DeskArtes 3Data Expert 15.0

Network license setup

Server installation

deskartes

www.deskartes.com

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About this document

This document explains the operations needed to install a Reprise License Manager (RLM) network license server for DeskArtes 3Data Expert software. The license server will then provide licenses to DeskArtes 3Data Expert, instead of the default DeskArtes standalone licenses.

For instructions to configure the DeskArtes 3Data Expert program to use the network license, by changing the settings, see the document “Network license setup: Client settings”.

The instructions in this document are written for the DeskArtes 3Data Expert version 15.0 installation package, containing Reprise RLM version 14.2 BL5 license server and tools.

For further information about the Reprise RLM system administration you can check the Reprise support web site (https://www.reprisesoftware.com/admin/software-licensing.php).

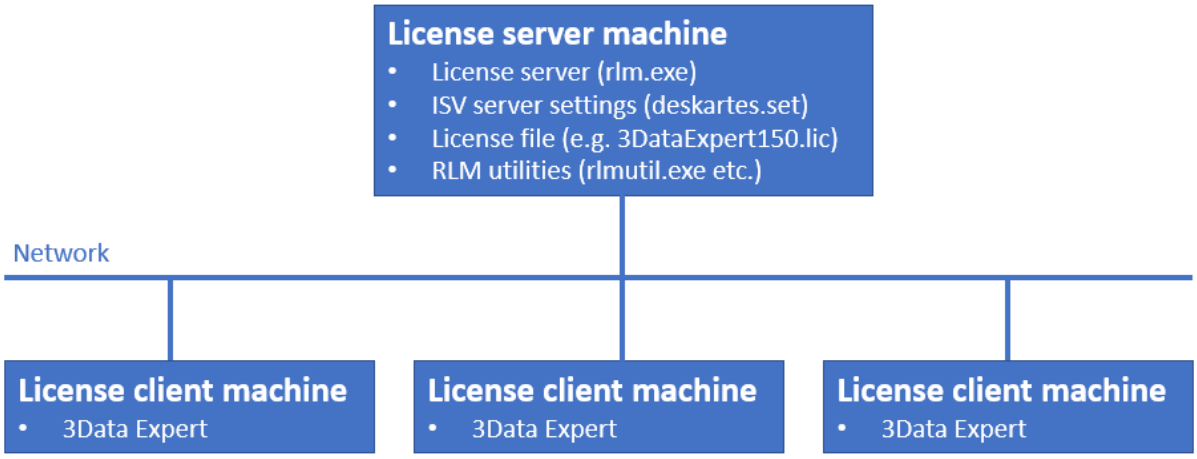
Requirements

The machines, running DeskArtes 3Data Expert with the Reprise RLM network license system, must be connected to the machine running the license server with a network using the TCP/IP protocol.

The user account doing the installation must have the administrative rights.

Terminology

The Reprise RLM network license system, configured for DeskArtes 3Data Expert, consists of the parts illustrated in the following figure.

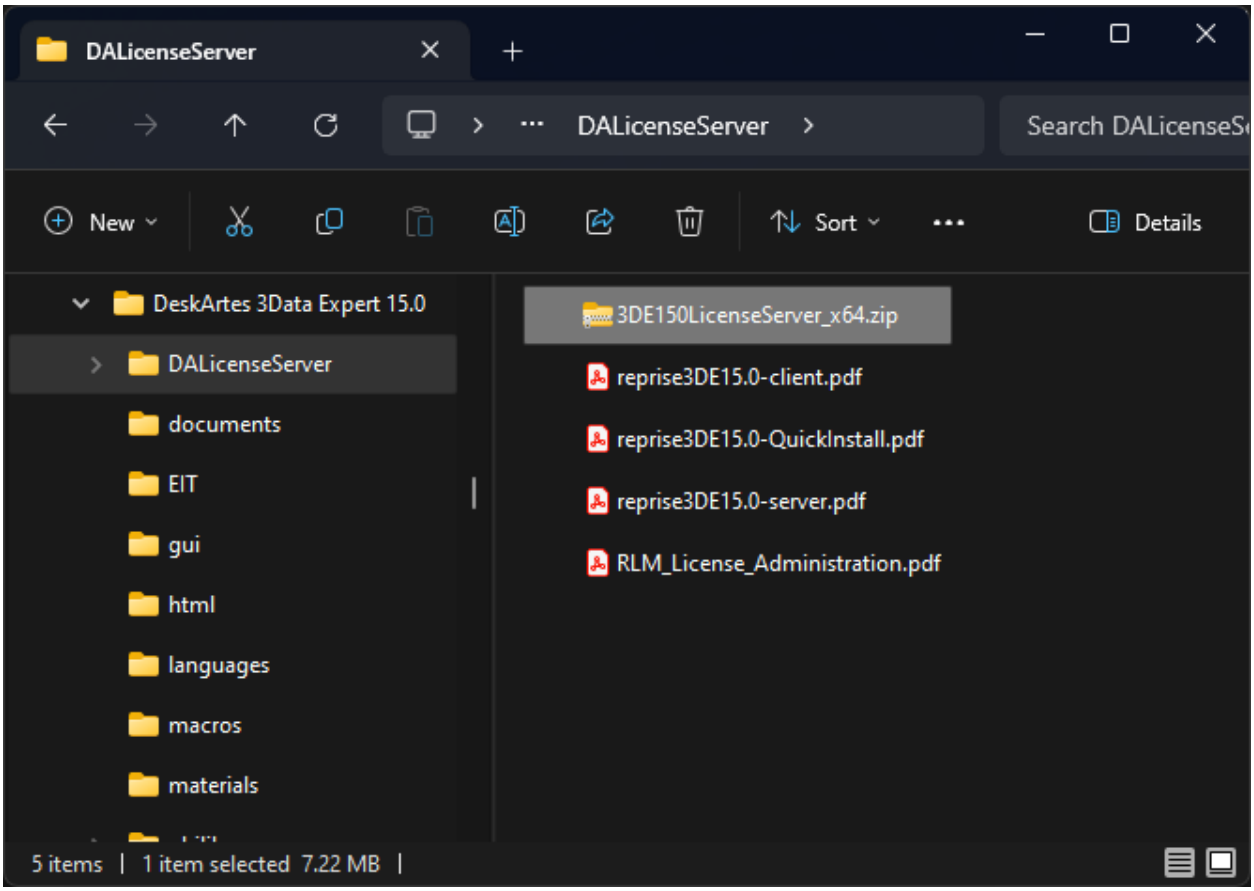


License server machine	The machine where the license server is running.
License client machine	A machine where DeskArtes 3Data Expert is running.
License server program	The program (rlm.exe) controlling the license usage in the network, with help of the ISV server.
ISV server settings file	A platform independent settings file for an ISV server (deskartes.set for DeskArtes programs, like 3Data Expert).
License file	A text file containing the list of available licenses and ISV servers.
RLM utilities	A set of small command line utility programs for handling the license server (rlmutil.exe, rlmhostid.exe, rlmstat.exe, rlmdown.exe, etc.).

Installing the license server

To start the installation you need to first get the DeskArtes license server installation package for 3Data Expert 15.0 (**3DE150LicenseServer_x64.zip**).

It is found in the "**DALicenseServer**" subfolder of the 3Data Expert 15.0 installation folder (default: "C:\Program Files\DeskArtes 3Data Expert 15.0\DALicenseServer").



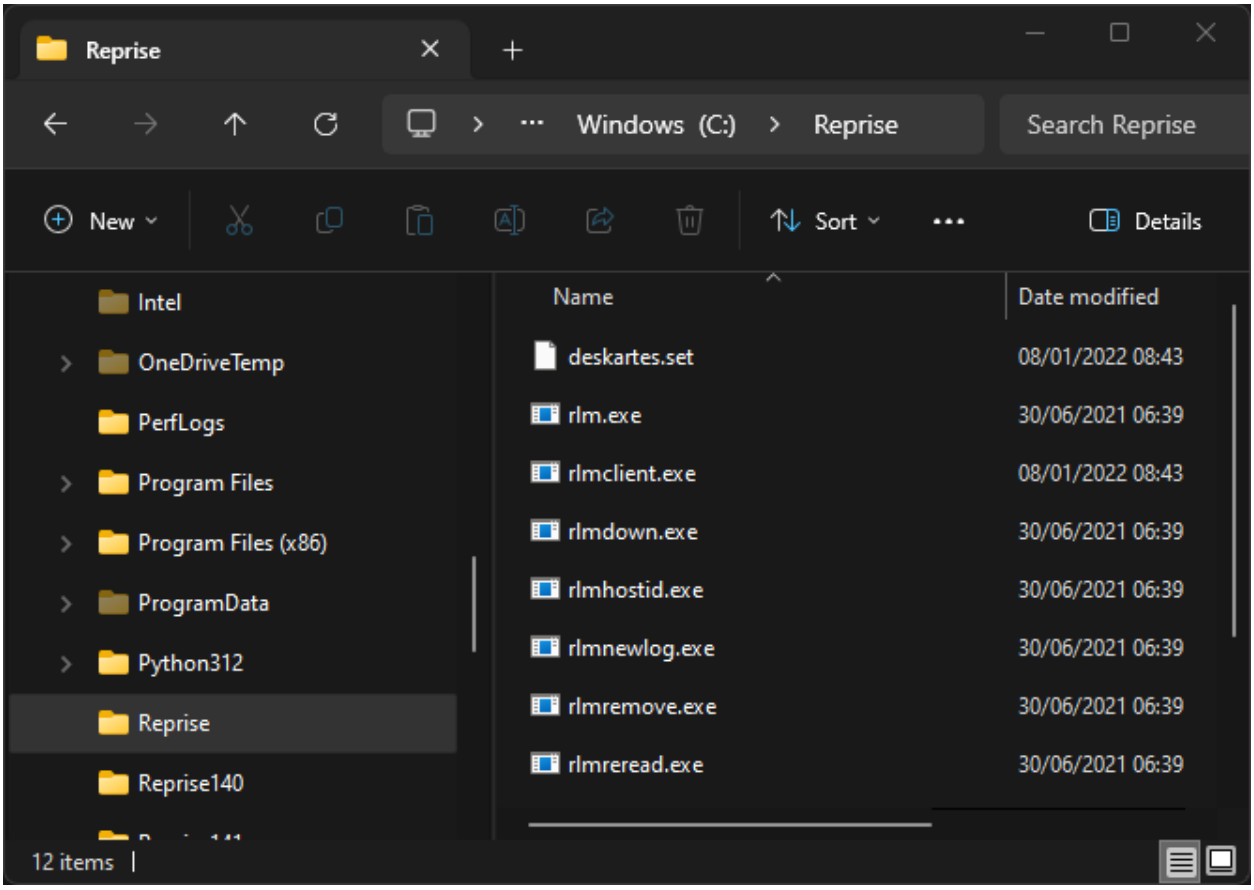
The same package can also be downloaded from the DeskArtes web site. (https://www.deskartes.fi/downloads/software.php)

Copy the installation package to a machine where you want to run the license server.

Note: To be able to run the 64-bit versions of the license server and tools, included in the 3Data Expert installation, the machine you choose to be the license server needs to have a 64-bit Windows version.

Create a new folder for the license server at the server machine (for example: "**C:\Reprise**").

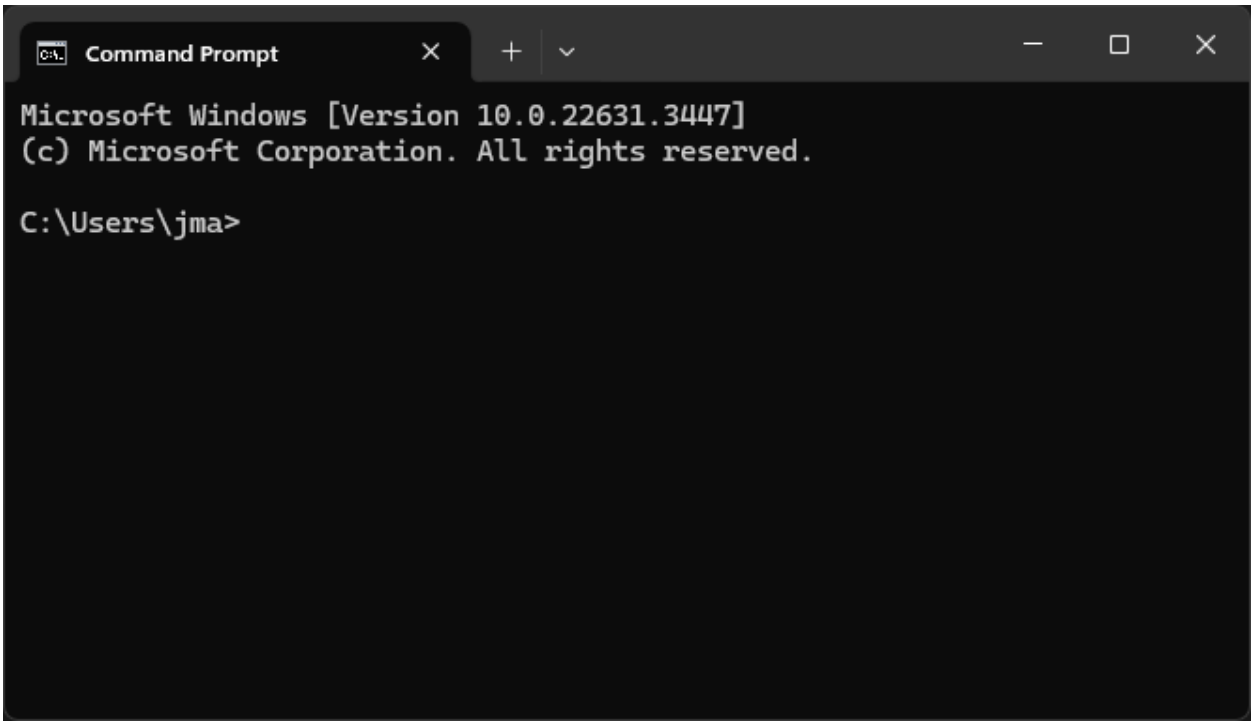
Extract the contents of the license server installation package (**3DE150LicenseServer_x64.zip**) to that folder.



Getting the hostid number and hostname for the license

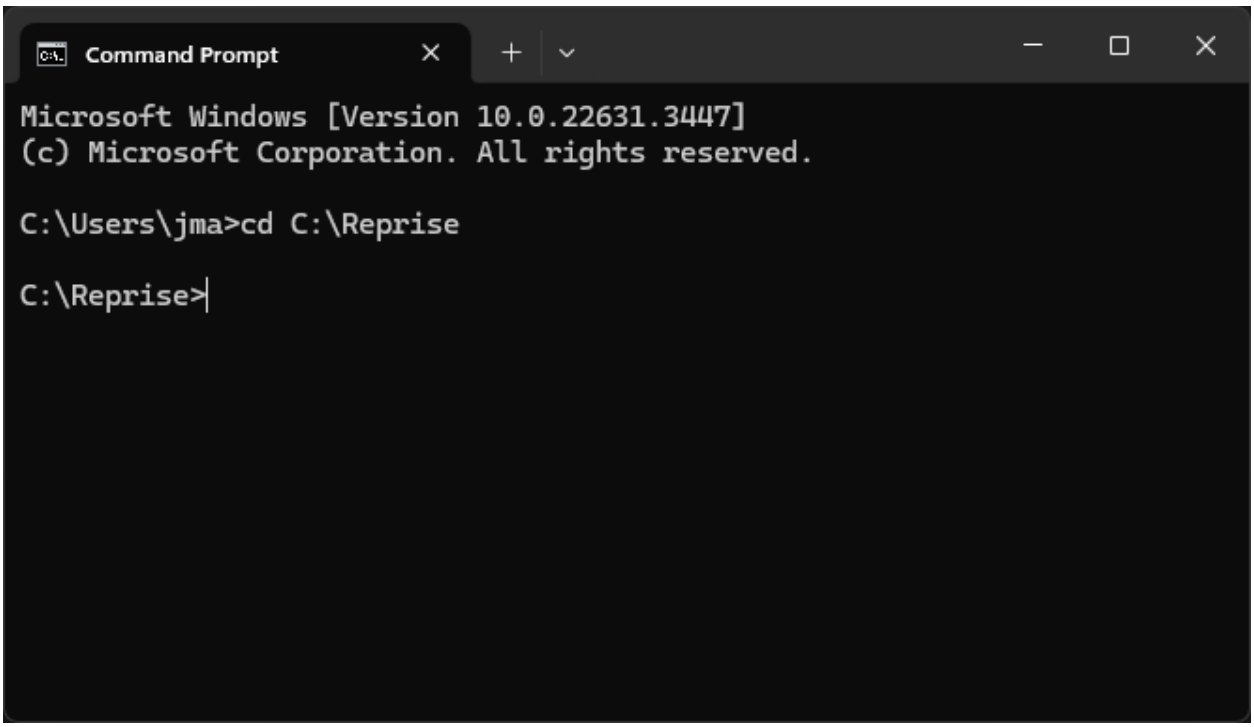
Open a Windows Command Prompt window.

Windows 11: Search Windows: type "cmd", select Command Prompt
Windows 10 Creators Update or later: Search Windows: type "cmd", select Command Prompt
Windows 10 earlier updates, Windows 8.1: Start (with right mouse button)->Command Prompt



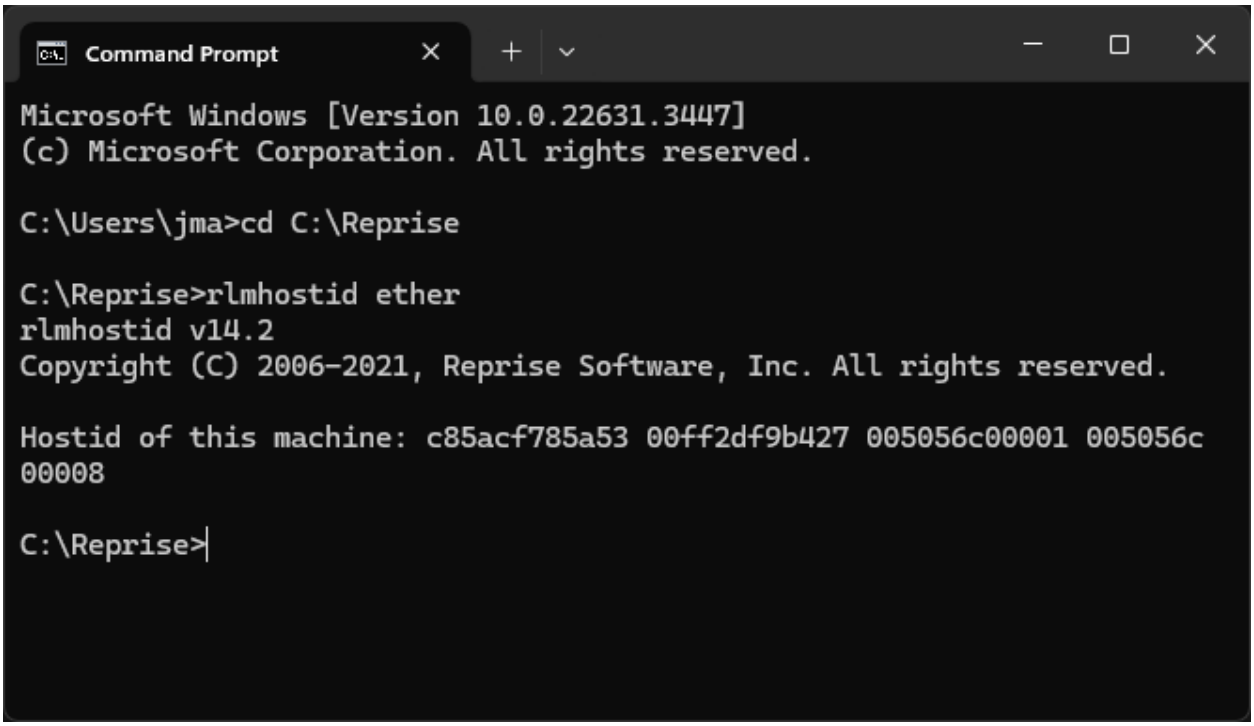
Change current working directory to the license server installation folder ("C:\Reprise") using the "cd" command.

```
cd C:\Reprise
```



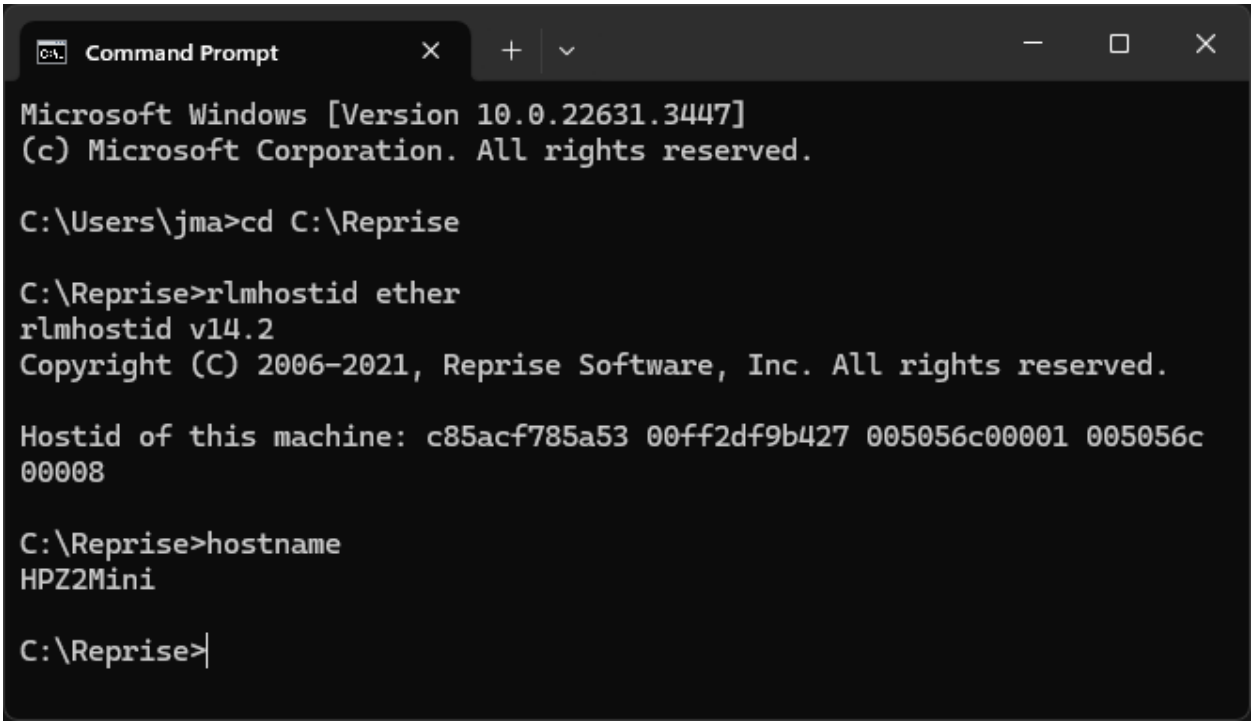
Run the command "rlmhostid ether" to get the hostid number for creating the license.

```
rlmhostid ether
```



Run the command "hostname" to get the hostname of the license server machine.

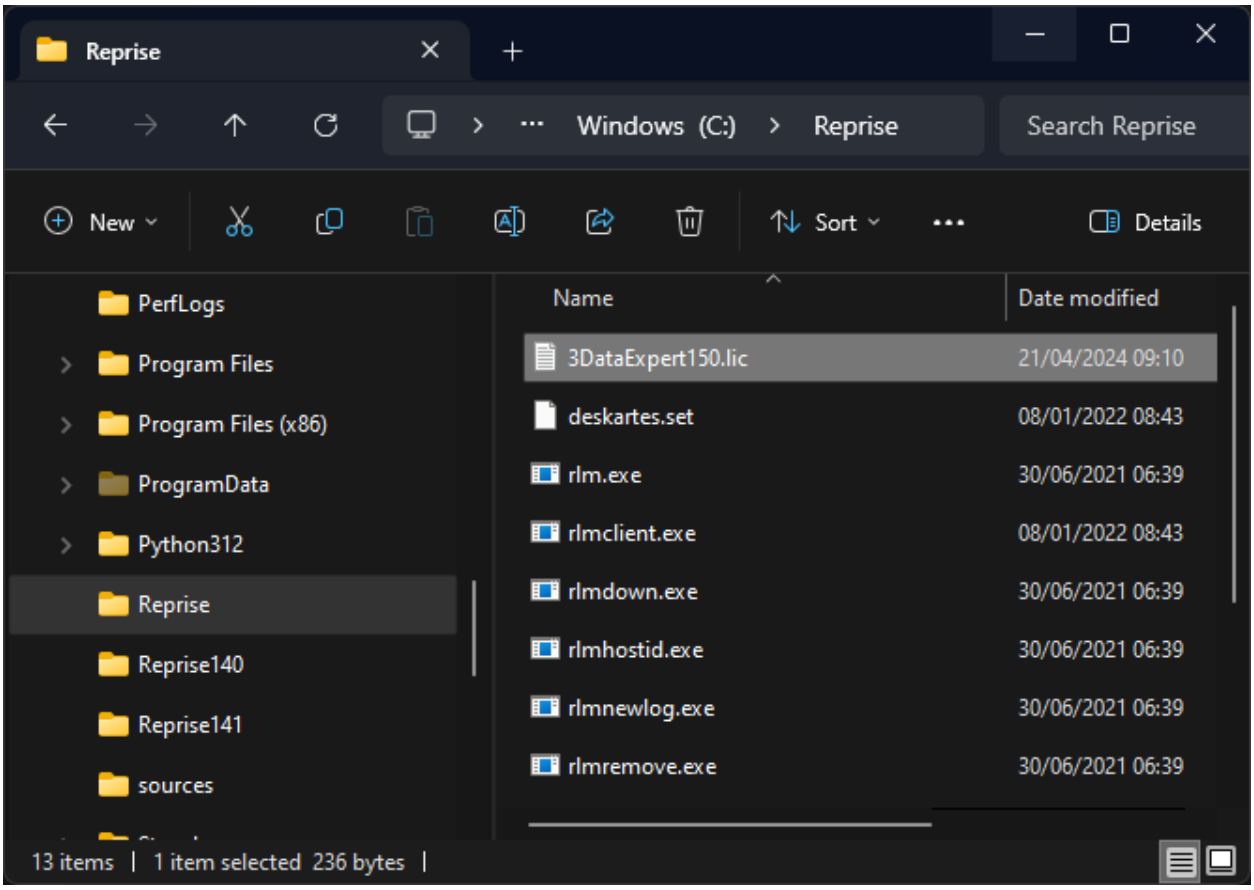
```
hostname
```



Send the first of the **Hostid** numbers and Hostname information to DeskArtes for creating the license. Also include information about what version of 3Data Expert you are going to run (e.g. 15.0).

Installing the license

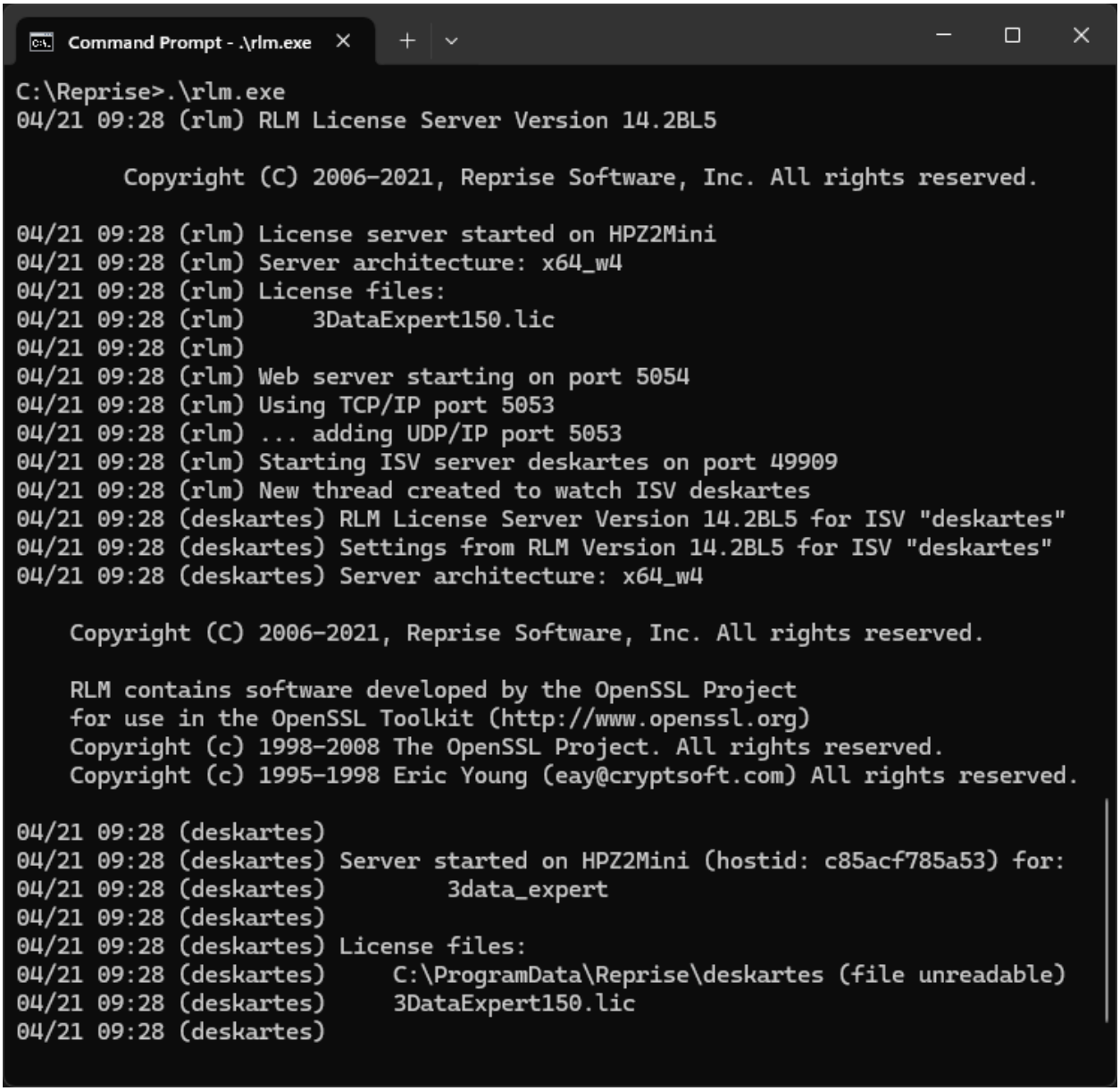
When you receive the license file (for example "**3DataExpert150.lic**"), copy it to the license server installation folder ("**C:\Reprise**").



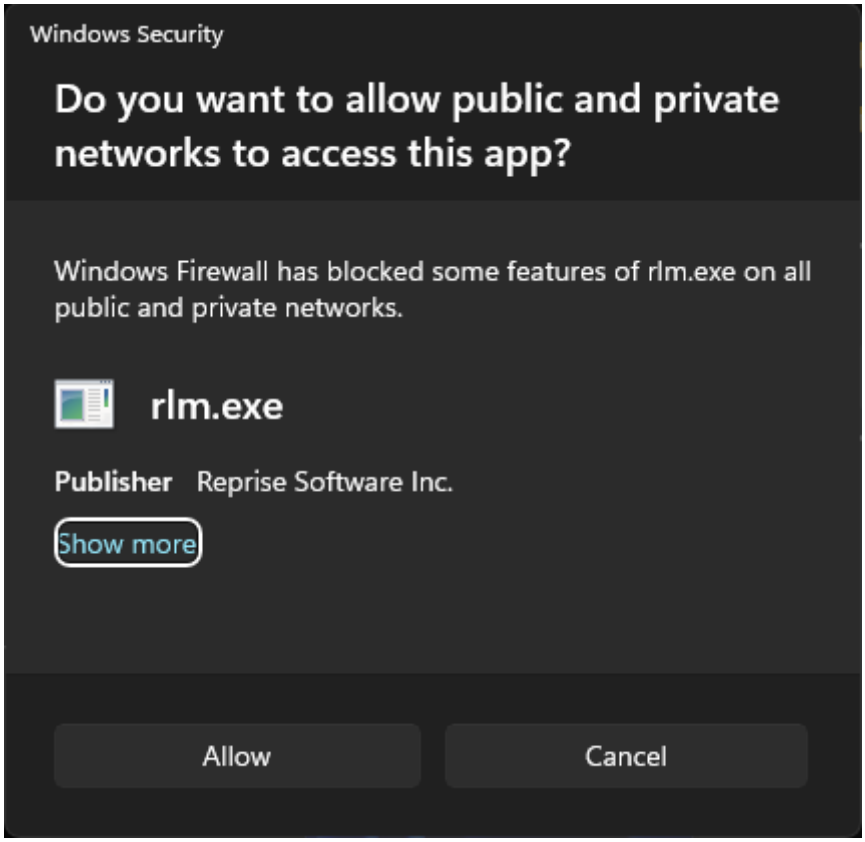
Starting the license server

Start the license server with command ".\rlm.exe" in the license server installation folder ("C:\Reprise").

```
.\rlm.exe
```



Note 1: If you have a firewall program running on your license server, it will ask at this point if the program "rlm.exe" is allowed to connect to the network. You must allow that for the client machines to be able to connect to the license server.



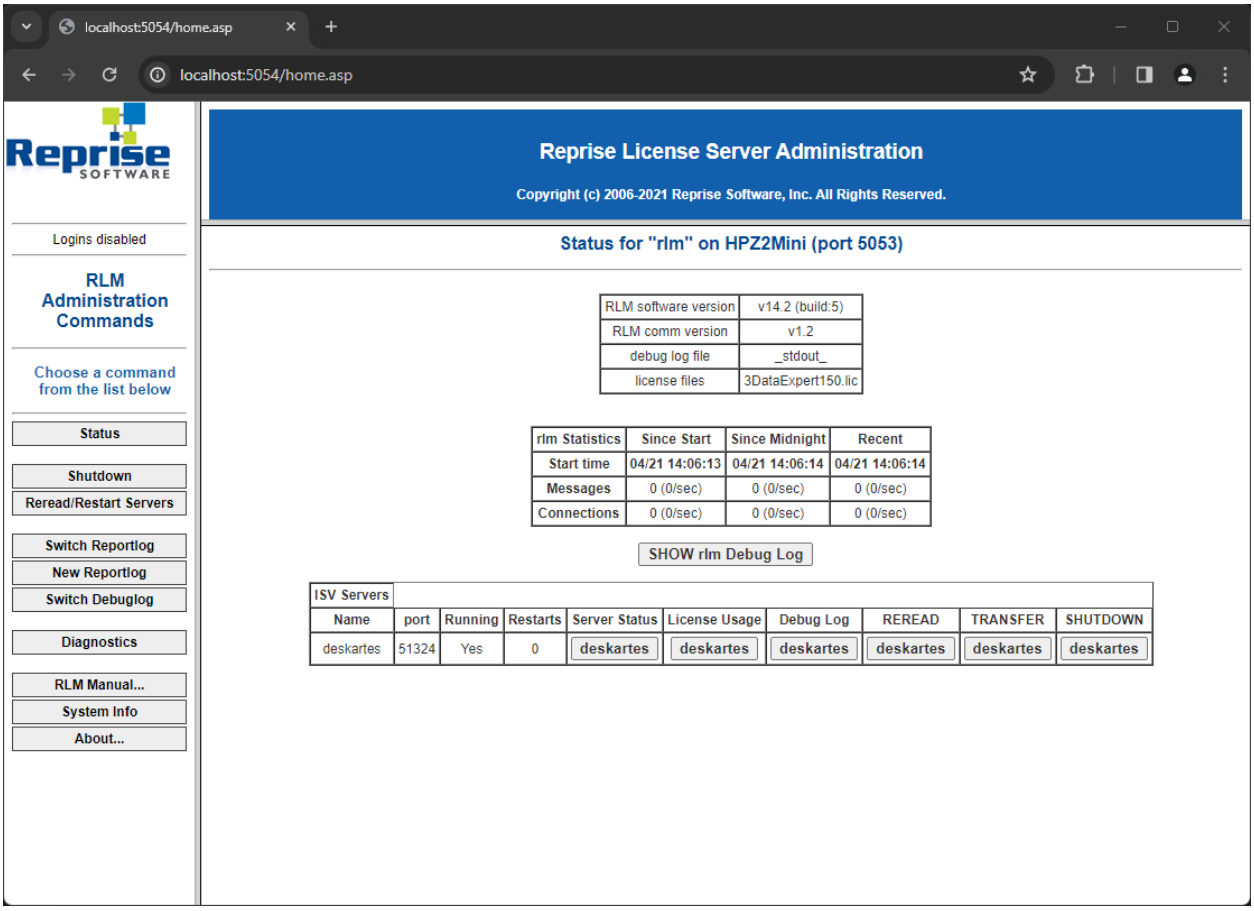
Note 2: You need to let the Command Prompt window stay open, as long as you want the license server to run. Closing the window will end the license server process. In this default configuration the license server also writes its log information to the same Command Prompt window. If you want to get the license server to survive closing the Command Prompt, user logout etc. see the "Running the license server as a Windows service" section below.

Checking the license server status

The license server has an internal web server waiting for connections at IP port 5054. You can view the license server status information by connecting to that server with any web-browser (Edge, Chrome, Firefox, Opera etc.). If running the browser at the license server machine the correct URL for the license server is

http://localhost:5054

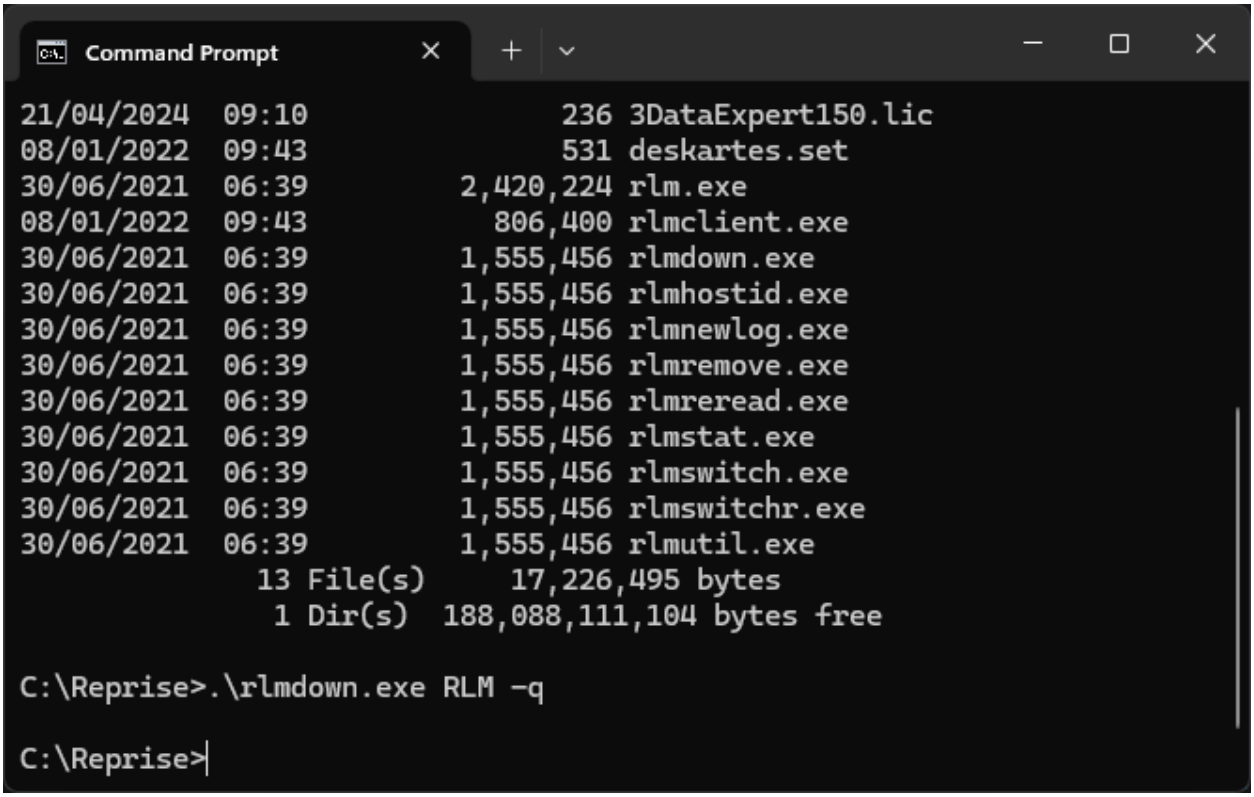
To see the license server status information, select the "**Status**" command at the left side command list.



Shutting down the license server

To shut down the license server, run the command ".\rlmdown.exe RLM -q" in another Windows Command Prompt window.

```
.\rlmdown.exe RLM -q
```



In the other Command Prompt window where you started the server, you can now see also the shutdown messages.

Command Prompt
C:\Reprise>.\rlm.exe
04/21 09:28 (rlm) RLM License Server Version 14.2BL5
Copyright (C) 2006-2021, Reprise Software, Inc. All rights reserved.
04/21 09:28 (rlm) License server started on HPZ2Mini
04/21 09:28 (rlm) Server architecture: x64_w4
04/21 09:28 (rlm) License files:
04/21 09:28 (rlm) 3DataExpert150.lic
04/21 09:28 (rlm)
04/21 09:28 (rlm) Web server starting on port 5054
04/21 09:28 (rlm) Using TCP/IP port 5053
04/21 09:28 (rlm) ... adding UDP/IP port 5053
04/21 09:28 (rlm) Starting ISV server deskartes on port 49909
04/21 09:28 (rlm) New thread created to watch ISV deskartes
04/21 09:28 (deskartes) RLM License Server Version 14.2BL5 for ISV "deskartes"
04/21 09:28 (deskartes) Settings from RLM Version 14.2BL5 for ISV "deskartes"
04/21 09:28 (deskartes) Server architecture: x64_w4
Copyright (C) 2006-2021, Reprise Software, Inc. All rights reserved.
RLM contains software developed by the OpenSSL Project
for use in the OpenSSL Toolkit (http://www.openssl.org)
Copyright (c) 1998-2008 The OpenSSL Project. All rights reserved.
Copyright (c) 1995-1998 Eric Young (eay@cryptsoft.com) All rights reserved.
04/21 09:28 (deskartes)
04/21 09:28 (deskartes) Server started on HPZ2Mini (hostid: c85acf785a53) for:
04/21 09:28 (deskartes) 3data_expert
04/21 09:28 (deskartes)
04/21 09:28 (deskartes) License files:
04/21 09:28 (deskartes) C:\ProgramData\Reprise\deskartes (file unreadable)
04/21 09:28 (deskartes) 3DataExpert150.lic
04/21 09:28 (deskartes)
04/21 09:32 (rlm) Shutdown request by jma@hpz2mini
04/21 09:32 (rlm) Sending shutdown msg to deskartes (pid: 29124)
04/21 09:32 (deskartes) Shutdown request by jma@hpz2mini
04/21 09:32 (rlm) deskartes - SHUTDOWN
04/21 09:32 (rlm) Shutting down rlm
C:\Reprise>

Running the license server as a Windows service

In most cases you want to be able to get the license server to survive closing the Command Prompt, user logout etc. It is possible by defining the license server to run as a Windows service.

Adding a new Windows service for the license server

You can add a new rlm service to the Windows service list using the **rlm.exe** command in the Command Prompt.

You need to add the following **options** to the command:

- The **"-install_service"** option.
- The **"-service_name"** option followed by the name for the service ("**rlm-deskartes**").
- The **"-dlog"** option followed by the full **path of the log file**.
- The **"-c"** option followed by the full **path of the license file**.

Adding a new Windows service does not start the license server. The startup type of the service is however set to "Automatic", so the service (the license server) will be automatically started at the next restart of the machine.

It is possible to start the new service also without a machine restart, using the Windows Services control panel.

Removing the license server Windows service

The installed rlm service can also be removed from the Windows service list using the **rlm.exe** command.

You need to add the following **options** to the command:

- The **"-delete_service"** option.
- The **"-service_name"** option followed by the name of the service ("**rlm-deskartes**").

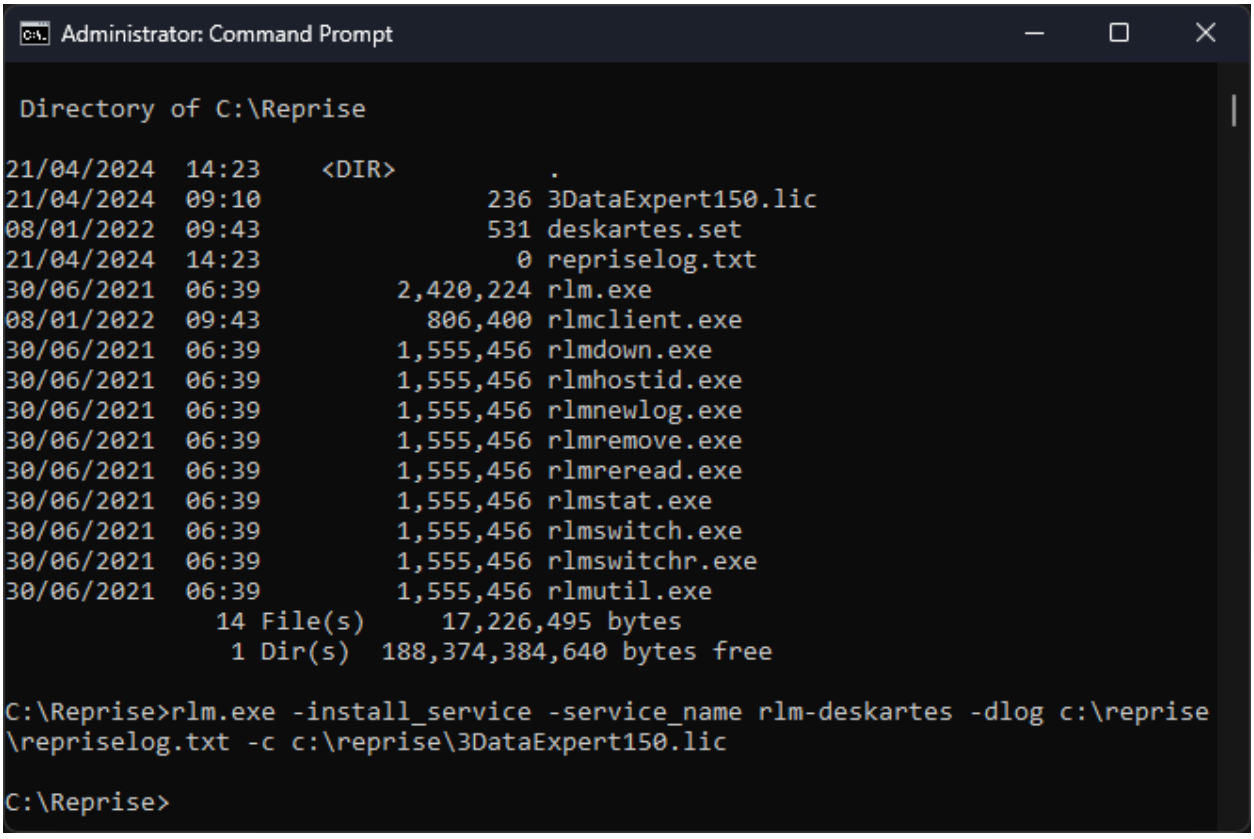
Note 1: The service must be stopped via the Windows Services control panel before it can be removed.

Note 2: In the older versions of RLM (before 12.0) you could add/remove the Windows service also by using the "Manage Windows Service" tool in the rlm web interface. **This feature has been removed in the RLM version 12.0 and later**.

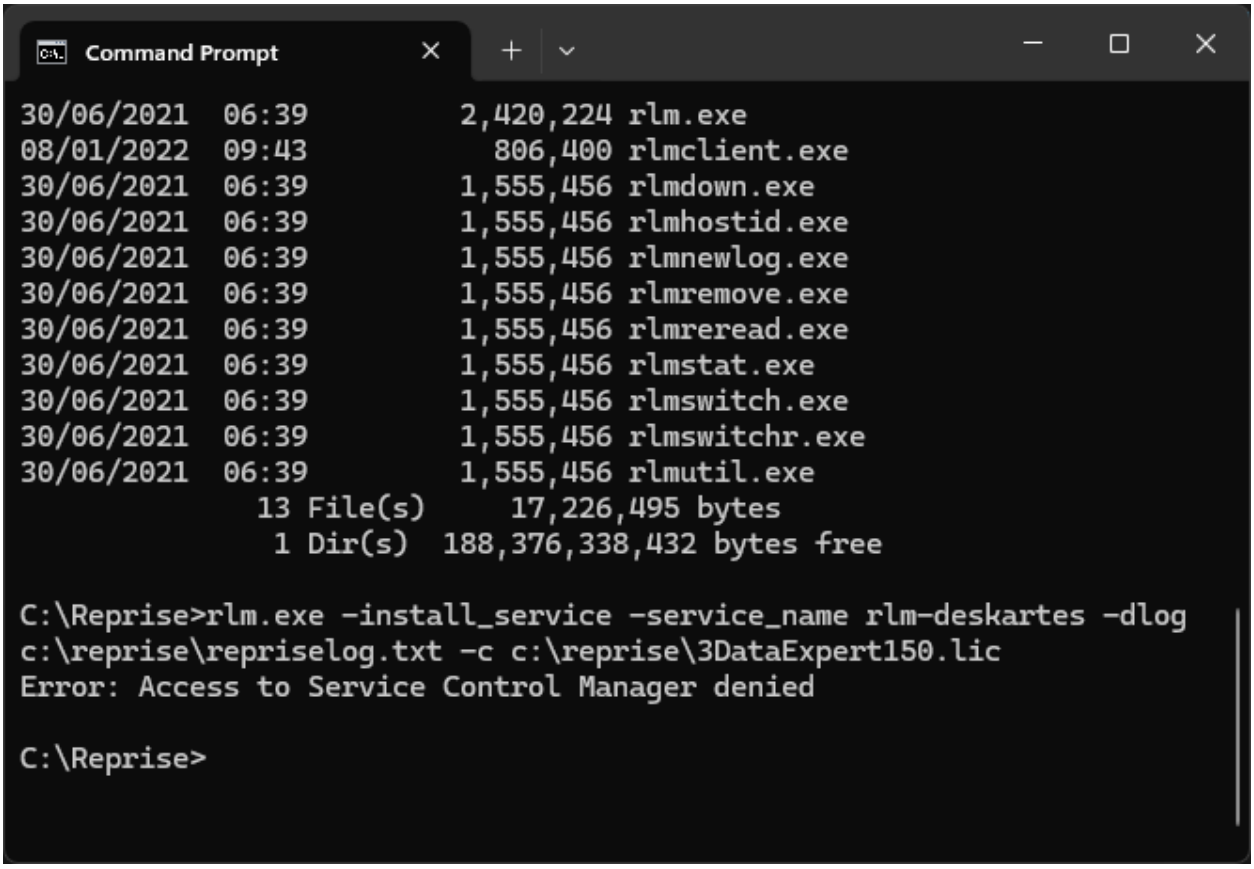
Installing rlm as a Windows service using the rlm.exe command

For example, if you have the license file (**3DataExpert150.lic**) in the folder "**c:\reprise**", you want the logfile (**repriselog.txt**) to be written in the same folder and the service to be called "**rlm-deskartes**", you need to run the following rlm install command in the Windows command prompt.

```
rlm.exe -install_service -service_name rlm-deskartes -dlog
c:\reprise\repriselog.txt -c c:\reprise\3DataExpert150.lic
```

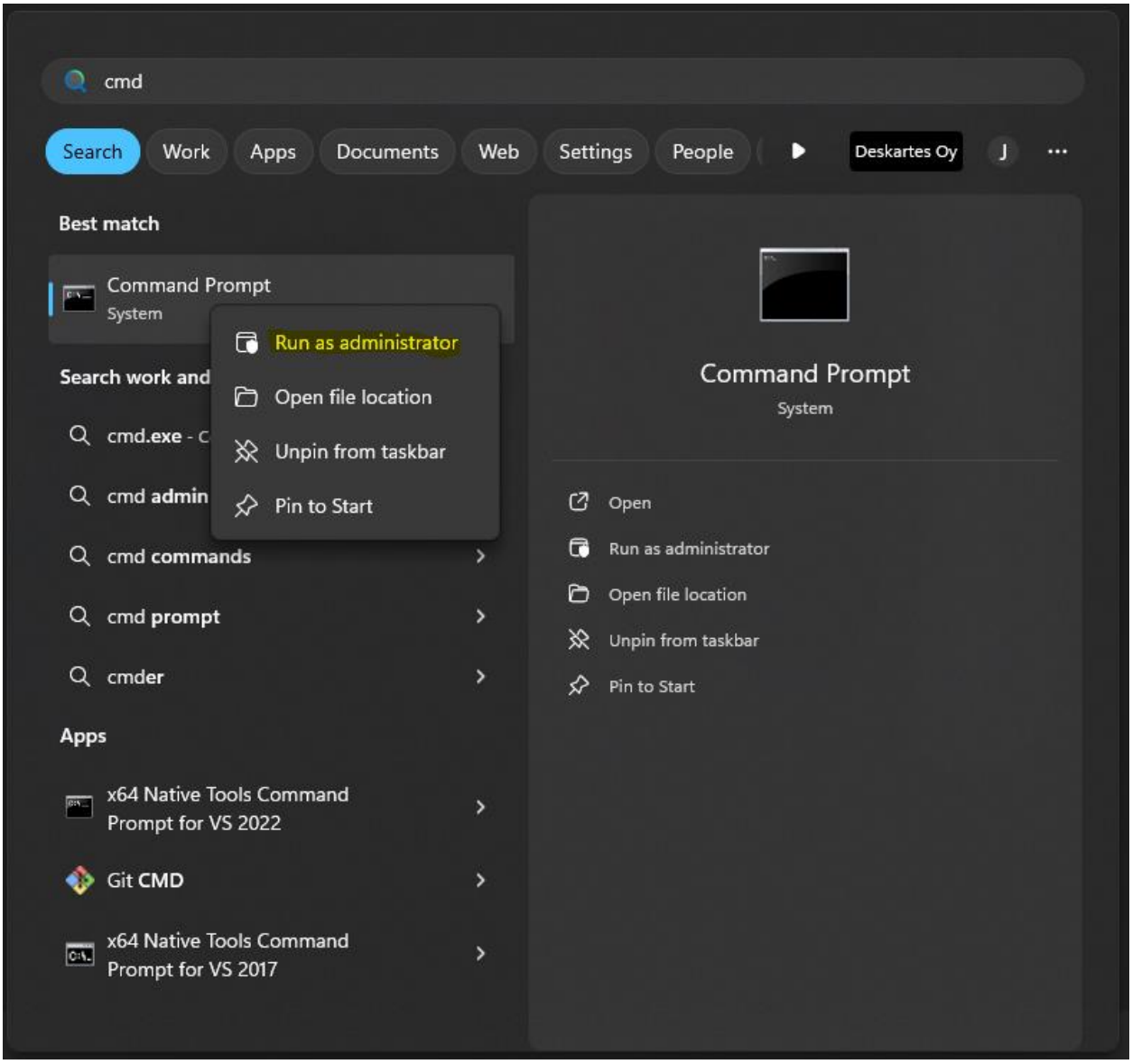


Note: If you have the User Account Control (UAC) enabled on Windows 8, 8.1, 10 or 11 you might get an error message saying that "**Error: Access to Service Control Manager denied.**"

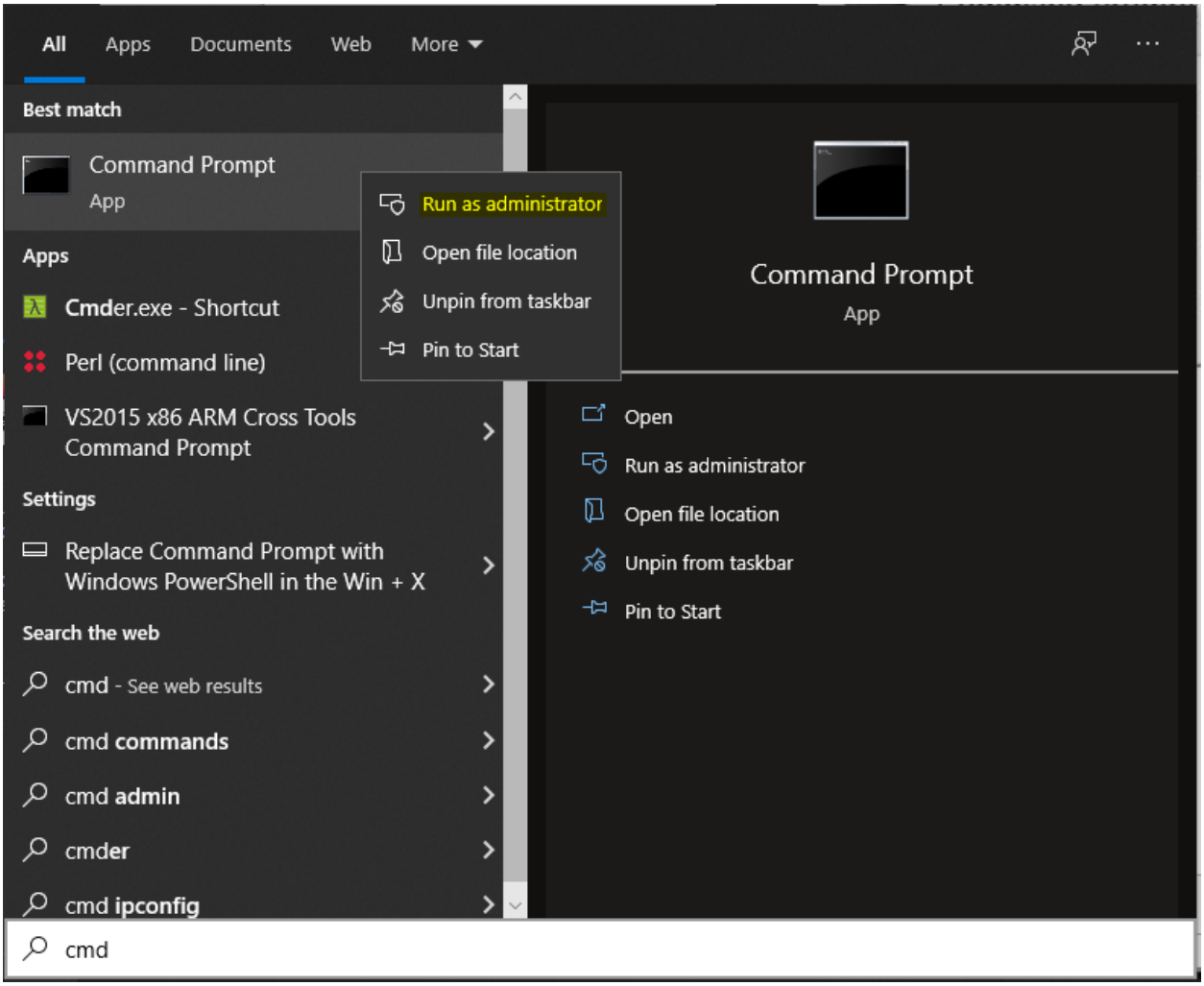


The solution to this is to start a Command Prompt as administrator, and then run the rlm.exe command in that Command Prompt.

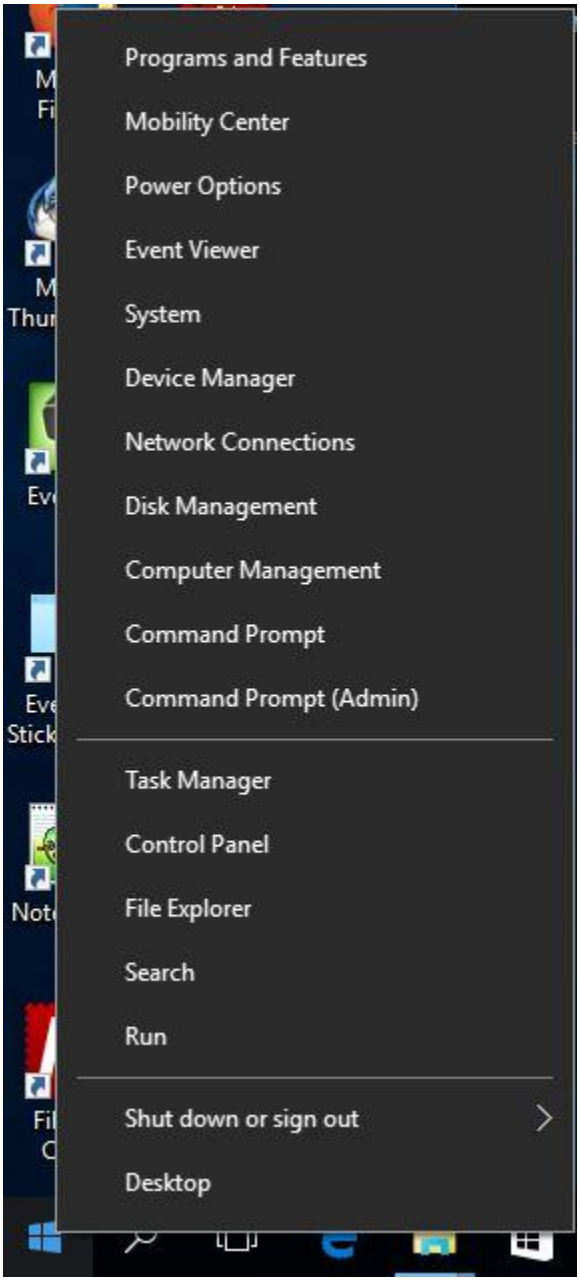
In **Windows 11** you can start an admin Command Prompt by clicking the **Search** (Magnifying glass Search button), typing "**cmd**", clicking Command Prompt with **right mouse button** and selecting "**Run as administrator**" from the menu.



In **Windows 10 Creators Update or later** you can start an admin Command Prompt by clicking the **Search Windows** (Magnifying glass button), typing "**cmd**", clicking Command Prompt with **right mouse button** and selecting "**Run as administrator**" from the menu.



In **Windows 10 earlier updates and Windows 8.1** you can start an admin Command Prompt by clicking the **Start menu** (Windows flag button) with the **right mouse button** and selecting "**Command Prompt (Admin)**" from the menu.



Starting rlm service using the Windows Services control panel

Open the Windows Services control panel. In different versions of Windows, it is found in slightly different paths.

Windows 11:

"Start (with right mouse button)->Computer management: Services and Applications: Services"

Windows 10 Creators Update or later:

"Start (with right mouse button)->Computer management: Services and Applications: Services"

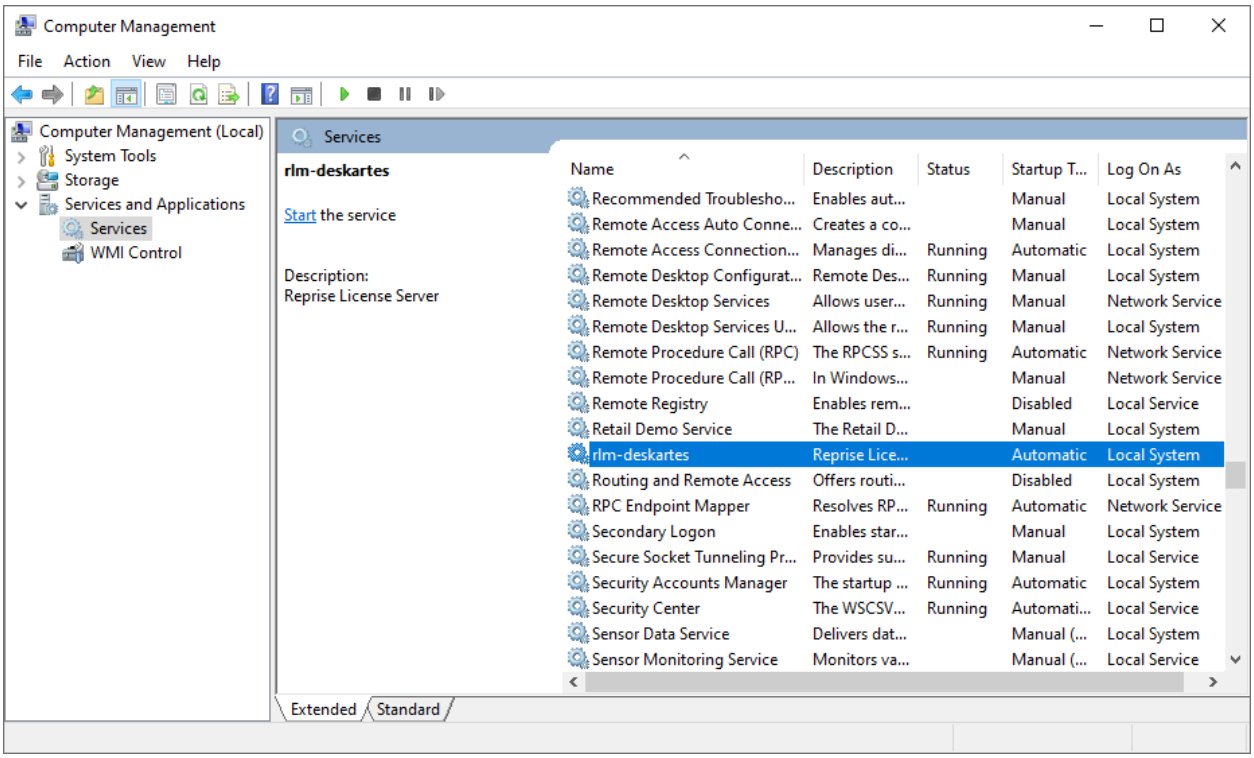
Windows 10 earlier updates and Windows 8.1:

"Start (with right mouse button)->Control Panel (View by: Large icons): Administrative Tools: Services"

Windows 8:

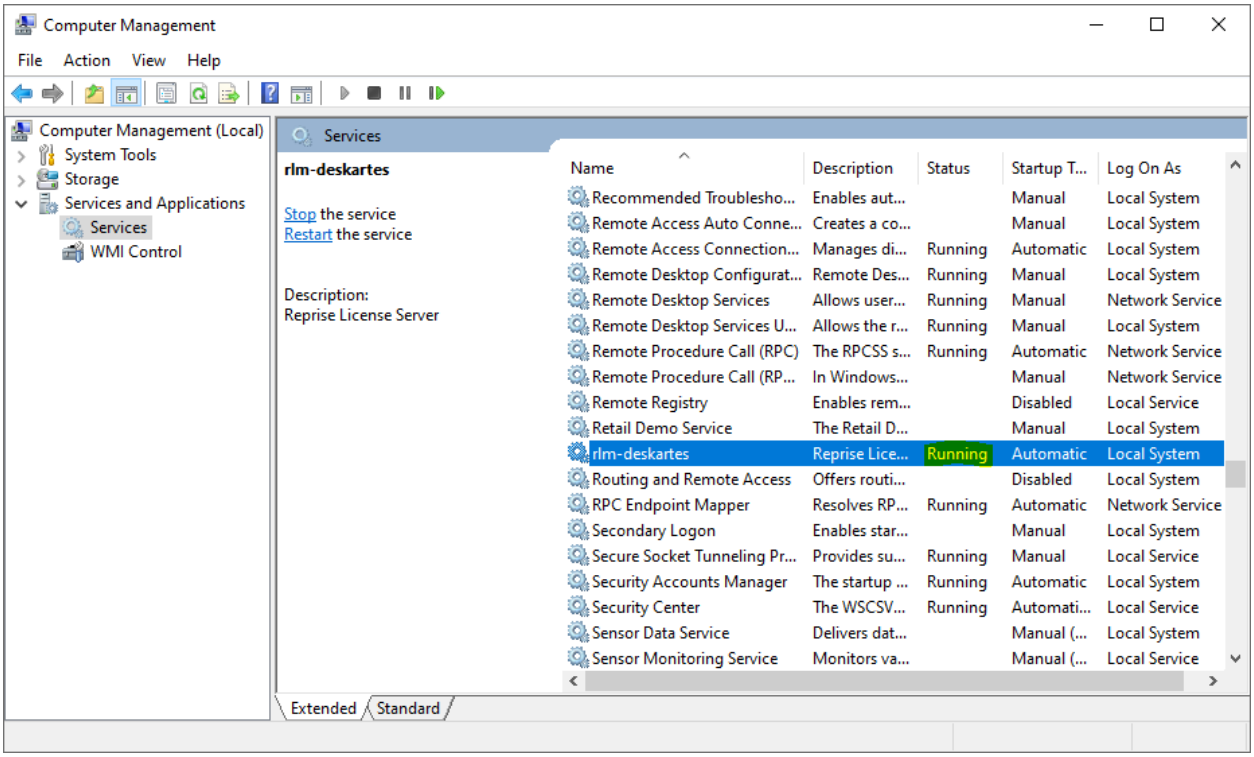
"Start->Control Panel (View by: Large icons): Administrative Tools: Services"

The "**rlm-deskartes**" service is now found in the list of services.



Select the "**rlm-deskartes**" service and run the command "**Start**" from the "Action" menu.

The status of the service is then changed to "**Running**" (or "Started") and the rlm license server is running.



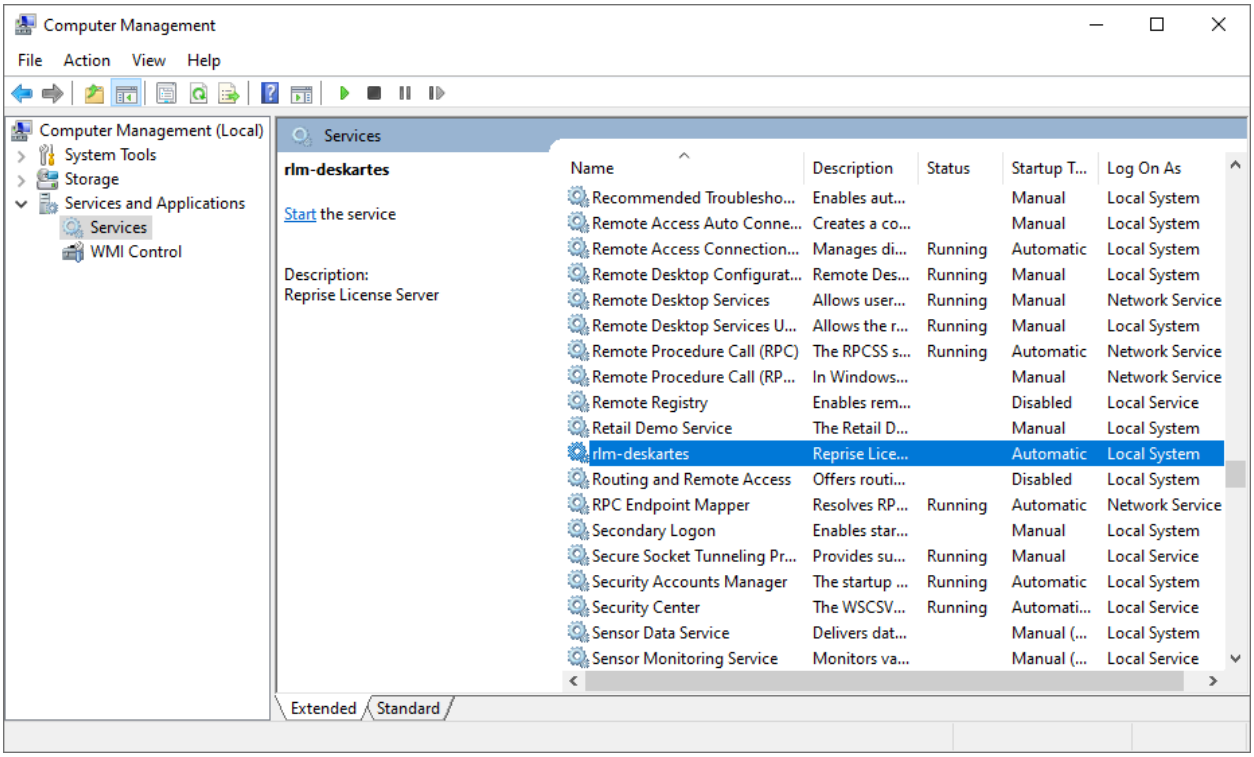
Stopping rlm service using the Windows Services control panel

The rlm service is stopped via the Windows Services control panel in the same way it was started.

Open the Windows Services control panel.

Select the "**rlm-deskartes**" service in the list and run the command "**Stop**" from the "Action" menu.

The "Running" (or "Started") string then disappears from the "Status" field and the rlm license server is stopped.

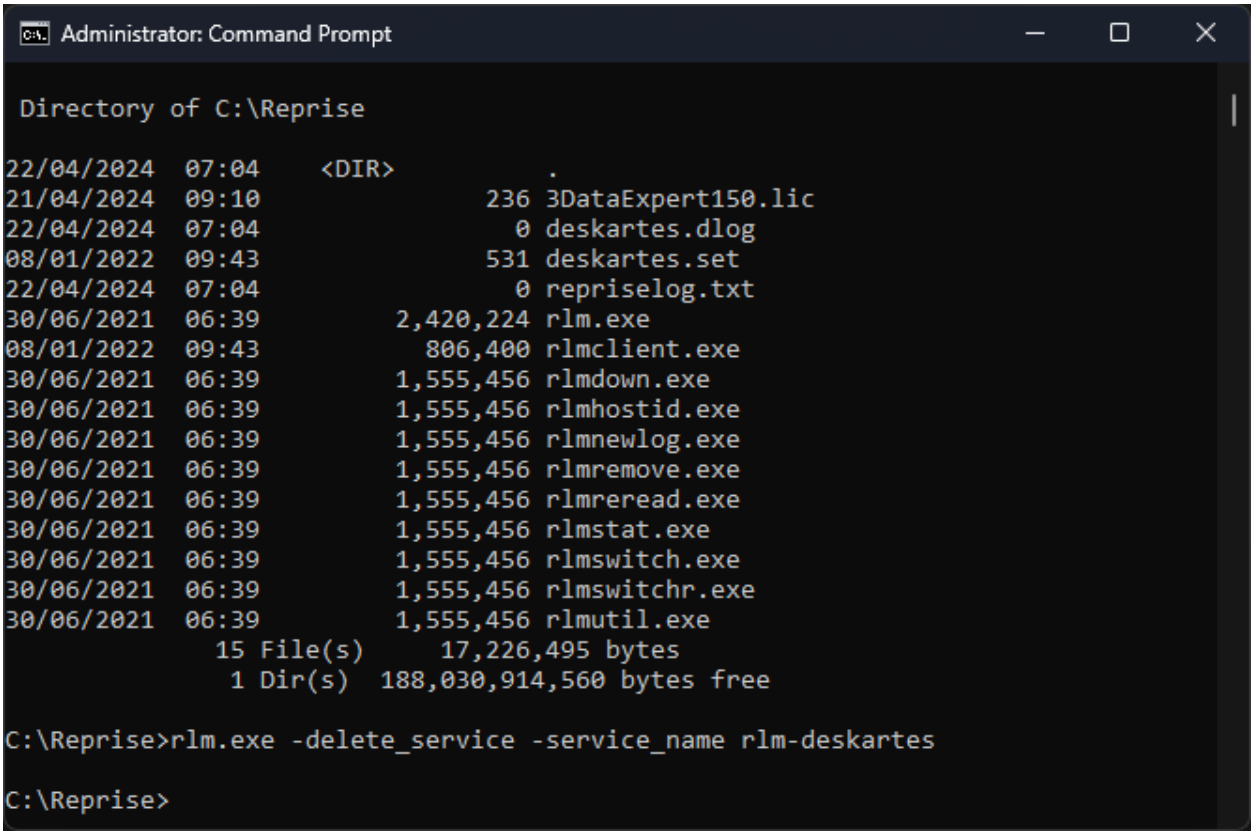


Note: The rlm service must be stopped before it can be removed from the services list.

Removing rlm service using the rlm.exe command

To remove the rlm service from the Windows service list run the following command in the Windows Command Prompt.

```
rlm.exe -delete_service -service_name rlm-deskartes
```



Note: If you have the User Account Control (UAC) enabled on Windows 8, 8.1, 10 or 11 you might get an error message saying that "**Error: OpenService failed (5).**"

The solution to this is to start a Command Prompt as administrator, and then run the rlm.exe command in that Command Prompt.

In **Windows 11** you can start an admin Command Prompt by clicking the Search (Magnifying glass Search button), typing "cmd", clicking Command Prompt with right mouse button and selecting "Run as administrator" from the menu.

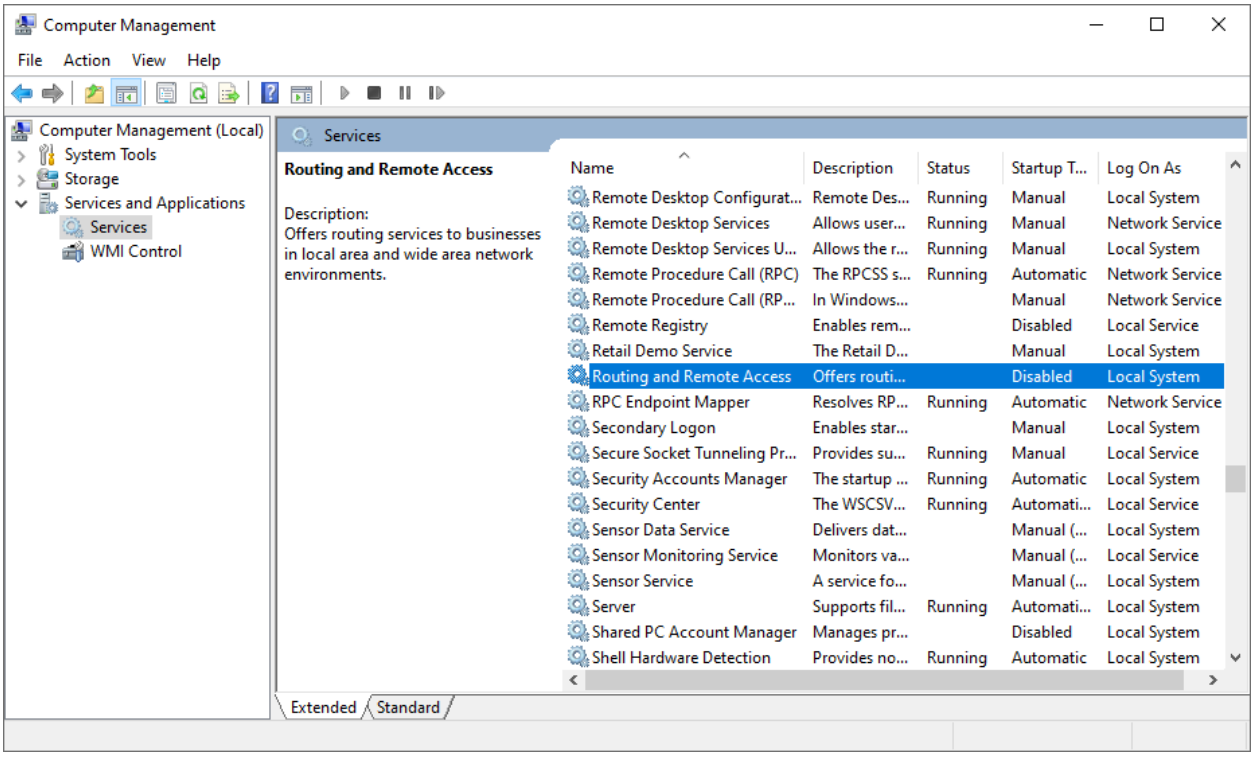
In **Windows 10 Creators Update or later** you can start an admin Command Prompt by clicking the Search Windows (Magnifying glass button), typing "cmd", clicking Command Prompt with right mouse button and selecting "Run as administrator" from the menu.

In **Windows 10 earlier updates and Windows 8.1** you can start an admin Command Prompt by clicking the Start menu (Windows flag button) with the right mouse button and selecting "Command Prompt (Admin)" from the menu.

Checking the rlm service removal with the Windows Services control panel

After removing the rlm service with the rlm.exe command, you can check again the services list in the Windows Services control panel.

The “rlm-deskartes” service should not be found in the services list anymore.



License server log files

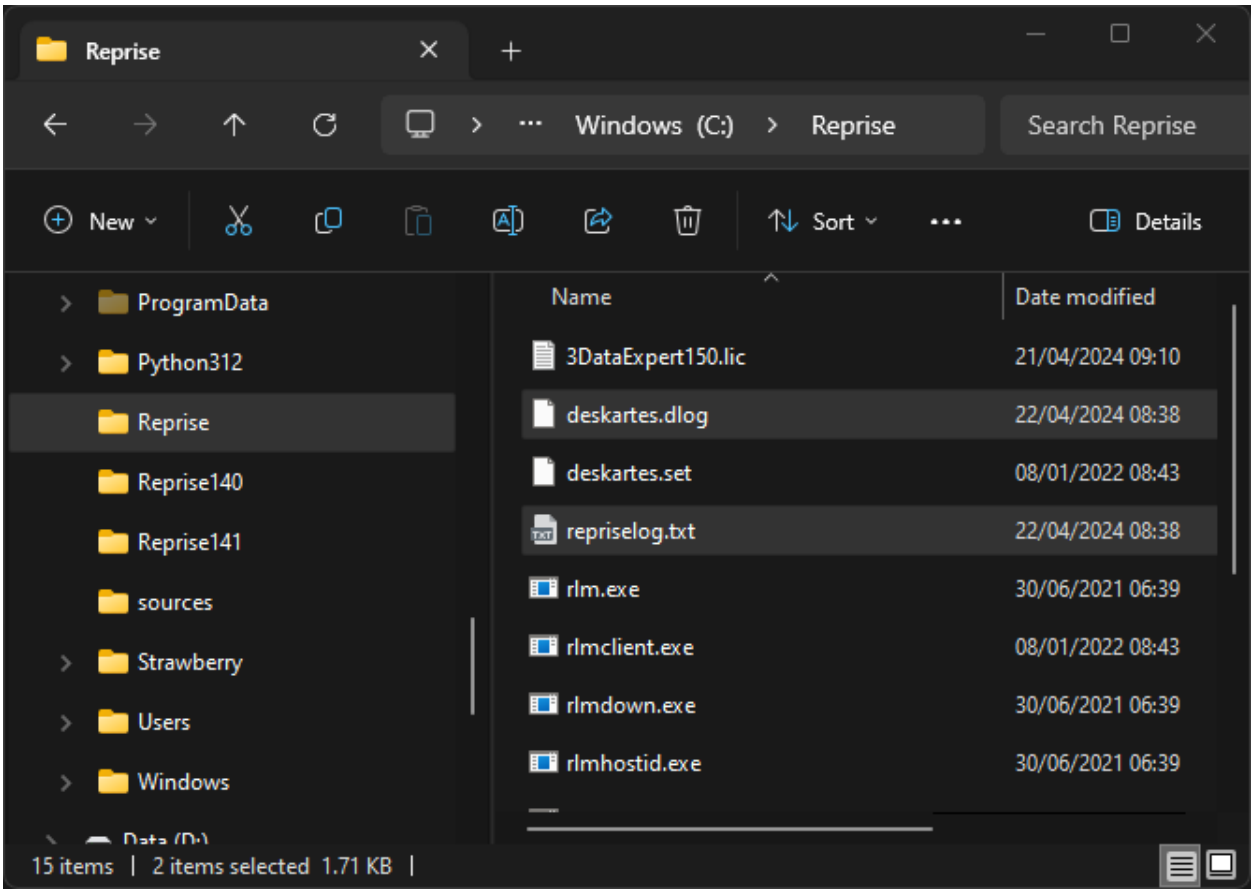
When running the rlm license server as a Windows service, log information is written to a couple of log files. The log files contain the same information shown in the startup command prompt in the default configuration.

The rlm license server log file

The rlm license server writes its log information to the file defined in the rlm.exe startup command (for example: "**c:\reprise\repriselog.txt**"). This log file contains the information that is written by the rlm license server in the startup command prompt in the default configuration.

The ISV server log file

The ISV server log information is written to another file called "<isvname>.dlog" ("**deskartes.dlog**" for the ISV server for DeskArtes programs). This log file contains the information that is written by the ISV server in the startup command prompt in the default configuration.



The information in the log files is useful especially when trying to resolve problems in running the rlm license server.

The ISV server options file

With the ISV server options file additional options can be defined to the ISV server. The name of the options file is "<isvname>.opt" ("**deskartes.opt**" for the ISV server for DeskArtes programs) and it resides in the license server folder. The options file is a normal text file and can be edited with any text editor (e.g. Notepad).

Switching the ISV log file to another path

As default the name of the ISV log file for DeskArtes programs is "**deskartes.dlog**" and it is written to the license server folder. To change the name and/or the path of the ISV log file, you can add the following option line to the ISV server options file.

```
DEBUGLOG C:\RepriseLogs\deskartes_debuglog.txt
```

ISV report log file

The license server can generate a license usage log file for reporting. This ISV report log file contains information about the usage of the ISV software licenses. To make the license server to create an ISV report log file, you can add the following option line to the ISV server options file.

```
REPORTLOG C:\RepriseLogs\deskartes_reportlog.txt
```

The ISV report log file also has authentication information to avoid later changes to the originally created data.

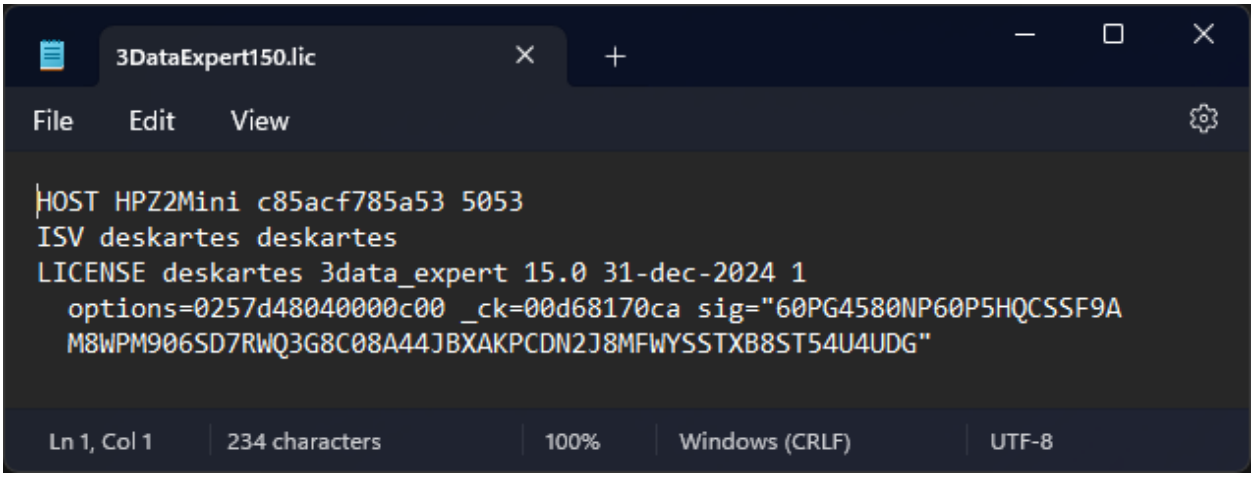
```
RLM Report Log Format 0, version 14.2, authenticated
ISV: deskartes, RLM version 14.2 BL5
Logfile format Copyright (C) 2006-2021 Reprise Software, Inc.
For documentation on this format, email info@reprisesoftware.com
You are encouraged to build tools to process this data.

START HPZ2Mini 04/22/2024 09:05:32
TIMEZONE -120 1 # FLE Standard Time FLE Summer Time, -120 minutes west of UTC, daylight: 1
LICENSE FILE C:\ProgramData\Reprise\deskartes
LICENSE FILE 3DataExpert150.lic
PRODUCT 3data_expert 15.0 1 1 0 1 "" "" "" "" "" "0257d48040000c00" 0 0 0 0 0 0 0 0 0
04/22/2024 09:05
OUT 3data_expert 15.0 1 jma hpz2mini "" 1 1 0 41 41 1cf4 "" "" "" 04/22 09:06:54
IN 1 3data_expert 15.0 jma hpz2mini "" 1 0 0 41 04/22 09:07:17
OUT 3data_expert 15.0 1 jma hpz2mini "" 1 1 0 42 42 4e8 "" "" "" 04/22 09:07:20
IN 1 3data_expert 15.0 jma hpz2mini "" 1 0 0 42 04/22 09:07:30
OUT 3data_expert 15.0 1 jma hpz2mini "" 1 1 0 43 43 4458 "" "" "" 04/22 09:07:33
IN 1 3data_expert 15.0 jma hpz2mini "" 1 0 0 43 04/22 09:08:17
SHUTDOWN jma hpz2mini 04/22 09:09:38
AUTH: 1 60p04539ha5sfa6y9tvqvc2t9t8h30u2dvtfmgg22gewaasa3cgcaaytqjdhuf4265gc5b4var
```

Note: If you have selected the option to create ISV report log files, it is important to shut down the license server in a controlled way, not just killing the process. Otherwise, the license server can't write final authentication information and the validity of the report can't be verified. The license server should be shut down with the Windows services control panel Stop-command, if it is run as a Windows service, and with rlmdown-command or through RLM web interface, if the server was started at Command prompt.

The license file

The network license file for DeskArtes programs is a text file that contains information about the license server machine, that the license has been assigned to, ISV server controlling the software usage and the software the license enables.



The **HOST** line includes the host name, system ID number and port number of the license server machine.

The **ISV** line defines the ISV server that supports the program modules.

The **LICENSE** line defines the software that is enabled by the license. The software information includes also the version number, expire date, the number of the licenses and enabled options for that software.

In the HOST line of license file the license server host name (second field) and the port number (fourth field) can be changed without invalidating the license file.

In the ISV line of the license file the ISV server path (the third field) can be changed without invalidating the license file.

Other parts of the license file are protected for changes with the encrypted signature fields. Changing those parts will invalidate the license.

The network port numbers

The Reprise RLM network license system needs network (TCP/IP) port numbers for its connections.

The Reprise license server assigns three ports for different types of connections.

1. Port for license requests from the client programs, like 3Data Expert.
   - the default port number for this port is 5053.
   - other port number can be assigned in the HOST line of the license file (the fourth field). The port number in the license file can be changed without invalidating the license file.
2. Port for the license server embedded web server admin interface.
   - the default port number for this port is 5054.
   - other port number can be assigned with the "-ws port" startup option.
3. Port for communication with the ISV server.
   - the port number is as default assigned dynamically.

If a static port number is needed for the third port, for example because it has to be enabled in a firewall, it can be defined in the ISV line of the license file with the "port=<portnum>" option.

For example.

If the ISV line for 3Data Expert would otherwise be

```
ISV deskartes c:\reprise\deskartes
```

To define port number 49156 for the deskartes ISV server, you have to change the ISV line to

```
ISV deskartes c:\reprise\deskartes port=49156
```

Additional information

For further details see the section "Running the rlm server as a service on Windows" in "**RLM_License_Administration.pdf**" document.

You can find the document at the "**DALicenseServer**" subfolder of the 3Data Expert 15.0 (64-bit) installation folder (default: "C:\Program Files\DeskArtes 3Data Expert 15.0\DALicenseServer").

It can also be downloaded from the Reprise support web site (https://www.reprisesoftware.com/admin/software-licensing.php).