

SolidNetWork License Manager Options File

This guide is written for SOLIDWORKS 2015. If you are using an earlier version of SOLIDWORKS, please download our earlier installation documents to correctly load and administer your version of SOLIDWORKS.

The SNL Manager is an easy to install and use interface that gives administrators the ability to make changes which affect their users' access to SOLIDWORKS licenses. The SNL Manager is licensed by FlexLM, which is a standard network licensing manager that allows license administrators to be as secure (or as open) with licenses as needed.

By default, the SolidNetWork License Manager does not use an options file, and gives equal preference to all users checking out a license. By creating and applying an options file, an administrator can:

- Allow the use of features
- Deny the use of features
- Reserve licenses
- Restrict the number of licenses available
- Control the amount of information logged about license usage
- Enable a report log file
- Control the rereading of licenses

This is not a troubleshooting guide. If you have any technical issues with SolidWorks, please contact [Hawk Ridge Systems technical support](#).

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Contents

SolidNetWork License Manager Options File.....	1
How to Create an Options File	2
How to load the Options File.....	2
How to replace the Options File	3
Options File Syntax	4
Options File formatting	5
Setting Parameters for Certain Users.....	5
Groups	6
Options File Product Reference List	6
Let's look at an example.....	8
Advanced Example.....	9
Frequently Asked Questions.....	11

How to Create an Options File

An options file is typically created using Notepad, but any text editor can be used. Simply typing the appropriate commands using the correct syntax (one per line- typically with a line in between) will apply the correct settings to the license manager.

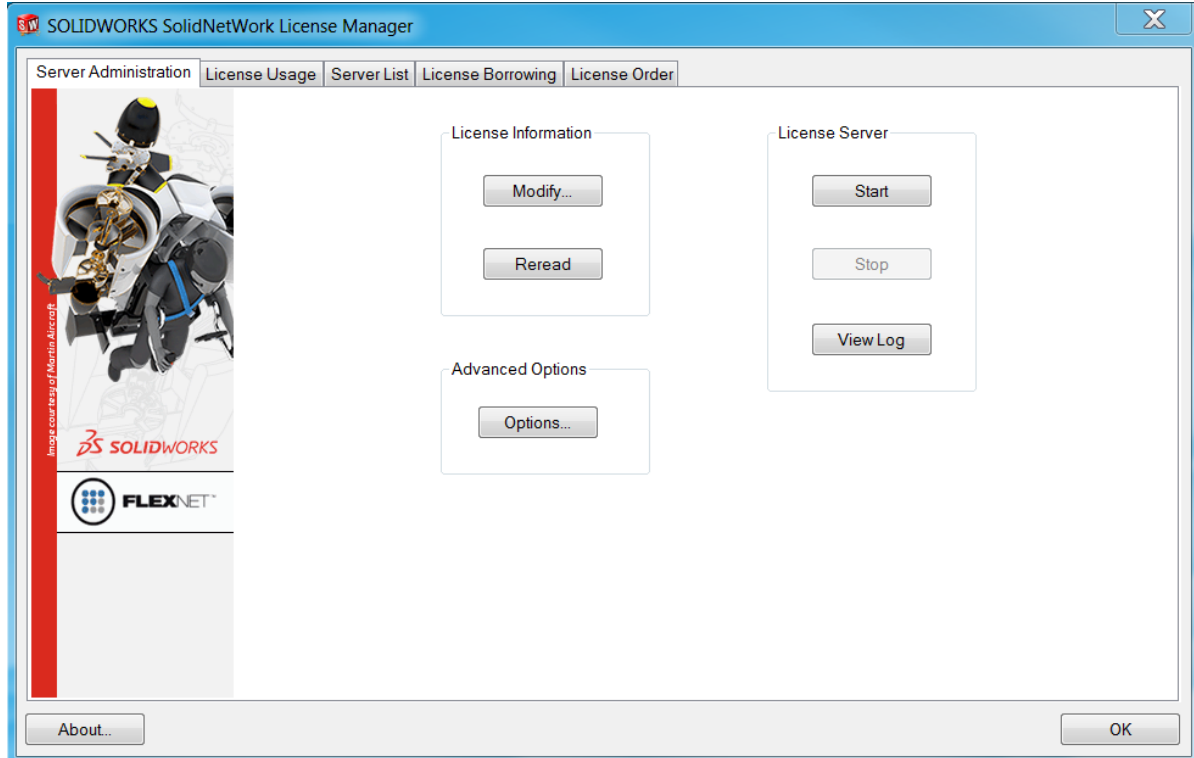
In order to allow the license manager to read the options file, it needs to be saved with the name "**sw_d,**" and filetype "**.opt**". After finishing the options file, selecting "Save As," and typing "sw_d.opt" into the Filename box will allow its preferences to be read.

The default location of the options file is "C:\Program Files (x86)\SOLIDWORKS SolidNetWork License Manager\license\sw_d.opt."

How to load the Options File

Click Start > All Programs > SOLIDWORKS [Year Version] > SolidNetWork License Manager > SolidNetWork License Manager directly on the server hosting the SolidNetWork License Manager, or connected to the server via a remote session.

1. When the SolidNetWork License Manager opens, click the **Modify** button.



2. Click the radio button to "**Activate/Reactivate**" and click Next.



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3. Click the check box to turn on the Options File. The default path: "C:\Program Files (x86)\SOLIDWORKS SolidNetWork License Manager\license\sw_d.opt" appears. This is the location where the file lives.
4. If you already saved the file to this path, click the Next button. Otherwise, use File > Save As... to save the Options file as "sw_d.opt" in this location, or copy and paste the file to this location using Windows Explorer. Click Next to finish the Modify operation.
5. Make sure that the file is identified as **sw_d.opt** and not *sw_d.opt.txt* in the path. If the file is identified as *sw_d.opt.txt* you will need to remove the ".txt".
6. In Windows Explorer, browse to C:\Program Files (x86)\SOLIDWORKS SolidNetWork License Manager\licenses folder location, slowly double click on the "sw_d.opt.txt" file name and remove the ".txt".
7. It may be necessary in Windows Explorer to uncheck "Hide extensions for known file types" in Tools > Folder Options > View tab > Advanced Settings.

Save the log file for future use or exit out of the log file. Click the **OK** button to exit out of the SolidNetWork License Manager. **You have successfully loaded the SNL Options file.**

How to replace the Options File

1. Click Start > All Programs > SOLIDWORKS [Year Version] > SolidNetWork License Manager > SolidNetWork License Manager directly on the server hosting the SolidNetWork License Manager or connected to the server via a remote session.
2. Use the Windows Explorer to browse to the SNL Options file location:
"C:\Program Files (x86)\SOLIDWORKS SolidNetWork License Manager\licenses" folder and rename *sw_d.opt* to *sw_d.opt-old.txt* and paste the new sw_d.opt file into the location.
3. Click the **Start** button and click **OK** to the warning message "The license server has been started."
4. Click the **View Log** button and find the lines where the log specifies "using options file:" and lists the path and the "License server system started on <server_name>" for verification that the sw_d.opt is in use.

```

lmgrd.log - Notepad
File Edit Format View Help
12:32:55 (lmgrd) software license administration solution.
12:32:55 (lmgrd) FlexNet Manager to readily gain visibility
12:32:55 (lmgrd) into license usage data and to create
12:32:55 (lmgrd) insightful reports on critical information like
12:32:55 (lmgrd) license availability and usage. FlexNet Manager
12:32:55 (lmgrd) can be fully automated to run these reports on
12:32:55 (lmgrd) schedule and can be used to track license
12:32:55 (lmgrd) servers and usage across a heterogeneous
12:32:55 (lmgrd) network of servers including windows NT, Linux
12:32:55 (lmgrd) and UNIX. Contact Flexera Software LLC at
12:32:55 (lmgrd) www.flexerasoftware.com for more details on how to
12:32:55 (lmgrd) obtain an evaluation copy of FlexNet Manager
12:32:55 (lmgrd) for your enterprise.
12:32:55 (lmgrd) -----
12:32:55 (lmgrd)
12:32:55 (lmgrd) pid 4044
12:32:55 (lmgrd) Done rereading
12:32:55 (lmgrd) Flexnet licensing (v11.11.1.2 build 134011 f86_n3) started on snow (IBM PC) (5/13/2015)
12:32:55 (lmgrd) Copyright (c) 1988-2013 Flexera Software LLC. All Rights Reserved.
12:32:55 (lmgrd) World wide web: http://www.flexerasoftware.com
12:32:55 (lmgrd) License file(s): c:\Program Files (x86)\Solidworks SolidNetwork License Manager\licenses\sw_d.lic
12:32:55 (lmgrd) lmgrd tcp-port 25734
12:32:55 (lmgrd) Starting vendor daemons ...
12:32:55 (lmgrd) Starting vendor daemon at port 25735
12:32:55 (lmgrd) Using vendor daemon port 25735 specified in license file
12:32:55 (lmgrd) Started SW_D (pid 2800)
12:32:56 (SW_D) using options file: "c:\Program Files (x86)\Solidworks SolidNetwork License Manager\licenses\sw_d.opt"
12:32:56 (SW_D) Feature swofficepremium superseded by swofficepremium
12:32:56 (SW_D) Feature solidworks superseded by solidworks
12:32:56 (SW_D) Feature dwgeditor superseded by dwgeditor
12:32:56 (SW_D) server started on snow for: cae_cosmosfloworkspe
12:32:56 (SW_D) cae_cosmosfloworks_elec cae_cwadvpro cae_cwpro
12:32:56 (SW_D) draftsightpremium dwgeditor edrw
12:32:56 (SW_D) elec3d elec3d elecpro
12:32:56 (SW_D) pdeworks piping plastics_premium
12:32:56 (SW_D) solidworks swcomposer swpdm_cadeditorandweb
12:32:56 (SW_D) swpdm_contributorandweb swpdm_vviewer swoffice
12:32:56 (SW_D) swofficepremium swofficepremium_cwpro swofficepro
12:32:56 (SW_D) swsustainability
12:32:56 (SW_D) swsustainability
12:32:56 (SW_D) ALL FEATURES: INACTIVITY TIMEOUT set to 600 seconds
12:32:56 (SW_D) EXCLUDE USER glennw from cae_cosmosfloworkspe
12:32:56 (SW_D) INCLUDE_BORROW USER jaredc in cae_cosmosfloworkspe
12:32:56 (SW_D) EXCLUDE USER glennw from cae_cwadvpro
12:32:56 (SW_D) INCLUDE_BORROW USER jaredc in cae_cwadvpro
12:32:56 (SW_D) INCLUDE_BORROW USER jaredc in solidworks
12:32:56 (SW_D) EXCLUDE USER glennw from swofficepremium
12:32:56 (SW_D) INCLUDE_BORROW USER jaredc in swofficepremium
12:32:56 (SW_D) INCLUDE_BORROW USER_GROUP TECH in swofficepremium
12:32:56 (SW_D) INCLUDE_BORROW USER_GROUP TECH in swofficepremium
12:32:56 (lmgrd) SW_D using TCP-port 25735

```

5. Save the log file for future use, or exit out of the log file.
6. Click the **OK** button to exit out of the SolidNetWork License Manager. **You have successfully replaced the SNL Options file.**

Options File Syntax

The options file requires a certain syntax be used when applying settings. Below is a list of the accepted commands that will be accepted by the SolidNetWork License Manager:

Command	Effect
AUTOMATIC_REREAD	Turn off automatic reread of licenses at midnight
BORROW_LOWWATER	Set the number of BORROW licenses that cannot be borrowed
DAEMON_SELECT_TIMEOUT	Defines the vendor daemon's timeout limit.
DEBUGLOG	Writes debug log information for this vendor daemon to the specified file (version 8.0 or later vendor daemon)
EXCLUDE	Deny a user access to a feature.
EXCLUDE_BORROW	Deny a user the ability to borrow BORROW licenses.
EXCLUDE_ENTITLEMENT	Deny a user the ability to activate licenses held in a fulfillment record in trusted storage.
EXCLUDEALL	Deny a user access to all features served by this vendor daemon.
FQDN_MATCHING	Sets the level of host name matching.

GROUP	Define a group of users for use with any options.
GROUPCASEINSENSITIVE	Sets case sensitivity for user and host lists specified in GROUP and HOST_GROUP keywords.
HOST_GROUP	Define a group of hosts for use with any options (version 4.0 or later).
INCLUDE	Allow a user to use a feature.
INCLUDE_BORROW	Allow a user to borrow licenses.
INCLUDE_ENTITLEMENT	Allow a user to activate licenses held in a fulfillment record in trusted storage.
INCLUDEALL	Allow a user to use all features served by this vendor daemon.
LINGER	Allow a user to extend the linger time for a feature beyond its check in.
MAX	Limit usage for a particular feature/group—prioritizes usage among users.
MAX_BORROW_HOURS	Changes the maximum borrow period for the specified feature.
MAX_OVERDRAFT	Limit overdraft usage to less than the amount specified in the license.
NOLOG	Turn off logging of certain items in the debug log file.
REPORTLOG	Specify that a report log file suitable for use by the FlexNet Manager license usage reporting tool be written.
RESERVE	Reserve licenses for a user or group of users/hosts.
TIMEOUT	Specify idle timeout for a feature, returning it to the free pool for use by another user.
TIMEOUTALL	Set timeout on all features.

Options File formatting

The SNL Options file allows control over “General Options,” “Targeted Options” or a combination of both. See “*Options File Syntax*” starting on page 139 of the FlexLM pdf (%SolidNetWork License Manager Installation Directory%\Docs\flexuser\licensingenduserguide.pdf).

In general, we want to establish and control general operating parameters first, and then control feature specific parameters.

Setting Parameters for Certain Users

The options file allows the license administrator to control various operating parameters of FlexLM. Users can be identified by their user name, host name, display, IP address, or PROJECT (which is set with the LM_PROJECT environment variable).

The User_Name should be the client’s standard Windows Login ID.

Groups

Groups are created in the options file to allow for the callout of multiple users at once, instead of individual users. There is no known limit to the number of groups that can be created.

Syntax – GROUP group name user1 user2 user3

By default, usernames and group names are case sensitive. This can be changed by adding a line at the beginning of the options file changing the GROUPCASEINSENSITIVE variable to ON. See the advanced example below.

Options File Product Reference List

Below is a list of all SOLIDWORKS products that can be referenced with an options file, as well as the proper syntax for this reference.

Command	Product
animator	SOLIDWORKS Animator
cae_cosmosflowworkspe	SOLIDWORKS Flow Simulation
cae_cosmosflowworksstd	SOLIDWORKS Flow Simulation Standard
cae_cosmosmotion	SOLIDWORKS Motion
cae_cwadvpro	SOLIDWORKS Simulation Premium
cae_cwdesigner	SOLIDWORKS Simulation
cae_cwpro	SOLIDWORKS Simulation Professional
catiatoswtrans	CATIA V5-SOLIDWORKS Translator
circuitworks	CircuitWorks
Designchecker	SOLIDWORKS Design Checker
edrw	eDrawings Professional
elec2d	SOLIDWORKS Electrical 2D
elec3d	SOLIDWORKS Electrical 3D

elecpro	SOLIDWORKS Electrical Professional
featureworks	FeatureWorks
pdmworks	SOLIDWORKS Workgroup PDM
pdmworks_as	SOLIDWORKS Workgroup PDM for SOLIDWORKS Explorer
pdmworks_sa	SOLIDWORKS Workgroup PDM Contributor
photoview	PhotoView 360
pipng	SOLIDWORKS Routing
plastics_pro	SOLIDWORKS Plastics Standard
plastics_premium	SOLIDWORKS Plastics Professional
plastics_advanced	SOLIDWORKS Plastics Premium
scanto3d	ScanTo3D
SOLIDWORKS	SOLIDWORKS Standard
swepdm_cadeditorandweb	SOLIDWORKS Enterprise PDM CAD Editor
swepdm_contributorandweb	SOLIDWORKS Enterprise PDM Contributor
swepdm_viewer	SOLIDWORKS Enterprise PDM Viewer
swepdm_processor	SOLIDWORKS Enterprise PDM Processor License
swoffice	SOLIDWORKS Office
swofficepremium	SOLIDWORKS Premium
swofficepremium_cwpro	SOLIDWORKS Premium with Simulation Professional
swofficepremium_cwadvpro	SOLIDWORKS Premium with Simulation Premium
swofficepro	SOLIDWORKS Professional
swsustainability	SOLIDWORKS Sustainability
taskscheduler	SOLIDWORKS Task Scheduler
toolbox	SOLIDWORKS Utilities

Let's look at an example

The example below is what would be typed into the text editor.

```
#START  
TIMEOUTALL 600  
MAX_BORROW_HOURS 336  
BORROW_LOWWATER 3 GROUP  
#END
```

Let's examine what this file is telling us...

indicates a comment. No action will be performed by the system.

TIMEOUTALL 600

TIMEOUTALL set timeout on all features.

600 refers to the amount of time in seconds that the SOLIDWORKS license can be idle before being returned to the license pool. The default value is 900. Any value in seconds less than or equal to 900 will default to 900 (15 minutes).

MAX_BORROW_HOURS 336

MAX_BORROW_HOURS Maximum amount of time in hours a SOLIDWORKS license can be borrowed.

336 Total hours SOLIDWORKS licenses can be borrowed. A borrowed license is a license or series of SOLIDWORKS licenses that are removed from the pool of licenses. The maximum borrow limit is 720 (30 days). Any value greater than 720 will default to 720.

BORROW_LOWWATER 3

BORROW_LOWWATER sets the number of licenses for a BORROW feature that cannot be borrowed.

3 specifies the number of SOLIDWORKS licenses that cannot be borrowed from the total pool.

Advanced Example

The example below is what would be typed into the text editor:

```
#start general parameters
TIMEOUTALL 600
MAX_BORROW_HOURS 336
BORROW_LOWWATER 3
GROUPCASEINSENSITIVE ON
#end general parameters
#start feature specific parameters
GROUP TECH kevinm johnb larsp
RESERVE 1 SOLIDWORKS USER jaredc
RESERVE 3 swofficepremium USER jaredc
RESERVE 1 cae_cwadvpro USER jaredc
RESERVE 1 cae_cosmosflowworkspe USER jaredc
EXCLUDE swofficepremium USER glennw
EXCLUDE cae_cwadvpro USER glennw
EXCLUDE cae_cosmosflowworkspe USER glennw
INCLUDE_BORROW SOLIDWORKS USER jaredc
INCLUDE_BORROW swofficepremium USER jaredc
INCLUDE_BORROW cae_cwadvpro USER jaredc
INCLUDE_BORROW cae_cosmosflowworkspe USER jaredc
INCLUDE_BORROW SOLIDWORKS GROUP TECH
INCLUDE_BORROW swofficepremium GROUP TECH
#end feature specific parameters
```

NOTE: **GROUPCASEINSENSITIVE ON** must be specified to allow for host and usernames to be typed into the text editor without sensitivity to case.

GROUP TECH kevinm johnb larsp

GROUP is the Syntax identifier specifying a group name to be identified

TECH is the Group name

kevinm johnb larsp are user names (Windows Login IDs) that are part of the TECH group 1. No limit to # of groups that can be created

RESERVE 1 SOLIDWORKS USER jaredc

RESERVE only "Reserves" the SOLIDWORKS license for jaredc.

1 Specifies the number of licenses that are reserved.

Any licenses reserved for a user are dedicated to that user. Even when that user is not actively using the license, it is unavailable to other users.

SOLIDWORKS is the **feature** for which we want to specify

USER identifies the user jaredc to use the "SOLIDWORKS" feature

jaredc is the username

EXCLUDE swofficepremium USER glennw

EXCLUDE prevents glennw from obtaining a SOLIDWORKS Premium license

swofficepremium is the feature for which we want to specify

USER identifies the user glennw is not to use the "swofficepremium" feature

glennw is the username

INCLUDE_BORROW swofficepremium GROUP TECH

INCLUDE_BORROW allows the TECH group to borrow SOLIDWORKS Premium

swofficepremium is the feature for which we want to specify

GROUP identifies the Group TECH to use the "swofficepremium" feature

TECH is the Group name

Looking at all of the EXCLUDE and INCLUDE_BORROW options listed in the above example and based on the options identified, user "glennw" has no borrow rights and the "TECH" group may only borrow SOLIDWORKS and SOLIDWORKS Premium licenses

Frequently Asked Questions

Can I use the SNL Options file I have from a previous year?

Yes. In general, the procedure for creating and applying the options file has remained consistent between releases, with no features being removed.

Where can I find the FLEXLM User's Guide for additional information?

The FLEXLM Users guide can be found in:

C:\Program Files\SOLIDWORKS Corp\SOLIDWORKS\setup\flexlm\flexuser, Chapter 13 Managing the Options File starts on page 107.

Can you use HOSTS in the options file?

Yes, machine host names can be used. Syntax: HOST

What happens if I have conflicting statements?

Rules of precedence take effect when INCLUDE and EXCLUDE statements are combined in the same options file and control access to the same feature (in license files) or fulfillment record (in trusted storage). The following define the precedence when both types of statements appear together:

- If there is only an EXCLUDE list, everyone who is not on the list is allowed to use the feature.
- If there is only an INCLUDE list, only those users on the list are allowed to use the feature.
- If neither list exists, everyone is allowed to use the feature.
- The EXCLUDE list is checked before the INCLUDE list; someone who is on both lists is not allowed to use the feature.

Once you create an INCLUDE or EXCLUDE list, everyone else is implicitly outside the group. This feature allows you, as a license administrator, the ability to control licenses without having to explicitly list each user that you wish to allow or deny access to. In other words, there are two approaches; you either:

- Give most users access and list only the exceptions

or

- Severely limit access and list only the those users that have access privileges

Can you use Internet options in the options file?

Yes, you can use machine IP addresses and wildcards.

The wildcard character is an asterisk (*).

Why won't the license manager read my options file?

Check to make sure that when the text file was renamed to sw_d.opt that "Hide extension for known file types" was turned off.

This will result in a file named sw_d.opt.txt, and will not be read properly by the license manager. Remove ".txt" to fix the file name.

Why are the reserve functions not showing up in the license manager tab?

Reserved licenses will be reserved for the user or users they are specified for, but will not show as used licenses in the license manager tab unless the user is logged on and using the license. The log file will also not show the reserve function of the options file.

Why can't I close the license manager after viewing the log file?

Before the license manager can be closed the log file must first be closed.

How do these Include and Exclude functions work?

Exclude always supersedes Include

- If there is only an Exclude list, anyone not on the list is considered included.
- If there is only an Include list, only the users on the list are allowed to use the feature.
- If neither option is used then everyone is allowed to use the feature
- If there are both Include and Exclude Lists, users who have been excluded from a particular feature will not be able to use the feature, regardless of any Include commands.

Is there a character limit?

Lines in the options file are limited to 4000 characters. The \ character is the line-continuation character.