

OSLO

Optics Software for Layout and Optimization



Installation Guide Release 6.5

Revision 02/13/2012

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BEFORE INSTALLATION

Impact on Existing Installations of OSLO

OSLO 6.5 is installed in a separate directory, and will not impact any existing installations of OSLO (e.g. – 6.4.x, 6.3.x, etc). The OSLO 6.5 release requires an updated license from OSLO 6.4.x or older.

OSLO 6.5.x releases will overwrite previous 6.5.x releases. All OSLO 6.5.x releases run from the same license.

System Requirements

Operating system	Minimum RAM
Windows 7	
Windows Vista	1 GB
Windows XP	
Windows 7 (64-bit)	
Windows Vista (64-bit)	2 GB
Windows XP (64-bit)	
Disk space required for installation	30 MB

INSTALLATION

Installation Media

Downloading from the Lambda Research Website

OSLO® and additional support programs and documentation are available from the Lambda Research Corporation website. Please go to

http://www.lambdares.com/technical_support/oslo/releases/

and select the link for the Current OSLO Release, consistent with the OSLO Edition (Premium, Standard, Light) that you are licensed to use.

Note: A Username and Password are required to access the Technical Support section of the website, and a Lambda Research Website Serial Number is required to register and establish the Username and Password. Assistance obtaining Website Serial Numbers is available from license@lambdares.com.

Save the Installer.exe file to a convenient location on your PC.

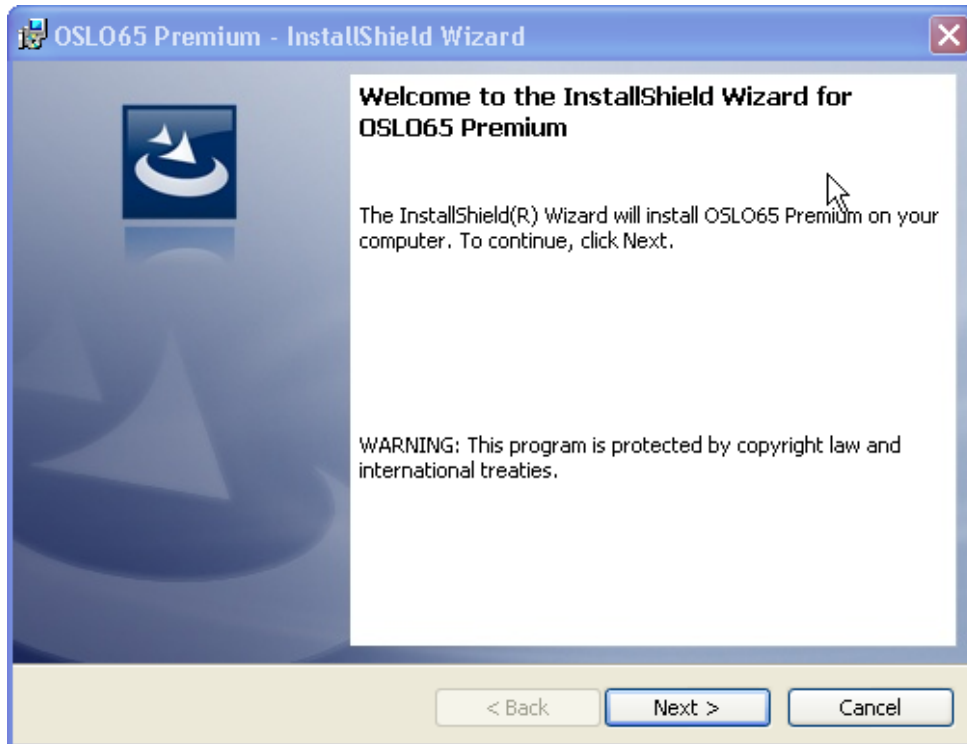
Double-click on the Installer.exe file to begin the installation

CD-ROM

OSLO® is also available from a CD-ROM. After the OSLO CD is inserted into the drive, browse to the CD-Drive, then double-click on OSLO...Installer.exe file to start the installation.

Installing the Program

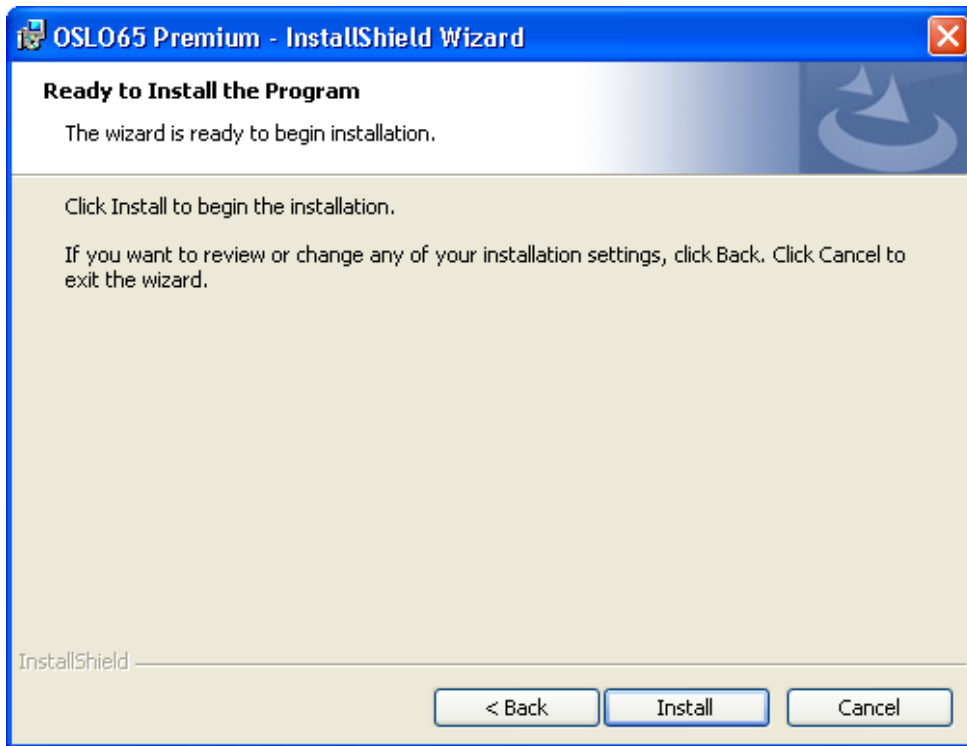
After double-clicking on the Installer.exe file



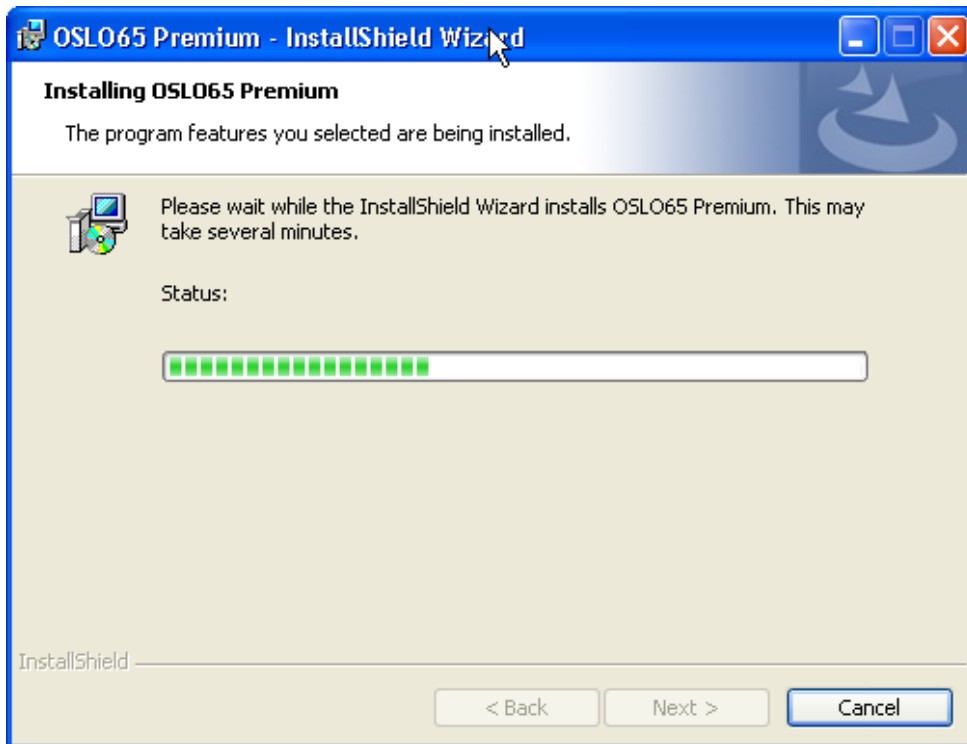
... select **Next** to continue the installation.

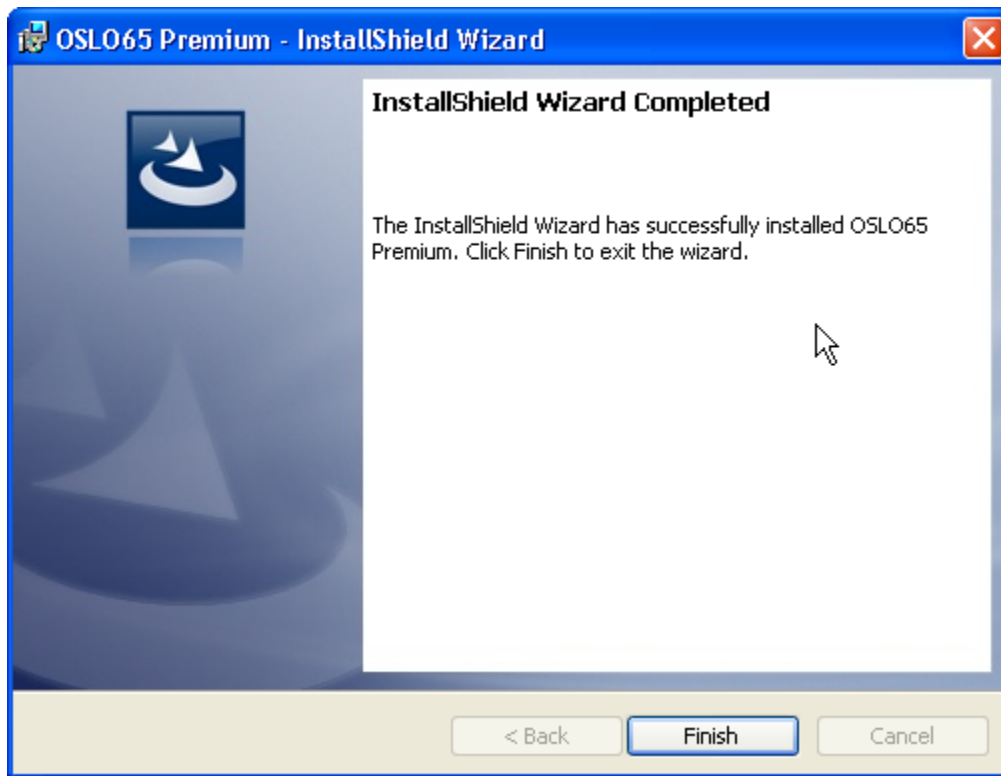


Select the button to accept the license agreement, then choose **Next** to continue.



Select **Install** to continue.



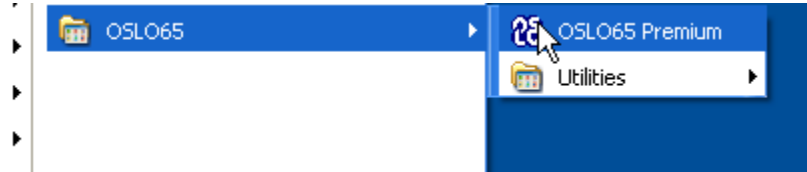


Click **Finish** to complete the installation.

AFTER INSTALLATION

Launching OSLO

To launch OSLO, select the icon from the Windows Start→Programs menu.



Entering OSLO License Information

The first time OSLO is launched, you will be prompted to enter license information. OSLO has two license modes - Single-computer License and Network License. Please read the descriptions below to determine what information to enter in the OSLO license dialog.

Single-computer License

The Single-computer License mode is controlled by one of the following:

- Hardware Key
 - generally used for permanent licenses only
 - must be connected to the PC (USB or parallel port)
 - portable - can be transferred to another PC
- Software Key
 - generally used for trial/temporary licenses
 - will only work on the specific PC for which it was generated

For either type of Single-computer license, enter “standalone” in the license dialog, then click **OK**.



Network License

The Network License mode allows several users on a single Local Area Network (LAN) to share licenses of OSLO. OSLO must be installed on each user's computer.

- OSLO uses a SafeNet Hardware Key from SafeNet Incorporated, and this Hardware Key must be connected to one PC on the network that has been designated as the OSLO License Server. Ports 6001 and 6002 are used for the communication between the server and the PC's running OSLO, so these ports must be opened in the server's firewall.
- The PC acting as the license server must also have the Sentinel Protection Installer installed. These services allow the hardware key to be read by the OSLO software. The latest Sentinel Protection Installer, as well as utility programs for troubleshooting and resolving technical problems are available from the Hardware Key manufacturer's website:

http://www.safenet-inc.com/support_and_downloads/download_drivers/sentinel_drivers.aspx

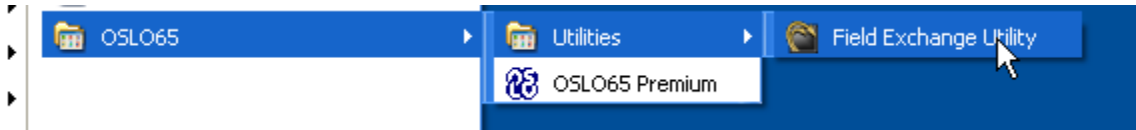
- Each OSLO user needs to enter the Server Name to point OSLO to the network location where the license(s) is (are) being managed, then click **OK**.



Requesting/Updating Licenses

Send Locking Code to Lambda Research

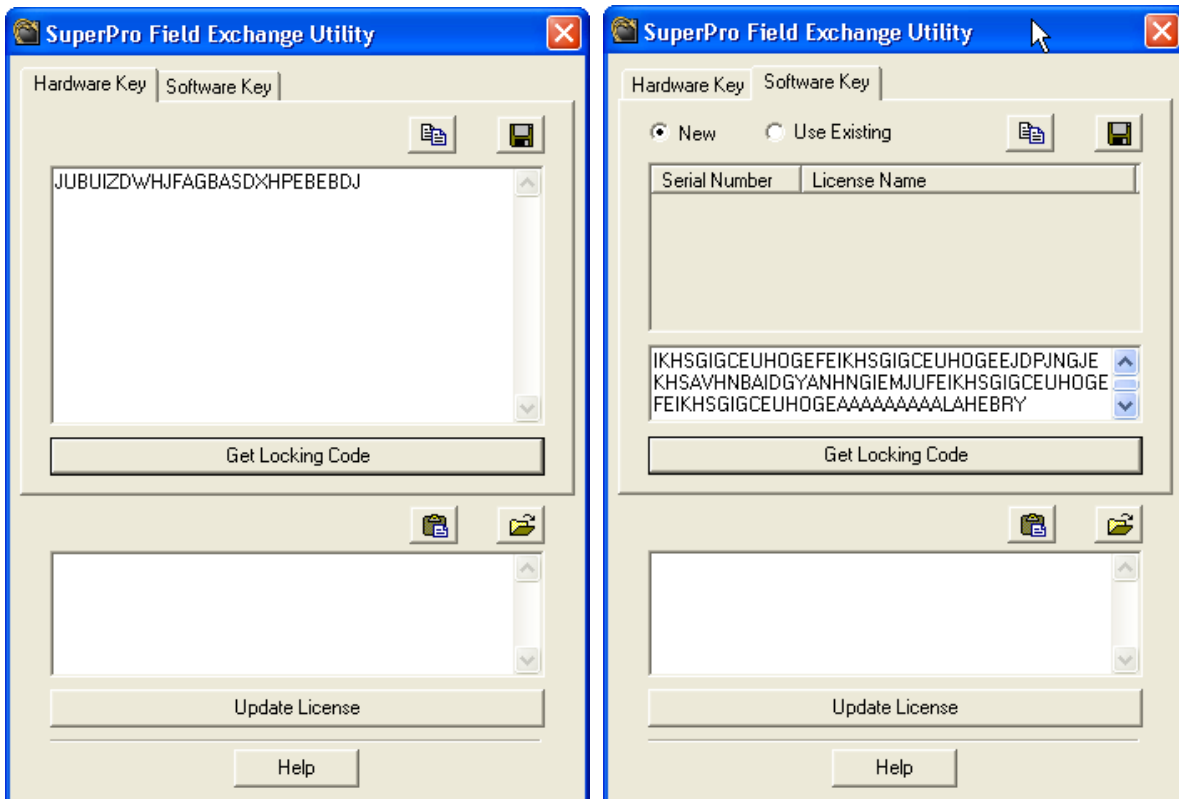
To provide Lambda Research with the required information to send back a New or Updated License, please launch the **Field Exchange Utility** from the Programs list in Windows



To update a Hardware Key, verify that the key is connected to the PC, then choose the **Hardware Key** tab. For a Software Key, choose the **Software Key** tab and select if this is for a **New** or **Existing License**.

Click on **Get Locking Code**.

When the Locking Code displays in the window, use either the **Copy to Clipboard** button or the **Save locking code to a file** button (.loc), and send the Locking Code to license@lambdares.com. Please include your name, company name, and OSLO Key Number in the e-mail to assist us in identifying you.

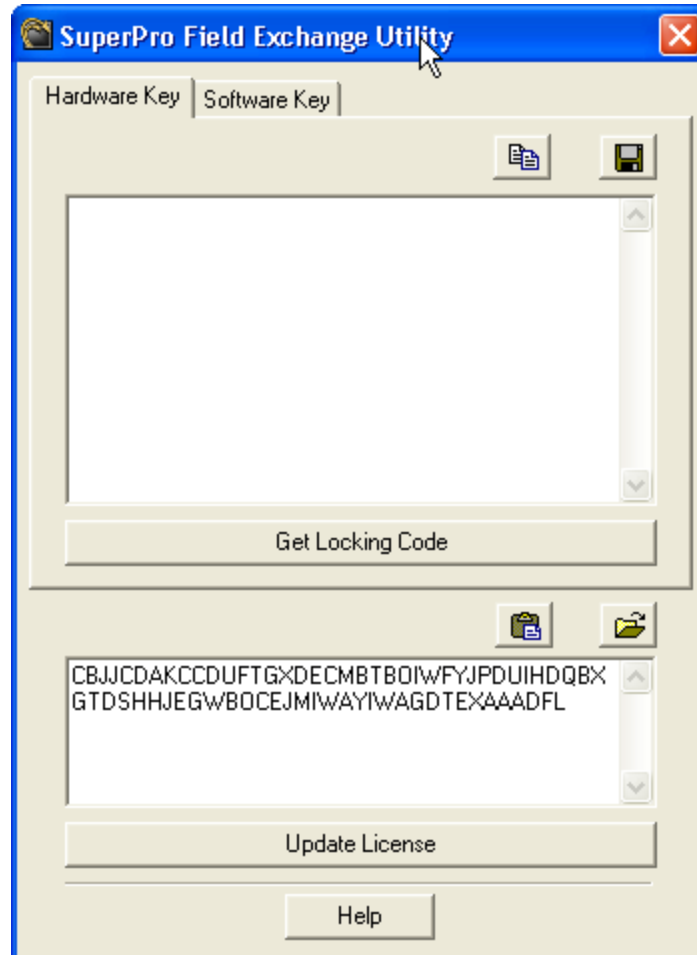


Receive License Code and Update License

To update a Hardware Key, verify that the key is connected to the PC, launch the **Field Exchange Utility** from the Programs list in Windows, then choose the **Hardware Key** tab.

For a Software Key, Launch the **Field Exchange Utility** from the Programs list in Windows, choose the **Software Key** tab and select if this is for a **New** or **Existing License**.

When the License Code is received from Lambda Research, use either the **Paste to Clipboard** button or the **Load license code to a file** button to load the license code.



Click **Update License**.

Please note that this action has reprogrammed the Hardware Key, so if the key is transferred to another PC there is no further action required to run the software.

Migrating Files From OSLO 6.4.x Private Folder

Background

To make OSLO 6.5 compatible with Windows Vista and Windows 7, it was necessary that the location of the Private folder be changed.

In OSLO 6.4.x, the Private folder was at the following location:

- C:\Program Files\OSLO*<Edition>*64\private

In OSLO 6.5, the Private folder is now at one of the following locations:

- Windows XP - C:\Documents and Settings\All Users\Documents\OSLO (*Edition*)\private
- Windows 7 and Vista - C:\Users\Public\Documents\OSLO *<Edition>*\private

The following subdirectories can be found in the OSLO private folder:

- bin – User compiled files
- ccl – User programs
- cdb – User databases
- int – Interference files (Premium Only)
- len – User lens files
- scp – User scp programs
- sources – User source files

Procedure

1. The bin folder contains the amo, glc, ima, mov, and osw folders. Copy only the contents of the glc folder (glass catalogs) and the ima folder (source files) from the OSLO 6.4 private folder to the corresponding OSLO 6.5 private folder.
2. Copy the contents of the ccl, cdb, len, int, scp, and sources folders from the OSLO 6.4 private folder to the corresponding OSLO 6.5 private folder
3. Once Steps 1 and 2 have been completed, recompile the ccl files (Tools|Compile CCL...). This will generate doing new AppMan Objects that will be stored in the amo folder.

OSLO Updates

OSLO updates are available from the Lambda Research Corporation website. Please go to

http://www.lambdaresearch.com/technical_support/oslo/releases/

select the link for the Current OSLO Release, then follow the steps in the section of this Installation Guide titled “Downloading and Installing OSLO from the Lambda Research Website”

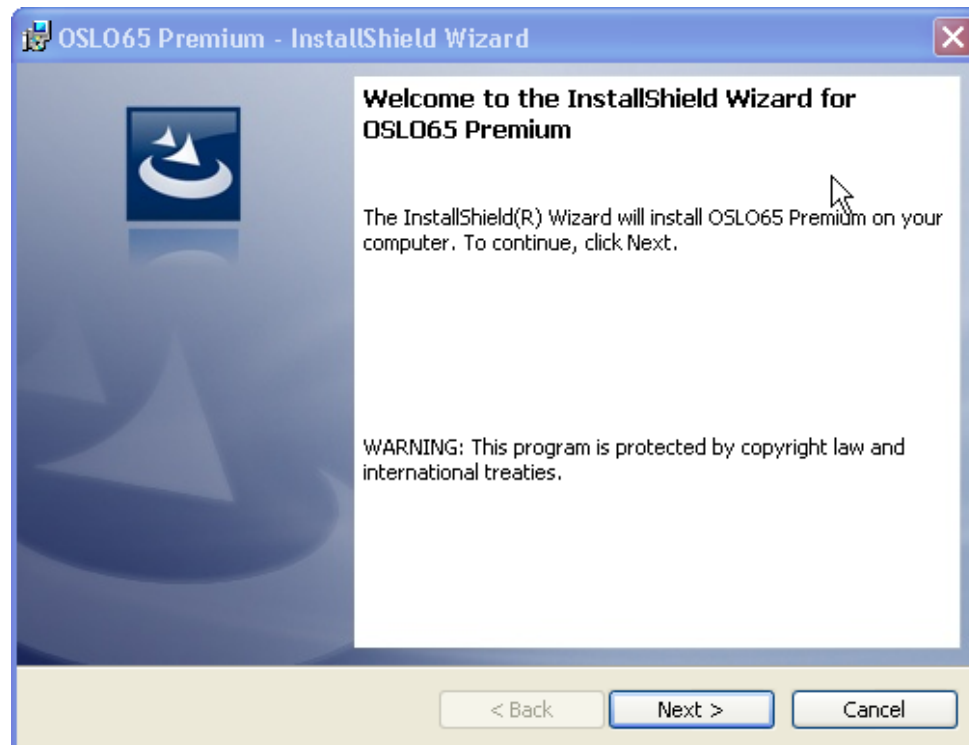
OSLO 6.5.x releases will overwrite previous 6.5.x releases, but will not overwrite OSLO 6.4.x or earlier.

All OSLO 6.5.x releases run from the same license. See the section titled “Requesting/Updating a License” to obtain a 6.5 license.

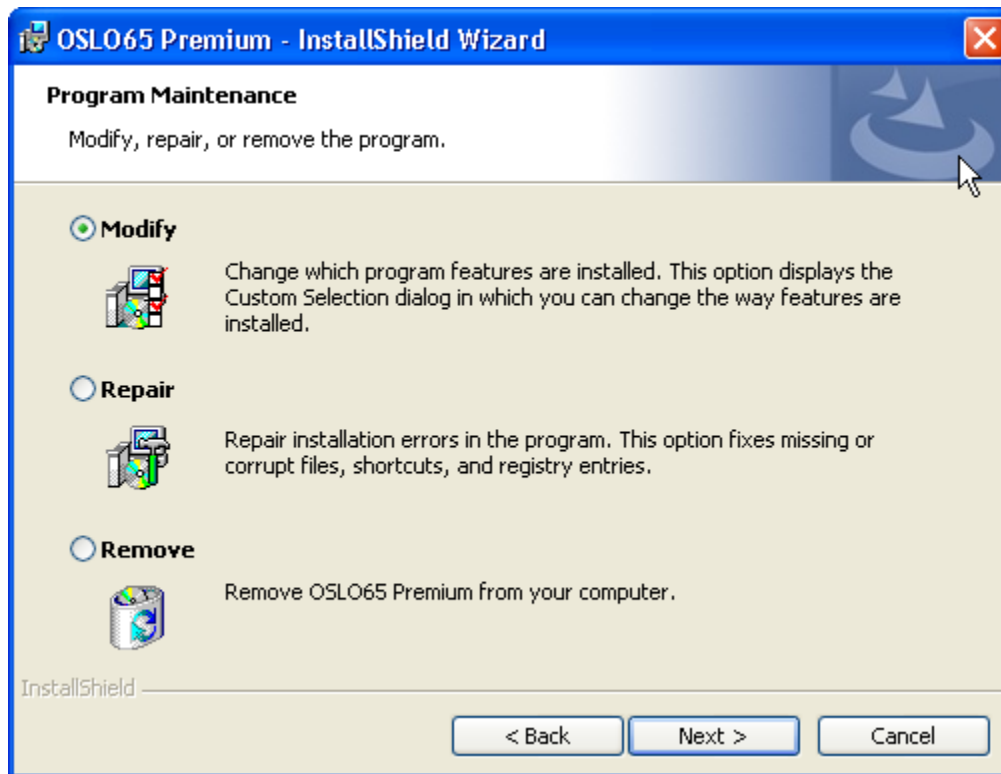
To determine the release of the currently installed OSLO, select **Help/About OSLO**.

Modify, Repair, or Remove the Program

In order to Modify, Repair, or Remove OSLO, initiate the OSLO installation from the CD or web download (OSLO65_<edition>_Installer.exe). If the installer detects that the same release of OSLO has already been installed, the following screen will appear:



Click **Next** to continue.



Choose the **Modify** option and click **Next** to open the Select Feature dialog box to choose which installation components to install or uninstall at this time. Click **Next** to perform the requested operations and then click **Finish** to complete the installation/uninstallation.

Choose the **Repair** option and click **Next** to automatically run a Maintenance routine to reinstall any corrupted files from a prior installation. Click **Finish** to complete the Repair.

Choose the **Remove** option and click **Next**, then click **Yes** in the confirmation window to confirm the selection and remove the program. Upon completion, a prompt appears for a computer restart, which can be performed immediately or delayed to a more convenient time. The uninstall is fully completed once the computer is rebooted.

Additional Resources – Utilities, Help, and Technical Support

Utilities

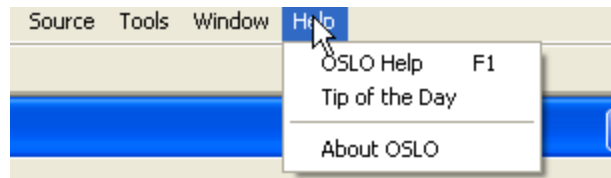
Select Utilities in Windows Program Files | OSLO65 to launch the Field Exchange Utility. This utility is used for Requesting/Updating the OSLO License.



Help Menu

The OSLO Help Menu includes the following items:

- OSLO Help – searchable help file with detailed descriptions of all OSLO features
- Tip of the Day
- About OSLO – displays the current release of OSLO as well as the terms of the license agreement.



Technical Support Website

The OSLO Technical Support website is accessible by going to http://www.lambdaresearch.com/technical_support/oslo/ in any Web Browser, and includes the following resources:

- Releases - software downloads and documentation for current and past releases
- Early Access - software downloads and documentation for the very latest “in process” software prior to formal release
- Examples - downloadable files that demonstrate the capabilities of the software
- Catalogs - downloadable files of detailed optical property data, ready for import into the software
- Tutorials - pictorially demonstrate how to perform specific operations with the software

The screenshot shows the Lambda Research website's OSLO Technical Support page. The header features the company name and logo, a search bar, and navigation links. The main content area is titled "OSLO Technical Support" and provides an overview of the section's purpose. It lists five categories: Releases, Early Access, Examples, Catalogs, and Tutorials, each with a brief description and a list of resources. A right-hand sidebar contains a table of contents for the OSLO section, including links to Optical Design Software, Technical Support, and various OSLO resources.

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Leading the way in software tools for optics and illumination designers

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OSLO Technical Support

The OSLO Technical Support section of the Lambda Research website is designed to make it easy for you to get to the information you need.

Releases

- software downloads of current and past releases

Early Access

- software downloads and documentation for the very latest “in process” software prior to formal release

Examples

- downloadable files that demonstrate the capabilities of OSLO

Catalogs

- downloadable files of detailed optical property data, ready for import into the software

Tutorials

- Tutorials pictorially demonstrate how to perform specific operations with the software and may apply to a broad range of applications

Optical Design Software

Technical Support

- TracePro
- TracePro Bridge for SolidWorks
- OSLO**
- Releases
- Early Access
- Examples
- Catalogs
- Tutorials
- Knowledgebase
- Training
- Contact Support

Company

News and Events

Contact Us

QUICKSTART GUIDE - OSLO 30-DAY-TRIAL

This section provides the step-by-step instructions for 30-Day-Trial Users of OSLO to get the program running.

Website Registration

The OSLO software, documentation, examples, libraries, and tutorials are maintained in a secure area of the Lambda Research website. Users must receive a Website Serial Number from Lambda Research and use this serial number to register on the website.

- Receive e-mail from license@lambdares.com with Website Serial Number
- Go to http://www.lambdares.com/technical_support/login/registration/

The screenshot shows a navigation menu at the top with links for OPTICAL DESIGN SOFTWARE, TECHNICAL SUPPORT, COMPANY, NEWS AND EVENTS, and CONTACT US. Below the menu is a dark grey header with categories: AEROSPACE & DEFENSE OPTICS, LIGHTING DESIGN, DISPLAY DESIGN, LIFE SCIENCES OPTICS, INDUSTRIAL MANUFACTURING & IT OPTICS, and OPTICS SOFTWARE FOR EDUCATION. On the right side of the header are links for Sign, Word, and Regu. The main content area is titled "New User Registration" and contains the following form fields: First Name, Last Name, Username, Password, Confirm Password, Email, Company Name, and Serial Number*. Below the fields are Submit and Reset buttons. A note at the bottom states: "* Serial numbers may be obtained from LRC original software packaging or by selecting the Help|License box in any LRC software product. If you cannot locate your serial number, you may request that your number be e-mailed to you: Request Serial Number. Please provide your name and company."

- Enter the information, including the Website Serial Number
- Please make note of the Username and Password that you have chosen, as these will be needed for future access to the secure pages of the website
- Click Submit

OSLO Installation

- Go to http://www.lambdaresearch.com/technical_support/oslo/releases/
- Login using the Username and Password you established during Website Registration

AEROSPACE & DEFENSE OPTICS LIGHTING DESIGN DISPLAY DESIGN LIFE SCIENCES OPTICS INDUSTRIAL MANUFACTURING & IT OPTICS OPTICS SOFTWARE FOR EDUCATION [Sign In](#)

Login Required

Lambda Research Support Subscriptions gives you access to software releases, updated materials and properties, extensive technical support and our comprehensive Knowledge Base.

Returning Customer Login*

Username

Password

[New User Registration](#)
[Forgot your password?](#)
[Update Support Subscription](#)

Optical
Technic
Comp
News
Conta

- Download the current release of OSLO
- Select the OSLO edition (Premium, Standard, or Light) consistent with your OSLO license
- Note that additional OSLO Documentation is available from this webpage

OPTICS & IT OPTICS FOR EDUCATION [RELEASES](#)

OSLO Releases

Current OSLO Release

OSLO 6.5.0 Released on 30 April 2010

Download and install OSLO 6.5.0:

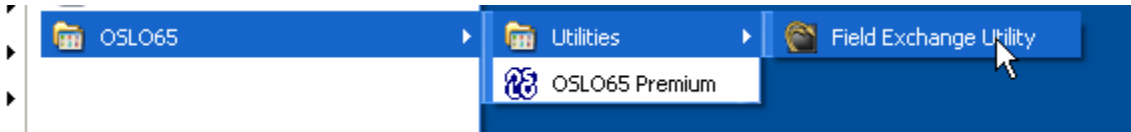
- [OSLO65_Premium_Installer](#)
- [OSLO65_Standard_Installer](#)
- [OSLO65_Light_Installer](#)

Optical
Technic
TraceF
TraceF SolidW
OSLO
Rel.
Earl
Exa

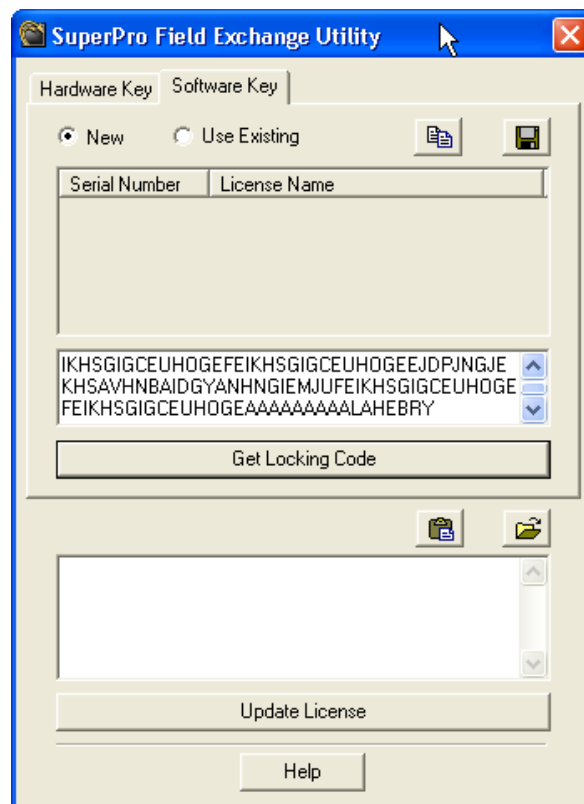
- Double-click on OSLO...Installer.exe to install OSLO and follow the steps in the OSLO Installation Guide to complete the installation

Send Locking Code to Lambda Research

- The installation of OSLO has also installed the Field Exchange Utility.
- Launch the **Field Exchange Utility** from the Programs list in Windows



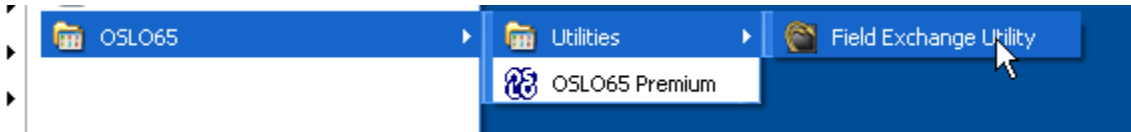
- Choose the **Software Key** tab and select the **New** button
- Click on **Get Locking Code**



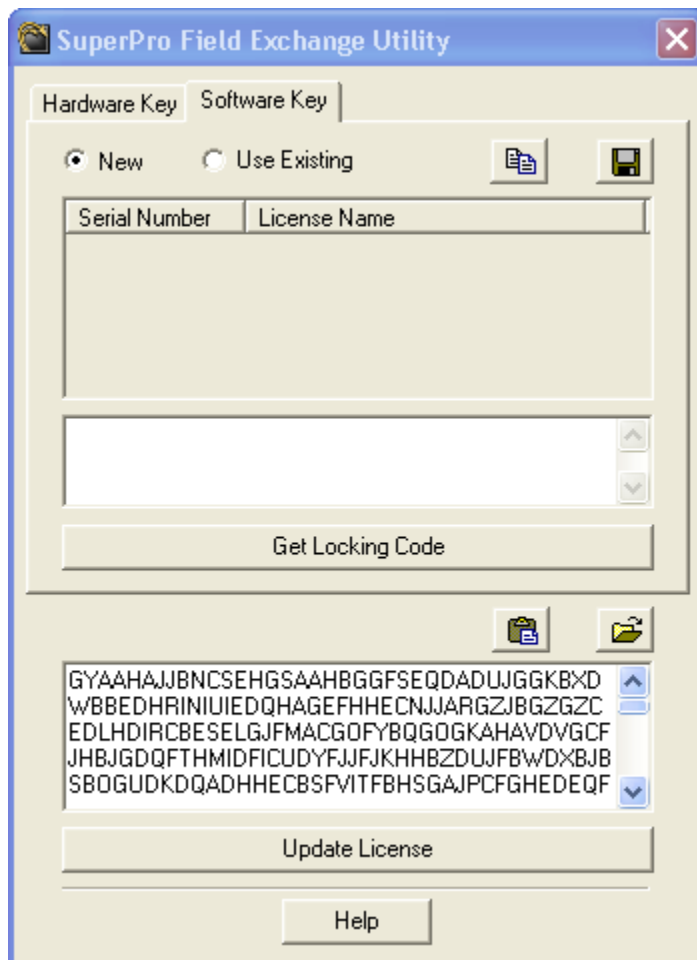
- Use either the **Copy to Clipboard** button or the **Save locking code to a file** button (.loc), and send the Locking Code to license@lambdaresearch.com.
- Please include your name and company name in the e-mail to assist us in identifying you.

Receive License Code and Update License

- Receive e-mail from license@lambdare.com with the License Code (.lic file)
- Launch the **Field Exchange Utility** from the Programs list in Windows



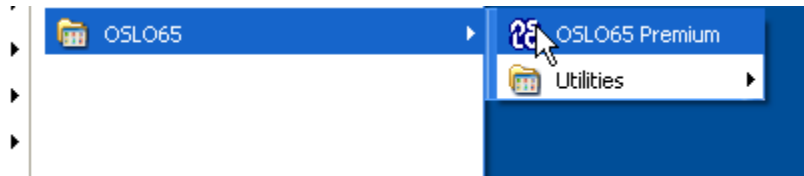
- Choose the **Software Key** tab and select the **New** button
- Use the **Load license code to a file** button to load the license code



- Click **Update License**.

Launching OSLO

- Select the **OSLO** icon from Windows Start Menu / Programs.



- The first time OSLO is launched, you will be prompted to enter license information:



- enter "standalone" in the license dialog,
- Click **OK** to begin the OSLO session

Temporary License / Updating a Software Key License

- The Software Key provides a temporary license.
- If the need arises to update the software key license, please follow the steps in the **Send Locking Code to Lambda Research** and **Receive License Code and Update License** sections again, but this time select the **Use Existing** button in the Field Exchange Utility.

QUICKSTART GUIDE - OSLO SINGLE COMPUTER LICENSE

This document provides the step-by-step instructions for new purchasers of OSLO with a Single Computer License to get the program running.

Website Registration

The OSLO software, documentation, examples, libraries, and tutorials are maintained in a secure area of the Lambda Research website. Users must receive a Website Serial Number from Lambda Research and use this serial number to register on the website.

- Receive Website Serial Number from Lambda Research
- Go to http://www.lambdare.com/technical_support/login/registration/

The screenshot shows a navigation bar with links: OPTICAL DESIGN SOFTWARE, TECHNICAL SUPPORT, COMPANY, NEWS AND EVENTS, and CONTACT US. Below the navigation bar is a grid of product categories: AEROSPACE & DEFENSE OPTICS, LIGHTING DESIGN, DISPLAY DESIGN, LIFE SCIENCES OPTICS, INDUSTRIAL MANUFACTURING & IT OPTICS, and OPTICS SOFTWARE FOR EDUCATION. On the right side of the grid are links for Sign, World, and Regu. The main content area is titled "New User Registration" and contains a form with the following fields: First Name, Last Name, Username, Password, Confirm Password, Email, Company Name, and Serial Number*. There are "Submit" and "Reset" buttons at the bottom of the form. A note at the bottom of the form states: "* Serial numbers may be obtained from LRC original software packaging or by selecting the Help|License box in any LRC software product. If you cannot locate your serial number, you may request that your number be e-mailed to you: Request Serial Number. Please provide your name and company." On the right side of the form, there is a vertical list of links: Opti, Tech, Com, New, and Cont.

- Enter the information, including the Website Serial Number
- Please make note of the Username and Password that you have chosen, as these will be needed for future access to the secure pages of the website
- Click Submit

OSLO Installation

- Go to http://www.lambdaresearch.com/technical_support/oslo/releases/
- Login using the Username and Password you established during Website Registration

Login Required

Lambda Research Support Subscriptions gives you access to software releases, updated materials and properties, extensive technical support and our comprehensive Knowledge Base.

Returning Customer Login*

Username

Password

[New User Registration](#)
[Forgot your password?](#)
[Update Support Subscription](#)

- Download the current release of OSLO
- Select the OSLO edition (Premium, Standard, or Light) consistent with your OSLO license
- Note that additional OSLO Documentation is available from this webpage

OSLO Releases

Current OSLO Release

OSLO 6.5.0 Released on 30 April 2010

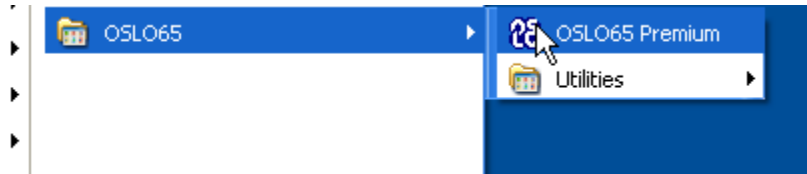
Download and install OSLO 6.5.0:

- [OSLO65_Premium_Installer](#)
- [OSLO65_Standard_Installer](#)
- [OSLO65_Light_Installer](#)

- Double-click on OSLO...Installer.exe to install OSLO and follow the steps in the OSLO Installation Guide to complete the installation

Launching OSLO

- Verify that the OSLO Hardware Key is connected to the PC
- Select the **OSLO** icon from Windows Start Menu / Programs.



- The first time OSLO is launched, you will be prompted to enter license information:



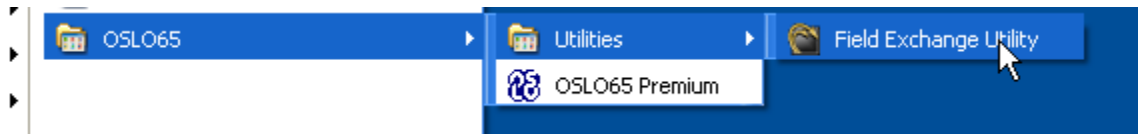
- enter "standalone" in the license dialog,
- Click **OK** to begin the OSLO session

Temporary License / Updating a Single-computer License

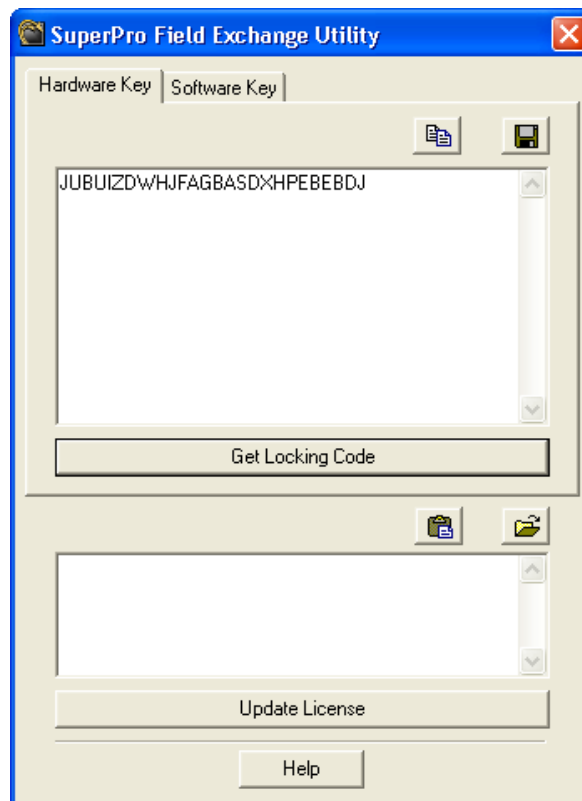
- The Hardware Key has been programmed with a temporary license.
- Lambda Research will provide a permanent OSLO license after receiving payment for OSLO.
- To update the hardware key with the permanent OSLO license, please follow the steps in the next two sections to **Send Locking Code to Lambda Research** and **Receive License Code and Update License**.

Send Locking Code to Lambda Research

- The installation of OSLO has also installed the Field Exchange Utility.
- Launch the **Field Exchange Utility** from the Programs list in Windows



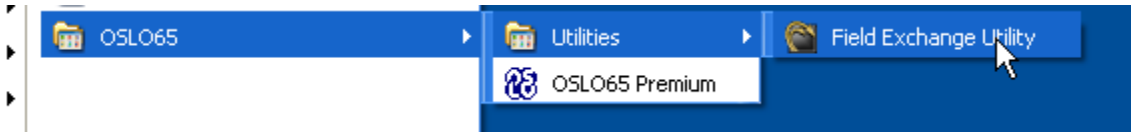
- Verify that the OSLO Hardware Key is connected to the PC
- Choose the **Hardware Key** tab
- Click on **Get Locking Code**



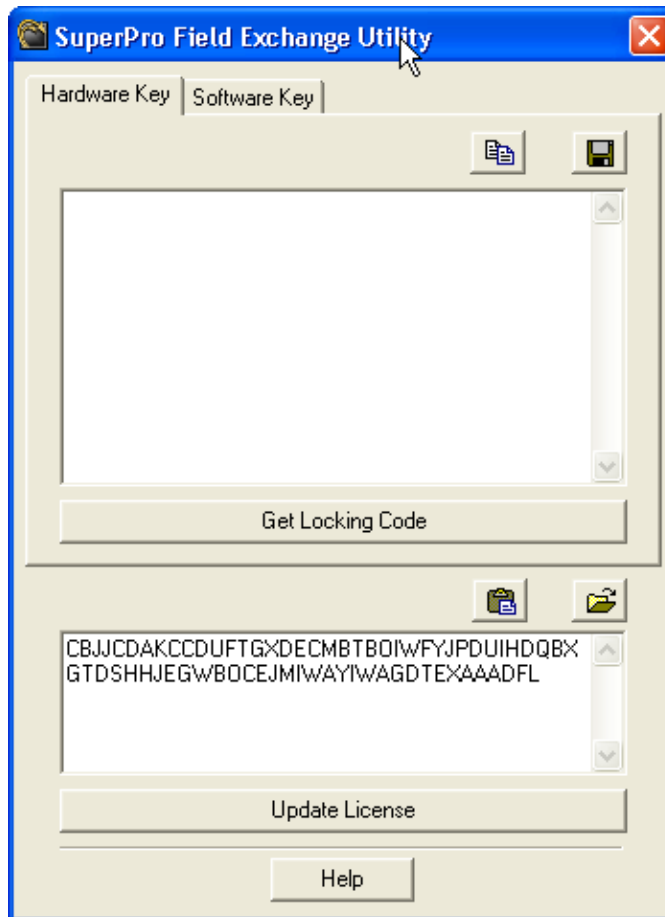
- Use either the **Copy to Clipboard** button or the **Save locking code to a file** button (.loc), and send the Locking Code to license@lambdares.com.
- Please include your name, company name, and OSLO Key Number in the e-mail to assist us in identifying you.

Receive License Code and Update License

- The installation of OSLO has also installed the Field Exchange Utility.
- Launch the **Field Exchange Utility** from the Programs list in Windows



- Verify that the OSLO Hardware Key is connected to the PC
- Choose the **Hardware Key** tab
- Use either the **Paste to Clipboard** button or the **Load license code to a file** button to load the license code.



- Click **Update License**.
- Please note that this action has reprogrammed the Hardware Key, so if the key is transferred to another PC there is no further action required to run the software.

QUICKSTART GUIDE - OSLO NETWORK LICENSE

This document provides the step-by-step instructions for new purchasers of OSLO with a Network License to get the program running.

Website Registration (each OSLO User)

The OSLO software, documentation, examples, libraries, and tutorials are maintained in a secure area of the Lambda Research website. Users must receive a Website Serial Number from Lambda Research and use this serial number to register on the website.

- Receive Website Serial Number from Lambda Research
- Go to http://www.lambdares.com/technical_support/login/registration/

The screenshot shows the 'New User Registration' form on the Lambda Research website. The form is located in a dark-themed navigation bar. The navigation bar contains the following links: OPTICAL DESIGN SOFTWARE, TECHNICAL SUPPORT, COMPANY, NEWS AND EVENTS, CONTACT US, and a vertical menu on the right with links: Sign, Worl, Requ, Opti, Tech, Com, New, and Cont. The registration form itself has the following fields: First Name, Last Name, Username, Password, Confirm Password, Email, Company Name, and Serial Number*. Below the Serial Number* field are 'Submit' and 'Reset' buttons. A note at the bottom of the form states: '* Serial numbers may be obtained from LRC original software packaging or by selecting the Help|License box in any LRC software product. If you cannot locate your serial number, you may request that your number be e-mailed to you: Request Serial Number. Please provide your name and company.'

- Enter the information, including the Website Serial Number
- Please make note of the Username and Password that you have chosen, as these will be needed for future access to the secure pages of the website
- Click Submit

OSLO Installation (each PC running OSLO)

- Go to http://www.lambdaresearch.com/technical_support/oslo/releases/
- Login using the Username and Password you established during Website Registration

AEROSPACE & DEFENSE OPTICS LIGHTING DESIGN DISPLAY DESIGN LIFE SCIENCES OPTICS INDUSTRIAL MANUFACTURING & IT OPTICS OPTICS SOFTWARE FOR EDUCATION [Sign In](#)

Login Required

Lambda Research Support Subscriptions gives you access to software releases, updated materials and properties, extensive technical support and our comprehensive Knowledge Base.

Returning Customer Login*

Username

Password

[New User Registration](#)
[Forgot your password?](#)
[Update Support Subscription](#)

Optical
Technic
Comp
News
Conta

- Download the current release of OSLO
- Select the OSLO edition (Premium, Standard, or Light) consistent with your OSLO license
- Note that additional OSLO Documentation is available from this webpage

OPTICS & IT OPTICS FOR EDUCATION [RELEASES](#)

OSLO Releases

Current OSLO Release

OSLO 6.5.0 Released on 30 April 2010

Download and install OSLO 6.5.0:

- [OSLO65_Premium_Installer](#)
- [OSLO65_Standard_Installer](#)
- [OSLO65_Light_Installer](#)

Optical
Technic
TraceF
TraceF SolidW
OSLO
Rel
Earl
Exa

- Double-click on OSLO...Installer.exe to install OSLO and follow the steps in the OSLO Installation Guide to complete the installation

Connect the Hardware Key (OSLO License Server)

- Select a PC on the Network that will act as the OSLO License Server and connect the OSLO Hardware Key
- If the OSLO software is not installed on this PC, download and install the Sentinel Protection Installer from the Hardware Key manufacturer's website:
 - http://www.safenet-inc.com/support_and_downloads/download_drivers/sentinel_drivers.aspx
- Ports 6001 and 6002 are used for the communication between the server and the PC's running OSLO, so these ports must be opened in the server's firewall.

Launching OSLO (each PC running OSLO)

- Select the **OSLO** icon from Windows Start Menu / Programs.



- The first time OSLO is launched, you will be prompted to enter license information:



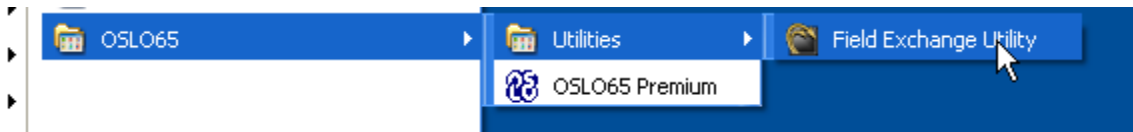
- Enter the Server host name
- Click OK to begin the OSLO session

Temporary License / Updating a Network License

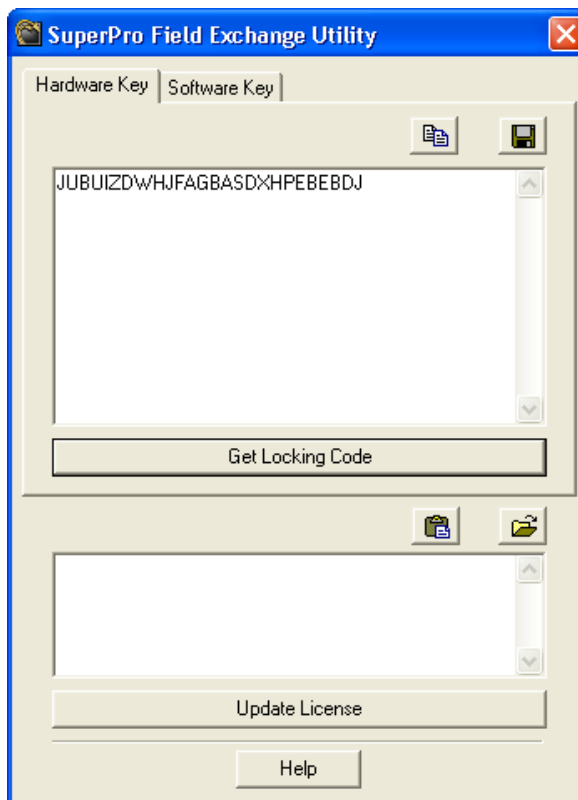
- The Hardware Key has been programmed with a temporary license.
- Lambda Research will provide a permanent OSLO license after receiving payment for OSLO.
- To update the hardware key with the permanent OSLO license, please follow the steps in the next two sections to **Send Locking Code to Lambda Research** and **Receive License Code and Update License**.

Send Locking Code to Lambda Research

- The installation of OSLO has also installed the Field Exchange Utility.
 - If OSLO is not installed on the OSLO License Server, the utility can be downloaded and run on the OSLO License Server. Download **SafeNetFieldExchangeUtility.zip** from the OSLO Releases webpage:
 - http://www.lambdares.com/technical_support/Oslo/releases/
- Launch the **Field Exchange Utility** from the Programs list in Windows



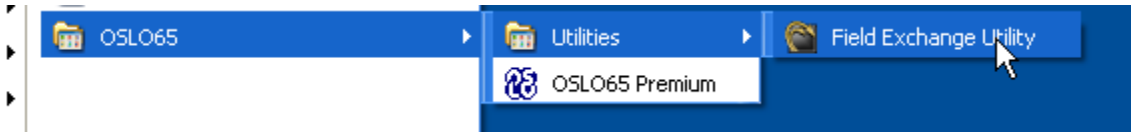
- Verify that the OSLO Hardware Key is connected to the PC
- Choose the **Hardware Key** tab
- Click on **Get Locking Code**



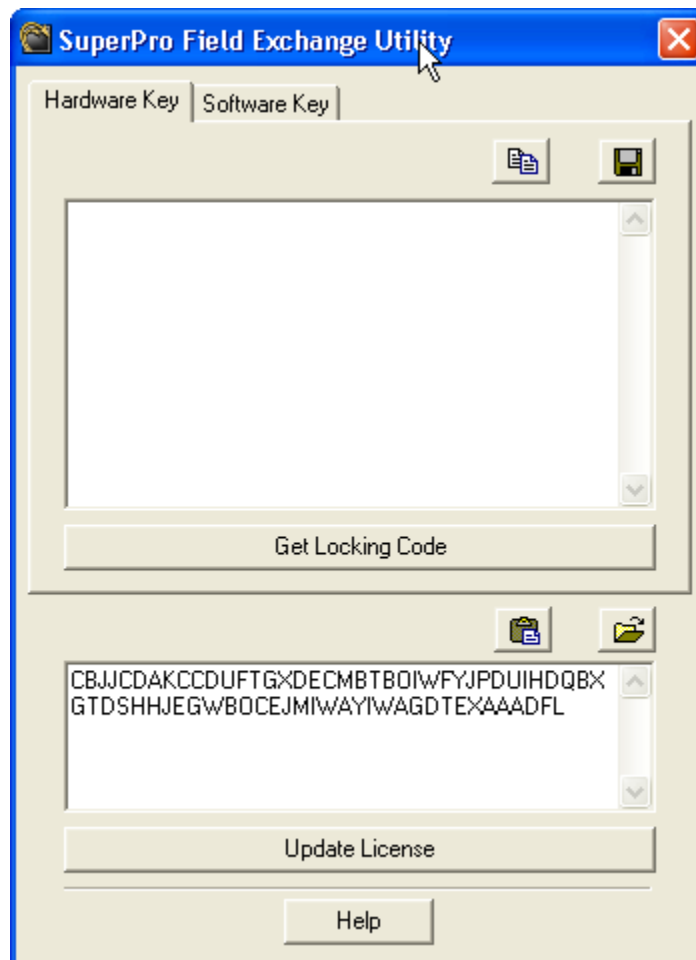
- Use either the **Copy to Clipboard** button or the **Save locking code to a file** button (.loc), and send the Locking Code to license@lambdares.com.
- Please include your name, company name, and OSLO Key Number in the e-mail to assist us in identifying you.

Receive License Code and Update License

- Verify that the OSLO Hardware Key is connected to the PC
- Launch the **Field Exchange Utility** from the Programs list in Windows



- Choose the **Hardware Key** tab
- Use either the **Paste to Clipboard** button or the **Load license code to a file** button to load the license code.

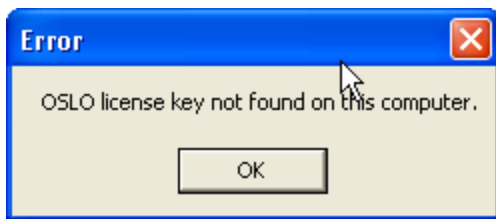


- Click **Update License**.
- Please note that this action has reprogrammed the Hardware Key, so if the key is transferred to another PC there is no further action required to run the software.

LICENSE ERROR MESSAGES / TROUBLESHOOTING GUIDE

OSLO 6.5 and later uses Sentinel SuperPro keys from SafeNet for both Single-computer licenses and Network licenses. This document is intended to facilitate the troubleshooting of license issues related to these keys, and lists each error message, the possible causes of that error message, tests to determine the cause, and the steps to resolve the error.

OSLO license key not found on this computer



S1 - Sentinel System Drivers are failing/not installed

PROBLEM – Sentinel System Drivers from SafeNet enable the communication between OSLO and the License Key. These drivers are included in the OSLO installation, but for some reason they may not have installed properly, or they may be installed but not be functioning properly.

TEST – When the Sentinel Drivers are installed, there are actually two separate services installed. The “Sentinel Keys Server controls Single-computer (a.k.a standalone) keys, while the Sentinel Protection Server controls Network keys. Select Control Panel / Administrative Tools / Services / Sentinel, and the two services should be on the list. Verify that the “Status” for Sentinel Keys Server is “Started”.

RESOLUTION #1 – If the Sentinel Keys Server appears on the list of services, right-click on Sentinel Keys Server and select “Stop”, then right-click again and click “Start” to manually start the service.

RESOLUTION #2A – If the Sentinel Keys Server does not appear on the list of services, download and run the latest Sentinel Protection Installer from the SafeNet website:

http://www.safenet-inc.com/support_and_downloads/download_drivers/sentinel_drivers.aspx

RESOLUTION #2B – If the Sentinel Keys Server does not appear on the list of services even after downloading and installing the drivers, download and run the SSD Cleanup Utility from the same webpage, then try again to run the Sentinel Protection Installer. Please note that the cleanup utility also uninstalls OSLO and any other applications that have installed the Sentinel drivers, so OSLO will need to be reinstalled.

S2 - Key not updated for latest Software Release

PROBLEM - OSLO Releases like OSLO 6.5.0 are always of the format Major.Minor.Dot. When the key is updated to run a specific release, it will run all the dot releases of that series. If a Major or Minor release is installed, the key needs to be updated with the license information for that release.

TEST - There is file named OsloLicenseKey.log that is generated each time you click "Cancel" in the License Information dialog to help us to troubleshoot problems like this. Please connect the problem key, launch OSLO 6.5, then hit Cancel to get out of the endless loop in the OSLO License Information dialog. This should generate the log file in one of the following locations:

Windows XP - C:\Documents and Settings\\Application Data\Lambda Research Corporation\OSLO
Windows Vista and Windows 7 - C:\Users\\AppData\Roaming\LambdaResearch Corporation\OSLO

Open OsloLicenseKey.log in a text editor, and view line 9. If it reads "9: 65", that means the key is currently programmed for OSLO 6.5.

RESOLUTION - To obtain an updated license, you must provide us with a Locking Code. Please follow the steps in the section of this Installation Guide titled "Requesting/Updating Licenses".

S3 – Entering “standalone” for a Single-computer license when a Network Key is connected

PROBLEM - This error message will appear if a Network License Key is connected to the PC, but “standalone” has been typed in the OSLO License Information dialog (as if a Single-computer license key were being used)

TEST/RESOLUTION - Click OK to this error to return to the OSLO License Information dialog, then enter the Server Name where the Network License Key is connected.

S4 - Remote Desktop

PROBLEM – A Single-computer License Key will not run OSLO via a Remote Desktop connection. SafeNet, the manufacturers of the Sentinel Keys, declares this as intended behavior on Page 26 of the Sentinel End User Guide:

http://www2.safenet-inc.com/support/files/SafeNet_Sentinel_EndUser_Guide.pdf

Using Key through Remote Desktop or Terminal Server

Please Note that if you attempt to run a Sentinel Key protected application in standalone mode via a remote client (Terminal Server, VNC, WinXP remote client...), the software protected with Sentinel keys will not allow this for security reasons if application is protected in Standalone mode. You will either need to run the software while directly logged into the machine, or need to get in touch with you software vendor for software protected in Network mode.

TEST – To confirm that Remote Desktop is the cause of the License Error, log into the PC directly and try launching OSLO without using Remote Desktop.

RESOLUTION – OSLO can be run from Remote Desktop with a Network License Key. Contact sales@lambdares.com to request a change from a Single-computer License Key to a Network License Key.

S5 - USB Port Failure

PROBLEM – The OSLO Single-computer License Key may be connected to a USB Port on the PC that is disabled or failing.

TEST – To test the PC's USB port, connect another USB device (mouse, keyboard, USB memory stick) to the port, and see if that device works properly.

RESOLUTION – Connect the OSLO License Key to a working port on the PC.

S6 - Key Failure / Programming Error

PROBLEM – It is possible that the License key is failing or has been misprogrammed.

TEST - There is file named OsloLicenseKey.log that is generated each time you click "Cancel" in the License Information dialog to help us to troubleshoot problems like this. Please connect the problem key, launch OSLO 6.5, then hit Cancel to get out of the endless loop in the OSLO License Information dialog. This should generate the log file in one of the following locations:

Windows XP - C:\Documents and Settings\<<USERNAME>\Application Data\Lambda Research Corporation\OSLO
Windows Vista and Windows 7 - C:\Users\<<USERNAME>\AppData\Roaming\LambdaResearch Corporation\OSLO

Send the OsloLicenseKey.log file to license@lambdares.com to enable us to determine if the key is functioning and is programmed correctly.

RESOLUTION - To obtain an updated license, you must provide us with a Locking Code. Please follow the steps in the section of this Installation Guide titled "Requesting/Updating Licenses".

S7 – Conflict with another Sentinel Key

PROBLEM – If another Sentinel Key is connected to the PC, OSLO may be reading the non-OSLO key.

TEST – None

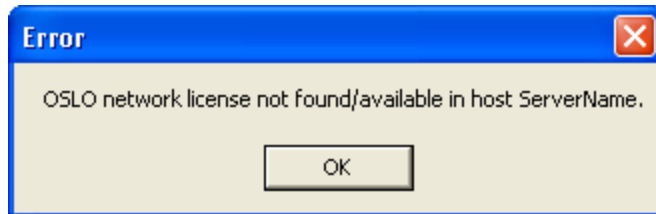
RESOLUTION – Remove all other Sentinel Keys from the PC, then try launching OSLO.

S8 – Additional Information

Additional troubleshooting information is available in the Sentinel End User Guide:

http://www2.safenet-inc.com/support/files/SafeNet_Sentinel_EndUser_Guide.pdf

OSLO network license not found/available in host



N1 - Sentinel System Drivers are failing/not installed

PROBLEM – Sentinel System Drivers from SafeNet enable the communication between OSLO and the License Key. These drivers are included in the OSLO installation, but the license server may not have OSLO installed, or for some other reason they may not have installed properly, or they may be installed but not be functioning properly.

TEST – When the Sentinel Drivers are installed, there are actually two separate services installed. The “Sentinel Keys Server controls Single-computer (a.k.a standalone) keys, while the Sentinel Protection Server controls Network keys. Select Control Panel / Administrative Tools / Services / Sentinel, and the two services should be on the list. Verify that the “Status” for Sentinel Protection Server is “Started”.

RESOLUTION #1 – If the Sentinel Protection Server appears on the list of services, right-click on Sentinel Protection Server and select “Stop”, then right-click again and click “Start” to manually start the service.

RESOLUTION #2A – If the Sentinel Protection Server does not appear on the list of services, download and run the latest Sentinel Protection Installer from the SafeNet website:

http://www.safenet-inc.com/support_and_downloads/download_drivers/sentinel_drivers.aspx

RESOLUTION #2B – If the Sentinel Protection Server does not appear on the list of services even after downloading and installing the drivers, download and run the SSD Cleanup Utility from the same webpage, then try again to run the Sentinel Protection Installer. Please note that the cleanup utility also uninstalls OSLO and any other applications that have installed the Sentinel drivers, so OSLO will need to be reinstalled.

N2 - Key not updated for latest Software Release

PROBLEM - OSLO Releases like OSLO 6.5.0 are always of the format Major.Minor.Dot. When the key is updated to run a specific release, it will run all the dot releases of that series. If a Major or Minor release is installed, the key needs to be updated with the license information for that release.

TEST - There is file named OsloLicenseKey.log that is generated each time you click "Cancel" in the License Information dialog to help us to troubleshoot problems like this. Please connect the problem key to the Server, launch OSLO 6.5, then hit Cancel to get out of the endless loop in the OSLO License Information dialog. This should generate the log file in one of the following locations:

Windows XP - C:\Documents and Settings\\Application Data\Lambda Research Corporation\OSLO
Windows Vista and Windows 7 - C:\Users\\AppData\Roaming\LambdaResearch Corporation\OSLO

Open OsloLicenseKey.log in a text editor, and view line 9. If it reads “9: 65”, that means the key is currently programmed for OSLO 6.5.

RESOLUTION - To obtain an updated license, you must provide us with a Locking Code. Please follow the steps in the section of this Installation Guide titled “Requesting/Updating Licenses”.

N3 - Network license(s) are already in use

PROBLEM – This error message will appear if the Network license(s) are already in use.

TEST – None

RESOLUTION – Launch OSLO at a later time once the Network License is available.

N4 - Entering a Server Name for a Network license when a Single-computer Key is connected

PROBLEM - This error message will appear if a Single-computer License Key is connected to the PC, but a Server Name (anything other than “standalone”) has been entered in the OSLO License Information dialog.

TEST/RESOLUTION - Click OK to this error to return to the OSLO License Information dialog, then enter “standalone” to run OSLO from the Single-computer License Key.

N5 - Ports 6001/ 6002/7001/7002 are blocked or are already in use

PROBLEM – [Note: this possible problem is not applicable if the Network Key is connected to the same PC that is running OSLO] The key communicates over the network using Ports 6001/6002/7001/7002. Communication over these ports may be blocked by a firewall, or another service might already be using these ports for communication.

TEST #1 (preliminary test that provides some information) – Disconnect the Key from the Server, and connect it directly to the PC that is running OSLO. Launch OSLO, and when prompted to enter the ServerName in the OSLO information dialog, enter the name of your computer. If OSLO launches successfully, that eliminates N2, N3, N4, and N7 as possible causes, leaving N1, N5, and N6 on the Server PC as possible causes.

TEST #2 - It is recommended that you contact your IT staff to determine if the firewall is blocking communication through Port 6001/6002/7001/7002

TEST #3 – To determine if Ports 6001/6002/7001/7002 are in use by another application, please generate a STATS.txt file by following these steps:

- Open the command prompt window
- type in the command netstat -a -b > stats.txt
- the STATS.txt will be created and saved to the Root drive
- review STAT.txt to see if any application is using Ports 6001/6002/7001/7002

RESOLUTION #1 - If the results of TEST #2 conclude that the firewall communication through Ports 6001/6002/7001/7002, it is recommended that you contact your IT staff to create the necessary firewall exceptions.

RESOLUTION #2 - If the results of TEST #3 conclude that another application is using Ports 6001/6002/7001/7002, one possible options is to turn OFF the “autostart” feature to both the Sentinel Protection Server, and the conflicting service (Control Panel / Administrative Tools / Services /), and turn each service ON manually only when they are needed.

N6 - USB Port Failure

PROBLEM – The OSLO Network License Key may be connected to a USB Port on the PC that is disabled or failing.

TEST – To test the PC's USB port, connect another USB device (mouse, keyboard, USB memory stick) to the port, and see if that device works properly.

RESOLUTION – Connect the OSLO License Key to a working port on the PC.

N7 - Key Failure / Programming Error

PROBLEM – It is possible that the License key is failing or has been misprogrammed.

TEST - There is file named OsloLicenseKey.log that is generated each time you click "Cancel" in the License Information dialog to help us to troubleshoot problems like this. Please connect the problem key, launch OSLO 6.5, then hit Cancel to get out of the endless loop in the OSLO License Information dialog. This should generate the log file in one of the following locations:

Windows XP - C:\Documents and Settings\<>USERNAME>\Application Data\Lambda Research Corporation\OSLO
Windows Vista and Windows 7 - C:\Users\<>USERNAME>\AppData\Roaming\LambdaResearch Corporation\OSLO

Send the OsloLicenseKey.log file to license@lambdares.com to enable us to determine if the key is functioning and is programmed correctly.

RESOLUTION - To obtain an updated license, you must provide us with a Locking Code. Please follow the steps in the section of this Installation Guide titled "Requesting/Updating Licenses".

N8 – Misspelled/Incorrect ServerName in License Information dialog

PROBLEM – OSLO cannot communicate with the Network License Key if the Server Name entered in the OSLO License Information dialog is misspelled or is not the name of the PC where the key resides.

TEST – None

RESOLUTION – Confirm the name of the Server, and confirm that the OSLO Key is connected to that Server.

N9 – No Network Connection to Server

PROBLEM – OSLO cannot communicate with the Network License Key if the Network connection is not working.

TEST – It is recommended that you contact your IT rep and ask that they "ping" the server from your PC.

RESOLUTION – Correct the Network connection problem.

N10 – Conflict with another Sentinel Key

PROBLEM – If another Sentinel Key is connected to the PC, OSLO may be reading the non-OSLO key.

TEST – None

RESOLUTION – Remove all other Sentinel Keys from the PC, then try launching TracePro.

N11– Additional Information

Additional troubleshooting information is available in the Sentinel End User Guide:

http://www2.safenet-inc.com/support/files/SafeNet_Sentinel_EndUser_Guide.pdf

Your license expired! Please contact Lambda Research Corporation.



T1 - Expired License

PROBLEM – In general, the “Your license expired!” message indicates that the OSLO Key was programmed with a temporary license, and that license has now expired.

TEST – None

RESOLUTION – To obtain an updated license, you must provide us with a Locking Code. Please follow the steps in the section titled “Requesting/Updating Licenses”.

T2 - Expired Trial License and Single-computer License Key not found

PROBLEM – If you at one time in the past performed a 30-Day-Trial of OSLO (which uses a Software Key rather than a Hardware Key), and the PC is failing to recognize the Single-computer License Key, OSLO will revert to try to use the Software Key Trial License, and display this message because that Trial License has already expired.

TEST – Click OK to this error message, and then the OSLO single-computer license key not found on this computer appears.

RESOLUTION – Follow the steps to resolve the “OSLO single-computer license key not found on this computer” message, the “Your license expired” message is not relevant.

T3 - Clock Tampering

PROBLEM – OSLO uses the Date and Time from the PC’s System Clock to determine the expiration date for a temporary license. The software has logic to detect when the System Clock has been tampered, and it will behave as if the license has expired.

TEST – None

RESOLUTION – The resolution of this problem is to return the key to Lambda Research for reprogramming. Please send notification to license@lambdaresearch.com before returning the key. Lambda Research does not accept responsibility for shipping costs when the key needs to be reprogrammed under these circumstances.

Field Exchange Utility Errors

F1 - Sentinel System Drivers are failing/not installed

PROBLEM – Sentinel System Drivers from SafeNet enable the communication between OSLO and the License Key. These drivers are included in the OSLO installation, but the license server may not have OSLO installed, or for some other reason they may not have installed properly, or they may be installed but not be functioning properly.

TEST – When the Sentinel Drivers are installed, there are actually two separate services installed. The “Sentinel Keys Server controls Single-computer (a.k.a standalone) keys, while the Sentinel Protection Server controls Network keys. Select Control Panel / Administrative Tools / Services / Sentinel, and the two services should be on the list. Verify that the “Status” for Sentinel Protection Server is “Started”.

RESOLUTION #1 – If the Sentinel Keys Server and the Sentinel Protection Server appears on the list of services, but the Status is something other than Started, right-click on the service and select “Start” to start the service.

RESOLUTION #2A – If the Sentinel Keys Server and the Sentinel Protection Server do not appear on the list of services, download and run the latest Sentinel Protection Installer from the SafeNet website:

http://www.safenet-inc.com/support_and_downloads/download_drivers/sentinel_drivers.aspx

RESOLUTION #2B – If the Sentinel Keys Server and the Sentinel Protection Server do not appear on the list of services even after downloading and installing the drivers, download and run the SSD Cleanup Utility from the same webpage, then try again to run the Sentinel Protection Installer. Please note that the cleanup utility also uninstalls OSLO and any other applications that have installed the Sentinel drivers, so OSLO will need to be reinstalled.

F2 - USB Port Failure

PROBLEM – The OSLO License Key may be connected to a USB Port on the PC that is disabled or failing.

TEST – To test the PC’s USB port, connect another USB device (mouse, keyboard, USB memory stick) to the port, and see if that device works properly.

RESOLUTION – Connect the OSLO License Key to a working port on the PC.

F3 – Conflict with another Sentinel Key

PROBLEM – If another Sentinel Key is connected to the PC, the Field Exchange Utility may have read the non-OSLO key when generating the Locking Code or it may be attempting to update the non-OSLO Key.

TEST – None

RESOLUTION – Remove all other Sentinel Keys from the PC, then send another Locking Code to license@lambdare.com to initiate the process of updating the key again.

F4 - Key Failure / Programming Error

PROBLEM – It is possible that the License key is failing or has been misprogrammed.

TEST - There is file named OsloLicenseKey.log that is generated each time you click "Cancel" in the License Information dialog to help us to troubleshoot problems like this. Please connect the problem key, launch OSLO 6.5, then hit Cancel to get out of the endless loop in the OSLO License Information dialog. This should generate the log file in one of the following locations:

Windows XP - C:\Documents and Settings\<<USERNAME>\Application Data\Lambda Research Corporation\OSLO
Windows Vista and Windows 7 - C:\Users\<<USERNAME>\AppData\Roaming\LambdaResearch Corporation\OSLO

Send the OsloLicenseKey.log file to license@lambdares.com to enable us to determine if the key is functioning and is programmed correctly.

RESOLUTION - To obtain an updated license, you must provide us with a Locking Code. Please follow the steps in the section of this Installation Guide titled “Requesting/Updating Licenses”.

F5 – Additional Information

Additional troubleshooting information is available in the Sentinel End User Guide:

http://www2.safenet-inc.com/support/files/SafeNet_Sentinel_EndUser_Guide.pdf

Installation Troubleshooting

I1 – Conflict with another application using Port 6001/6002/7001/7002

PROBLEM – The OSLO Installation is also installing the Sentinel Drivers that OSLO uses to communicate with the hardware key. The Sentinel Installation makes changes to the settings for Ports 6001/6002/7001/7002, these are the ports that are used for communication with the Sentinel Hardware Key. If another application is accessing these ports during the Sentinel portion of the installation, the entire OSLO installation will fail.

TEST #1 – Port 6001 is known to be used by LabVIEW, a software program available from National Instruments:

<http://digital.ni.com/public.nsf/allkb/F852A8CFA4A8CABE862571C00068EF7C>

TEST #2 – To determine if Ports 6001/6002/7001/7002 are in use by another application, please generate a STATS.txt file by following these steps:

- Open the command prompt window
- type in the command netstat -a -b > stats.txt
- the STATS.txt will be created and saved to the Root drive
- review STAT.txt to see if any application is using Ports 6001/6002/7001/7002

RESOLUTION (perform these steps only at a time when the connection to the conflicting application can be disrupted)

- from the Windows Control Panel select Administrative Tools/Services
- on the alphabetical list of services, right-click on each conflicting service and STOP the service. (for LabView, look for any services with names that start with "National" or "NI", or “Lookup Citadel Server”)
- install OSLO
- back in Control/Administrative Tools/Services, right-click and START each of conflicting services