

Network license setup

Server installation



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About this document

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

For instructions to configure the DeskArtes Expert Series programs 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 Expert Series version 11.0 installation packages, containing Reprise RLM version 12.0 BL2 license server and tools.

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

The document is written using the 3Data Expert 11.0 (64-bit) as an example, but the same instructions can be applied also for the other DeskArtes Expert Series programs: 3Data Expert Lite, Dimensions Expert, View Expert and Design Expert (64-bit and 32-bit versions).

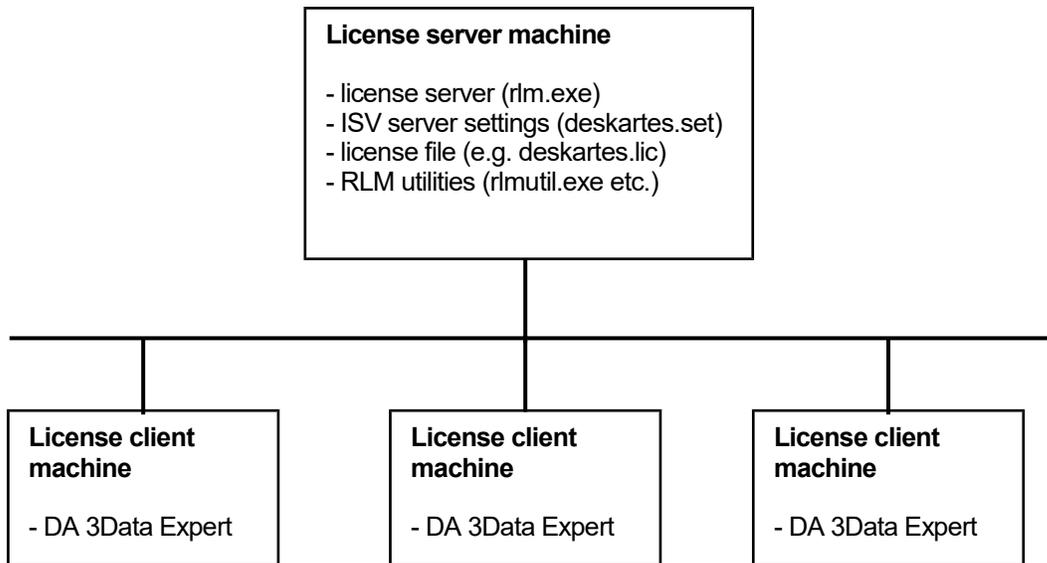
Requirements

The machines running the DeskArtes Expert Series programs with the Reprise RLM network license system have to 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.

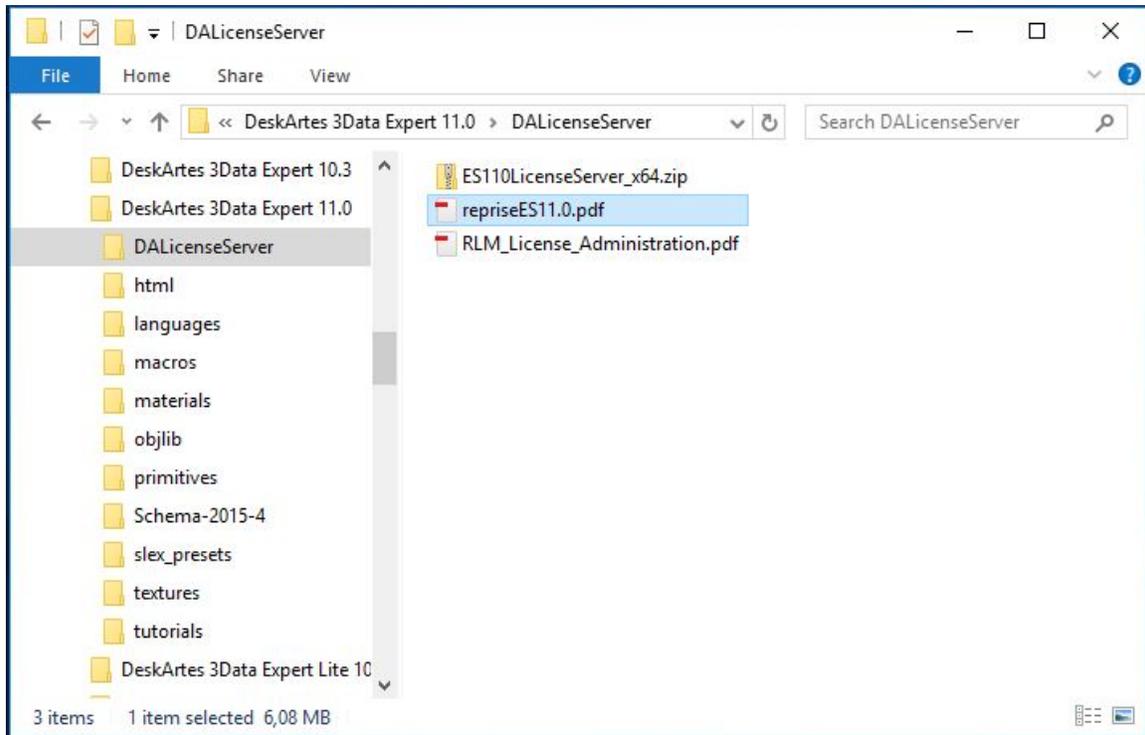


License server machine	The machine where the license server is running.
License client machine	A machine where DeskArtes 3Data Expert is running.
License server program	The program (rlm.exe) controlling the license usage in the network, with help of the ISV server.
ISV server settings file	A platform 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, rlmshutdown.exe, etc.).

Installing the license server

To start the installation you need to first get the DeskArtes license server installation package (ES110LicenseServer_x64.zip) for 3Data Expert 11.0 (64-bit).

It is found in the "DALicenseServer" subdirectory of the 3Data Expert 11.0 (64-bit) installation directory (default: "C:\Program Files\DeskArtes 3Data Expert 11.0\DALicenseServer").



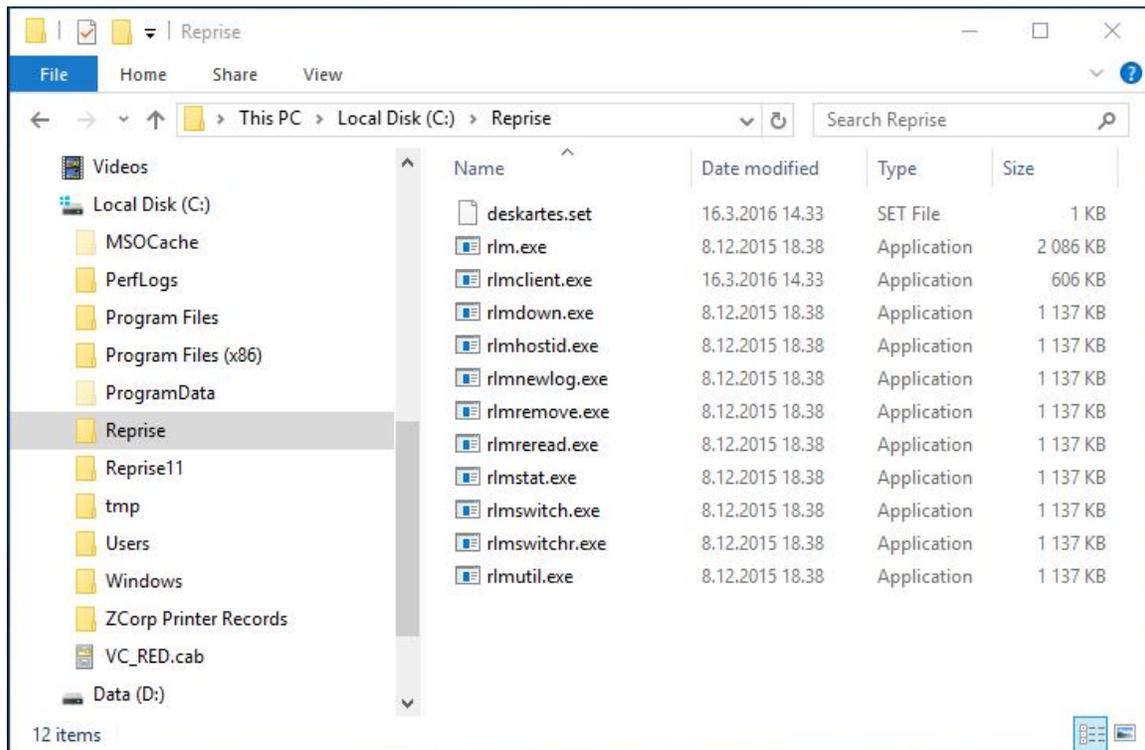
The same package can also be downloaded from the DeskArtes web site.
(<http://www.deskartes.fi/downloads/software.php>)

Copy the installation package to the machine that you want to make a license server.

Note: To be able to run the 64-bit versions of the license server and tools, included in the 64-bit 3Data Expert installation, the machine you choose to be the license server needs to have a 64-bit Windows version. The 32-bit versions of the license server and tools can be found in the installation packages of 32-bit Expert Series program, or downloaded from the DeskArtes web site (<http://www.deskartes.fi/downloads/software.php>).

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

Extract the contents of the license server installation package (ES110LicenseServer_x64.zip) to that directory.



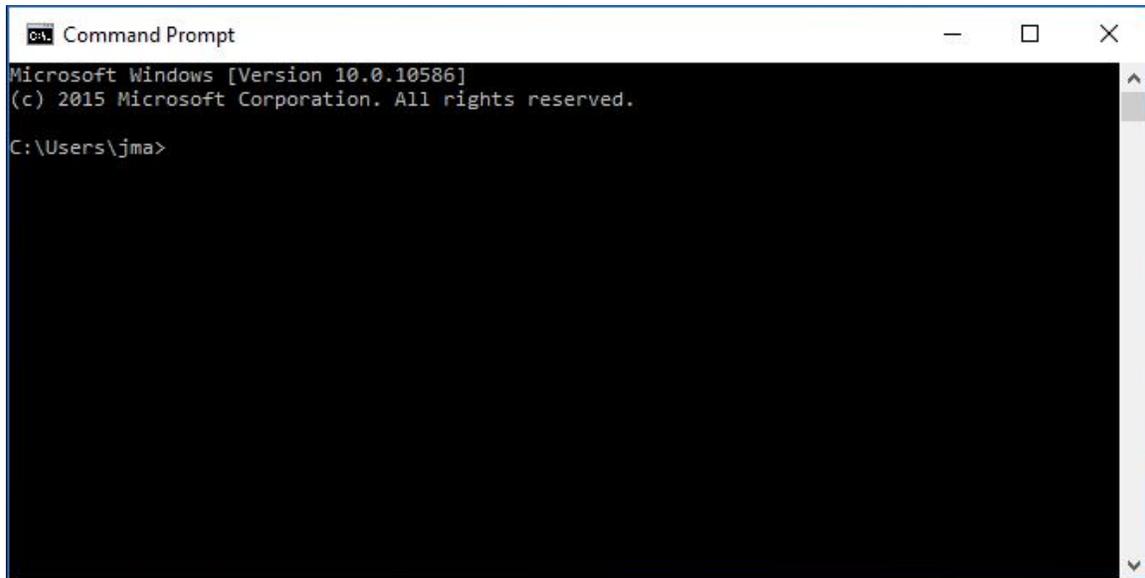
Getting the hostid number and hostname for the license

Open a Windows Command Prompt window.

Windows 10 Creators Update: Search Windows: type "cmd", select Command Prompt

Windows 10 earlier updates, Windows 8.1: Start (with right mouse button)->Command Prompt

Windows 7: Start->All Programs->Accessories->Command Prompt

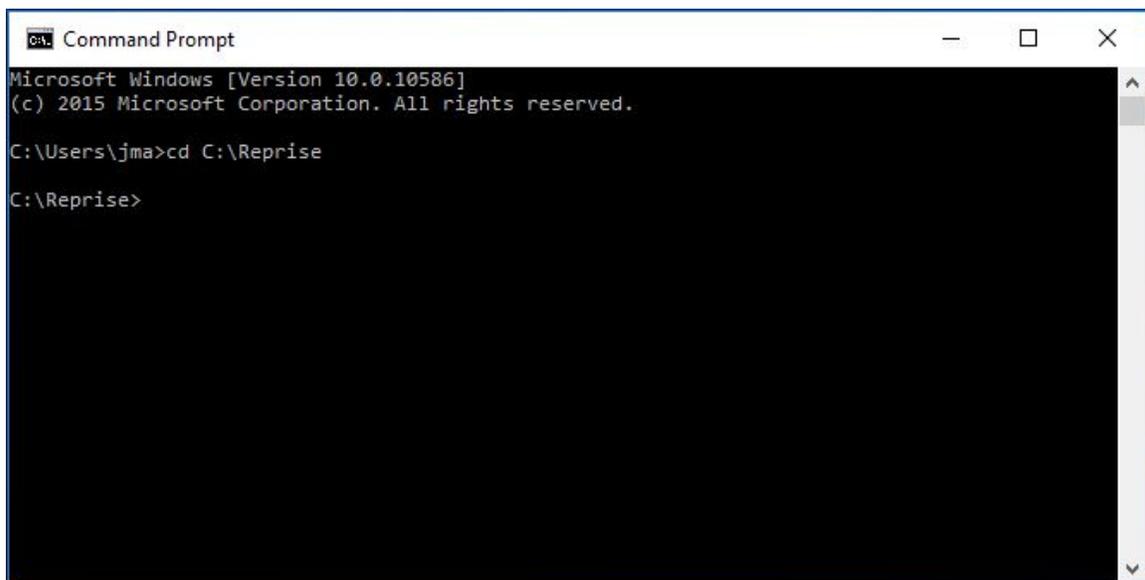


```
Command Prompt
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\jma>
```

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

```
cd C:\Reprise
```

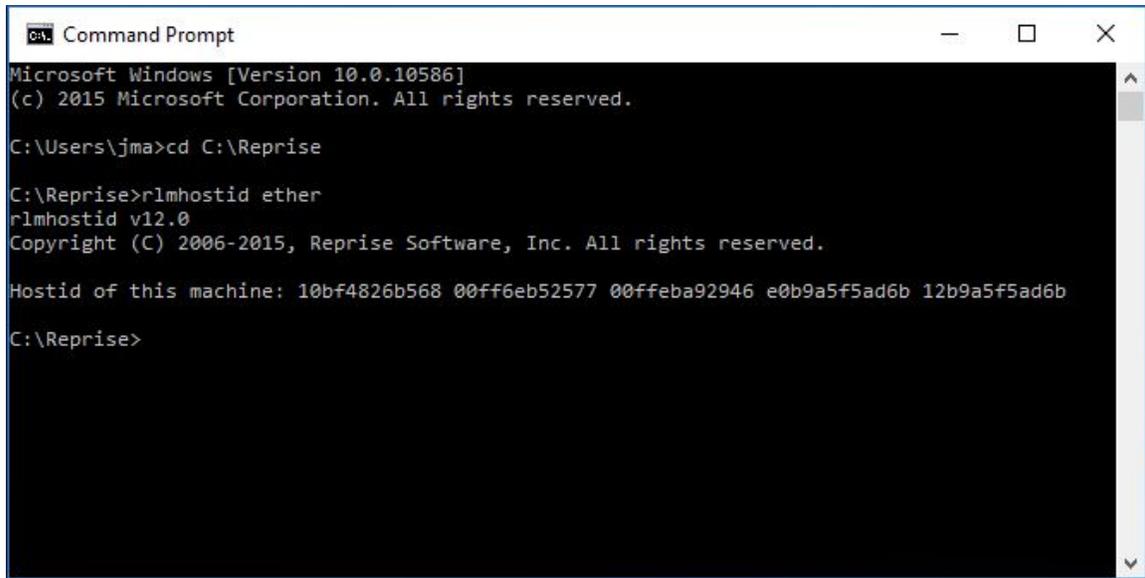


```
Command Prompt
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\jma>cd C:\Reprise
C:\Reprise>
```

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

```
rlmhostid ether
```



```
Command Prompt
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\jma>cd C:\Reprise

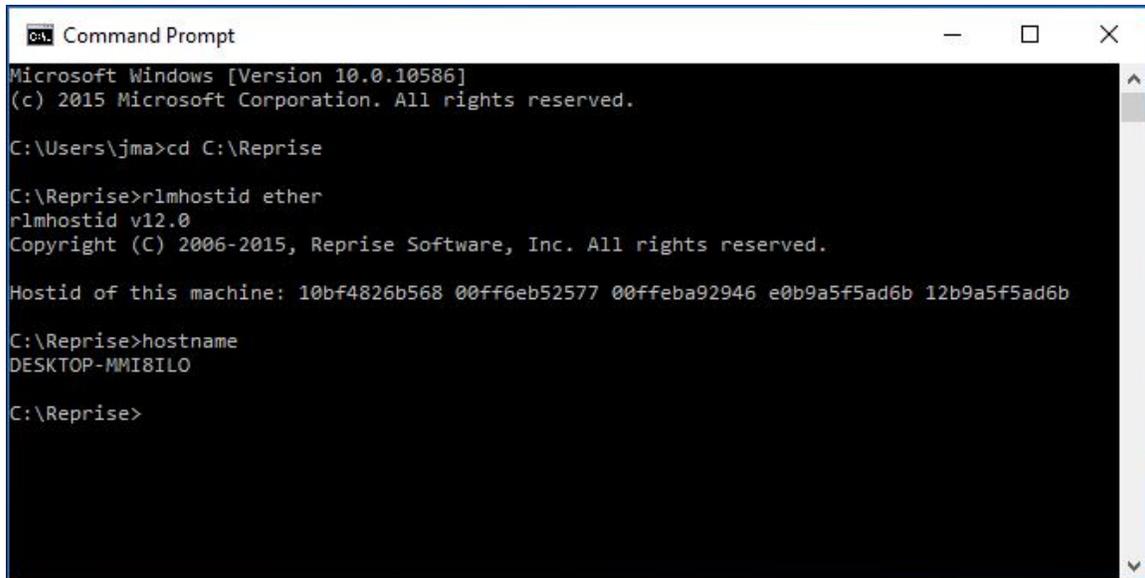
C:\Reprise>rlmhostid ether
rlmhostid v12.0
Copyright (C) 2006-2015, Reprise Software, Inc. All rights reserved.

Hostid of this machine: 10bf4826b568 00ff6eb52577 00ffeba92946 e0b9a5f5ad6b 12b9a5f5ad6b

C:\Reprise>
```

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

```
hostname
```



```
Command Prompt
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\jma>cd C:\Reprise

C:\Reprise>rlmhostid ether
rlmhostid v12.0
Copyright (C) 2006-2015, Reprise Software, Inc. All rights reserved.

Hostid of this machine: 10bf4826b568 00ff6eb52577 00ffeba92946 e0b9a5f5ad6b 12b9a5f5ad6b

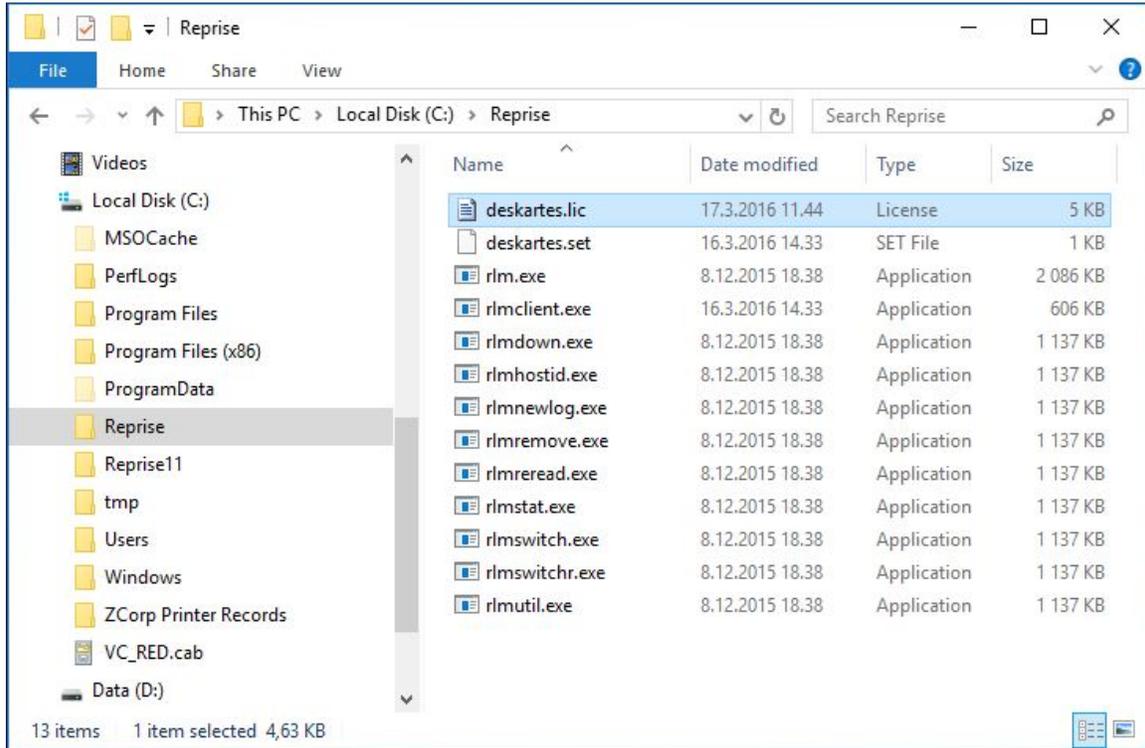
C:\Reprise>hostname
DESKTOP-MMI8ILO

C:\Reprise>
```

Send the Hostid number and Hostname information to DeskArtes for creating the license. Include also information about what version of the 3Data Expert you are going to run (e.g. 11.0).

Installing the license

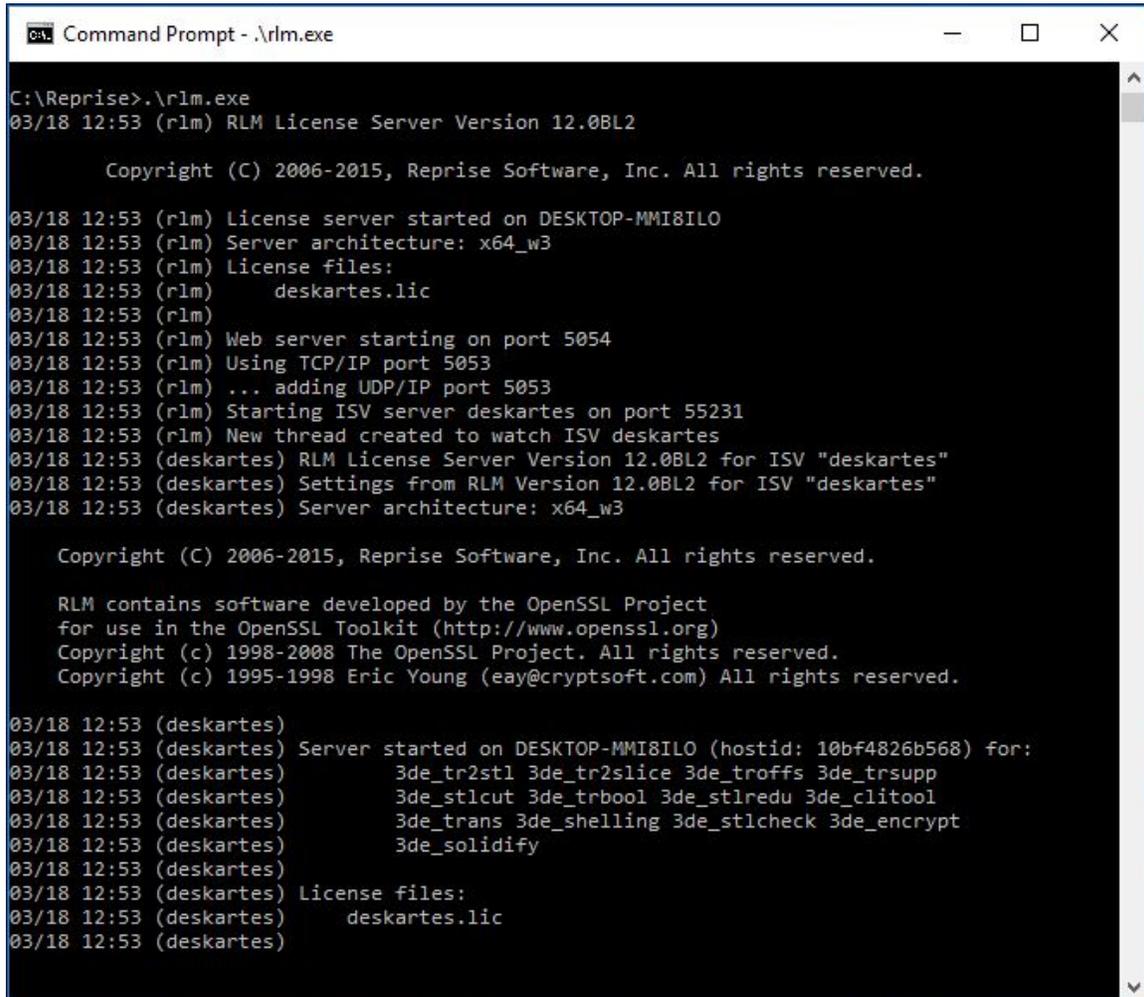
When you receive the license file (for example “**deskartes.lic**”), copy it to the license server installation directory (“C:\Reprise”).



Starting the license server

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

```
.\rlm.exe
```



```
Command Prompt - \rlm.exe
C:\Reprise>.\rlm.exe
03/18 12:53 (rlm) RLM License Server Version 12.0BL2

    Copyright (C) 2006-2015, Reprise Software, Inc. All rights reserved.

03/18 12:53 (rlm) License server started on DESKTOP-MMI8ILO
03/18 12:53 (rlm) Server architecture: x64_w3
03/18 12:53 (rlm) License files:
03/18 12:53 (rlm)     deskartes.lic
03/18 12:53 (rlm)
03/18 12:53 (rlm) Web server starting on port 5054
03/18 12:53 (rlm) Using TCP/IP port 5053
03/18 12:53 (rlm) ... adding UDP/IP port 5053
03/18 12:53 (rlm) Starting ISV server deskartes on port 55231
03/18 12:53 (rlm) New thread created to watch ISV deskartes
03/18 12:53 (deskartes) RLM License Server Version 12.0BL2 for ISV "deskartes"
03/18 12:53 (deskartes) Settings from RLM Version 12.0BL2 for ISV "deskartes"
03/18 12:53 (deskartes) Server architecture: x64_w3

    Copyright (C) 2006-2015, 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.

03/18 12:53 (deskartes)
03/18 12:53 (deskartes) Server started on DESKTOP-MMI8ILO (hostid: 10bf4826b568) for:
03/18 12:53 (deskartes)     3de_tr2stl 3de_tr2slice 3de_troffs 3de_trsupp
03/18 12:53 (deskartes)     3de_stlcut 3de_trbool 3de_stlredu 3de_clitool
03/18 12:53 (deskartes)     3de_trans 3de_shelling 3de_stlcheck 3de_encrypt
03/18 12:53 (deskartes)     3de_solidify
03/18 12:53 (deskartes)
03/18 12:53 (deskartes) License files:
03/18 12:53 (deskartes)     deskartes.lic
03/18 12:53 (deskartes)
```

Note 1: If you have a firewall program running on your license server, it will probably ask at this point if the program “rlm.exe” is allowed to connect to the network. You have to 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 exist 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. So you can view the license server status information by connecting to that server with any web-browser (Edge, Internet Explorer, 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.

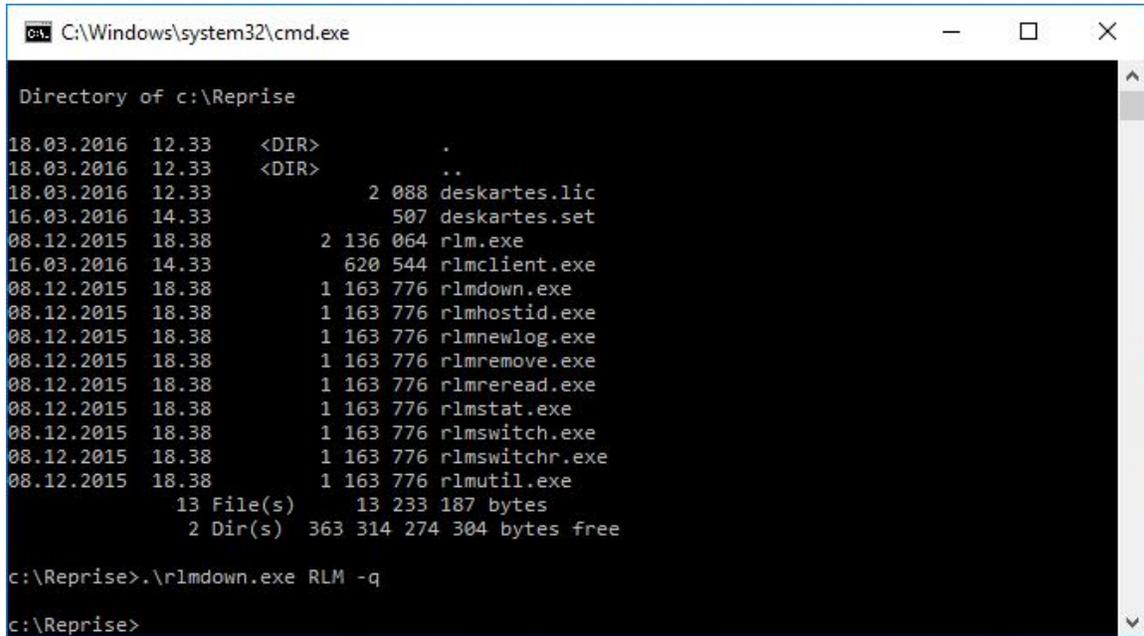
The screenshot shows the Reprise License Server Administration web interface. The browser address bar displays `http://localhost:5054/home.asp`. The page title is "Reprise License Server Administration" with a copyright notice for 2006-2015. The main content area displays the status for "rim" on DESKTOP-MMI8ILO (port 5053). A table shows RLM software version (v12.0 (build:2)), RLM comm version (v1.2), debug log file (_stdout_), and license files (deskartes.lic). Below this is a table of rim Statistics with columns for Start time, Since Start, Since Midnight, and Recent. The table shows 0 messages and 0 connections. There are buttons for "EDIT rim Options" and "SHOW rim Debug Log". At the bottom, there is a table of ISV Servers with columns for Name, port, Running, Restarts, Server Status, License Usage, Debug Log, REREAD, OPTIONS, TRANSFER, SHUTDOWN, and ACTIVATE. The table shows one server named deskartes on port 57824, which is running and has 0 restarts.

ISV Servers	Name	port	Running	Restarts	Server Status	License Usage	Debug Log	REREAD	OPTIONS	TRANSFER	SHUTDOWN	ACTIVATE
	deskartes	57824	Yes	0	deskartes	deskartes	deskartes	deskartes	deskartes	deskartes	deskartes	deskartes

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
```



```
C:\Windows\system32\cmd.exe

Directory of c:\Reprise
18.03.2016 12.33 <DIR>      .
18.03.2016 12.33 <DIR>      ..
18.03.2016 12.33          2 088 deskartes.lic
16.03.2016 14.33          507 deskartes.set
08.12.2015 18.38          2 136 064 rlm.exe
16.03.2016 14.33          620 544 rlmclient.exe
08.12.2015 18.38          1 163 776 rlmdown.exe
08.12.2015 18.38          1 163 776 rlmhostid.exe
08.12.2015 18.38          1 163 776 rlmnewlog.exe
08.12.2015 18.38          1 163 776 rlmremove.exe
08.12.2015 18.38          1 163 776 rlmreread.exe
08.12.2015 18.38          1 163 776 rlmstat.exe
08.12.2015 18.38          1 163 776 rlmswitch.exe
08.12.2015 18.38          1 163 776 rlmswitchr.exe
08.12.2015 18.38          1 163 776 rlmutil.exe
          13 File(s)      13 233 187 bytes
          2 Dir(s)      363 314 274 304 bytes free

c:\Reprise>.\rlmdown.exe RLM -q

c:\Reprise>
```

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
03/18 17:06 (rlm) RLM License Server Version 12.0BL2

    Copyright (C) 2006-2015, Reprise Software, Inc. All rights reserved.

03/18 17:06 (rlm) License server started on DESKTOP-MMI8ILO
03/18 17:06 (rlm) Server architecture: x64_w3
03/18 17:06 (rlm) License files:
03/18 17:06 (rlm)     deskartes.lic
03/18 17:06 (rlm)
03/18 17:06 (rlm) Web server starting on port 5054
03/18 17:06 (rlm) Using TCP/IP port 5053
03/18 17:06 (rlm) ... adding UDP/IP port 5053
03/18 17:06 (rlm) Starting ISV server deskartes on port 57824
03/18 17:06 (rlm) New thread created to watch ISV deskartes
03/18 17:06 (deskartes) RLM License Server Version 12.0BL2 for ISV "deskartes"
03/18 17:06 (deskartes) Settings from RLM Version 12.0BL2 for ISV "deskartes"
03/18 17:06 (deskartes) Server architecture: x64_w3

    Copyright (C) 2006-2015, 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.

03/18 17:06 (deskartes)
03/18 17:06 (deskartes) Server started on DESKTOP-MMI8ILO (hostid: 10bf4826b568) for:
03/18 17:06 (deskartes)     3de_tr2stl 3de_tr2slice 3de_troffs 3de_trsupp
03/18 17:06 (deskartes)     3de_stlcut 3de_trbool 3de_stlredu 3de_clitool
03/18 17:06 (deskartes)     3de_trans 3de_shelling 3de_stlcheck 3de_encrypt
03/18 17:06 (deskartes)     3de_solidify
03/18 17:06 (deskartes)
03/18 17:06 (deskartes) License files:
03/18 17:06 (deskartes)     deskartes.lic
03/18 17:06 (deskartes)
03/18 17:37 (rlm) Shutdown request by jma@desktop-mmi8ilo
03/18 17:37 (rlm) Sending shutdown msg to deskartes (pid: 11496)
03/18 17:37 (deskartes) Shutdown request by jma@desktop-mmi8ilo
03/18 17:37 (rlm) deskartes - SHUTDOWN
03/18 17:37 (rlm) Shutting down rlm

C:\Reprise>
```

Running the license server as a Windows service

Usually 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.

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 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.

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

You need to add following options to the command:

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

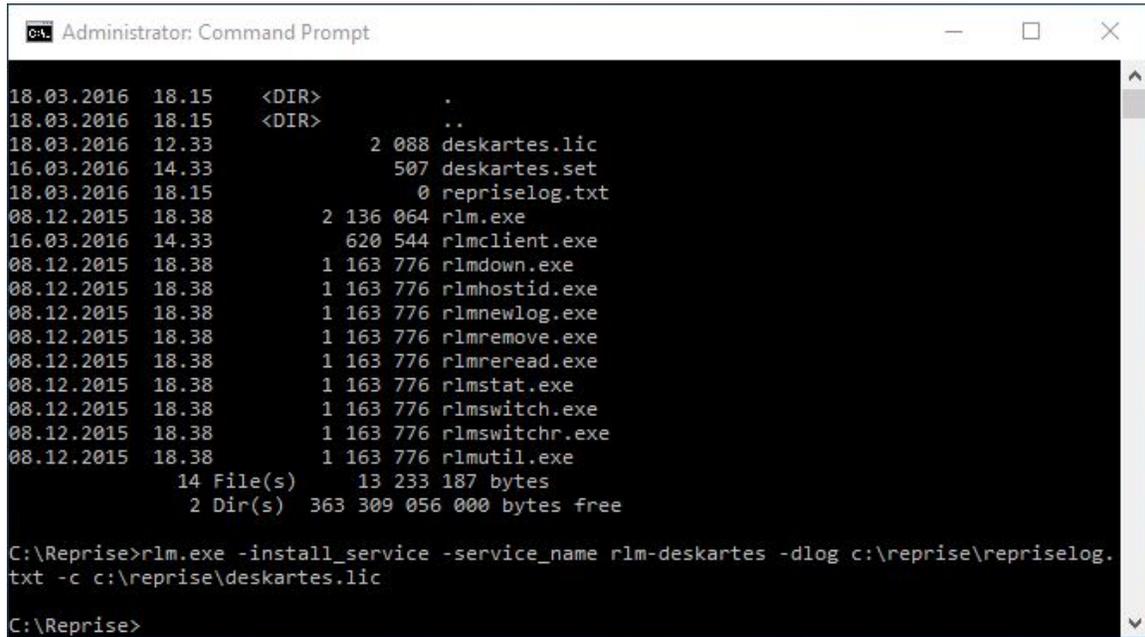
Note 1: The service has to be stopped via the Windows Services control panel before it can be removed.

Note 2: In the previous 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.**

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

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

```
rlm.exe -install_service -service_name rlm-deskartes -dlog c:\reprise\reprise.log.txt -c c:\reprise\deskartes.lic
```



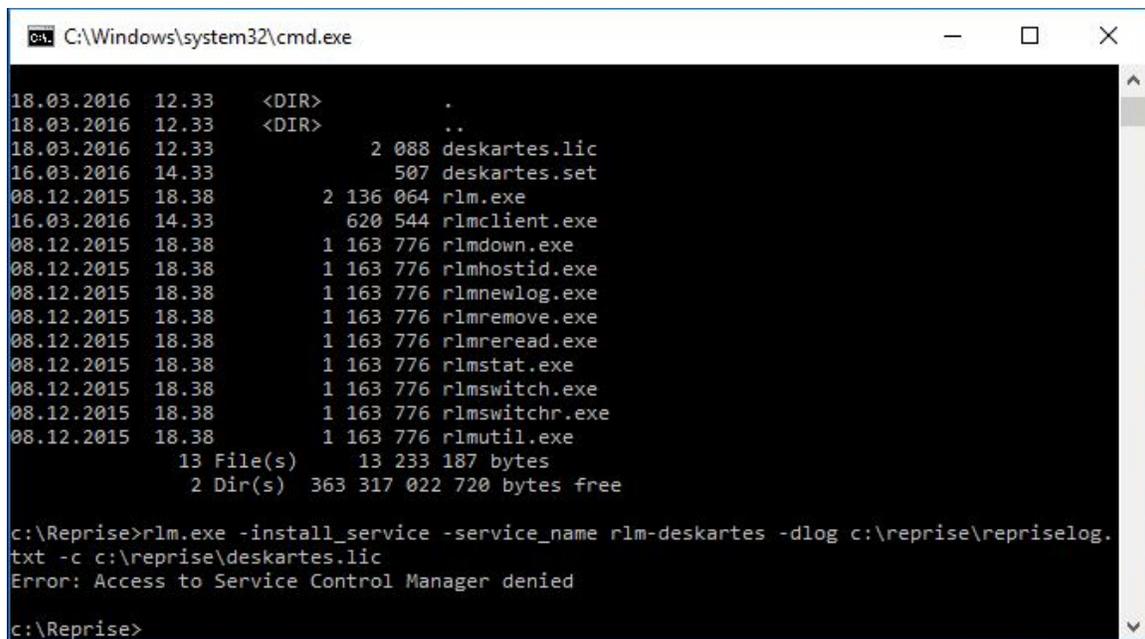
```
Administrator: Command Prompt

18.03.2016 18.15 <DIR> .
18.03.2016 18.15 <DIR> ..
18.03.2016 12.33      2 088 deskartes.lic
16.03.2016 14.33      507 deskartes.set
18.03.2016 18.15      0 reprise.log.txt
08.12.2015 18.38     2 136 064 rlm.exe
16.03.2016 14.33     620 544 rlmclient.exe
08.12.2015 18.38     1 163 776 rlmdown.exe
08.12.2015 18.38     1 163 776 rlmhostid.exe
08.12.2015 18.38     1 163 776 rlmnewlog.exe
08.12.2015 18.38     1 163 776 rlmremove.exe
08.12.2015 18.38     1 163 776 rlmreread.exe
08.12.2015 18.38     1 163 776 rlmstat.exe
08.12.2015 18.38     1 163 776 rlmswitch.exe
08.12.2015 18.38     1 163 776 rlmswitchr.exe
08.12.2015 18.38     1 163 776 rlmutil.exe
      14 File(s)      13 233 187 bytes
      2 Dir(s)      363 309 056 000 bytes free

C:\Reprise>rlm.exe -install_service -service_name rlm-deskartes -dlog c:\reprise\reprise.log.txt -c c:\reprise\deskartes.lic

C:\Reprise>
```

Note: If you have the User Account Control (UAC) enabled on Windows 7, 8, 8.1 or 10 you might get an error message saying that "Error: Access to Service Control Manager denied."



```
C:\Windows\system32\cmd.exe

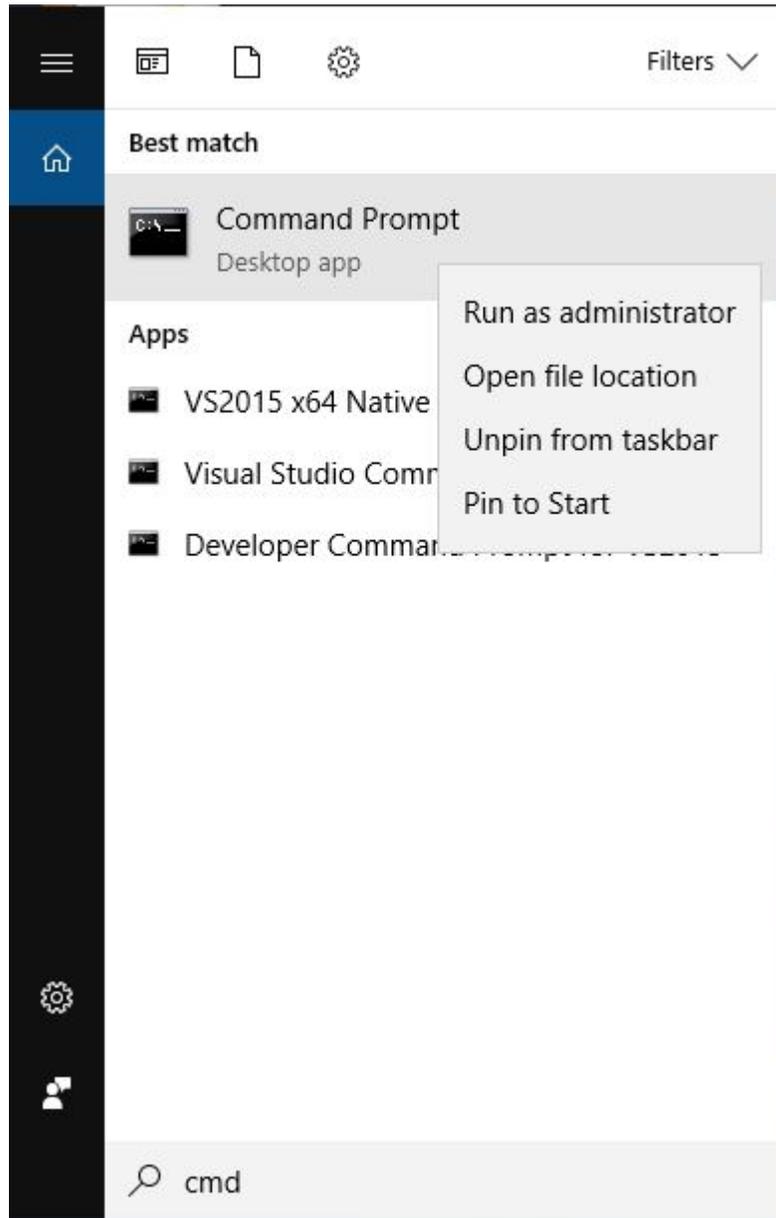
18.03.2016 12.33 <DIR> .
18.03.2016 12.33 <DIR> ..
18.03.2016 12.33      2 088 deskartes.lic
16.03.2016 14.33      507 deskartes.set
08.12.2015 18.38     2 136 064 rlm.exe
16.03.2016 14.33     620 544 rlmclient.exe
08.12.2015 18.38     1 163 776 rlmdown.exe
08.12.2015 18.38     1 163 776 rlmhostid.exe
08.12.2015 18.38     1 163 776 rlmnewlog.exe
08.12.2015 18.38     1 163 776 rlmremove.exe
08.12.2015 18.38     1 163 776 rlmreread.exe
08.12.2015 18.38     1 163 776 rlmstat.exe
08.12.2015 18.38     1 163 776 rlmswitch.exe
08.12.2015 18.38     1 163 776 rlmswitchr.exe
08.12.2015 18.38     1 163 776 rlmutil.exe
      13 File(s)      13 233 187 bytes
      2 Dir(s)      363 317 022 720 bytes free

c:\Reprise>rlm.exe -install_service -service_name rlm-deskartes -dlog c:\reprise\reprise.log.txt -c c:\reprise\deskartes.lic
Error: Access to Service Control Manager denied

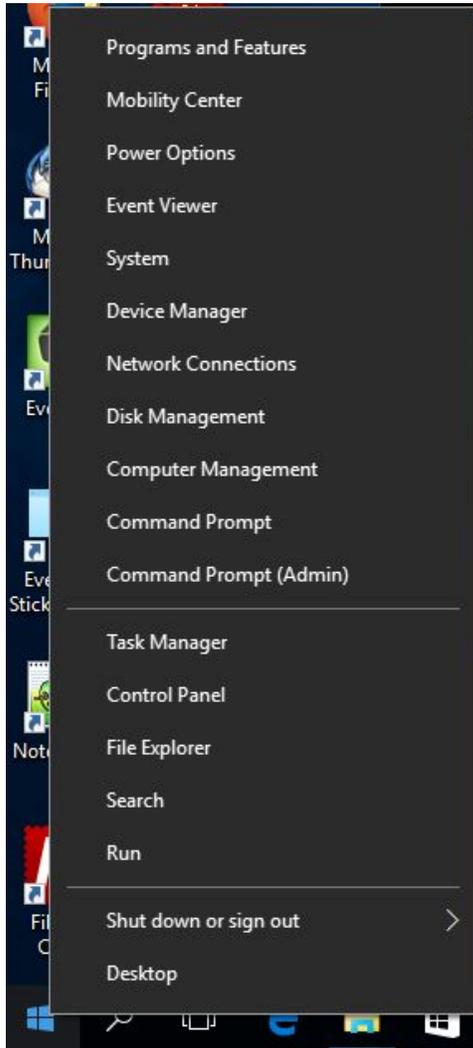
c:\Reprise>
```

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

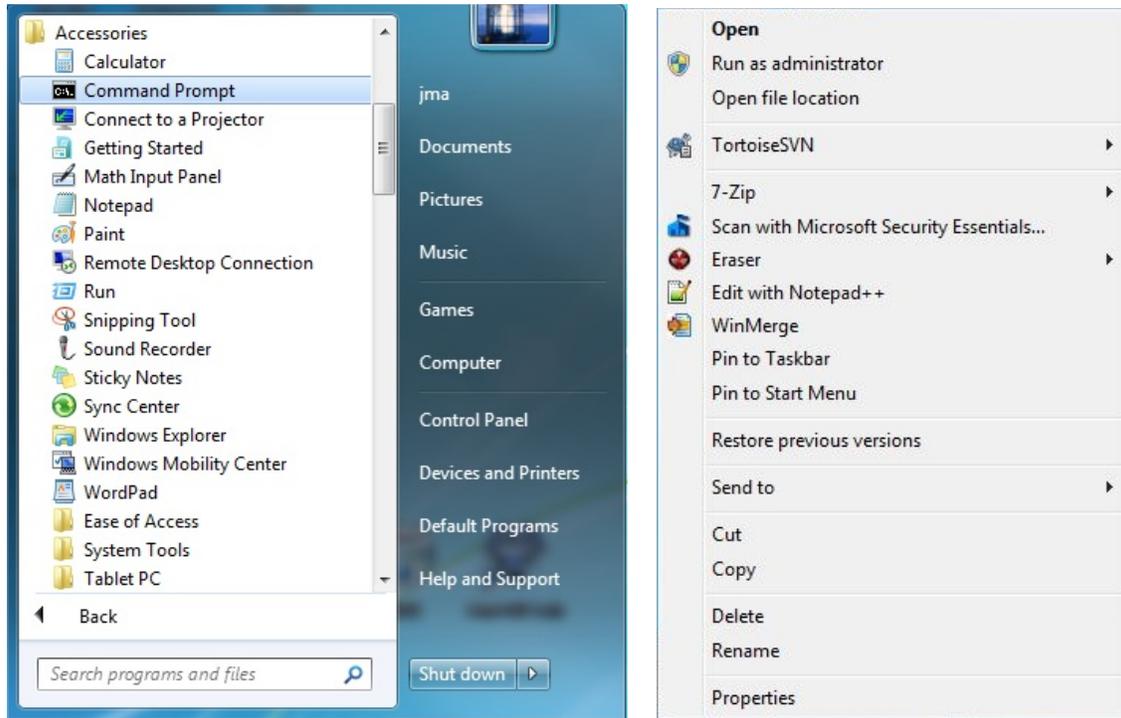
In **Windows 10 Creators Update** you can start an admin Command Prompt by clicking the Search Windows (Magnifying glass button), typing "cmd", clicking Command Prompt with right mouse button and selecting "Run as administrator" from the menu.



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.



In **Windows 7** you can find the “Run as administrator” command in the popup menu that appears when you click the Start menu item for the Command Prompt (Start->All Programs->Accessories->Command Prompt) with the right mouse button.



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 10 Creators Update:

“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”

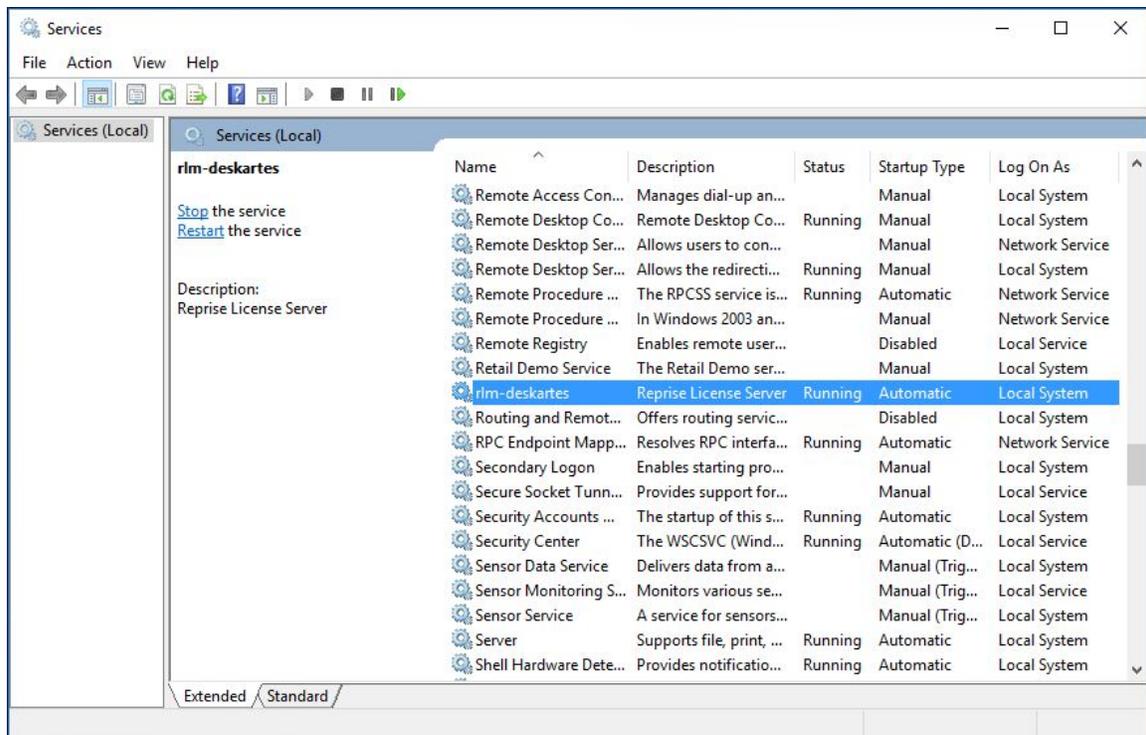
Windows 8 and 7:

“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.



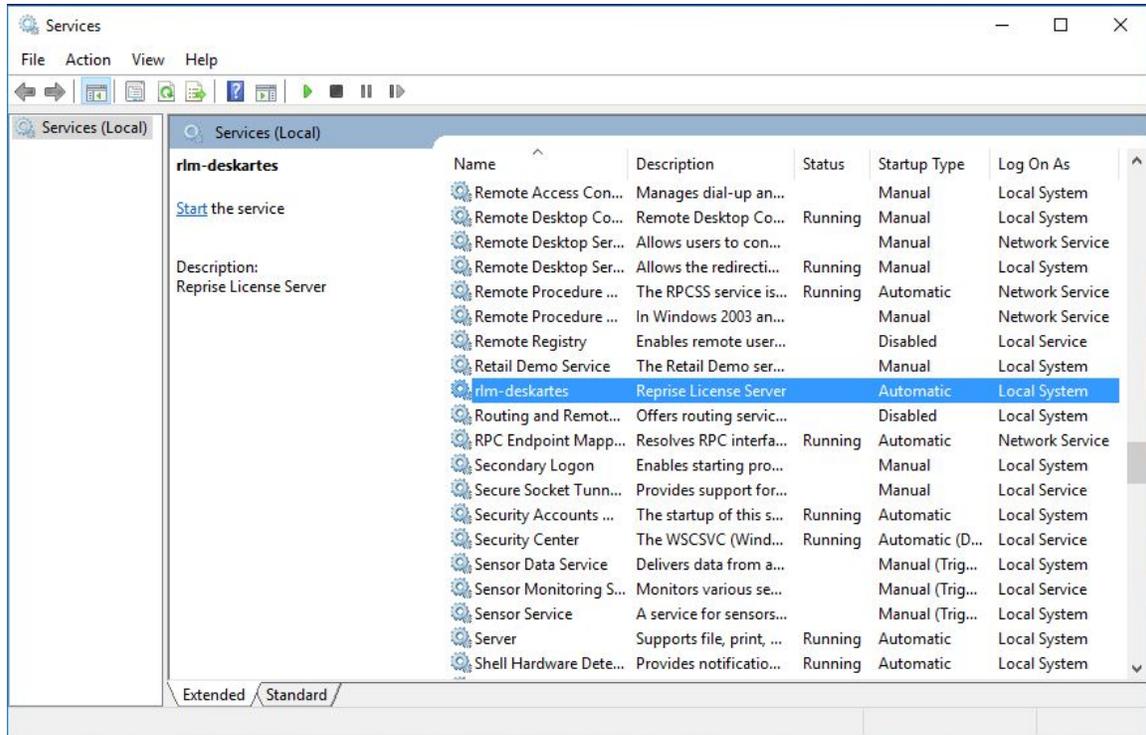
Stopping rlm service using the Windows Services control panel

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.

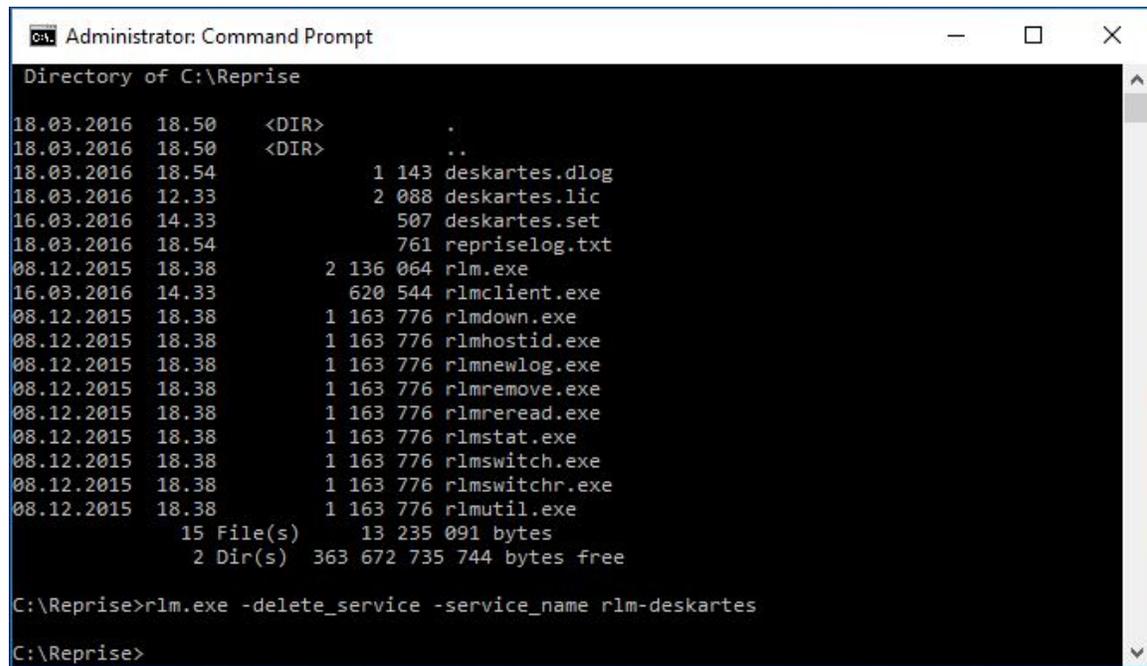


Note: The rlm service has to be stopped before it can be removed from the services list.

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
```



```
Administrator: Command Prompt
Directory of C:\Reprise
18.03.2016  18.50  <DIR>          .
18.03.2016  18.50  <DIR>          ..
18.03.2016  18.54          1 143 deskartes.dlog
18.03.2016  12.33          2 088 deskartes.lic
16.03.2016  14.33          507 deskartes.set
18.03.2016  18.54          761 reprise.log.txt
08.12.2015  18.38          2 136 064 rlm.exe
16.03.2016  14.33          620 544 rlmclient.exe
08.12.2015  18.38          1 163 776 rlm-down.exe
08.12.2015  18.38          1 163 776 rlm-hostid.exe
08.12.2015  18.38          1 163 776 rlm-newlog.exe
08.12.2015  18.38          1 163 776 rlm-remove.exe
08.12.2015  18.38          1 163 776 rlm-reread.exe
08.12.2015  18.38          1 163 776 rlm-stat.exe
08.12.2015  18.38          1 163 776 rlm-switch.exe
08.12.2015  18.38          1 163 776 rlm-switchr.exe
08.12.2015  18.38          1 163 776 rlm-util.exe
          15 File(s)      13 235 091 bytes
          2 Dir(s)   363 672 735 744 bytes free

C:\Reprise>rlm.exe -delete_service -service_name rlm-deskartes

C:\Reprise>
```

Note: If you have the User Account Control (UAC) enabled on Windows 7, 8, 8.1 or 10 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 10 Creators Update** 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.

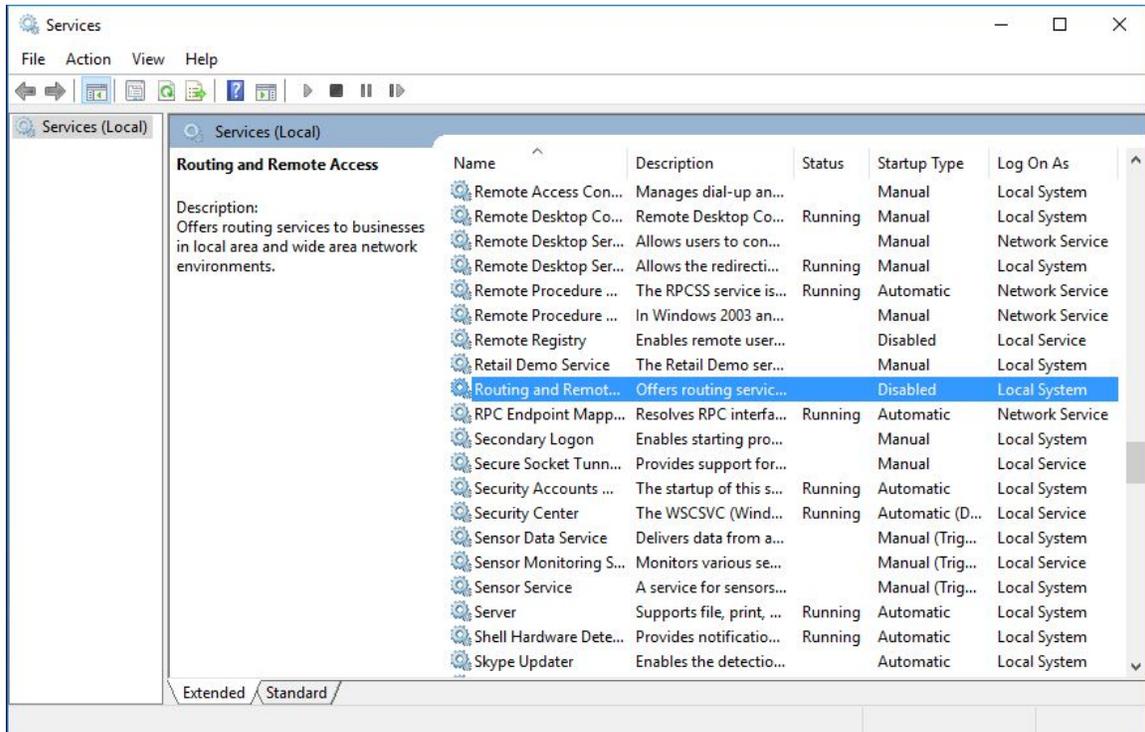
In **Windows 10 earlier updates and Windows 8.1** you can start an admin Command Prompt by clicking the Start menu (Windows flag button) with the right mouse button and selecting “Command Prompt (Admin)” from the menu.

In **Windows 7** you can find the “Run as administrator” command in the popup menu that appears when you click the Start menu item for the Command Prompt (Start->All Programs->Accessories->Command Prompt) with the right mouse button.

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 any more.



The rlm license server log file

When running the rlm license server as a Windows service, it writes its log information to the file defined in the rlm.exe startup command (for example: “c:\reprise\reprise.log.txt”). The log file contains the similar information that is shown in the startup command prompt in the default configuration.

The ISV server log file

When running the rlm license server as a Windows service, the log information from the ISV server 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 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, and the program modules it enables.



```
deskartes.lic - Notepad
File Edit Format View Help
HOST DESKTOP-MMI8ILO 10bf4826b568 5053
ISV deskartes deskartes
LICENSE deskartes 3de_tr2stl 11.1 31-dec-2200 1 _ck=fad6fc8698 sig="60
P0451K1RKPC33KD93WD2TEH88KW2HJ1CYWFE022H0PNRUPG95W3FJX7X23CWGH1KN412
FXR0"
LICENSE deskartes 3de_tr2slice 11.1 31-dec-2200 1 _ck=b7d6fc5f97 sig="
60P0451T1PV4NJ9QUV8SB549B59PK3SP9FVUTH822HQQMWH15URE5U738V1J7RYS630D
K35K7V"
LICENSE deskartes 3de_troffs 11.1 31-dec-2200 1 _ck=23d6fca25b sig="60
PG4580HS8VKKNET3UUCG0B2A0R62TDDMTYEJ6608A1GHTGXWCBJRG2X2834VJTVWK7U2
EMGCDG"
LICENSE deskartes 3de_trsupp 11.1 31-dec-2200 1 _ck=3dd6fc7869 sig="60
P0450PEH1DJU9MD6REJ0DW92U0W0P5RWQJ47R22HQ07S5JQ32NB6CSHTU666HJHGQECVA6
PUQR"
LICENSE deskartes 3de_stlcut 11.1 31-dec-2200 1 _ck=2ed6fcb18d sig="60
PG453S654KVK2N86JYDCC3X99SN17D10C2YF022M08VXG6YS49CR08BXJBCVKQX4NRS7
MH9250"
LICENSE deskartes 3de_trbool 11.1 31-dec-2200 1 _ck=21d6fcd45e sig="60
P0451KE8PW5RE6D3AXE6SJCESA2A418S7NC4R22H566D3MUGDQAX5Q30NN975AKS1H11
4RFC"
LICENSE deskartes 3de_stlredu 11.1 31-dec-2200 1 _ck=92d6fca261 sig="6
0P04529K6MEVCDS2HPXWX990MVKPK620Y6SS022HMJU0Q244621GEM7NGAKNTH5F16K
MQJ3G"
LICENSE deskartes 3de_clitool 11.1 31-dec-2200 1 _ck=85d6fca061 sig="6
0Q04580PEQERVACH8AA46VJW4HBYUE4K80WSPGK08AG1C78HS3JRE3JQK6XKFUE623RJ
DXE4YJQ6"
LICENSE deskartes 3de_trans 11.1 31-dec-2200 1 _ck=b7d6fc6466 sig="60P
0453H9U6CNC1MDETU56UT9R7BP0EPHNN7CK822GEB57WAKAG7554EA37YW462CY8QMPG
A3M"
LICENSE deskartes 3de_shelling 11.1 31-dec-2200 1 _ck=e5d6fc1664 sig="
60P0451J72UKF232P7SXMDFHACRPT81M5MC0AG22GUAUWC8UPVCR6Y835QJ3XC7R8XV
F17QEM"
LICENSE deskartes 3de_stlcheck 11.1 31-dec-2200 1 _ck=e0d6fc2d8e sig="
60PG450VV6WQVYP1CX88W1XVU79N4VFS20AX61822M0AP1YAP4QPC320BEV4GW5JNN3A
SXUJRFKG"
LICENSE deskartes 3de_encrypt 11.1 31-dec-2200 1 _ck=94d6fc3538 sig="6
0P0452B51H5TBBUK6T2M72WTXJ38H80D42T9U822HQ00166V4W4UW6K6FPEM2YY7GG57
KFSQV"
LICENSE deskartes 3de_3d_nesting 11.1 31-dec-2200 1 _ck=7dd6fc6569
sig="60PG4580Q2WSD6DNSDQVX12Y5MHUDEMEXBFQ0BF5V08A06DBN9QCVRFYRVMY5S7
JVQNCFGBXY370"
LICENSE deskartes 3de_solidify 11.1 31-dec-2200 1 _ck=f2d6fc1864 sig="
60P0453YY72DP56SR5J8XG9GW43QSRVSA6KXV1R22GF4322SWTM7DC2395X4F9UF2Y01
MVK61R"
```

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** lines each define one program module that is enabled by the license. The module information includes also the version number, expire date and the number of the licenses for that module.

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.
- another 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.
- another 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" subdirectory of the 3Data Expert 11.0 (64-bit) installation directory (default: "C:\Program Files\DeskArtes 3Data Expert 11.0\DALicenseServer").

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