License usage logging

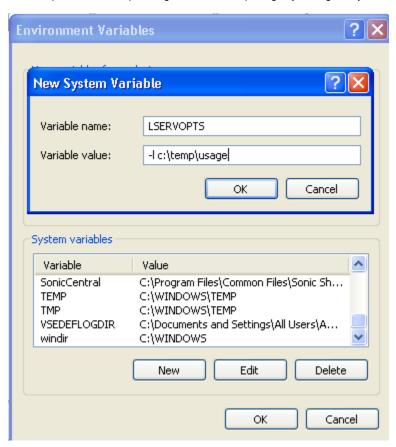
On this page:

The procedure for setting up license usage logging is described in detail in the "System Administrator's Help.html" document located in the "License Manager" subdirectory of the program installation directory. The procedure is briefly summarized below by the way of example.

Step 1: Setup log file

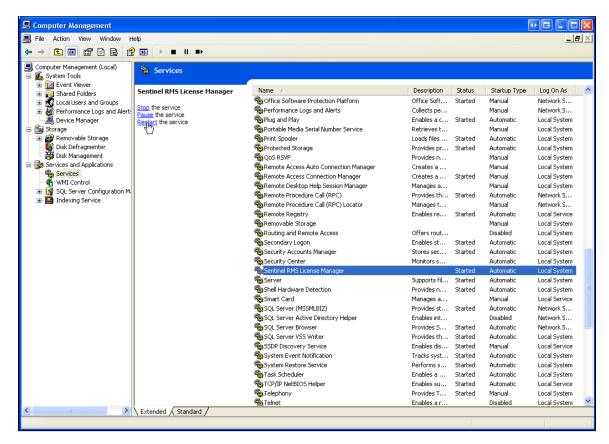
Set up -l usage-log-file option for the LSERVOPTS system environment variable. As per the "System Administrator's Help.html" document, this option specifies the name and location of the license server's usage log file, which enables usage logging. By default, usage logging is disabled.

For example, we can setup the log file to be c:\temp\usage by setting the system environment variable as shown in the figure below:



Step 2: Restart the RMS Sentinel License Manager Service

Restart the RMS Sentinel License Manager Service for the new options to take place:



From this point on, the license usage is being logged into the c:\temp\usage file:

```
Lister - [c-Memplusegg]

File Edit Options Encoding Help 100%

$\frac{1}{2}$ Startup Sentinel RMS License Manager v8.0.5.0 Thu Feb 16 12:54:08 2812 1329414848 0ndrej-nt 2 4892

$\frac{1}{2}$ Startup Sentinel RMS License Manager v8.0.5.0 Thu Feb 16 12:54:12 2012 1329414852 0ndrej-nt 424

2 1 NDUZMw== Thu Feb 16 12:54:12 2012 13294148952 CSIBrADR v15 0 1 0 0ndrej 0ndrej-nt 8.0.5.0 1 - - - - 0 - - M0= 488223 MTMyOTkwHzn3NQ==

2 1 NDUZMw== Thu Feb 16 12:54:59 2012 1329414895 EADHL v9.5 0 1 0 1 0 0ndrej 0ndrej-nt 8.0.5.0 1 - - - - 0 - - M0= 869844 MTM10DAZNw==

# Standalone Sentinel RMS License Manager v8.0.5.0 Thu Feb 16 12:55:05 2012 1329414905 Ondrej-nt 1204

2 0 MDUZMw== Thu Feb 16 12:55:05 2012 1329414905 SAPUL v15 0 1 0 ondrej 0ndrej-nt 8.0.5.0 1 - - - - 0 - - MA== 876770 MTMZMDISMTY3NQ==
```

Step 3: Obtaining the results in a more readable format

To obtain the license usage in a more human-readable format, run the Isusage command located in the "License Manager" subdirectory of the program installation directory. For example, running

```
lsusage -l c:\temp\usage -c c:\temp\usage-csv
```

will create a c:\temp\usage-csv file that contains the usage statistics in a comma-separated-values format. See the images below:

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

Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

c:\program Files\Computers and Structures\SAP2000 15.1.0.1 Server\License Manage r>lsusage -l c:\temp\usage -c c:\temp\usage-csv

c:\program Files\Computers and Structures\SAP2000 15.1.0.1 Server\License Manage r>_
```

```
Lister - [c:\temp\usage-csv]

File Edit Options Encoding Help

100 %

| SiBrADR, v15, Thu, 2/16/2012, 12:54:12, 0, 1, 0, ondrej, Ondrej-nt, 8.0.5.0, 1, -, -, -, -, -

EtabNL, v9.5, Thu, 2/16/2012, 12:54:59, 0, 1, 0, Truly, Truly-dt, 8.0.5.0, 1, -, -, -, -, -
```

The CSV file can be imported to Excel or Access to visualize the usage statistics.

Format of the CSV file

The format of the CSV file is not documented in Sentinel documentation, but the following was determined from the investigation of the csv file:

- (1) The description of the individual fields is provided below:
- A. FeatureName name of the product and feature or level
- B. Version version of the product
- C. DayOfWeek day of week when the license was checked in or out
- D. DateOfTrans date when the license was checked in or out
- E. TimeOfDay time when the license was checked in or out
- F. LoggingType 0 for license was checked out, 2 for license was checked in
- G. KeysInUse number of licenses that were checked out for the given product level or feature
- H. UsageTime number of seconds the license was checked out
- I. UserName name of the user who checked the license in or out
- J. HostName host name of the computer from which the license was checked in or out
- K. LmLibVer version of Sentinel License Manager Server
- L. NoOfLicenses number of licenses that were checked in or out
- M. ClientLockedStr
- N. QueueKeyld
- O. AbsPos
- P. GrpPos
- Q. GrpName
- (2) Rows with columns (F, H) = (0, 0) are when the license was gotten, and the rows with (F, H) = (2, t) are when the license was released, with t = time difference between these, in seconds. The time t can be easily confirmed by differencing column E of the rows.
- (3) There does not appear to be a way to determine which end row corresponds to which beginning row for the same user, but a very simple logic could be written to figure it out. It is also easy to see how many simultaneous license are open, by adding the check-outs and subtracting the check-ins, in sequence.
- (4) The last 5 columns are details of the license and they are not needed for license usage tracking.