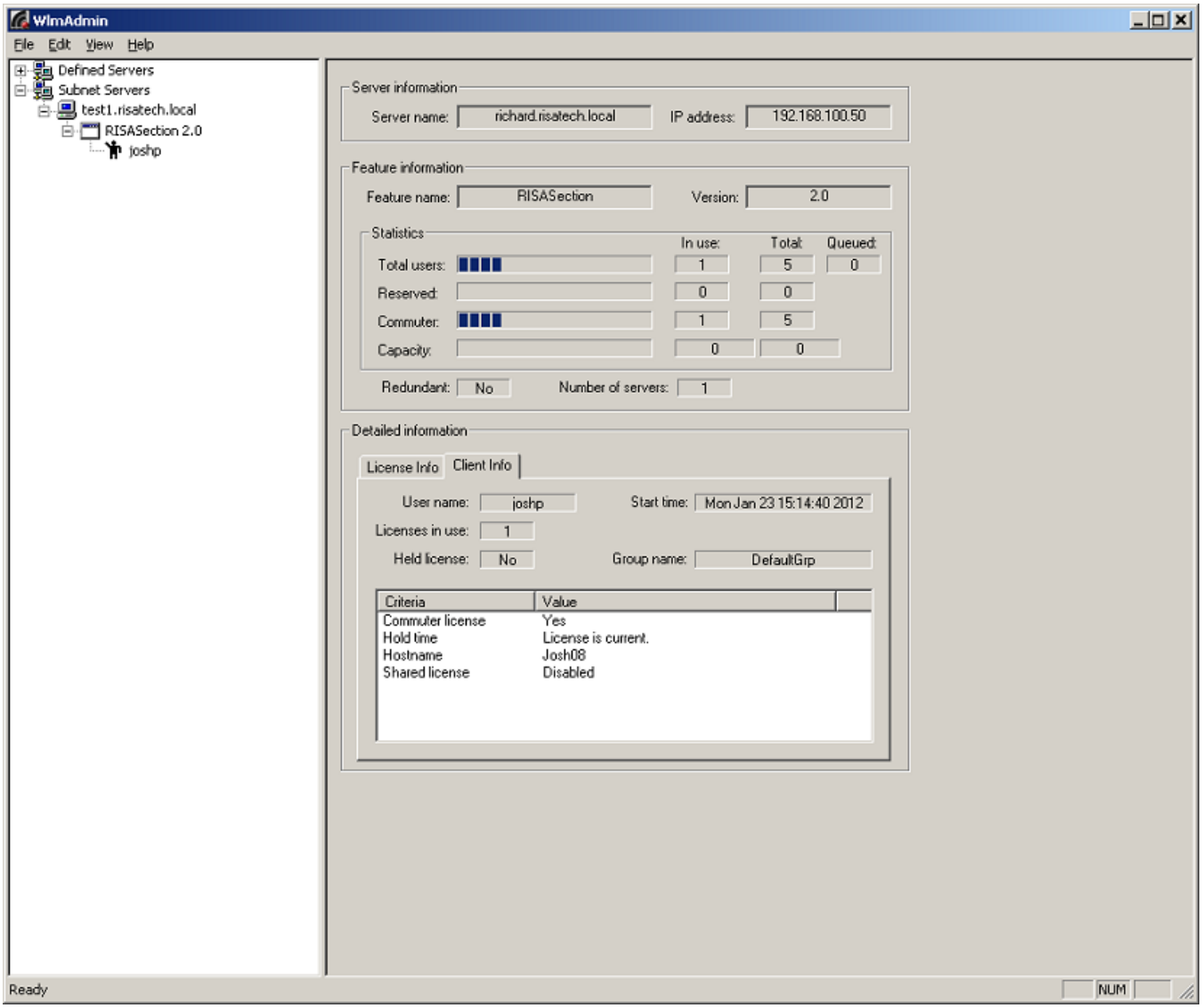


This section of the WlmAdmin window reports specific information about the licensing for that program and version. For example, the above image shows that RISASection version 2.0 is loaded on the license management server. The total number of licenses is 5, only one of which is currently being used.

This section will also give a quick summary of how many of these licenses are commuted licenses .

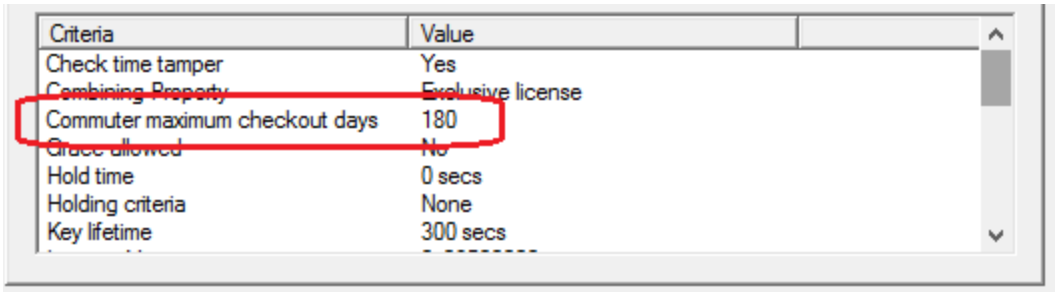
Detailed Information

Using the WLMAdmin utility it is possible to find out additional detailed information about the program version, or about the users who have currently checked out a license. In the image below, the selected feature is RISASection 2.0 and the selected user is joshp.



Feature Info

This gives information about how the license works. Note there is a hardwired value set for the **Commuter maximum checkout days** that is set to 180 days. This cannot be changed.



License Info

The license info gives information about the feature / program, not about the user. Most of this information will not be directly used. However, the "Allow commuter license" flag and the End date can be useful when reviewing feature / program information from non-RISA vendors.

Client Info

The client info section of the WLMAdmin is only available when a specific user has been selected under the feature / program. This information lets us know when the license was checked out, who checked it out (user login name and well as the host name of the computer), and whether or not the license was a commuted license.

Trouble Shooting License Administration

Appendix B: WLMAdmin Error Messages contains explanations for most of the common error message codes that may occur when adding a license file. Chief among these are:

- WLMAdmin returns Error Codes 19, 92, or 150 when attempting to add in the license file
- WLMAdmin cannot locate the Sentinel RMS License Management server, even when using the Defined Server List. See error code 3 in Appendix B for more information on resolving this issue.

Advanced Network Features

RISA Network licensing includes advanced utilities which can be run on the license server.

Usage Reports and License Monitoring

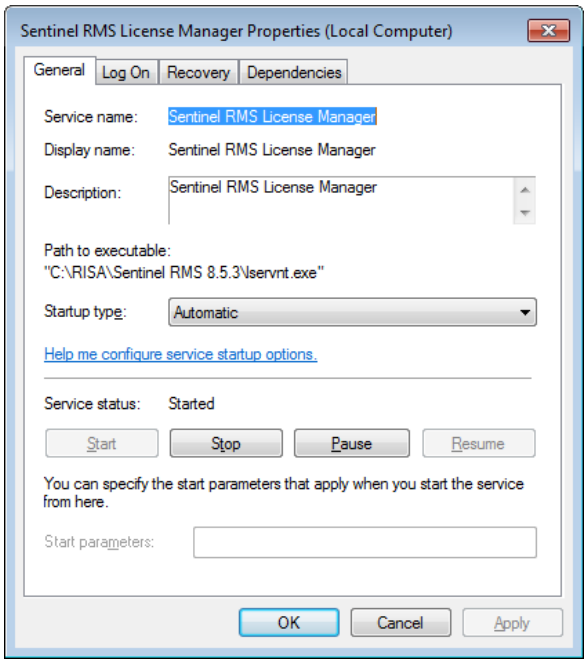
The **WLMadmin.exe** utility offers a real-time account of which users have checked out licenses, however there are more advanced utilities available to track the usage of licenses over a given time period. Below are instructions to create a Usage Report.

Creating a Usage Log Report (text file)

1- Go to your list of **Services** (through the Control Panel) on the server computer.

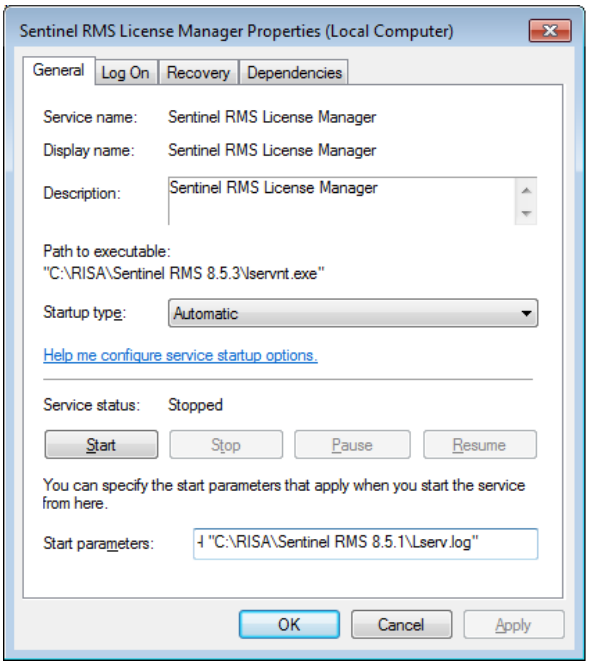
2- Locate the "**Sentinel RMS License Manager**" service.

3- Right-click and select **Properties**.



4- On the **General** tab, click the **Stop** button to temporarily stop the service.

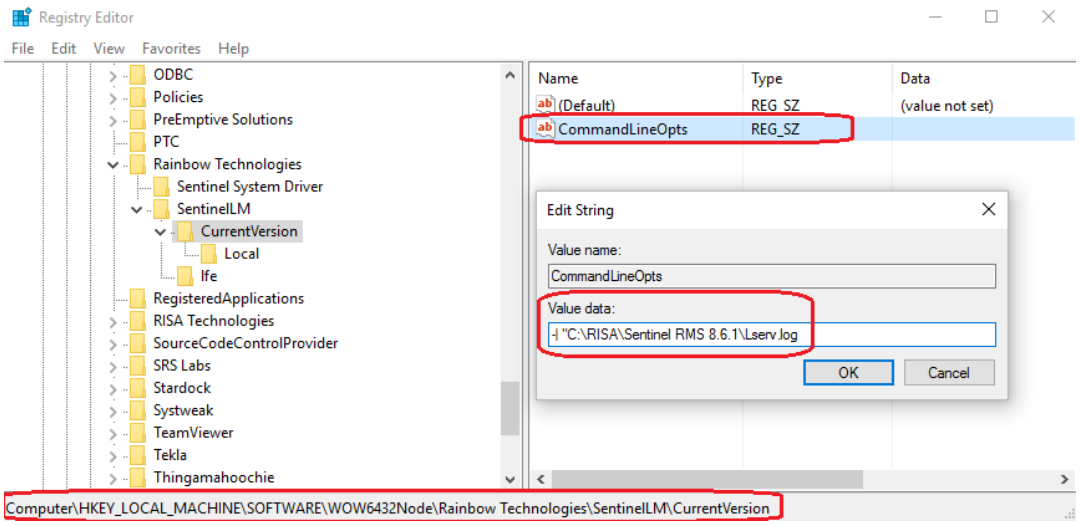
5- In the **Start Parameters** box, type: **-l "C:\RISA\Sentinel RMS 8.6.1 (or 9.1)\Lserv.log"** (the 1st character is a lowercase L, not the number one).



6- Click the **Start** button to restart the service.

Note:

- Alternatively, the start parameter may be entered using the CommandLineOpts string value in the following registry key: HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Rainbow Technologies\SentinelLM\ CurrentVersion\. The value for the CommandLineOpts would be the same as listed above **-l "C:\RISA\Sentinel RMS 8.6.1 (or 9.1)\Lserv.log"**
- The path specified in the string (C:\RISA\Sentinel RMS 8.6.1 (or 9.1)) is the location where the usage log report will be created. The file name will be whatever is specified. In this case, **Lserv.log**.



Converting a Usage Log Report to a Database Table (CSV file)

The Usage Log Report can be cumbersome to review. Therefore, Sentinel has provided a utility to convert it into a database table readable by Microsoft Access. To do this:

1- Browse to **C:\RISA\Sentinel RMS 8.6.1 (or 9.1)\Utilities** and double-click on the **Lservlog.bat** file.

When executed, this batch file will automatically launch the **lsusage** utility and place a **Lserv.csv** file in the **Utilities** subdirectory. This file may then be edited with Notepad if the Lserv log exists in a different folder or if the lserv.csv needs to be placed in a different location.

Reading the Access Database Table

The Database Table (**Lserv.csv**) is most useful when read into MS Access using the process described below.

1- First, launch Microsoft Access and open the following file:

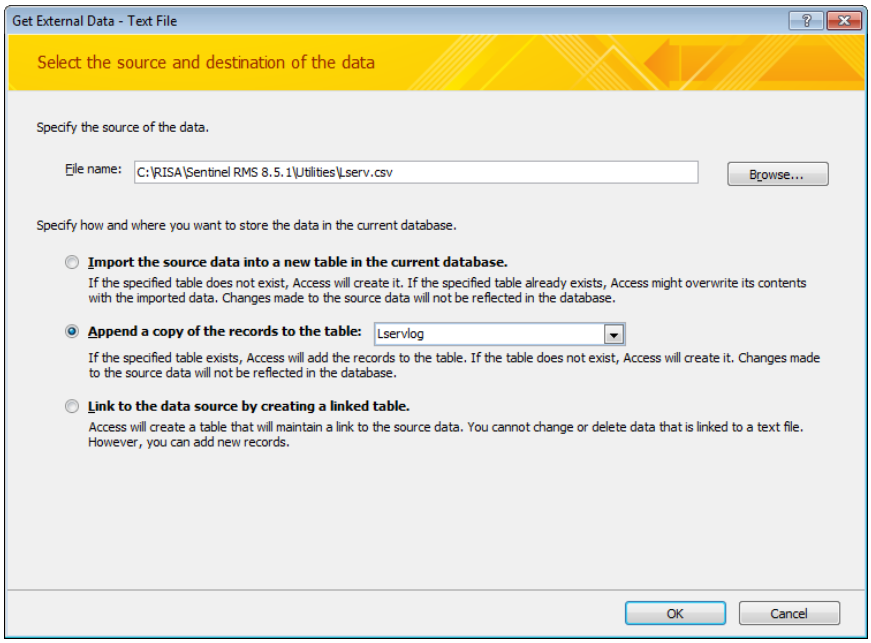
C:\RISA\Sentinel RMS 8.6.1 (or 9.1)\Utilities\ReportDB.mdb

Note:

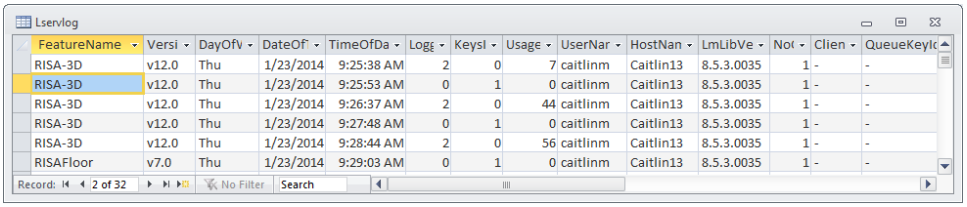
- Access will sometimes give error messages about needed to convert the file to a newer file format or about a missing *.OCX file. Click **OK** or **Continue** to ignore those error messages as they should not affect the function of the utilities.

2- Once the file above has been opened, go to the **External Data** tab and choose to **Import a Text File**.

3- Select the "**Lserv.csv**" text file using the **Browse** button. Be sure to "**Append a copy of the records**" to an existing table called **Lservlog**.



Continue through the import and when complete, the Lservlog table will then contain the entire information of all of the features on the License Server (including non-RISA features).



Note:

- Occasionally, you may wish to create a new lservlog table rather than append to an existing Lservlog table. The only way to do this is to first, delete rows from the existing Lservlog table before importing new data.

The reporting utility within Access can then be used to generate various types of reports (e.g. Total Minutes Used Per Feature Per User).

Limiting the Number of Commutable Licenses

The network administrator can restrict the number of licenses which may be commuted, or even restrict users from commuting licenses altogether.

Note:

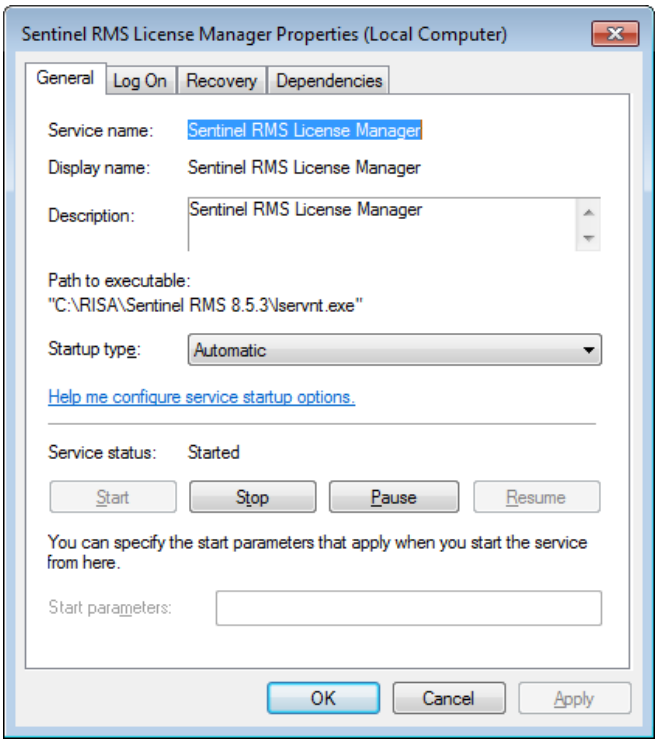
- This is a blanket setting for all versions of all features on the server. You cannot restrict some products and not others.

Setting Start Parameters for the Service

1- Go to your list of **Services** (through the Control Panel) on the server computer.

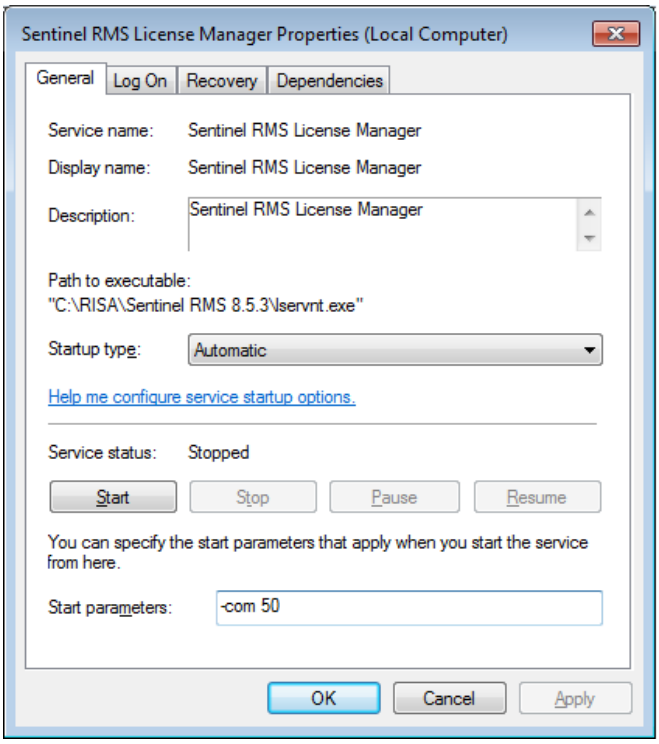
2- Locate the "**Sentinel RMS License Manager**" service.

3- Right-click and select **Properties**.



4- On the **General** tab, click the **Stop** button to temporarily stop the service.

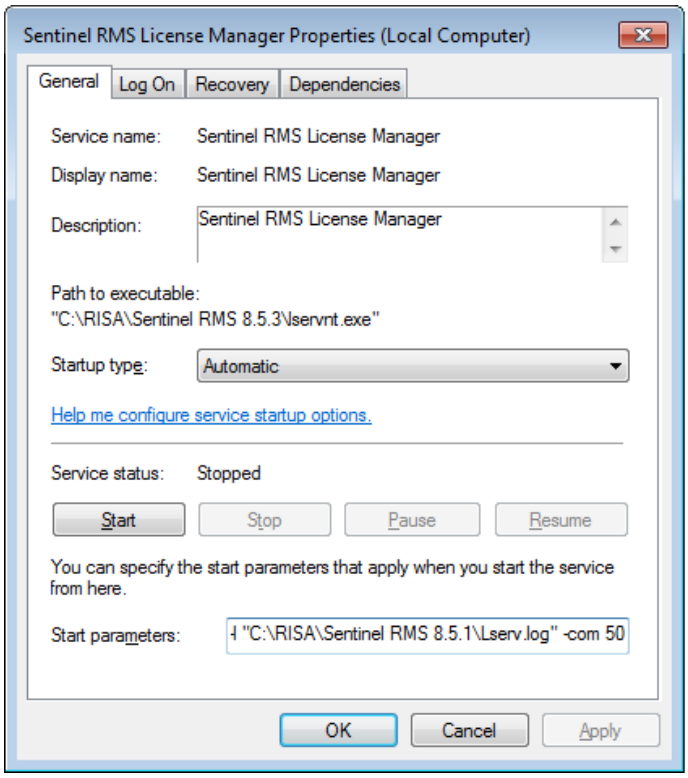
5- In the **Start Parameters** box, type: **-com 50** (this will limit the commuted licenses to 50% of the total number of licenses).



6- Click the **Start** button to restart the service.

Note:

- To prohibit any licenses from being commuted set the value to **-COM 0**.
- Alternatively, the start parameter may be entered using a CommandLineOpts string value in the following registry key: HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Rainbow Technologies\SentinelLM\ CurrentVersion\. The value for the CommandLineOpts would be the same as listed above **-com 50**
- If setting multiple switches (logging and commuting, for example) use a space between each command. For example, the entry below will set both the log file and limit the number of commuted licenses available: **-l "C:\RISA\Sentinel RMS 8.6.1 (or 9.1)\Lserv.log" -com 50**


Sentinel RMS License Manager Properties (Local Computer)
General
Log On
Recovery
Dependencies
Service name:
Sentinel RMS License Manager
Display name:
Sentinel RMS License Manager
Description:
Sentinel RMS License Manager
Path to executable:
"C:\RISA\Sentinel RMS 8.5.3\lservnt.exe"
Startup type:
Automatic
Help me configure service startup options.
Service status:
Stopped
Start
Stop
Pause
Resume
You can specify the start parameters that apply when you start the service from here.
Start parameters:
-l "C:\RISA\Sentinel RMS 8.5.1\Lserv.log" -com 50
OK
Cancel
Apply

License Service Updater

Sentinel Service Overview

RISA uses a customized version of the Sentinel RMS 8.6.1 (or 9.1) license manager to maintain and distribute licenses. The non-customized version of Sentinel RMS, which is used by other software vendors, is not compatible with RISA licensing. However, the customized version of Sentinel RMS is typically compatible with the licensing of other software vendors.

Compatibility

The RISA customized version of Sentinel RMS *cannot* be run in conjunction with any of the following services:

- Non-customized versions of Sentinel RMS
- Any version of Sentinel LM
- Any version of Sentinel LM or RMS which has been customized by other third parties (e.g. Eagle Point)

Loading (Adding) the Sentinel Service

The steps below describe the process to load the Sentinel Service. However, this process is now automated with the License Service Updater utlity described in the section below. :

1. Open the list of **Services**. This can be accessed through the **Administrative Tools** portion of the Windows **Control Panel**.
2. Confirm that no existing Sentinel services (i.e. Sentinel LM or RMS) are running. If any such service is running then it must be unloaded (removed).
3. Run the **LoadLS.exe** Utility (default installation folder is **C:\RISA\Sentinel RMS 8.6.1 (or 9.1)**)
4. Click the **Add** button, then click **OK**

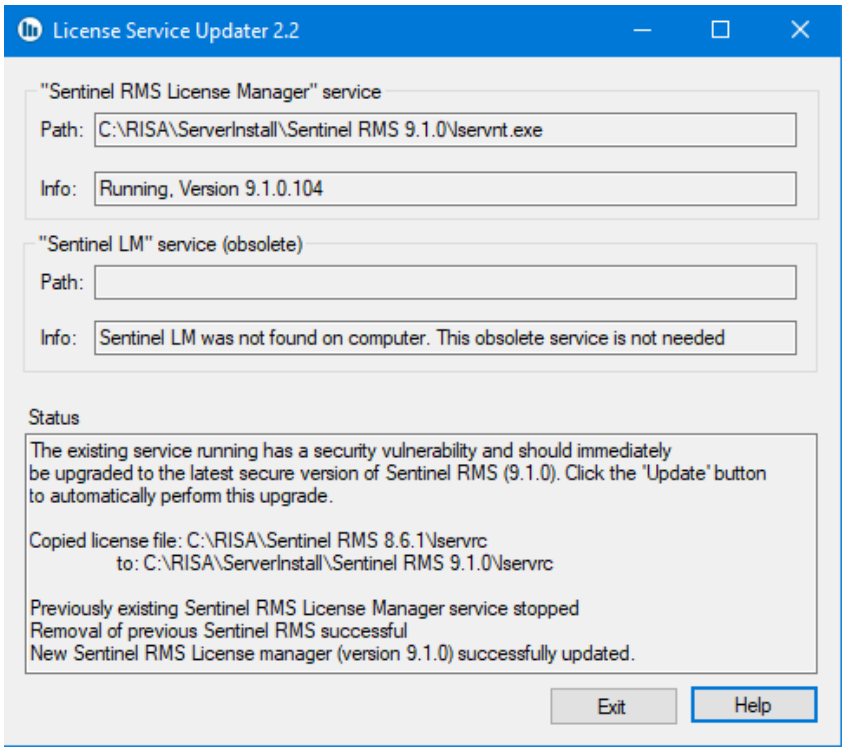
Unloading (Removing) a Sentinel Service

The steps below describe the process to unload a Sentinel Service. If you hae an existing Sentinel LM service then the License Server Updater (described in the next section) will automatically evaluate / assess your existing license services to determine compatibility with RISA's customized service.

1. Open the list of **Services**. This can be accessed through the **Administrative Tools** portion of the Windows **Control Panel**.
2. Double-click on the Service to be unloaded.
3. Check for the service's **Path to Executable** and navigate to that folder in Windows Explorer.
4. Run the **LoadLS.exe** Utility which should be present in that folder
5. Click the **Remove** button, then click **OK**

License Service Updater

As part of the install routine, the License Service Updater (ServerUpdate.exe) will run. This utility, shown below, analyzes the computer and gives a summary of the Sentinel LM or Sentinel RMS license management services that are currently loaded. This utility can be found in the 'Sentinel RMS 8.6.1 (or 9.1)' sub-directory of the server install directory. It is a custom made diagnostic tool designed to examine the license management systems running on the computer and determine if any of them will cause conflicts with RISA's customized version of Sentinel RMS 8.6.1 (or 9.1) required to run the latest RISA software.



Path and Info

This **Path** data gives the directory path of the Sentinel LM or Sentinel RMS license services where they were loaded from (and where the LSERVNT.EXE executable resides). If the path is blank, that means that that particular license service was not detected on the computer.

If **Info** data gives basic information about the detected license service. This includes the status of the service (whether it is currently running, stopped, or disabled), the version of the service, and whether that version has been customized by RISA.

Status

The **Status** section provides a summary of the analysis and instructions for continuing. If you wish to exit out of this dialog without making any changes click the button on the upper right hand of the dialog to cancel out of the dialog.

Generally, when updating from a previous version of the Sentinel Licensing service, a message will be provided that instructs the user to click **Update** to install the new version of the license service. If the License Service is up to date and does not need to be updated at all then this Update button will be grayed out. If this happens, just click the button on the upper right hand of the dialog to cancel out of the dialog.

What Happens When Update Is Clicked?

When the user clicks the **Update** button, this utility will do the following:

- Unload or Remove the existing Sentinel LM and Sentinel RMS license Management Services.
- Copy the license file information from these older services into the license file for the new license management service.
- Load the new version of the license management service which is a RISA customized version of Sentinel RMS 8.6.1 (or 9.1).

License Commuting

Licenses may be checked out from the license server onto client machines in such a way that the client machine does not need to remain connected to the license server. This process is called "commuting". This feature is commonly used on laptops which need to borrow licenses to be used in remote locations where a network connection to the license server is not possible.

There are two methods for commuting licenses: Local (most common), and Remote. ***Note that it is very important that you understand the two options before starting. The Remote option does not allow you to check licenses back in, so please read through the instructions completely before deciding which is appropriate for you.***

Local Commuting

This commuting method is preferable as it allows the licensing administrator more control over the commuted license. It does require the client machine to be connected to the network at the time of license check-out, so it cannot be done if the client's machine cannot be connected the network at the time that the license is checked out (borrowed).

Prerequisites

- The client machine must be connected to the network, with direct access to the license server.
- The license server must have at least one available license for the product which is to be commuted.
- The appropriate RISA product (i.e. RISA-3D) must be installed on the client machine.

Procedure

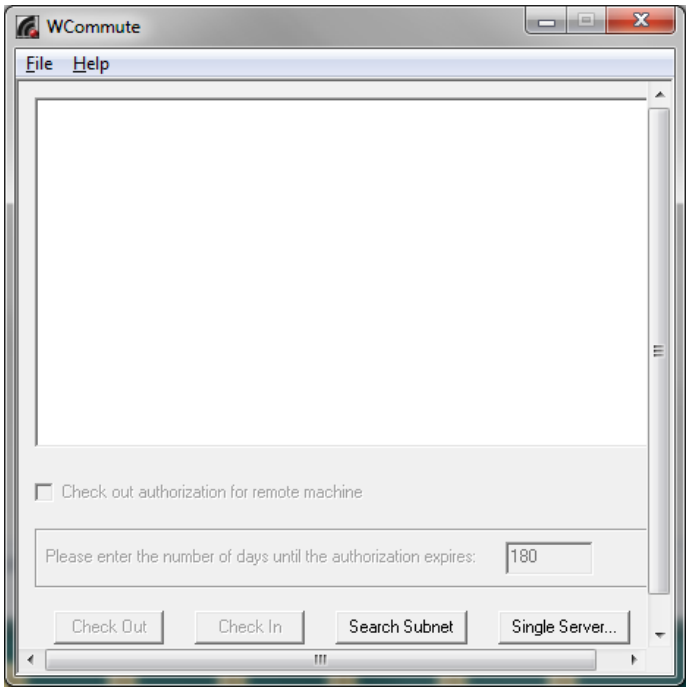
On the client machine, run the following utility:

C:\Program Files\RISA\Sentinel RMS\Commute\WCommute.exe

Note:

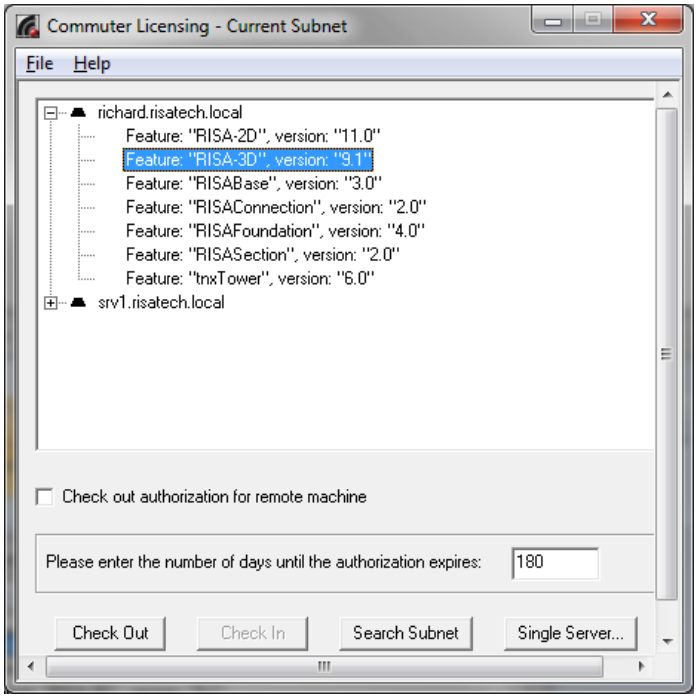
- If RISA has been installed to a location other than *C:\Program Files* then you will find a Sentinel RMS subfolder in that other location (e.g. *C:\RISA*)

This will launch the following dialog box:



- To have the WCommute utility search the entire subnet for license servers, click the **Search Subnet** button.
- To point the WCommute utility directly to a license server (nessecary if the server is on a different subnet than the client machine) click the **Single Server** button and enter that server's name or IP address.

The license server should now appear, with all of the available RISA products branched out underneath it as shown below:



Click on the program which you would like to commute a license for.

Note:

- Licenses for each program must be commuted independently
- Do **not** check the *Check out authorization for remote machine* box.

A commuted license is retained by the client machine, and is unavailable on the license server until it is checked back in, or until it expires. If a commuted license is not checked in by its expiration date then that license disappears from the client machine and reappears on the license server.

Enter a number of days which the commuted license will be valid for. Then click the **Check Out** button. A red check mark will appear next to the Feature, indicated that a license has been checked out. You can then close the WCommute utility.

Note:

- It is recommended that you immediately disconnect the client machine from the network and launch the RISA program which a license has been checked out for. Do this before leaving the office to confirm that the license has been correctly commuted.

Remote Commuting

This method of commuting should only be used in the circumstance where it is not possible to connect the client machine directly to the license server at the time of checking out the license. There are three main steps: retrieving locking code data from the remote machine, retrieving the authorization code and checking out a license on the local machine, and installing the authorization code on the remote machine.

Note:

- Remotely commuted licenses cannot be Checked-In!! They will remain commuted until their expiration date.

Prerequisites

- The license server must have at least one available license for the product which is to be commuted.
- The appropriate RISA product (i.e. RISA-3D) must be installed on the remote client machine. This must be a Network Client Install.
- There must be a local client machine (connected to the license server) with any current Network Client Install of a RISA product installed.

Retrieving the Locking Code (Remote Client Machine)

The commuted license will be locked to a specific remote client machine. In order to do this the license server needs a locking code for that client machine.

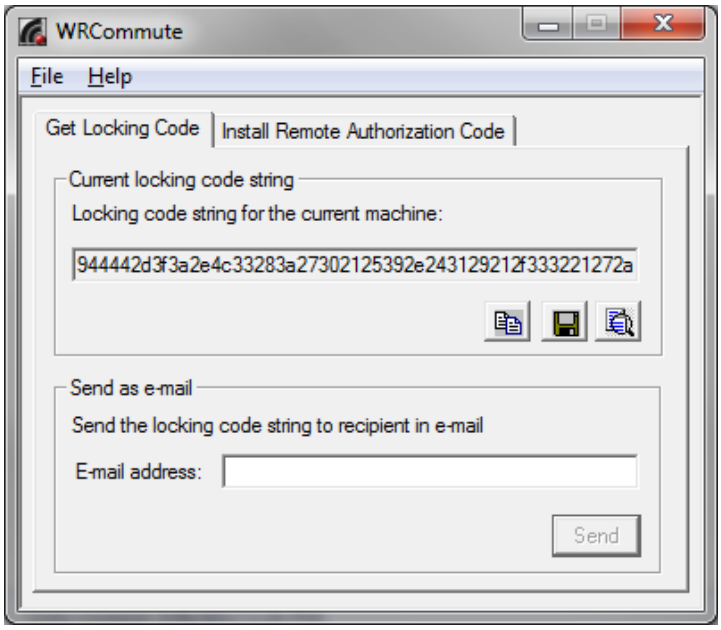
On the remote client machine, run the following utility:

C:\Program Files\RISA\Sentinel RMS\Commute\WRCommute.exe

Note:

- If RISA has been installed to a location other than *C:\Program Files* then you will find a Sentinel RMS subfolder in that other location (e.g. *C:\RISA*)

This will launch the following dialog box:



Click on the **Get Locking Code** tab, and click the button. Save the Locking Code File to a temporary location. Then send the Locking Code File to a user who has a local client machine (connected to the license server).

Retrieving the Authorization Code (Local Client Machine)

The license server can use the Locking Code to generate an Authorization Code which the remote client machine will need in order to remotely commute a license. This step can be done from any local client machine which has access to the license server.

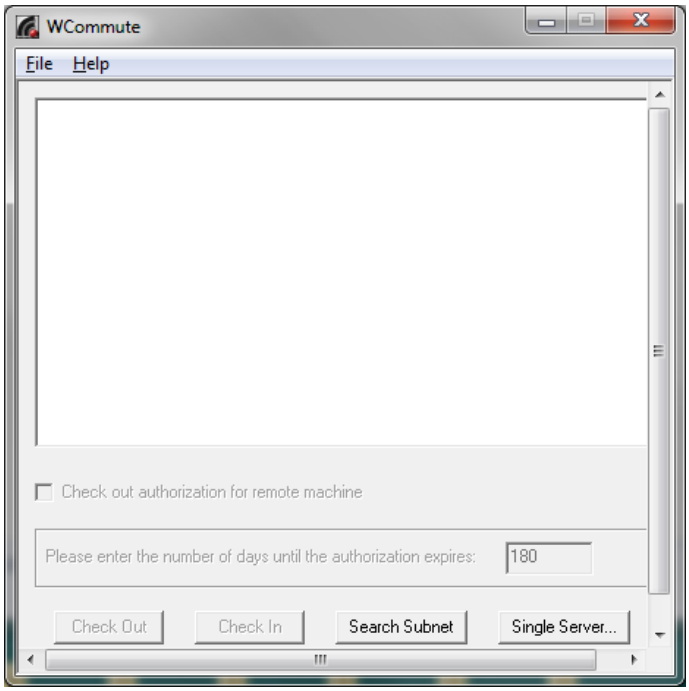
On the local client machine, run the following utility:

C:\Program Files\RISA\Sentinel RMS\Commute\WCommute.exe

Note:

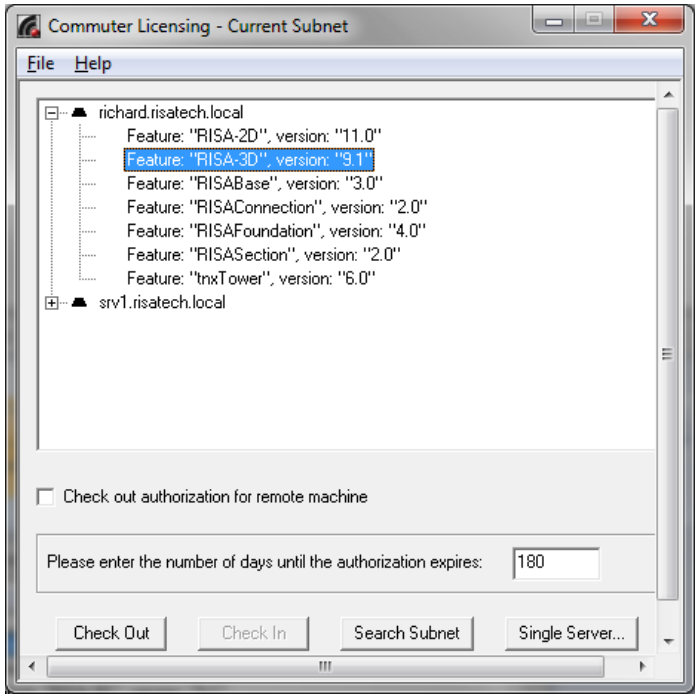
- If RISA has been installed to a location other than *C:\Program Files* then you will find a Sentinel RMS subfolder in that other location (e.g. *C:\RISA*)

This will launch the following dialog box:



- To have the WCommute utility search the entire subnet for license servers, click the **Search Subnet** button.
- To point the WCommute utility directly to a license server (necessary if the server is on a different subnet than the client machine) click the **Single Server** button and enter that server's name or IP address.

The license server should now appear, with all of the available RISA products branched out underneath it as shown below:

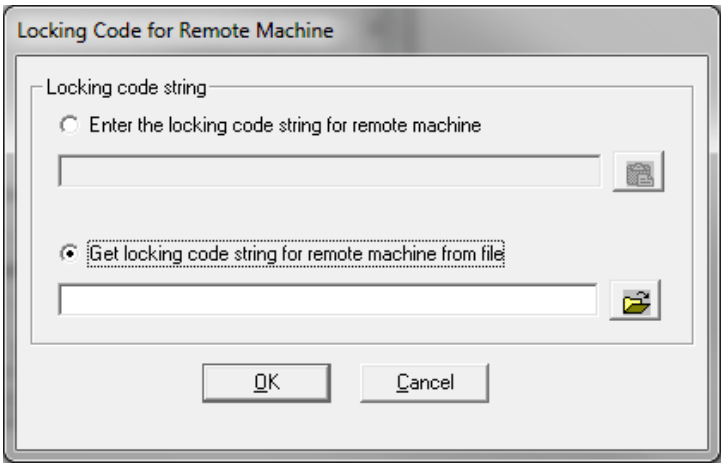


Click on the program which you would like to commute a license for.

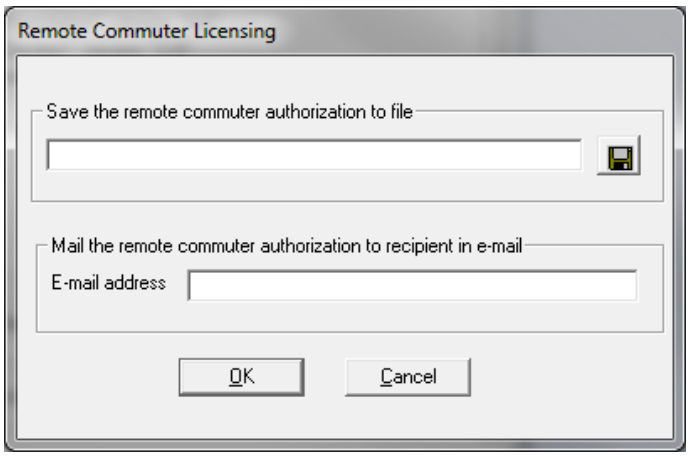
Note:

- Licenses for each program must be commuted independently
- You **must** check the *Check out authorization for remote machine* box.

Enter a number of days which the commuted license will be valid for. Then click the **Check Out** button. The following dialog box will be launched:



Click on the *Get locking code string for remote machine from file* button, then click the button. Browse to the Locking Code File which was generated by the remote client machine and click **Open**. Then click the **OK** button. The following dialog box will appear:



Click the button. Save the Authorization Code File to a temporary location. Click **OK**, then exit the WCommute utility.

Send the Authorization Code File to the remote user.

Installing the Authorization Code (Remote Client Machine)

The Authorization Code must be installed on the remote client machine to activate the commuted license.

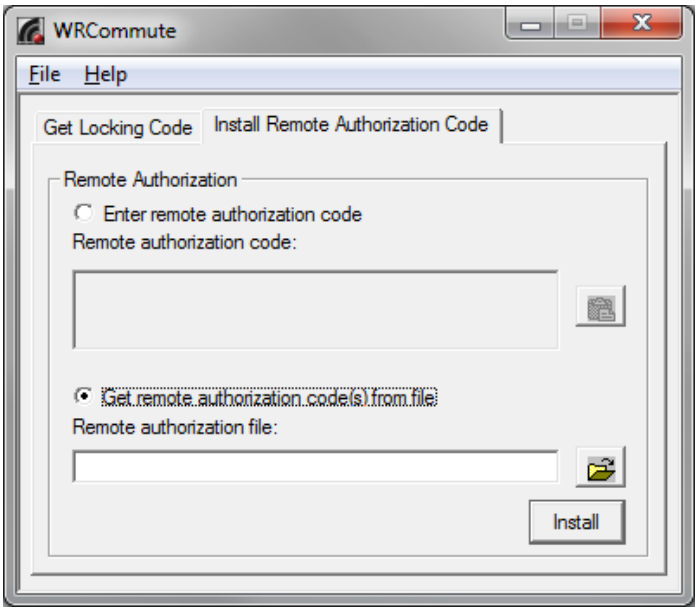
On the remore client machine, run the following utility:

C:\Program Files\RISA\Sentinel RMS\Commute\WRCommute.exe

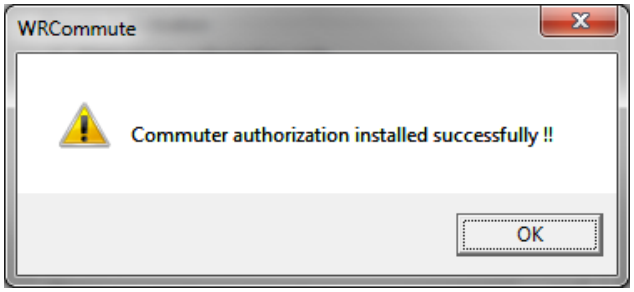
Note:

- If RISA has been installed to a location other than *C:\Program Files* then you will find a Sentinel RMS subfolder in that other location (e.g. *C:\RISA*)

Click on the **Install Remote Authorization** tab which is shown below:



Click on the *Get remote authoirzation code(s) from file* button, then click the button. Browse to the Authrozization Code File which was generated by the local client machine and click **Open**. Then click the **Install** button. The following dialog box will appear:



Close the WRCommute utility. The remote client machine will now be able to use the commuted license until it expires. Test this by launching the RISA program for which a license was commuted.

Returning Commuted Licenses

Licenses which were commuted using the Remote Commuting procedure may not be returned. They will remain commuted until they expire, based on the expiration date entered at the time that the license was commuted.

Licenses which were commuted using the Local Commuting procedure may be returned at any time prior to their expiration date (which was entered at the time that the license was commuted).

Procedure

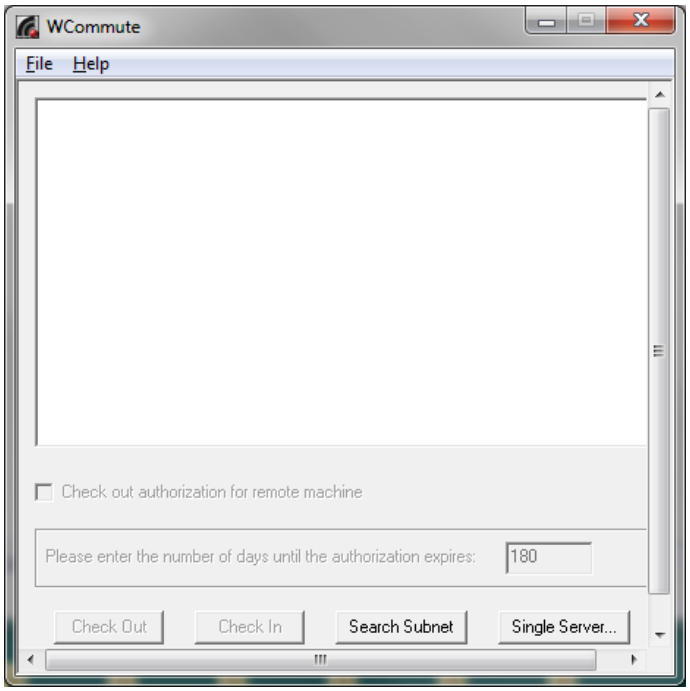
On the client machine, run the following utility:

C:\Program Files\RISA\Sentinel RMS\Commute\WCommute.exe

Note:

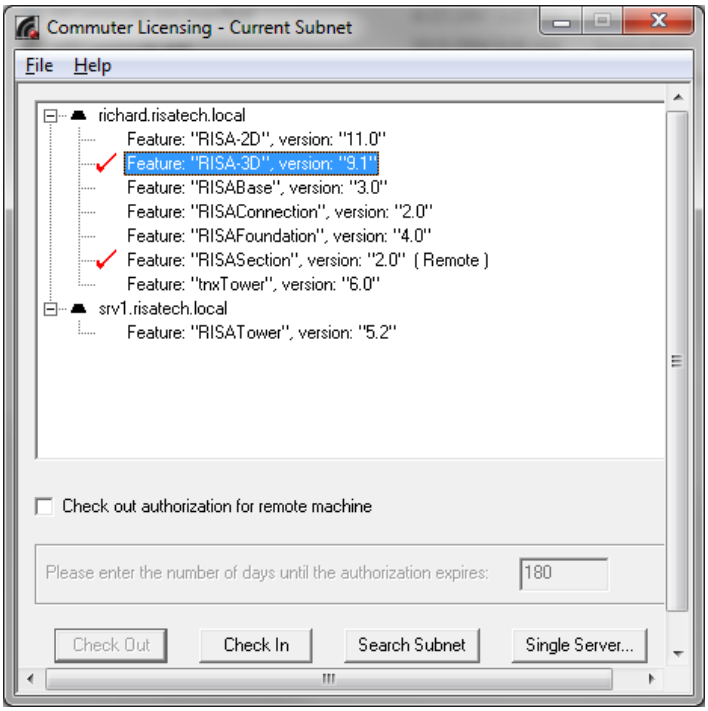
- If RISA has been installed to a location other than *C:\Program Files* then you will find a Sentinel RMS subfolder in that other location (e.g. *C:\RISA*)

This will launch the following dialog box:



- To have the WCommute utility search the entire subnet for license servers, click the **Search Subnet** button.
- To point the WCommute utility directly to the license server which the license was commuted from (nessecary if the server is on a different subnet than the client machine) click the **Single Server** button and enter that server's name or IP address.

The license server which the license was commuted from should now appear, with all of the available RISA products branched out underneath it. The commuted license for each RISA program should show a red check mark next to it as shown below:



Click on the license to be returned and then click on the **Check In** button. The red check mark will disappear, indicating that the license is no longer commuted. Close the WCommute utility.

Initializing the Program for Commuted Licenses

In order for Commuted Licenses (or emergency license files for stand-alone programs) to work a special initialization routine must be run. This routine is run as part of both the Client network installation and the stand-alone installation routines. The initialization routine is unique for each version of each program.

This initialization should occur automatically during the installation. However, if the initialization is not run properly then the 'time-tampering' check will prevent the commuted licenses from checking out properly. If this occurs, the initialization routine may need to be run again before the commuted license can be successfully run.

To run this utility do the following:

1. Login to the end-user computer with full administrative permissions.
2. Locate the initialization utility. This should be located in the C:\Program Files\RISA\Utilities sub-directory. It will be given a program and version specific name similar to the following:
    - LSinitCORE15.exe (for RISA-3D version 15)
3. Run the initialization routine. If a User Account Control message asks if you want to allow the this program (from an unknown publisher) to be allowed to make changes to your computer, be sure to select yes. The initialization routine will not complete successfully unless it has been run with administrative permissions.

Versions of RISA programs released after June 2014 have a log file generated during the installation routine to report back the successful (or failed) attempt to run the installation routine. These log files are be written to the C:\ProgramData\RISA\ directory.

Log Contents Codes

The possible codes are explained below with the three most common return codes listed in bold.

0 - Successfully initialized for standalone licensing

1 - Indicates initialization function call with bad values (error in program)

2 - Library initialization failure.

8 - Licensing initialization has already been carried out on this machine for the specified application and version

10 - Failed to initialize the security attributes.

20 - Failed to create security keys in registry.

40 - Failed to set security attributes on key.

80 - Failed to open secured information registry key.

100 - Failed to store the time information in the registry key.

400 - Failed to create the initial secured files on system.

800 - Failed to open the secured files on system.

1000 - Failed to store the secured information in the file.

2000 - Failed to set the security attributes on file.

4000 - Exception error occurred during the function call.

40000 - Time tampering detected

20000 - Licensing initialization not run with elevated permissions so no initialization is possible

80000 - Failed to open persistence file path.

100000 - Failed to read secure information from file.

400000 - Failed to get lock.

800000 - Failed to set configuration object.

Cleansing a Commuted License

In the event that a commuted license cannot be returned to the license server, there is a way to "cleanse" the commuted license information off of the server.

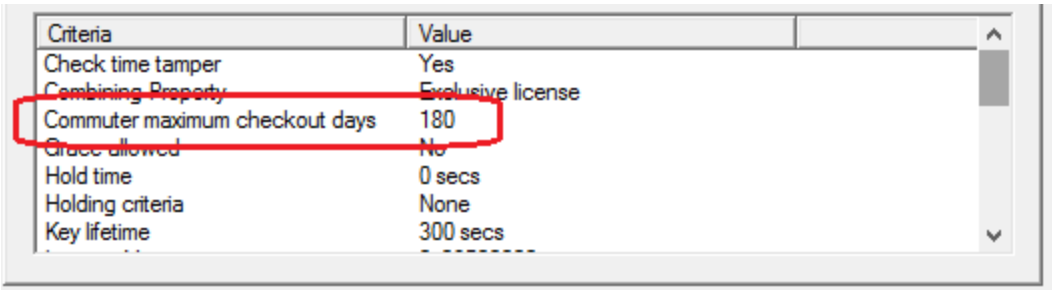
This is not a simple or straight forward process, so you will need to contact RISA technical support in order to complete. The basic process involves the following:

1. Contacting RISA Technical support (support@risa.com). They will give instructions on obtaining a locking code for the client or server computer upon which the commuted license has been stuck.
2. Technical support will then use this locking information to e-mail a "cleansing" file to be run on that computer. Usually this will be called something like cleanse_server.dat or cleanse_client.dat
3. In the Utilities sub folder (on the client or the server) there will be a utility called lsclean.exe. This utility will need to be run from a DOS prompt referencing the cleansing file obtained in item #2. An example of this command line would be the following: **lsclean cleanse_server.dat**

Miscellaneous

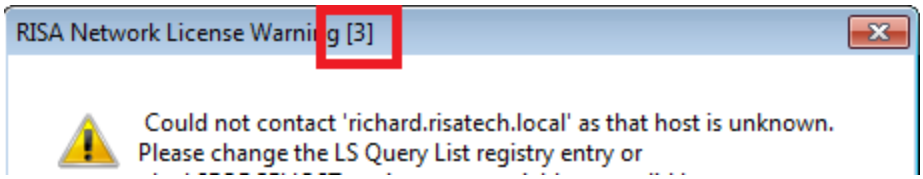
Maximum Number of Checkout Days

In the *WlmAdmin.exe* there is a hardwired value set for the **Commuter maximum checkout days** that is set to 180 days. This cannot be changed.



Appendix A - Licensing Error Messages

Errors related to licensing are displayed in RISA dialog boxes. Each error has a code displayed in the header of the dialog box, within brackets. The location of this error code is shown in the image below:

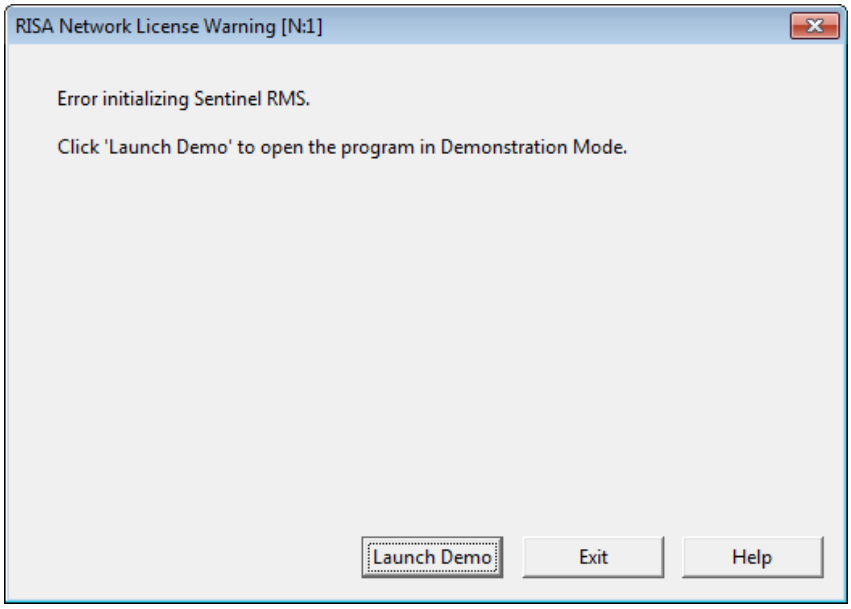


Note

- If you are commuting a license it is possible that two values will show up in separate brackets next the "RISA Network License Warning" header.
- If you've installed the program as an incorrect License Type, you'll notice this when you open the program. There will be a "Change Type" button that will allow you to change between a key, a network and a subscription.

What follows is a list of error messages, including steps that can be taken to resolve them.

Error [N:1]



Cause

There is an inherent problem with RISA's customized Sentinel RMS service.

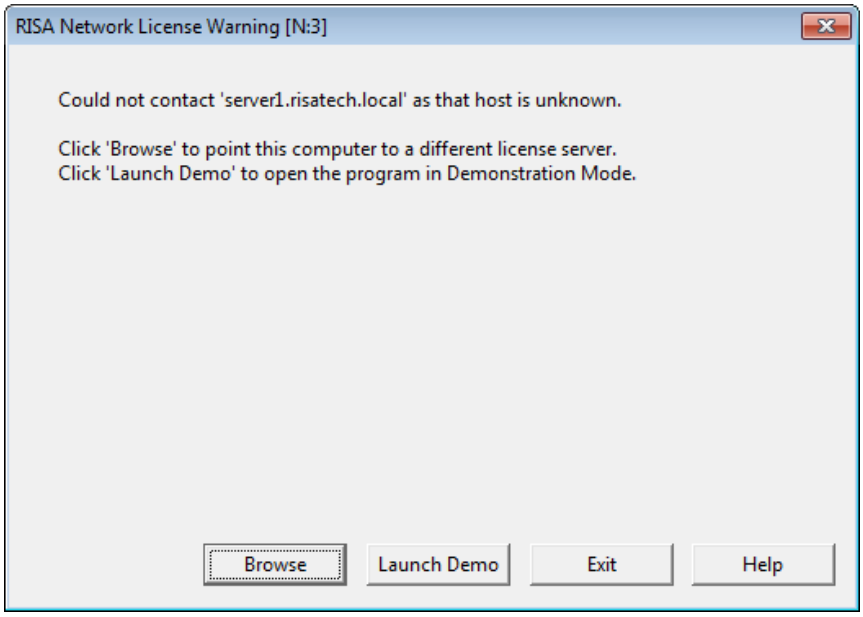
Solution

Contact RISA Support

Error [N:2]

This error is effectively the same as Error 1

Error [N:3]



Cause

The client machine has been pointed to a specific license server, however that server cannot be found.

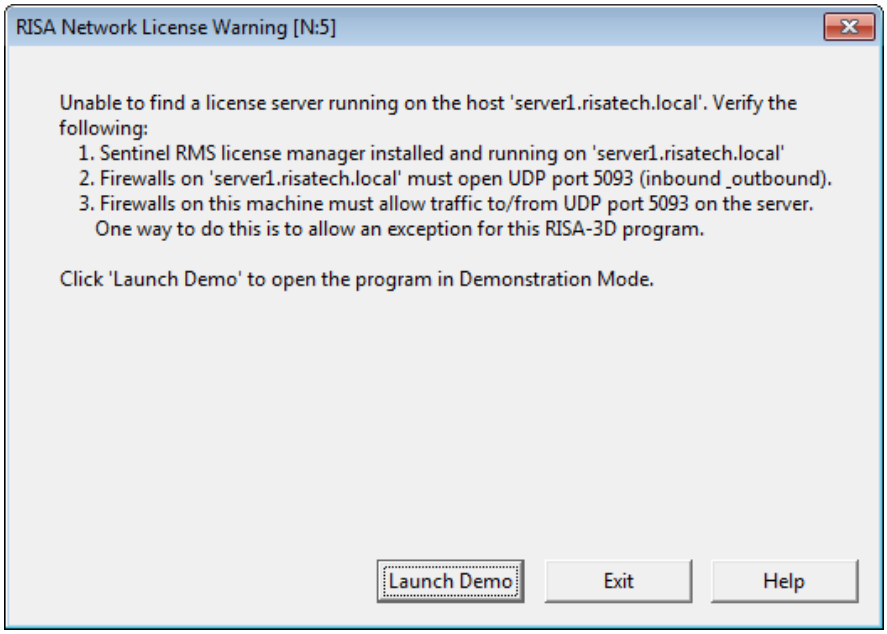
Solution

Confirm that there is a server with that name or IP address present on the network, and that there is no firewall preventing the client machine from communicating with that server. If no such server exists then point the client machine to a license server. Go to the Windows Start Menu and open the **RISA Server Browser** to do this.

Note:

- In rare circumstances Warning L:18 will accompany this message. If this occurs it is letting you know that there is a license file issue that is not authorizing the program.

Error [N:5]



Cause

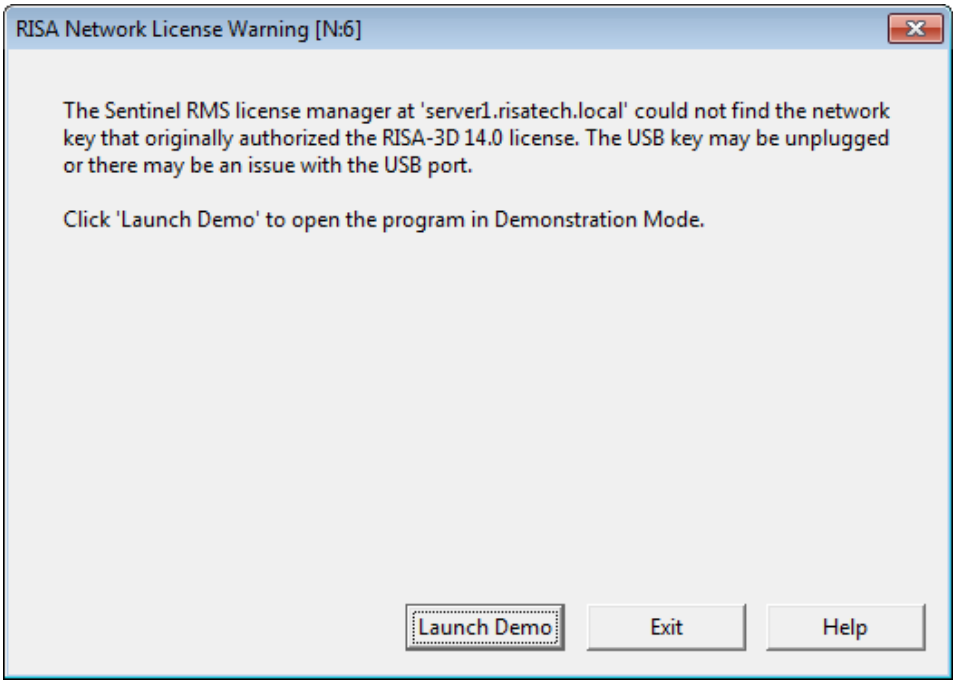
The network client machine was able to contact the license server, however no licensing service (Sentinel RMS) was found running on the license server.

Solution

Check the list of Services on the license server and confirm that Sentinel RMS is present and Started. If it is not then load the sentinel service. Otherwise it is a firewall issue.

UDP port 5093 is blocked at the license server, the client machine, a router, or anywhere on the network. This port must be opened up for two-way traffic at all locations between the network client machine and the license server by adding port exceptions. Windows Firewall is commonly overlooked by IT administrators, but it is a common culprit.

Error [N:6]



Cause

The Sentinel RMS service on the license server is either unable to read the Sentinel USB Key, or the information in the license file which has been loaded into the Sentinel RMS service does not match the information on the Sentinel USB Key.

Solution

On the license server, open the RISA Key Manager and confirm that the key is being correctly read. If not then resolve that issue. If the key is being correctly read then an outdated license file is currently loaded. Contact RISA Support for a new license file and load that new license file.

Error [N:11]

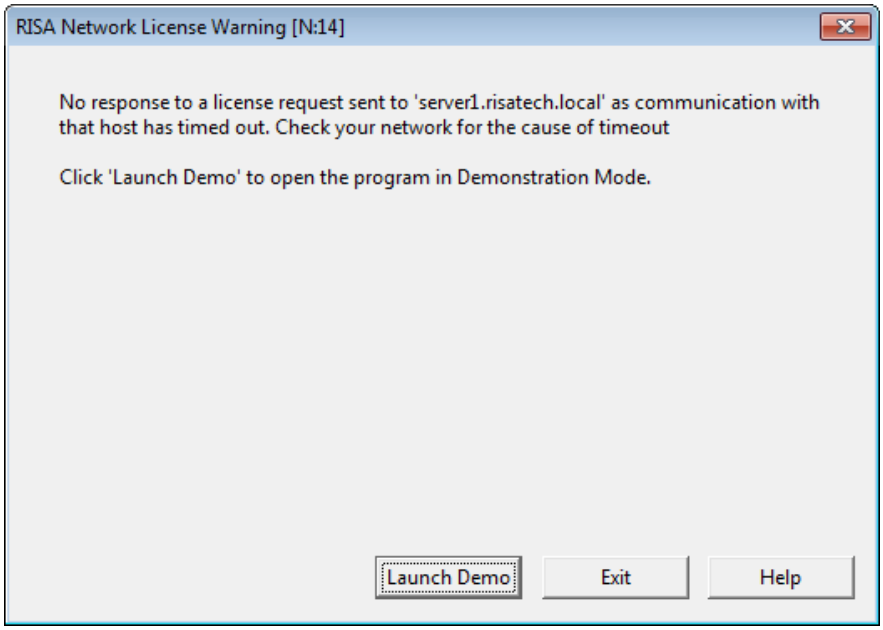
This error is effectively the same as Error 1

Error [N:12]

If this error occurs in the RISA Key Manager utility, it likely means that a Remote Desk Top type of utility is being used to access the key. If so, this error may be ignored.

If this error occurs within the RISA program or within the WLMAdmin utility, then it is effectively the same as Error 1.

Error [N:14]



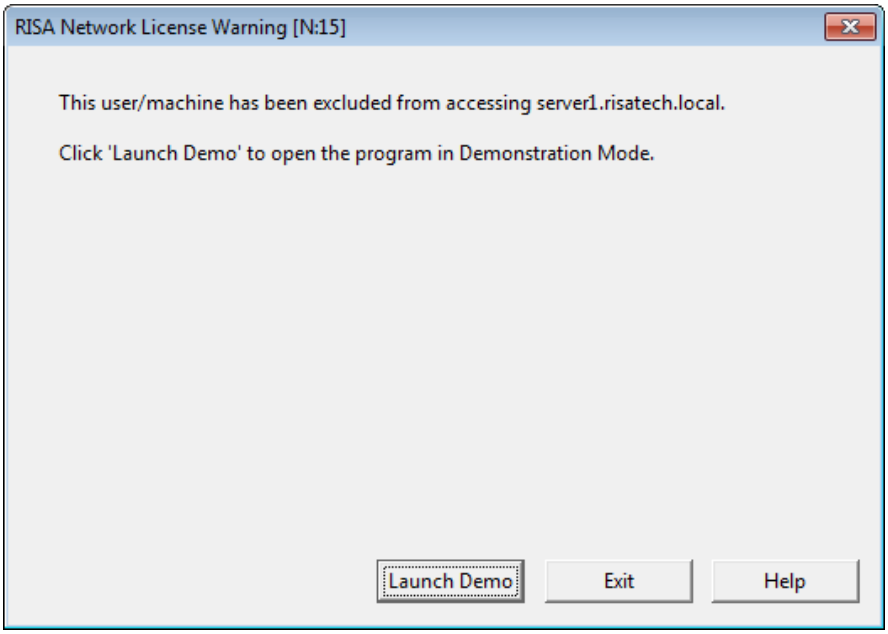
Cause

Communication between the client machine and license server is present, but is too slow to establish a usable connection.

Solution

Decrease network latency between the client machine and the license server. If the client machine is connected wirelessly try using an ethernet cable instead. If they are connected over a WAN or a VPN then try to increase the speed of the connection.

Error [N:15]



Cause

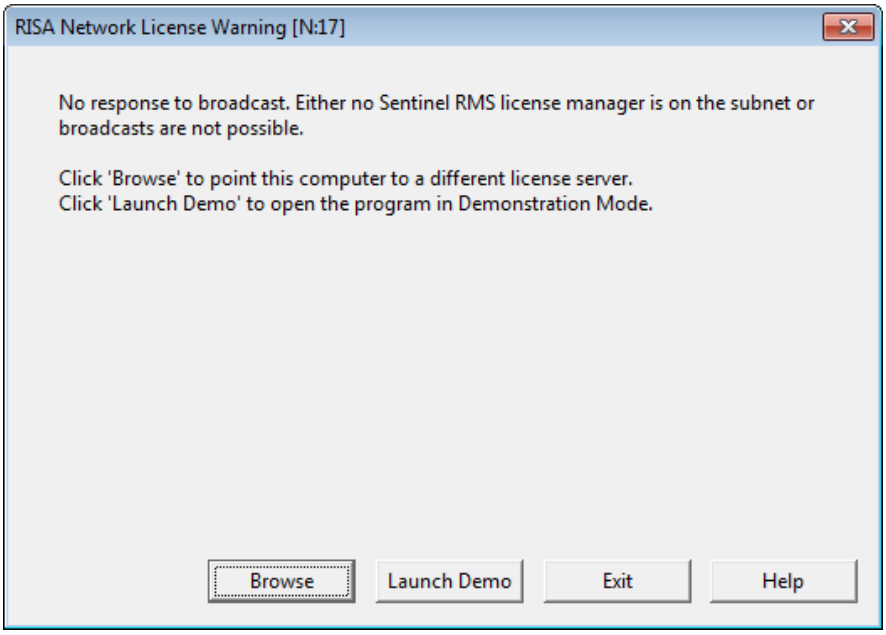
Some licenses on the license server have been reserved by various clients on the network. The client machine is part of a group of clients which has exhausted its supply of licenses.

Solution

Move the client machine in question to a group which has available licenses, or increase the number of licenses reserved for the group to which the client machine is currently assigned.

Return some licenses to the license server by closing the application on other client machines within the same group, or returning commuted licenses. Contact RISA Sales to purchase additional licenses.

Error [N:17]



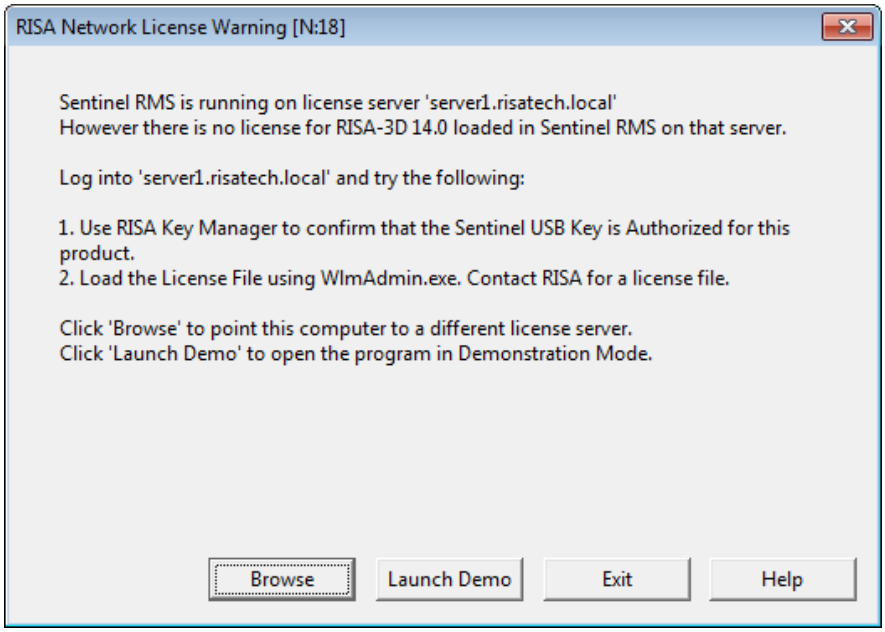
Cause

The network client machine has searched the entire subnet (if it was allowed to do so) and was unable to find any license servers running the Sentinel RMS service.

Solution

Confirm that the network client machine is on the same subnet as the license server. If they are on different subnets then point the client machine directly to the license server. Go to the Windows Start Menu and use the **RISA Server Browser** to do this.

Error [N:18]



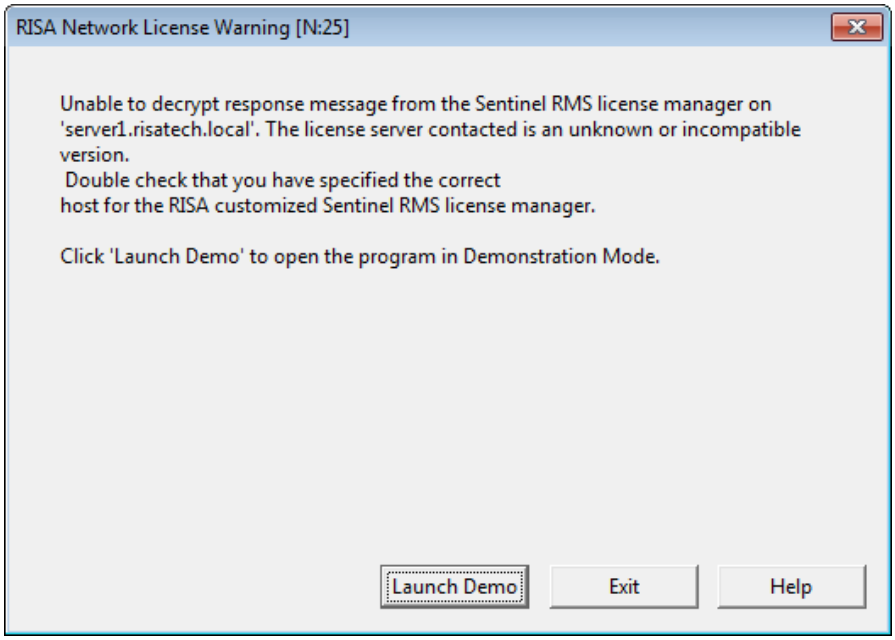
Cause

The network client machine was able to contact the Sentinel RMS service at the license server, however the service had no license loaded for the particular program/version of RISA software which the client machine is attempting to launch.

Solution

Confirm that the license server referred to in the error message is the correct one, and that the Sentinel RMS service is running on that license server. If both of these things are true then the license file on the license server is probably outdated. Contact RISA Support for a new license file and load that new license file.

Error [N:25]



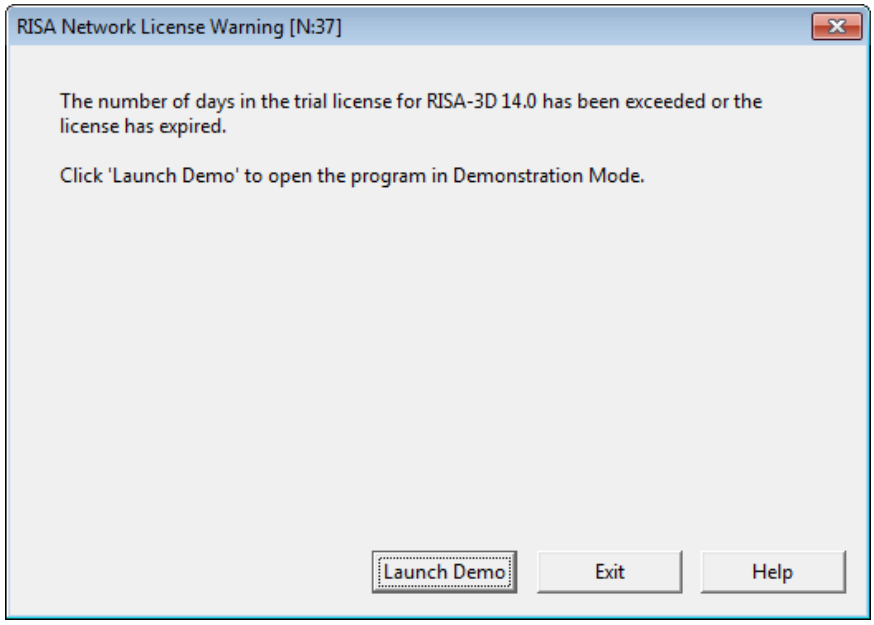
Cause

The license server is running the wrong version of Sentinel RMS, possibly one that is not customized by RISA.

Solution

See the License Server Updater topic for information on migrating to the newest RISA-customized sentinel service.

Error [N:37]



Cause

RISA has issued a trial license file with an expiration date, and that date has passed. The license file is no longer valid as a result.

Solution

Contact RISA Support for a new license file.

Error [70]: Commuter Code for this Feature Does Not Exist on the Client System

Cause

This occurs when there is an unknown issue with remote commuting. The process where this may happen:

a. WRCommute.exe is run on the remote client computer and the code is saved to a file or the string is copied.
b. WCommute.exe is run on the local client computer.
c. The program for the license that is to be checked out is selected, the "Check out authorizations for remote machine" checkbox is checked, and the number of days is selected.
d. The string or file to copy string from is entered, and OK is pressed. This is when this error is thrown.

Solution

Make sure that you are using the newest versions of the Sentinel commuting programs and make sure that you have and are using Administrator privileges. You may wish to right-click and "Run as Administrator" on the commuting executables. Also, make sure that you have a license available for commuting.

Error [125]: Required Locking Criteria for Local Request is Not Available on Your Machine

This error message will typically occur when attempting to commute a license from the license management server. It means that the commute utility was not able to return unique information about the computer that is used to ensure the security of the commuted license.

Cause

This message can be caused by loading a bad license file on the license server.

Solution

Contact RISA Support for a new license file and load the license file onto the license management server using WLMAdmin as described in License Administration.

Error [143]

Cause

This message can be caused by a malfunction in the **ServerUpdate.exe**.

Solution

Use the Loadls.exe utility to **Remove** and re-**Add** the license management service.

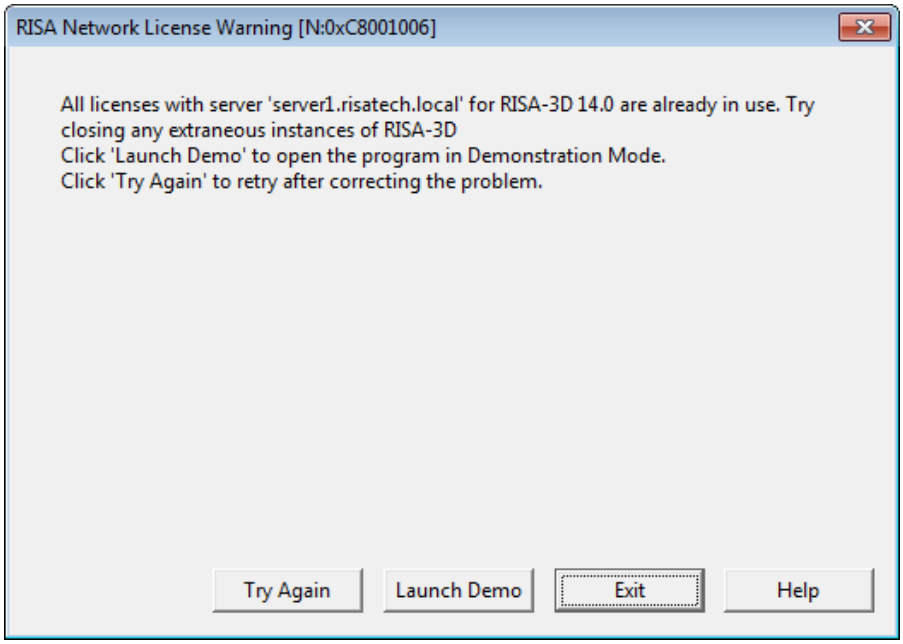
Error [150]

This error is effectively the same as Error 6.

Error [N:0xC8001002]

This error is effectively the same as Error 1

Error [N:0xC8001006]



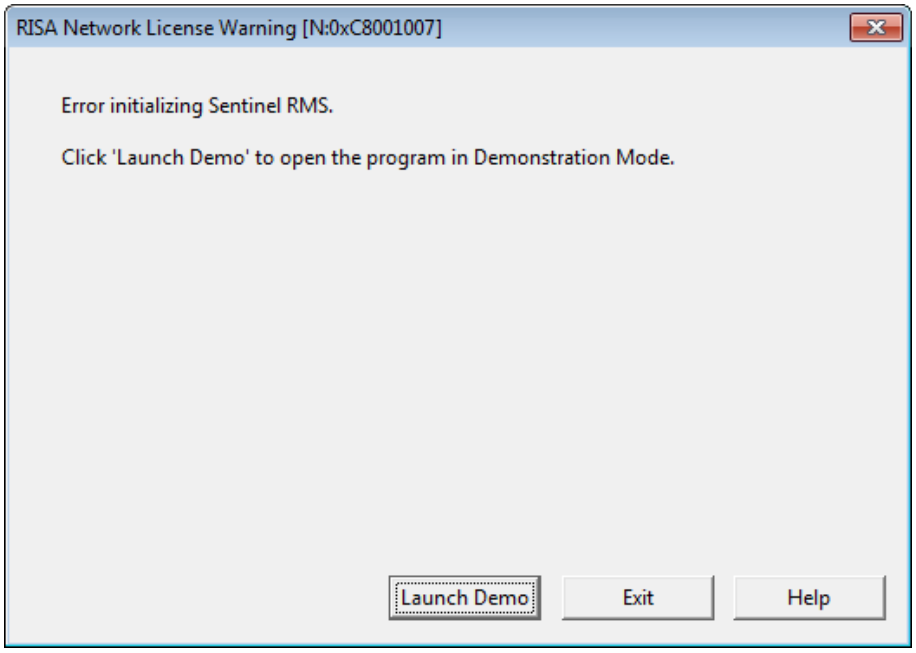
Cause

All of the available licenses on the license server have been checked out. No additional licenses may be checked out.

Solution

Return some licenses to the license server by closing the application on other client machines, or returning commuted licenses. Contact RISA Sales to purchase additional licenses.

Error [N:0xC8001007]



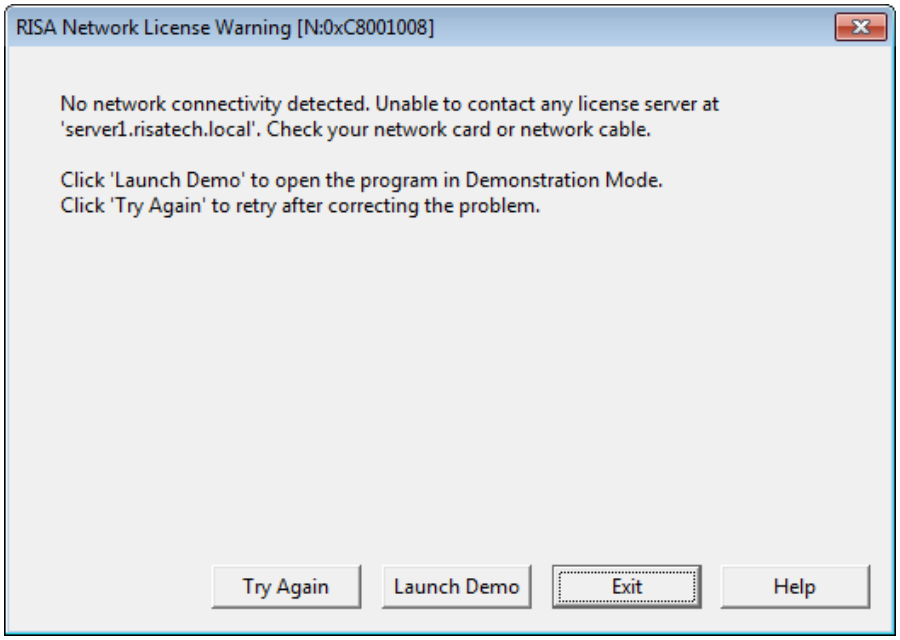
Cause

The license machine does not have sufficient memory available to monitor the license file

Solution

Increase the amount of available memory on the license server by disabling other processes or installing more physical memory (RAM).

Error [N:0xC8001008]



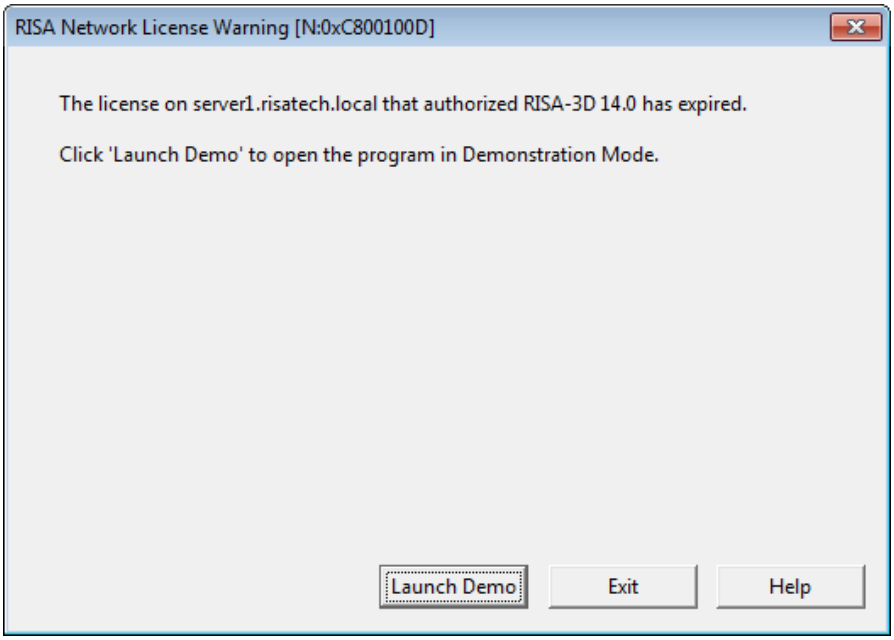
Cause

RISA cannot find an active network connection to the client machine

Solution

Confirm that the network card on the client machine is operating properly, and that it is connected (either through a cable or wireless connection) to a network.

Error [0xC800100D]



Cause

RISA has issued a license file with an expiration date, and that date has passed. The license file is no longer valid as a result.

Solution

Contact RISA Support for a new license file.

Miscellaneous VPN Issues

At times a Client computer may be trying to access the license management service through a VPN connection. In general, this should work. However, because network configurations vary greatly from company to company, RISA cannot generally offer in-depth technical support on VPNs. That being said, there are a number of trouble shooting tips that have solved issues in the past.

Solutions

- The MTU (maximum transmission units) are often set to be the same for sending and receiving. Not having these set consistently may contribute to VPN connection problems.
    - This applies to the client machine, the server and any router that occurs between them.
    - Each of these machine settings (client, license server, router) would ideally bet set the same.
- UDP Port 5093 must be open for both inbound and outbound traffic. This must be done on the client computer, the license server, and any routers between the two.
- MTU settings must be set higher than 150
- Some users have resolved their network issue by lowering the default MTU value on all devices. The assumption is that they have had poor internet connections and that packets were being dropped.

Appendix B - Network Installation Error Messages

There are a number of common issues that you may encounter while installing or using the network version of the RISA programs. These can be grouped into the following main categories:

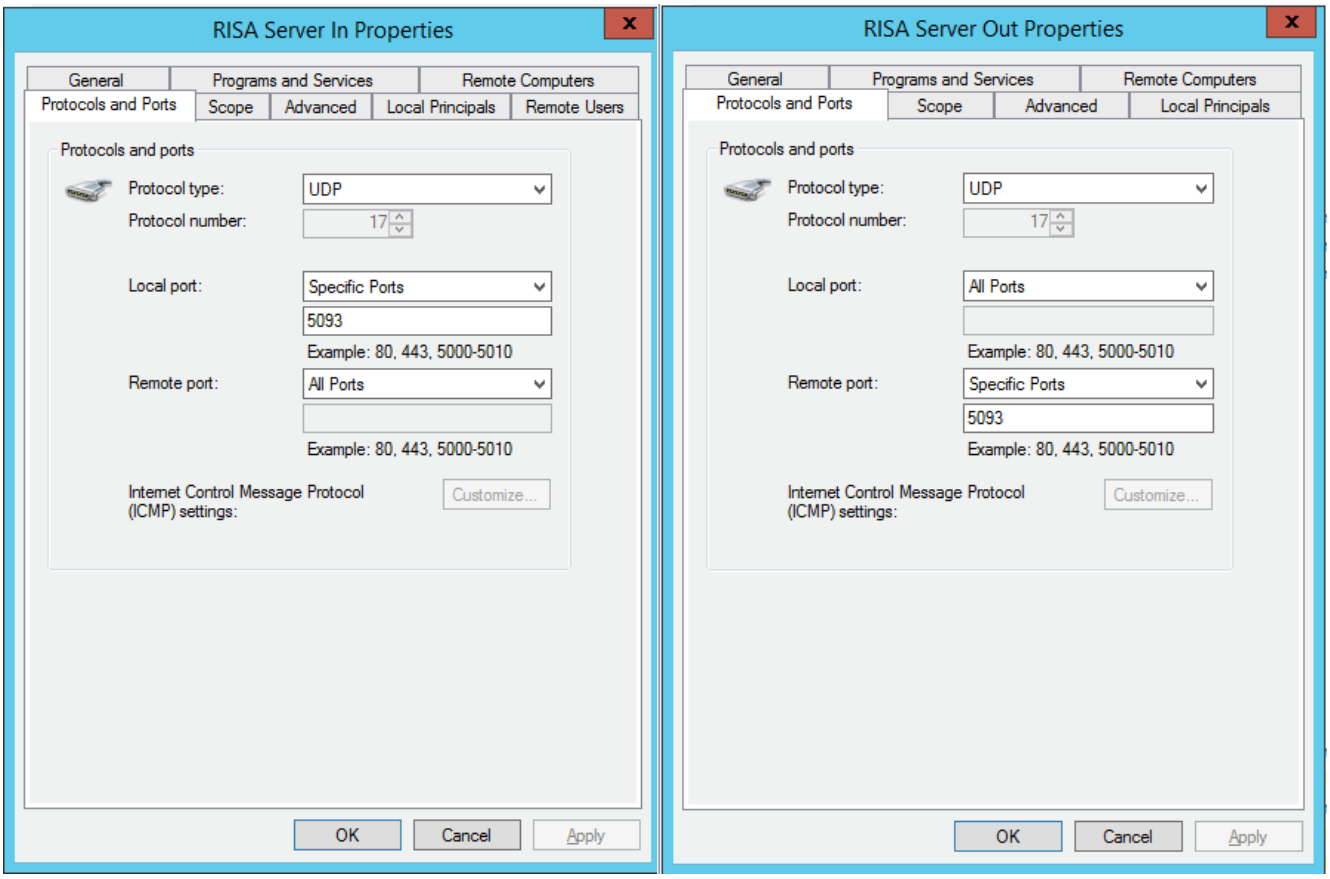
Firewall Issues or Error Code 3:

Failed to resolve the server host. This means that the WLMAdmin utility was not able to communicate with the server listed in the list of Defined Servers. This can occur for a couple of reasons:

- The name or IP address of the server was not entered properly.
- There is a network issue which is preventing communication with this computer.
- The service has not been loaded or is not running. See the Sentinel Services topic for more information.

Solution:

Frequently, the cause of this error is a firewall on the client, server, or network. The solution to this problem is to set up a port exception in the firewall. How to accomplish this is dependent on the type of firewall. Below is the Windows dialog for setting the port exception (Control Panel - Network and Internet Connections - Windows Firewall).



Note:

- The port that needs to be open is 5093 and the communication protocol is UDP as shown in the typical image above.
- These are example settings for the **Inbound Rule** and **Outbound Rule** . These Dialog Windows are what you appear when the Add New Rules Wizard is selected with all the “default” settings.

- These settings have been tested and are proven to work successfully with the Sentinel RMS License Manager.

Alternate Solution:

The Sentinel RMS service on the license management computer has been stopped: To re-start the service, go to the list of services (Control Panel – Administrative Tools – Services) on the license management server, right click the **Sentinel RMS License Manager**.

Note:

- If the license management service shuts down almost immediately after start-up, this may be caused by a resource conflict between a recent Windows Update and the license management service. Contact RISA technical support (support@risa.com) for more information about resolving this conflict.

Error Code 17

This message occurs most often when the user double-clicks on the list of subnet servers and the utility does not find any servers on the subnet. This can happen for two reasons.

- There are no servers located on the subnet.
- The server did not respond to communication.
- The service has not been loaded or is not running. See the Sentinel Services topic for more information.

In either case, the solution to this problem is to use the Defined Server List to administer the licenses.

Error Code 19

This is a generic message that means the adding of the license file failed. This error message can happen for a number of reasons. However, it is most likely to occur if the information on the Sentinel SuperPro USB key (KeyID and program authorization) does not match the information contained in the license file. This could mean that the key is not being read, that the key doesn't have authorization for the same programs as the license file, or because the key ID doesn't match.

However, the error may also be given for situations where the issues described in the write-ups for error code 92 or 150 exist. Refer to those error codes for more information.

Solution:

Contact RISA technical support (support@risatech.com) for a new license file or for an RUS password to update the information on your USB key.

Error Code 92

This means that the license file was invalid. This message is very similar to the issue described in the write-up for error code 19. However, this one is more likely to occur if the server is running a non-customized version of the Sentinel License Manager.

Solution:

RISA uses a CUSTOMIZED version of Sentinel RMS. Therefore, the existing (non-customized) copy of Sentinel RMS or Sentinel LM must be removed and replaced with the customized version of Sentinel RMS version 8.5 provided with your RISA installation. See the License Server Updating utility for more information on updating your service.

Note:

- RISA's customized version of Sentinel RMS is capable of loading the license files for most other applications (CSI, TEDDS, et cetera). However, any application that requires its own customized version will not function from within RISA's version of the Sentinel RMS License Manager.

Error Code 93

Duplicate License: The license file could not added because it is a duplicate of one which already existed on that server. This can occur if the user is adding in a license file that has 2 licenses, only one of which is new or updated. In that case, the error message is really just an informational warning message and can be ignored.

Error Code 150 (Sentinel RMS)

Lock Code Invalid: This error message usually means that there is a problem reading the key.

See also the write up for error code 19.

Solution:

Verify the information on the hardware key using the RISA Key Manager utility to make sure that that the key has the proper KeyID, is a network key and is authorized for the appropriate programs.

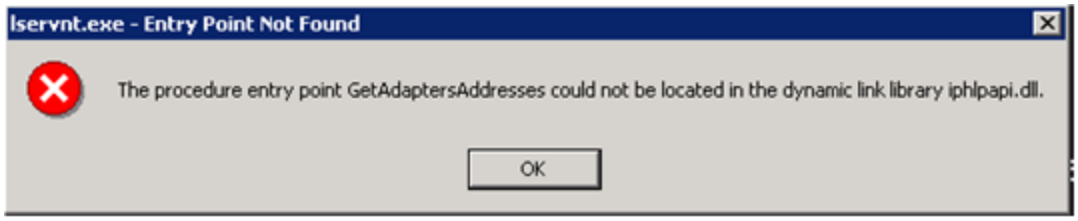
If the USB key cannot be read, this may be for one of the following reasons:

- First verify that the Sentinel Key is plugged into the license management server. When it has been plugged in a green light will appear on the key indicating that it is receiving power.
- The driver for the Sentinel SuperPro key may need to be updated. The version of the driver may be viewed in the Windows Device Manager. The required version of the Sentinel SuperPro / UltraPro device driver is 7.5.1 or higher.
- If you are running a virtual server, the hardware key may connected to a USB on the host computer, but may not be specifically assigned to the virtual machine.

Problems Loading the Service

There are different items that could cause the service not to load. Most of them are problems specific to your network connectivity or permissions. A couple of specific items that can help:

Entry Point Not Found Message



This message will occur if you are trying to start the Sentinel RMS service on a Windows 2000 operating system or older. The newer versions of the Sentinel license management software is not compatible with these very old operating systems. Your solution is to either upgrade the operating system on your server, or downgrade your sentinel service to an older Sentinel LM service.

Error 5: Access is denied

This likely has something to do with the permission setting on the Sentinel RMS License Manager registry key or possibly the permissions directory where the license manager resides.

Two items to check:

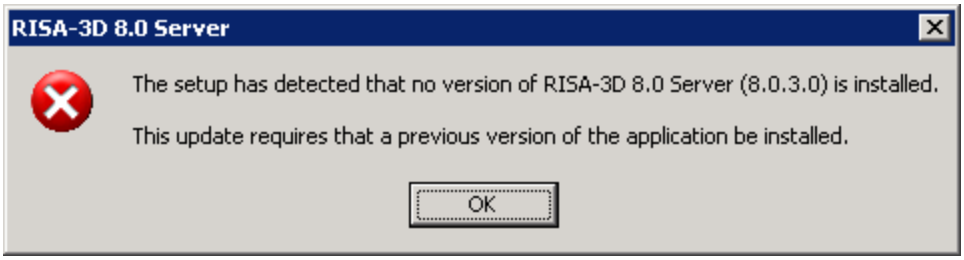
1. Check permission on the registry entry for Sentinel RMS: On the Windows Server 2008-based domain controller, click Start, click Run, type **regedit** in the Open box, and then click OK. Locate and then right-click the following registry sub-key:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Sentinel RMS License Manager

Choose **Permissions...** and check to make sure you have administrative permissions here.

2. Check the permissions on the C:\RISA\Sentinel RMS directory and verify that it has read/write permissions.

Update Requires Previous Version Be Installed



This message typically has two main causes, the first being much more common than the second.

- If the install was downloaded from the www.risa.com/d_updates.html page then it is required that you have the initial install installed (for example v9.1.0 must be installed before v9.1.1). The program checks to see if there is a registry entry for this initial version and if it does not find it then it will produce this error. For server installs, many times there is the license management server and the file server that are actually different servers. If this is the case you may be trying the install on the opposite server as the one that you did the initial install on. If so, try the install on the other server and it will likely work. If you still can not figure out what is happening see the Technical Support topic.
- If you are downloading the install from a link specifically sent to you and you are still getting this message, then you may be seeing a registry issue with the Install Shield Wizard. Talk with Technical Support for help. There may be some extraneous registry folders at the root of the problem that can be deleted in this registry location (Start>Run>type Regedit):

HKLM\software\microsoft\windows\current version\uninstall\

Technical Support

Technical support is an important part of the RISA software package. There is no charge for technical support for all licensed owners of the **current** version of RISA software. Technical support is very important to the staff at RISA. We want our users to be able to reach us when they are having difficulties with the program.

Hours: 6AM to 5PM Pacific Standard Time, Monday through Friday, not including holidays.

Before contacting technical support, **please search the Help File or General Reference Manual**. Most questions asked about RISA Licensing are documented in the Help File or General Reference Manual. The Search and Table of Contents are helpful in finding specific topics and appropriate sections.

Email: **support@risa.com**. Please give us detailed information about your specific problem, including screen captures of any error messages that you are having trouble with. The more information we get about the problem, the quicker we can get you an effective solution. Make sure you tell us your name, company name, serial number or Key ID, phone number, and a problem description.

Phone Support:(949) 951-5815. Feel free to call, especially if you need a quick answer. It is helpful to have access to the problematic workstation when you call. We will likely need to navigate with you to specific places on your machine to troubleshoot your issue.

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