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## Autodesk Network Licensing Guide

### All Autodesk Network Licensed Products

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The following guide is Ideate's recommended method for setting up the network licensing environment for all Autodesk products on a Windows platform server. The procedures given include setting up network licensing for the first time, updating network licensing, and setting up network licensing when the server changes. For more information on network licensing, please refer to the information found on Autodesk's website. In particular there are two tutorials:

[Installing and Configuring the Autodesk License Manager](#)

[Understanding and Managing your Autodesk Licenses](#)

The images in this guide were captured during Building Design Suite Ultimate 2015 installation, using the LMTools Network License Manager ver. 11.13.1.2. The process is the same for other Autodesk products.

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## 1. Setting up Network Licensing For the First Time

Use this process when installing network licensing for the first time where no existing setup exists. If you are already using the FlexNet Licensing system for other non-Autodesk software please see section 4.4 of this guide.

### Before you get started

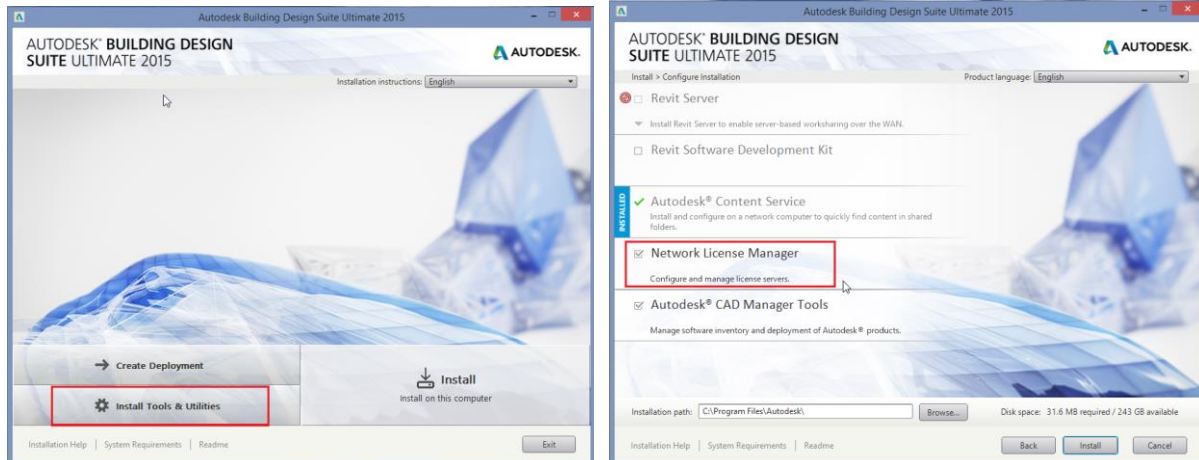
- Decide a type of license distribution (single – most common, distributed, or redundant). Please see Autodesk’s website for [more information](#)
- Select the server(s) that will house the license manager.
- Identify which software is network licensed and the current serial number(s) for that software.
- Identify if you are using an IPv4 only network or an IPv4/6 mixed network (most common).

### 1.1 Install the Network License Manager

The Network License Manager is a utility installed on the server(s). It reads an encrypted license file and provides licenses to the users on the network. When a user starts up an Autodesk software on their workstation, the license manager gives out the appropriate license.

Install the License Manager on each of the servers that will be involved, based on the type of license distribution.

The Network License Manager is located under the ‘Install Tools and Utilities’ section of the initial setup screen, when installing any Autodesk product. Select ‘Network License Manager’, and proceed with the installation.



The License Manager can also be installed from Autodesk’s website using the following links:

For IPv4/6 Mixed setups (most common):

Windows: [Download here:](#)  
Linux: [Download here:](#)  
Mac OS X: [Download here:](#)

For IPv4 only setups:

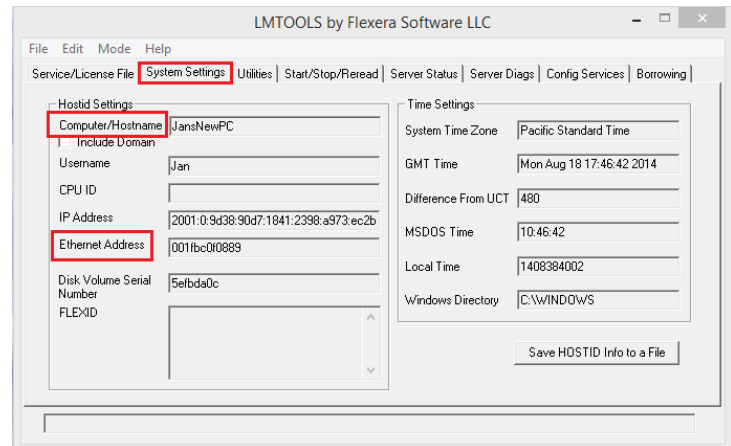
Windows: [Download here](#)  
Linux: [Download here](#)  
Mac OS X: [Download here](#)

## 1.2 Gather Information

Once the License Manger is installed, a shortcut labeled “LMTools Utility” will be created on the desktop. Before requesting a license file, we will need to collect some information from each server:

- Launch LMTools.
- Select the ‘System Settings’ tab.
- Record the Computer/Hostname.
- Record the Ethernet Address.

Do this for each server that houses the network license manager. The Computer/Hostname is what we will refer to as the Server Name. The Ethernet Address is the same as the physical address of the server, also known as the Server MAC Address.



This information can be retrieved in other ways, but using LMTools to gather the information reduces a chance for error. If two Ethernet addresses are listed, use the one for the wired Ethernet card. This can be identified via “IPconfig /all” in the Windows command prompt.

## 1.3 Get a License File

License Files contain the licenses for the network licensed software. These files are encrypted to only work on the specified server and a new license file must be requested any time changes are made to the licensing, including adding new versions of the software, or when changes are made to the server. You should get all of your licenses issued on the same day to avoid any loss of licenses when the license file is interpreted by the license manager. The following information is required to get a license file:

- The Server Name(s)
- The Server MAC Address(s)
- The Serial Numbers of software with network licenses, the most current product year.
- The type of license distribution that will be used (single, distributed or redundant)

To get a license file, contact Autodesk directly in one of the following ways:

- [Autodesk Account](#) – create a licensing support case, can take up to 48 to get the file.
  - Generate License in Autodesk Account manage  
<https://knowledge.autodesk.com/customer-service/network-license-administration/get-ready-network-license/getting-network-license-file/generating-license-file>
- [Autodesk RegisterOnce Site](#) – instantly creates license files one serial number at a time.
- Autodesk Licensing and Activation Phone number 866-681-4359 (M-F, 9-4PM Eastern)

When you receive the file, visit [Autodesk’s License Parser](#) utility and verify that the information displayed matches the information submitted.

Save a copy of the License file to the server, the recommended location is:

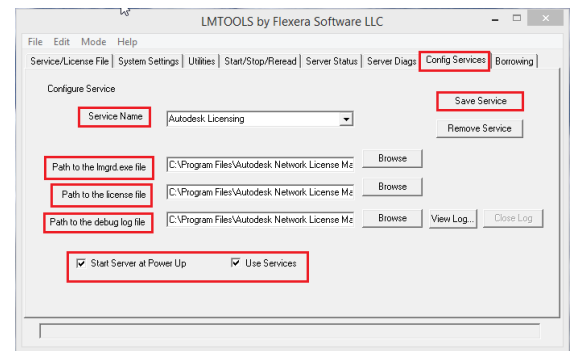
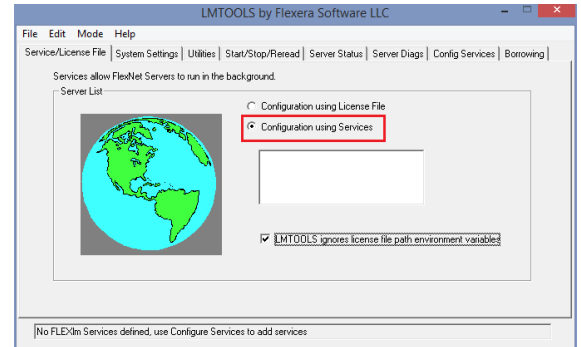
C:\Autodesk\Autodesk Network License Manager\License

### 1.4 Configure the Service

The license manager sets up a Windows service that is tied to a particular port. The default port is the first one available in the range 27000-27009.

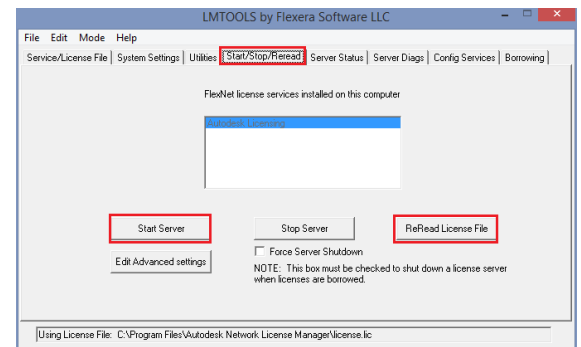
To set up the licensing service:

- Launch LMTools.
- Select the 'Service/License File' tab.
- Verify that 'Configuration using Services' is selected.
- Select the 'Config Services' tab.
- Select the 'Service Name' and enter a new name. This creates a new service in addition to any existing services.
- Browse the 'Path to the lmgrd.exe file'. This is located at C:\Autodesk\Network License Manager.
- Browse the 'Path to the license file'. This is the location that the license file was saved to.
- Create a new blank text file and name it with the extension .log in C:\Autodesk\Network License Manager\Logs.
- Browse the 'Path to the debug log file' to new the file.
- Mark the boxes 'Start Server at Power Up' and 'Use Services'
- Select 'Save Service'



### 1.5 Start the Service

- Select the 'Start/Stop/Reread' tab.
- Select 'Start Server', wait for a "server start successful" notice
- Select 'Reread License File', wait for "reread license file completed" notice

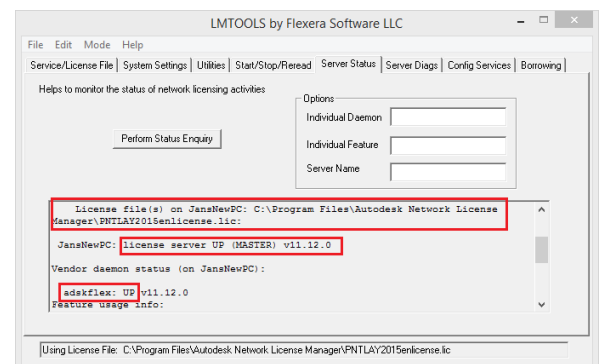


### 1.6 Check Server Status

Checking the status of the server will let us know if the service has started correctly and that it is ready to distribute licenses. It will also list which users and computers have taken which licenses, and if they have borrowed them from the license pool.

- Select the 'Server Status' tab.
- Select 'Perform Status Enquiry'.
- Verify that the license file listed is correct.
- Verify that the line "Server name: license server UP" is present.
- Verify that the line "adskflex: UP" is present.

If these items are not listed correctly, see the troubleshooting section at the end of the document.



## 1.7 Verify Connection to a Local Machine

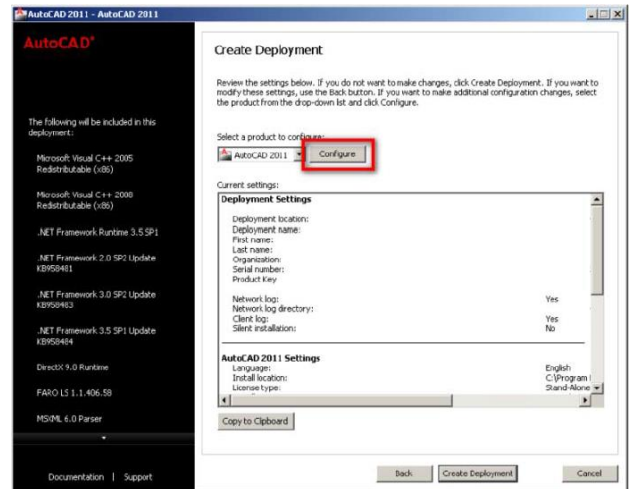
At this point the software that will use the network license will need to be installed on a local machine. If it has not been, follow the steps below to set it up for network licensing. If the licensing is not setup correctly, the software will have to be re-installed.

For 2012 software and newer, the licensing type is set on the same page as the Serial Number.

When installing 2011 software or older, follow these steps:

- On the final page of the installation select the 'Configure' button.
- On the page to 'Select the License Type' select Network.
- Select the correct type of license distribution.
- Specify the names of the servers that will house the license files, separated by a semi-colon.
- Finish the rest of the installation.

Once the software is installed correctly, run the program. The program should start without any messages or warnings about the licensing. If this is the case, then the network licensing is working and no more needs to be done.



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*If a message appears stating that the software is running as a trial, or needs to be activated, it means it is running as a standalone version, not a network, and the software will need to be reinstalled as a network version.*

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If you receive a message that a license could not be found or that there is a licensing error, make a note of the error including the error number and either review the troubleshooting section of this document or contact technical support.

## 2. Updating Network Licensing With a New License File

Use this process when updating the network licensing for an existing setup. Some steps will ask you to refer to another section of this document as specified by the section number.

### Before you get started

- Identify which server(s) currently house the network license manager.
- Identify the type of license distribution (single, distributed, redundant) that is being used.
- Identify which software is being added or upgraded and the current serial numbers

### 2.1 Gather Information

On the server(s) that have LMTools installed please follow the directions listed in step 1.2. Also verify the version of LMTools that is currently installed, in LMTools under Help, About. Check to see if it is the recommended version. If you are unsure, contact technical support.

**Autodesk licensing for 2017 and newer products requires the use of version 11.13.1.2 License Manager. Older versions will be unable to issue 2017 licenses, even if 2017 licenses show up as available in the server status printout.**

### 2.2 Get a License File

Request a new license file. It is recommended that you request a license file for all your serial numbers, not just the software that is being added or updated. If you submit all of the serial numbers you can skip the next step. To request the license file, please see step 1.3.

### 2.3 Combine License Files

If you received a license file that only contains some for your licenses, it will need to be combined with the existing license file. To do this, please review the following Autodesk Technical Document. If you have any questions or concerns, contact your reseller or Autodesk Support.

[Click here for more info about combining license files](#)

Save the combined license as a new file on the server. Retain a copy of the newly issued, and the previous license files as backups. Any new licenses will replace existing licenses of the same feature code. Be sure to keep packages with their matching increment.

### 2.4 Upgrade LMTools

You should upgrade to the latest recommended version of LMTools. For 2018 Software it is 11.13.1.2

- In LMTools, Select the 'Start/Stop/Reread' tab.
- Select 'Stop Server'. Check the box to 'Force Server Shutdown' if necessary.
- Close LMTools.
- Uninstall the Autodesk License Manager using the Control Panel's Add/Remove Programs. This will not affect the license files or the log files.
- Install the current version of the License Manger. See step 1.1.

### 2.5 Configure the Service

See step 1.4. You can choose to re-use the existing log file instead of creating a new one. If you did not reinstall the license manager you will only need to re-path the license file.

## 2.6 Start the Service

- Select the 'Start/Stop/Reread' tab.
- Select 'Stop Server'. Check the box to 'Force Server Shutdown' if necessary. The status notice will not change from "stopping server".
- Select 'Start Server'. Wait for the notice "server start successful"
- Select 'Reread License File'. Wait for the notice "License file reread completed".

## 2.7 Check Server Status

See step 1.6.

## 2.8 Verify Connection to Local Machine

See step 1.7.

# 3. Moving the Network License Manager to a New Server

Use this process when moving the network licensing to a new server. Some steps will ask you to refer to another section of this document as specified by the section number.

### Before you get started

- Select a type of license distribution (single, distributed, redundant)
- Select the server(s) that will house the license manager
- Identify which software is network licensed and the current serial numbers for that software

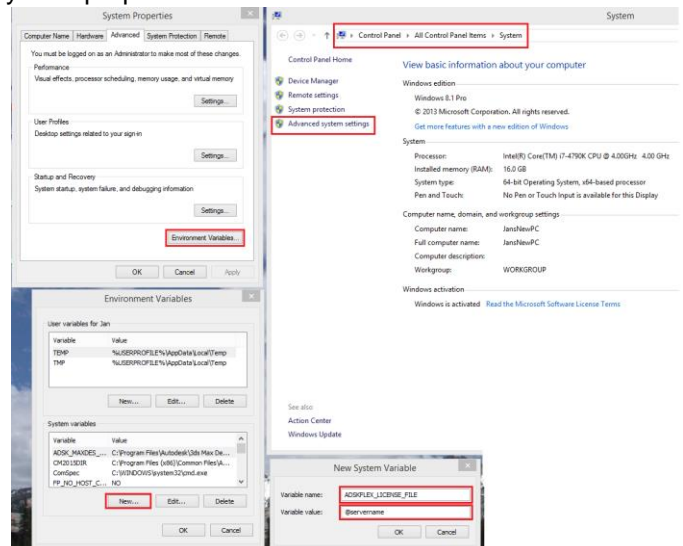
### 3.1 Follow steps 1.1-1.6.

### 3.2 Set the Local Workstations to Look at the New Server

To direct the local workstations to look at the new server(s), you will need to set a system environment variable on each computer. This setting is found under the system properties.

The System Properties window can be opened by holding down the Windows key on the keyboard and the pause key. It can also be accessed by right-clicking on 'My Computer' or 'Computer' and selecting 'Properties'.

- Select the 'Advanced System Settings' tab.
- Select 'Environment Variable'.
- In the second list locate the environment variable **ADSKFLEX\_LICENSE\_FILE**.
- If the variable does not exist, create a new system variable.
- Set the value to **@servername**, adding additional servers separated by a semi-colon in the order they will be checked.





## 3.3 Verify Connection to Local Machine

See step 1.7.

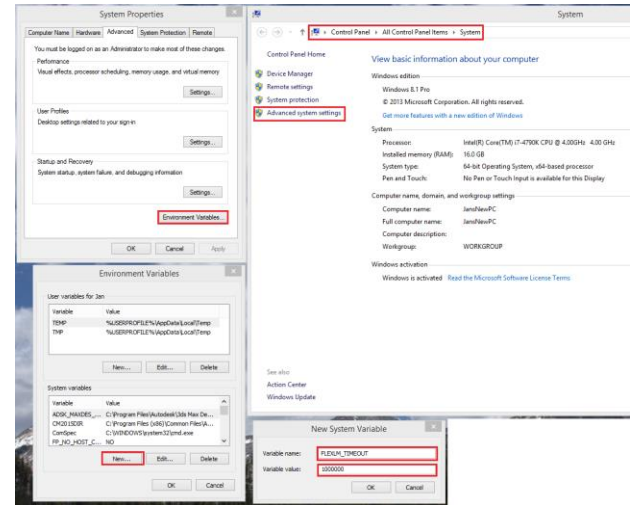
## 4. Troubleshooting Network Licensing

### 4.1 Increasing the Time a Workstation Looks for a License

The length of time that a local workstation will take when looking for a license can be increased to compensate for remote VPN connections. To set this value, you will need to set a system environment variable on each computer.

This setting is found under the system properties. The System properties window can be opened by holding down the Windows key on the keyboard and the pause button. It can also be accessed by right-clicking on 'My Computer' or 'Computer' and selecting properties.

- Select the 'Advanced' tab.
- Select 'Environment Variables'.
- In the second list locate the environment variable **FLEXLM\_TIMEOUT**.
- If the variable does not exist, create a new system variable.
- Set the value. The amount is in microseconds and we recommend starting at **100000** and adjusting from there.



### 4.2 Server is Not Started Correctly, License File Failed to be Read

This can be caused by a number of issues. There are a few things that you can try to resolve the issue, but if they are unsuccessful, contact your reseller or Autodesk for technical support.

- Verify that the license file contains the correct MAC address.
- Verify and re-path the locations of the license file and lmgrd.exe in the 'Config Services' tab.
- Stop the server, start the server, and then re-read the license file.

Are there other licensing services running on this server? If so, see section 4.4.

### 4.3 User(s) Are Unable to Get a License

If one or more users are unable to get a license, the connection could be blocked by a firewall. If it is affecting all users, it is likely a firewall on the server. Otherwise, check the firewall on the local workstation.

- Temporarily turn off all the firewalls that are in place, including Windows Firewall.
- Test to see if the user can get a license.
- If they can, identify which firewall is causing the block.
- In that firewall specify an exception for TCP ports 2080 (adskflex.exe) and 27000-27009 (lmgrd.exe).

It is also possible that the license file does not contain the correct license, or all licenses are taken. This can be verified using license parser as mentioned in step 1.3. If there is software missing that should be in the license file, request a new one from Autodesk. If this does not resolve the issue, contact your reseller or Autodesk for technical support.

You can verify if there are licenses available to be checked out by:

- Open LMTools
- Click “Server status” tab, click “perform status inquiry”
- Scroll down on the resulting report to see if the license type you are trying to access is available.

#### 4.4 Installing Alongside an Existing Licensing Service

Multiple licensing services are able to share the same lmgrd.exe, and having more than one lmgrd.exe on a server can prevent the licenses from functioning properly. If you need to add Autodesk License manager to an existing 3<sup>rd</sup> party software licensing service, use the same bit (32 or 64) and IPv (4 or 6) version as the existing installation.

- Copy the adskflex.exe from the Autodesk License Manager installation folder and place it in the same folder as the existing lmgrd.exe.
- Uninstall the Autodesk license manager.
- Use the LMTools that already exists to set-up the licensing service. Otherwise the steps are the same.
- Please note that choosing ‘Force Server Shutdown’ stops all license services, not just the one selected.
- Verify that all licenses are running properly.

Please note that 2015 Autodesk Licenses require LMTools 11.12. In this case you should merge the existing licensing into Autodesk Licensing instead, or host Autodesk licenses on a different server, if your 3<sup>rd</sup> party software does not support the latest LMTools.

## 5. Contacting Support

### 5.1 Helpful Information to Include When Contacting Your Reseller or Autodesk for Support.

If you have any issues with your network licensing, you may contact your reseller or use the support available through Autodesk Account Manage. To improve the response you receive here are some things you can include in your initial message:

- Your license file(s). Include both the previous and the new license files if you are in the process of switching them out.
- The results of a status enquiry. Start LMTools, select ‘Server Status’, select ‘Perform Status Enquiry’. Copy the results.
- The log file.
- Were the licenses working before?
- Are there other licensing services running?
- Is this affecting all workstations?
- If the workstations receive an error when trying to get a license, include a screenshot of the error.