



## Network License Troubleshooting

### Basics of the Network Licensing

The Structural Toolkit network license works by communication between the workstation and the computer which is running the licensing software with the hardware network lock attached. It uses TCP/IP communication generally on port 2235 (licensing) and 2236 (monitor).

The licensing software is achieved by using either the Structural Toolkit License Manager (referred to as the "License Manager") or the Structural Toolkit License Service (referred to as the "License Service").

The License Manager (Gold-Brown icon) runs as a simple application and has an easy interface, but requires the computer to be logged in at all times to operate. Logging out will stop the License Manager. This application requires either manual starting each login, or starting via a shortcut in the Startup group which executes on login. It minimizes to the Tool Tray.

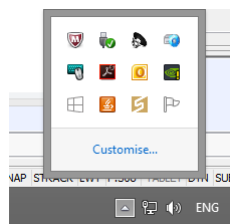


Figure 1 – Minimised License Manager (Gold)

The License Service (icon appears in the Tool Tray when using the Tools) runs in the background and has no visible interface and will continue to run in the background when logged out. It is more suitable for a Server computer. Once installed, this starts automatically each boot and runs without a login required.

The License Tools (Orange Icon) is an application that manages the service. It appears in the tool tray. During installation it is added to the startup group (unless you unchecked it – you can add a shortcut if required to the Startup group). If it is not visible, it may be you need to expand the area (this shows it is not started being grey)

Do not use the License Manager and License Service together. One or the other.

The License Monitor application can be used anywhere within the network to monitor the licenses for the service or the manager by configuring the remote IP address of the computer running the Licensing software. It is required to see the License Service. The License Manager already has this interface, but the monitor can be used to see the License Manager also.

### License Manager/Service Installation

Refer to the Network License Quick Start.

Install the License Tools Package (ensure you are using V2.0.0.3 or later). Earlier versions do not work (our internet provider changed security so you need ensure that this version is being used.)

The License Tools contains all the tools required to manage the network licensing including the License Service, the License Manager, the License Updater and the License Tools (used to Manage the Service only)

### Issues and Problem Resolution

#### Procedure 1: Checking if the Key Works (On a separate machine)

The first thing you always need to do is check the key works.



Find the lock (red network lock with a blue or black logo'ed strap perhaps) – Green oval “NetR4ND” on the front and “STK4N.1” sticker on the back (this may be STK5N.1, or 2).

Install the License Tools package on a separate machine (not the server). Ensure that internet is available to communicate with the Structural Toolkit License Updating Service.

Insert the lock into a USB port.

Run the License Updater from the Structural Toolkit V5 License Tools and see if the License is current.

## Procedure 2: Ensuring the Service is not running

### Method 1

1. Start the Task Manager
2. Select the Services tab and sort the name alphabetically (click the Name header)
3. If STKLicenseService is not present, it is not running

### Method 2

1. Run the License Tools (Orange Icon) and observe the Tool Tray. If there is a grey STK icon it is not installed, otherwise it is

## Procedure 3: Ensuring the Manager is not running

1. Start the Task Manager
2. Select the Processes tab and look under the “Apps” section
3. If Structural Toolkit License Manager is not present, it is not running

## Procedure 4: Checking the License Manager works

1. Ensure the Lock works (Procedure 1)
2. Ensure the License Service is not running (Procedure 2)
3. Ensure the License Manager is not running (Procedure 3)
4. Run Structural Toolkit License Manager (Gold Icon) with the Lock installed on the USB
5. If it runs and says the Licensee details and licenses at the bottom of the window, it is operational

## Procedure 5: Checking the License Service works

1. Ensure the Lock works (Procedure 1)
2. Ensure the License Service is not running (Procedure 2)
3. Ensure the License Manager is not running (Procedure 3)
4. Run Structural Toolkit License Tools (Orange Icon) with the Lock installed on the USB
5. Using the License Tools icon (grey), Clear the Event Log, then Install the service. It should turn Orange. (faded orange is installed but not running). Hovering over the icon will also indicate the state
6. Show the event log
7. A typical event log is as follows with the final line indicating the features and the previous the number of licenses.

Note: if the Tool tray icon is bright orange, the license service is running (but not necessarily active, you need to look at the Event Log)

12/04/2016 3:31:26 PM Starting (V2.0.0.3)

12/04/2016 3:31:26 PM Initialised audit log file at C:\ProgramData\Anthony Furr Software\Structural Toolkit V5\Structural Toolkit License Service V2 AuditLog.txt

12/04/2016 3:31:26 PM Prestarting

12/04/2016 3:31:26 PM Initialising License

12/04/2016 3:31:26 PM Starting User Channel

12/04/2016 3:31:26 PM Starting Listener for User License Requests on 192.168.0.65:2235 [User] (Not Started) with 0 min. timeout, 60 sec. lost timeout.

12/04/2016 3:31:26 PM Started Listener on 192.168.0.65:2235 [User] (Started)

12/04/2016 3:31:26 PM Starting Monitor Channel



12/04/2016 3:31:26 PM Starting Listener for Monitor Applications on 192.168.0.65:2236 [Monitor] (Not Started) with 0 min. timeout, 60 sec. lost timeout.  
 12/04/2016 3:31:26 PM Started Listener on 192.168.0.65:2236 [Monitor] (Started)  
 12/04/2016 3:31:26 PM Server Started: IP: 192.168.0.65, User Port: 2235, Monitor Port: 2236  
 12/04/2016 3:31:26 PM Timeout Settings: User: 0 mins, Monitor: 0 mins, Lost: 60 secs, Network Wait: 3000 msecs  
 12/04/2016 3:31:26 PM Logging settings: Auto clearing after 100 events, logging connections  
 12/04/2016 3:31:26 PM Server license alive: Furr Consulting Pty Ltd (5 of 5 available)  
 12/04/2016 3:31:26 PM Features available: DOC, XLS, STK, ANA, NET

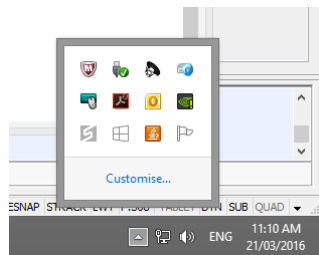


Figure 2 - Installed Tools, service not installed

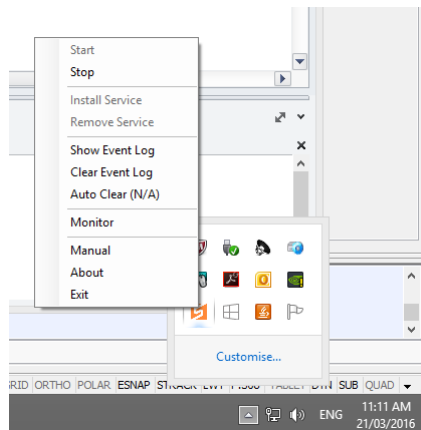


Figure 3 – Stopping the service and seeing the event log (bright orange running)

## Issues

### Service not starting after reboot

The service should automatically start each reboot. If it is not, test the service on a non-server computer to observe that it does.

Using the License Tools, Stop the service, clear the Event Log, then start the service. Show the event log using the tools and observe any messages (send to us for review)

Consult an IT professional to diagnose why the service restart does not occur.

Also ensure that the network adapter is issuing correct static IP addresses (not in the range 169.254.x.x which occurs when there are issues with the DHCP router)

### Not seeing a License on one machine

1. Check the lock works (Procedure 1)
2. Install the Tools Package and run the manager on that machine with the Lock installed
3. Connect to the manager on that machine to the License using the same IP address (use Cmd > IPConfig to determine the IP address)
4. If working then a firewall issue (resolve with IT or your anti-virus/firewall software)



## Not seeing license on all machines

1. Check the Manager works on the server (Procedure 4)
2. If this fails, repeat this procedure on a Workstation
3. Install Structural Toolkit on the server and connect to the Manager
4. If working then a firewall issue (resolve with IT or your anti-virus/firewall software)

## Advanced - Debug Audit

If requested, the debug may be needed.

```
<ServerOptions>  
<DebugAudit>False</DebugAudit>  
<DebugAuditSingle>True</DebugAuditSingle>  
<ServerIP>192.168.0.200</ServerIP>  
<ServerPort>2235</ServerPort>
```