# Living Image® Version 4.7 Software

## Installation and Licensing Guide

CE

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PN CLS150182 Rev A

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# 1 Before You Begin

*Requirements*

*Contact Information* on page 2

## 1.1 Requirements

### Hardware & Software Requirements

For optimum performance, Living Image 4.7 software requires hardware and software that meet or exceed the minimum requirements listed in Table 1.1.

**NOTE:** Living Image software only supports English operating systems.

**Table 1.1** Minimum Analysis Workstation Requirements Without the 3D Multi-Modality Tools

| Item | Specification |
|---|---|
| PC, Windows 7 32-bit | ▪ 2GHz Core 2 Duo or higher processor recommended<br>▪ 4GB RAM |
| PC, Window 7/8/10 64-bit | ▪ 2GHz Quad Core (i5, i7) processor<br>▪ 8GB RAM recommended for IVIS® Spectrum CT data analysis |
| Mac, OS/macOS[1] 10.10 to 10.12 | ▪ 2GHz Core 2 Duo or higher processor recommended<br>▪ 4GB RAM or higher recommended for IVIS® Spectrum CT data analysis |
| RAM recommended | 4 GB or greater |
| Virtual memory | 2 - 4 GB |
| Hard drive available space | Minimum: 300MB<br>Recommended: 1 GB and above |
| Graphics card | 256MB dedicated, OpenGL2.0 or later |
| Display | 17 inch or larger |

[1] OS X/macOS is supported for the analysis module only. A Mac computer equipped with an ATI Radeon video card or certain Intel Iris Graphics chipsets is required for 3D Multi-Modality support on OS X.

If you will be using the 3D Multi-Modality tools, the graphics card must meet the requirements in Table 1.2.

**Table 1.2** Graphics Card Requirements for 3D Multi-Modality Tools

| Item | Specification |
|---|---|
| OpenGL Version Requirement[1] | OpenGL 2.0 and above. |
| OpenGL Extension Requirement[1] | GL_EXT_Texture3D |
| Graphics Card Memory | Recommended: 1GB (Dedicated) |
| Consumer Graphics Cards (Desktop/ Mobile, Windows/Mac) | Supported:<br>– NVIDIA® GeForce® 8 Series and above (8, 9, 100, 200, 300 and 400 series)<br>– ATI Radeon™ HD 4000 Series and above (4000 and 5000 series)<br>– Intel HD 3000 and above and Intel Iris/Iris Pro Graphics (Mac)<br>Recommended:<br>– Desktop - NVIDIA GeForce GT 240 and above<br>– Mobile - NVIDIA GeForce GT 230M and above |
| Workstation Graphics Cards (Desktop/ Mobile, Windows/Mac) | Supported:<br>– NVIDIA® Quadro® NVS Series and above (NVS & FX series)<br>– ATI FireGL™ V5600 and above (FireGL, FirePro and CrossFire series)<br>Recommended:<br>– Desktop - Quadro FX 1800 and above<br>– Mobile - Quadro FX 880M and above |

[1] If the appropriate license is not installed or the GPU does not meet these specifications, the 3D Multi-Modality tools will not appear in the tool palette.

## 1.2 Contact Information

PerkinElmer Health Sciences
940 Winter Street
Waltham, Massachusetts 02451 USA
www.PerkinElmer.com

Technical Support
Telephone: +1 (800) 762-4000 (US) or +1 (203) 425-4602
Fax: +1 (203) 944-4904
E-mail: global.techsupport@perkinelmer.com

Sales: CustomerCareUS@perkinelmer.com

# 2 Installing Living Image® Software On a PC

*Installing the Software*

*Troubleshooting Installation* on page 8

## 2.1 Installing the Software

**NOTE:** Living Image 4.7 software can only be installed on a Windows 7.1 with SP1 (32-bit or 64-bit), Windows 8.1, or Window 10 OS. Administrative privileges are required to install and configure Living Image 4.7 software on Windows operating systems.

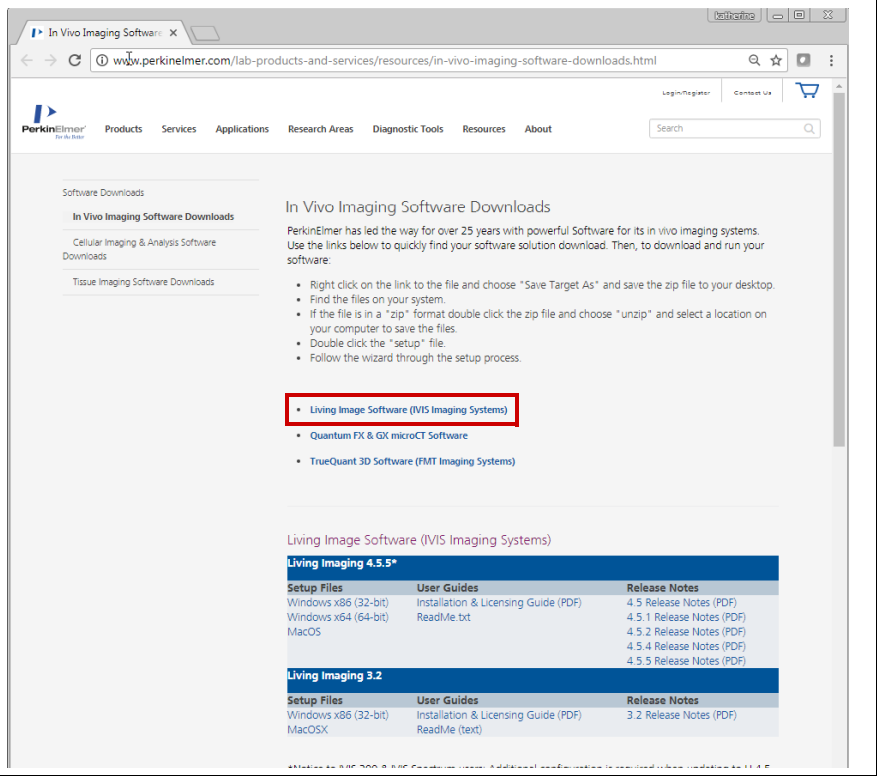
Living Image software will be installed at the following locations:

| Application | Location |
|---|---|
| 32-bit application on Windows 7.1 32-bit OS | C:\Program Files\Caliper Life Sciences\Living Image |
| 32-bit Application on Windows 7.1 64-bit OS | C:\Program Files (x86)\Caliper Life Sciences\Living Image |
| 64-bit Application on Windows 7.1 64-bit OS | C:\Program Files\Caliper Life Sciences\Living Image |
| 32-bit Application on Windows 8.1 64-bit OS | C:\Program Files (x86)\Caliper Life Sciences\Living Image |
| 64-bit Application on Windows 8.1 64-bit OS | C:\Program Files\Caliper Life Sciences\Living Image |
| 64-bit Application on Windows 10 64-bit OS | C:\Program Files\Caliper Life Sciences\Living Image |

The 32-bit application will work on a 32-bit or 64-bit operating system; however, the 64-bit application is recommended for a 64-bit operating system. Only the 32-bit application can be installed on a 32-bit operating system.

1. Go to the download URL http://www.perkinelmer.com/lab-products-and-services/resources/in-vivo-imaging-software-downloads.html (Figure 2.1).

**Figure 2.1** PerkinElmer Software Download Web Page




2. Click "Living Image Software (IVIS Imaging Systems)" on the download page and select a setup file (for example, "Windows x64 (64-bit)").
3. After the download is complete:
   a. Navigate to the Install.exe file using Windows Explorer.
   b. Right-click the file and select “Run as administrator” from the shortcut menu, then enter the local administrator’s user name and password.

      The installation will begin.
4. Choose a language and click **OK** in the Welcome screen that appears (Figure 2.2).

   The Introduction screen appears (Figure 2.3).

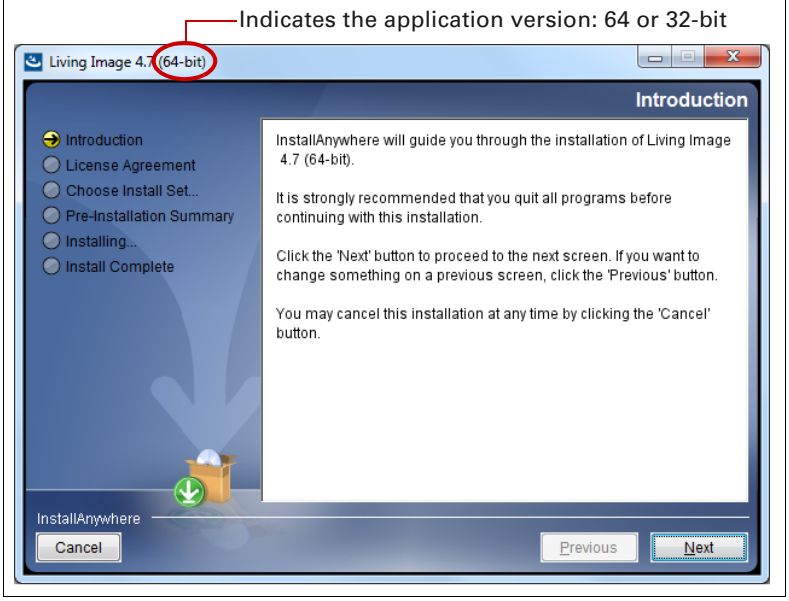
**NOTE:** You must activate the permanent license after the software is installed. If the 3D Multi-Modality and DyCE tools were installed, a separate license for each must be activated. See page 14 for more details.

**Figure 2.2** Welcome Screen



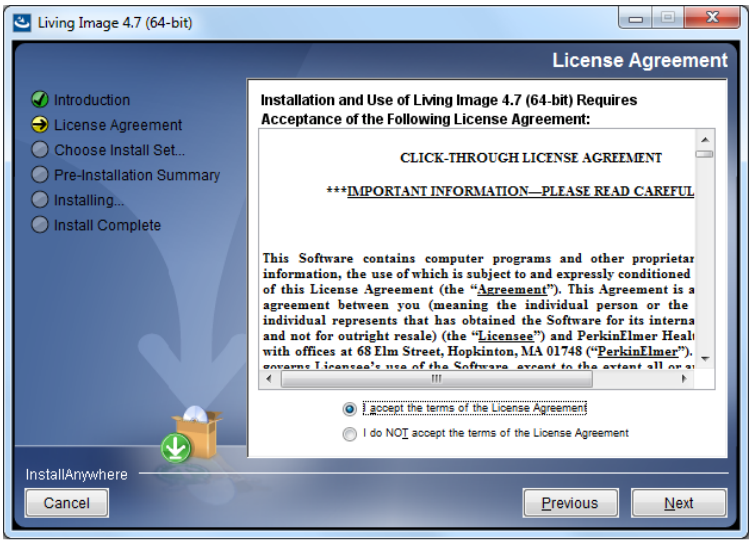

5. Review the introductory information and click **Next**.

**Figure 2.3** Introduction Screen




6. Read the license agreement (Figure 2.4). To continue with the installation, accept the terms of the license agreement and click **Next**.

**Figure 2.4** License Agreement

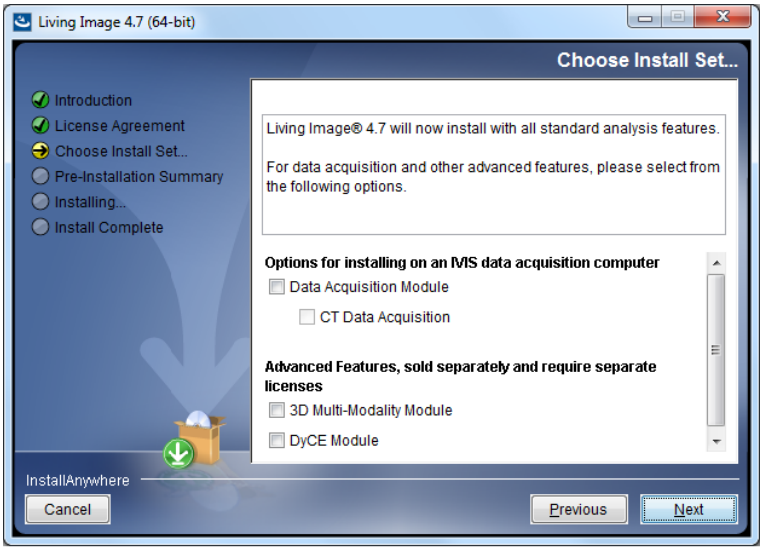



**7.** If you are installing the optional 3D Multi-Modality and/or DyCE tools, choose these options in the Choose Install Set screen (Figure 2.5). Click **Next**.

The installation proceeds.

**NOTE:** The 3D Multi-Modality and the DyCE tools each require a separate license.

**Figure 2.5** Choose Install Set Screen




Living Image 4.7 software is now ready to install the standard analysis features.

**Data Acquisition Module** - Choose this option if you are installing the software on an acquisition workstation.

**3D Multi-Modality Module** - Choose this option to install the 3D Multi-Modality tools.

**DyCE Module** - Choose this option to install the DyCE tools.

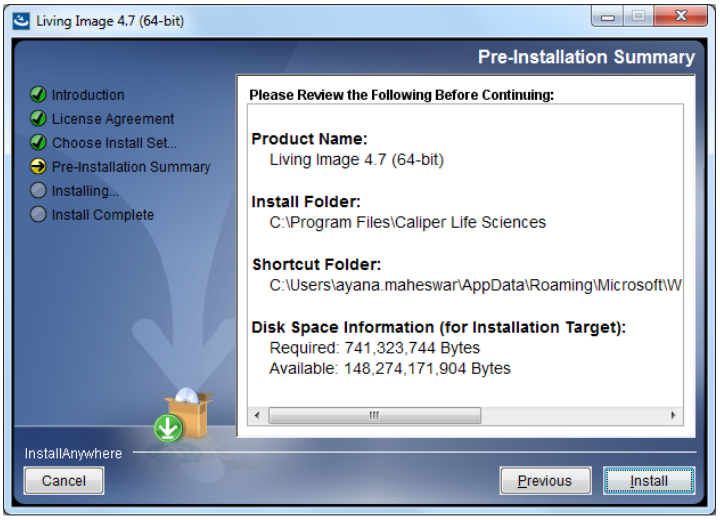
**NOTE:** The 3D Multi-Modality tools and the DyCE tools each require a separate license.

8. Click **Next**
9. Confirm that the installation information is correct (Figure 2.6), then click **Install**.

   If the Living Image 4.7 installer detects the Living Image 3.x application (analysis or acquisition version), you will be prompted to confirm uninstallation of the earlier version (Figure 2.7).

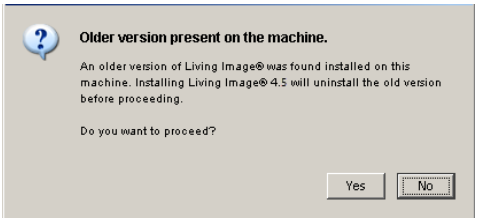
   Click **Yes** in the confirmation message to uninstall the Living Image 3.x software and install the Living Image 4.7 software. Click **No** to terminate the installation program.

**Figure 2.6** Pre-installation Summary Screen



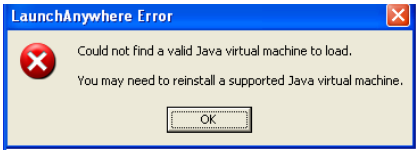

**NOTE:** If older Living Image software is installed on the acquisition computer, the Living Image 4.7 installer will uninstall the old software and copy all essential acquisition calibration files (CameraInfo.txt, CameraLog.txt, Background folder, LI_AutoBkgList.csv, Emfilters folder, FLReference folder, SLReference folder, CCDCal folder, if such exists) to the Living Image 4.7 directory.

**Figure 2.7** Confirmation Message to Uninstall Older Living Image Software



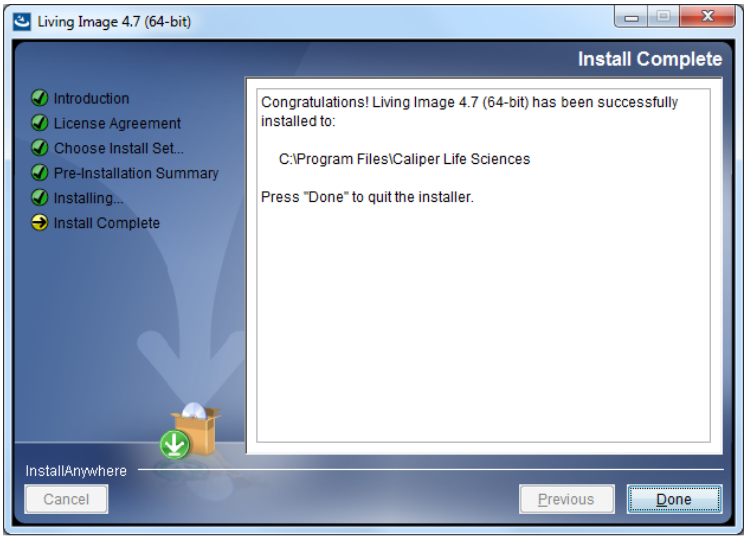

**NOTE:** If the message shown in Figure 2.8 appears, click **OK**. The installation will proceed.

**Figure 2.8** Launch AnyWhere Error Message



**10.** Click **Done** in the Install Complete screen after the installation is finished (Figure 2.9).

**Figure 2.9** Install Complete Screen



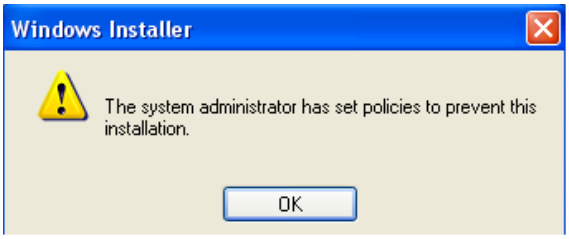

**11.** After successful installation on an acquisition computer, start the Living Image 4.7 software and verify that you can initialize the IVIS® Imaging System. If you are unable to initialize the imaging system, contact PerkinElmer technical support (see page 2).

**NOTE:** After installing Living Image software, you must activate the permanent license. If the 3D Multi-Modality and DyCE tools were installed, a separate license for each must be activated. See page 14 for more information.

## 2.2 Troubleshooting Installation

If the error message shown in Figure 2.10 appears, it indicates that the installation cannot proceed due to limited user privileges. Click **OK** in the message to cancel the installation.

**Figure 2.10** Error Message




To resolve this issue:

- Login with the Administrator user account and start the installation.

OR

- Right-click the Install.exe file and select “Run as administrator” from the shortcut menu, then enter the local administrator’s user name and password.

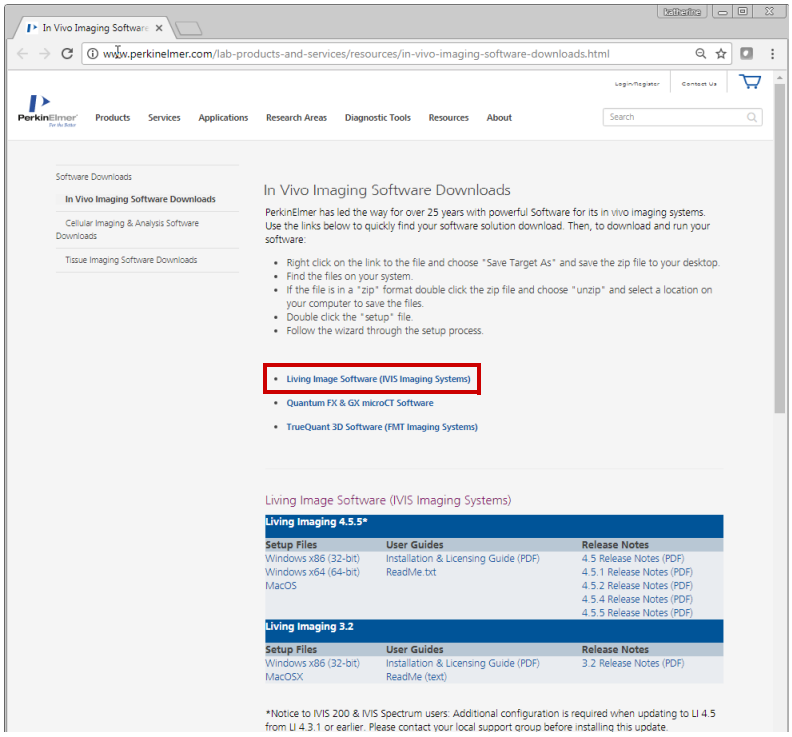
If installation does not proceed, please contact your IT department.

# 3 Installing Living Image® Software On a Macintosh

**NOTE:** Living Image 4.7 software requires Mac OS X 10.10-10.12.

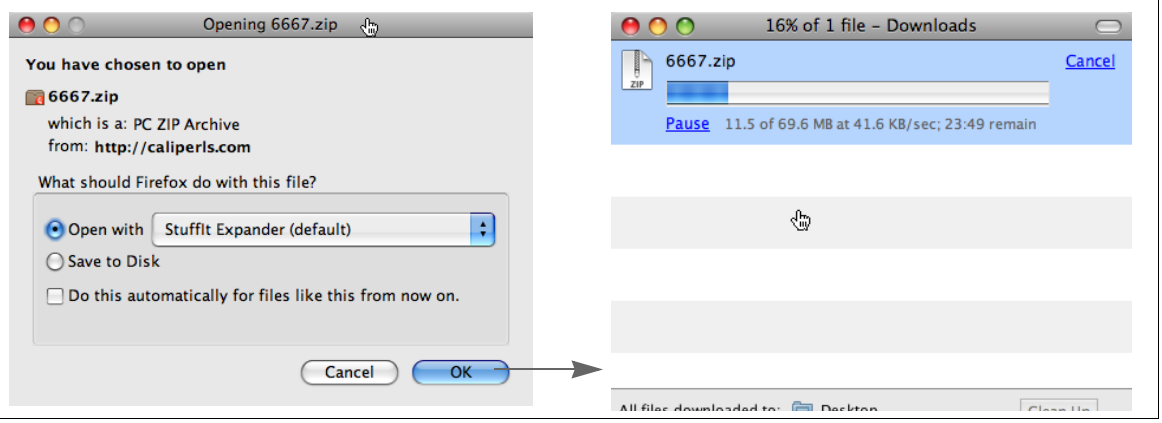
1. Go to the download URL http://www.perkinelmer.com/lab-products-and-services/resources/in-vivo-imaging-software-downloads.html (Figure 3.1).

**Figure 3.1** PerkinElmer Software Download Web Page




2. Click "Living Image Software (IVIS Imaging Systems)" on the download page and select LI_<version>_MAC_Install.zip. Click OK in the download prompt that appears (Figure 3.2). The File Download dialog box appears.

**Figure 3.2** Confirm and Begin Download



3. Double-click the .zip file . (In this example, the file was saved to the desktop.) The install icon appears on the desktop.

**Figure 3.3** Macintosh Desktop



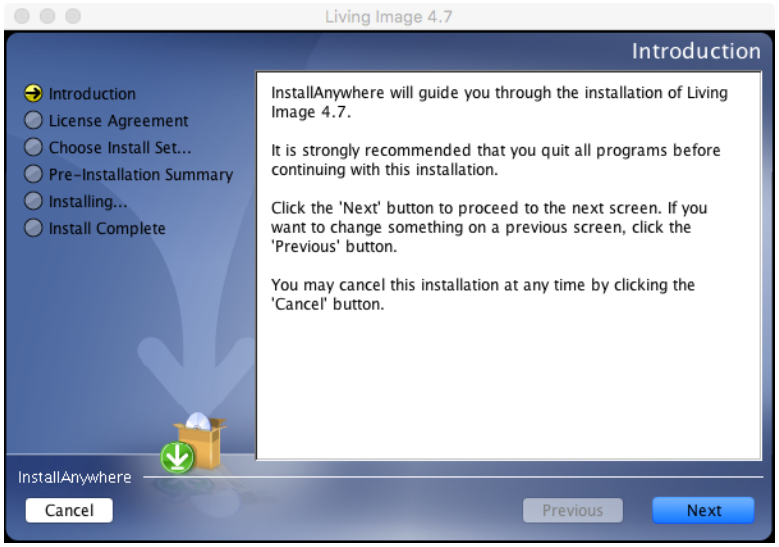
4. Double-click the install icon .
5. Choose a language and click **OK** in the Welcome screen that appears (Figure 3.4). The Introduction screen appears (Figure 3.5).

**Figure 3.4** Welcome Screen



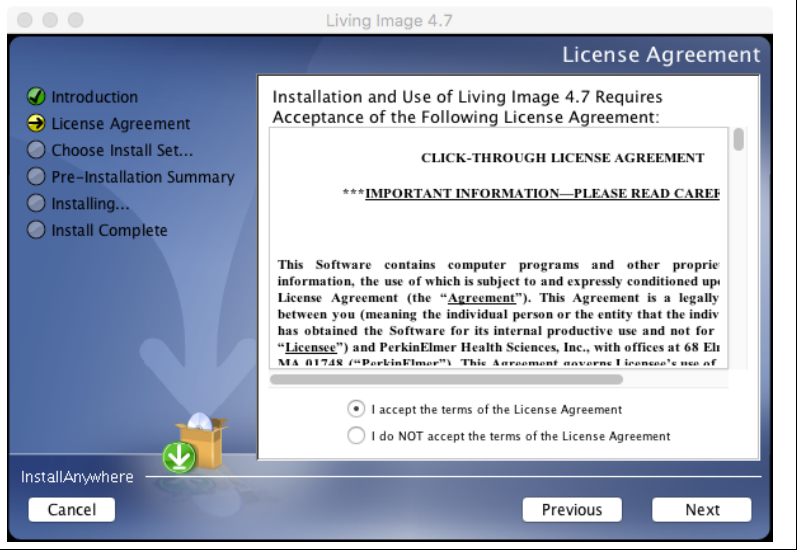
6. Review the introductory information and click **Next** (Figure 3.5).

**Figure 3.5** Introduction Screen




7. Read the license agreement. To continue with the installation, accept the terms of the license agreement and click **Next** (Figure 3.6).

**Figure 3.6** License Agreement



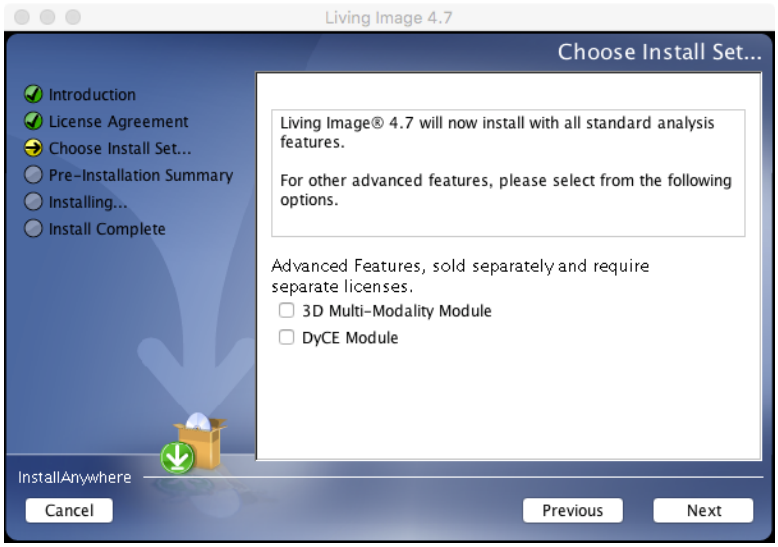

**NOTE:** Only the analysis features of Living Image software can be installed on a Macintosh.

8. If you are installing the optional 3D Multi-Modality and/or DyCE tools, choose these options in the Choose Install Set screen (Figure 3.7). Click **Next**.

   The installation proceeds.

**NOTE:** The 3D Multi-Modality and the DyCE tools each require a separate license.

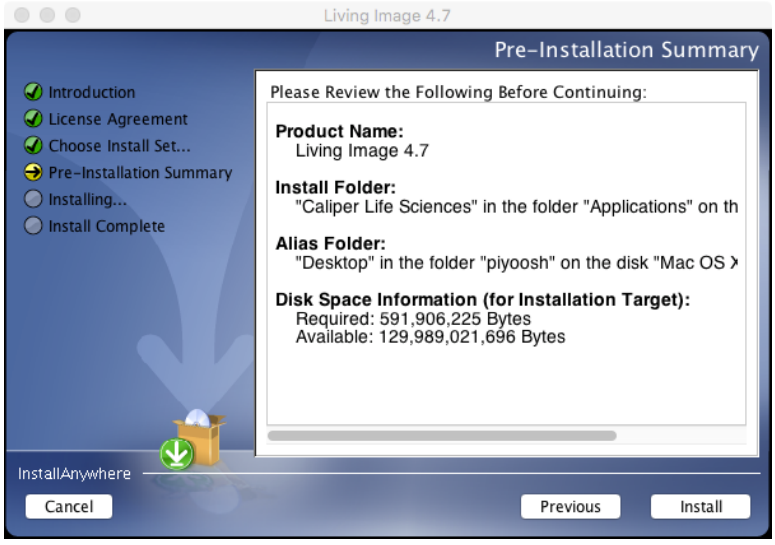
**Figure 3.7** Choose Install Set Screen




**9.** Confirm that the installation information is correct the Pre-Installation Summary screen (Figure 3.8), then click **Install**.

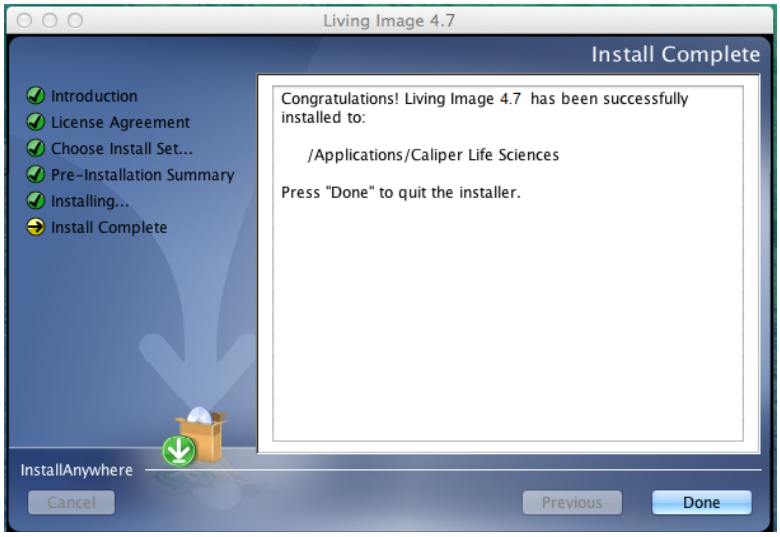
The installation proceeds.

**Figure 3.8** Pre-installation Summary Screen



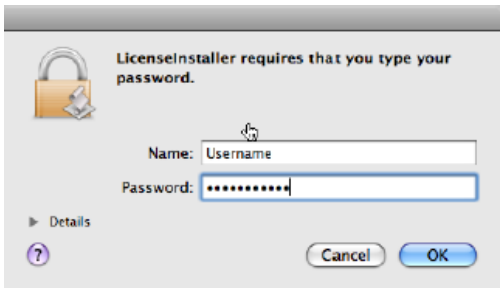
**10.** Click **Done** in the Install Complete screen after the installation is finished (Figure 3.9).

**Figure 3.9** Install Complete Screen




**11.** Enter your user name and password in the Authenticate dialog box that appears and click **OK** (Figure 3.10).

**Figure 3.10** Authentication Dialog Box




**NOTE:** You must activate the permanent license after the software is installed. If the 3D Multi-Modality and DyCE tools were installed, a separate license for each must be activated. See page 14 for more details.

# 4 Activating a License

*Activating a License Online*
*Manually Activating a License* on page 16
*Checking Current Licensing* on page 19
*Returning a License* on page 19
*Troubleshooting* on page 20

Living Image® software is licensed to individual workstations. The software provided with an IVIS® Imaging System includes a five seat license that permits installation of the software for data analysis on up to five workstations. After the software is installed, you have 30 days to activate the permanent license.

The 3D Multi-Modality Tools plug-in and the DyCE plug-in each require a separate license.

There are two ways to activate a license:

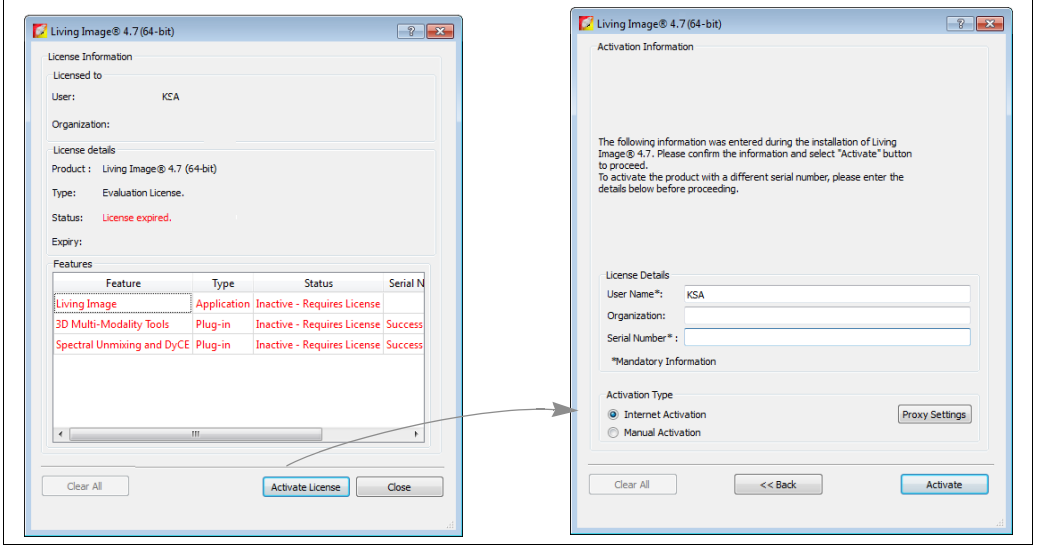
- Internet activation - Activates the license online
- Manual activation - For workstations not on a network

**NOTE:** A license from Living Image 3.x cannot be transferred to Living Image 4.7 software.

## 4.1 Activating a License Online

1. Start the Living Image software (double-click the icon on the desktop).
   The main window appears and shows the number of days that remain to activate a license for Living Image software, 3D Multi-Modality Tools, and/or DyCE plug-in (if the3D Multi-Modality and/or DyCE tools were selected during installation).
2. Click **Activate License** (Figure 4.1).

**Figure 4.1** License Activation Using Internet



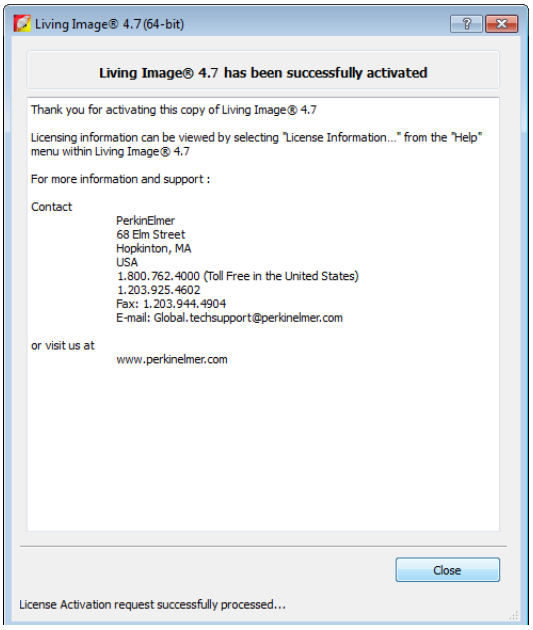
3. In the dialog box that appears (Figure 4.1):
   a. Enter the license serial number for the software application (Living Image, 3D Multi-Modality Tools, or DyCE Tools).

> **NOTE:** A license serial number is composed of 20 digits:
> - LI 3.x – 0001-xxxx-xxxx-xxxx-xxxx-xxxx
> - LI 4.x – 0002-xxxx-xxxx-xxxx-xxxx
> - 3D Multi-Modality Tools – 1000-xxxx-xxxx-xxxx-xxxx
> - Spectral Unmixing and DyCE Tools – 1000-xxxx-xxxx-xxxx-xxxx

   b. Choose the Internet Activation option and click **Activate**.
   You will be notified of a successful activation (Figure 4.2).
4. Repeat step 2 to step 3 until all applications are activated.

> **NOTE:** On rare occasion a license may be corrupted and the status is denoted as "Tampered" in the License Information dialog box (Figure 4.1). If this occurs, do either of the following:
> - Clear all license serial numbers by clicking **Clear All** in the dialog box (Figure 4.1). Click **Yes** in the prompt that appears, then repeat step 2 to step 4.
> - Contact PerkinElmer technical support (see page 2).

**Figure 4.2** Notification of Successful Activation of Living Image Software

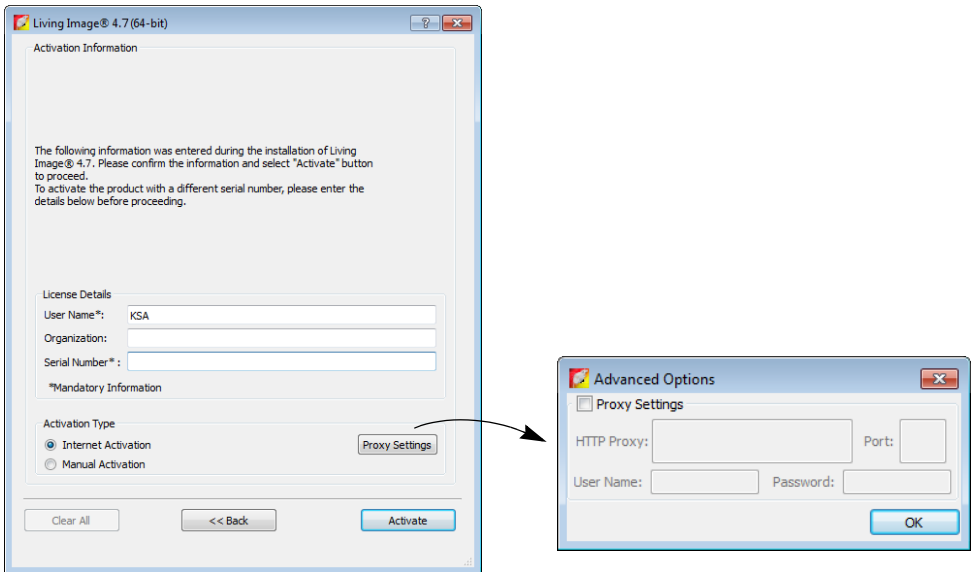



## Specifying Proxy Settings

By default, the activation connects directly to the license server on port 443. If a proxy server is used at your location, specify the proxy settings.

1. Click **Proxy Settings**.
2. In the dialog box that appears, put a check mark next to Proxy Settings and enter the values for the proxy server. Contact your IT department for details about the correct proxy server settings.

**Figure 4.3** Select Proxy Settings

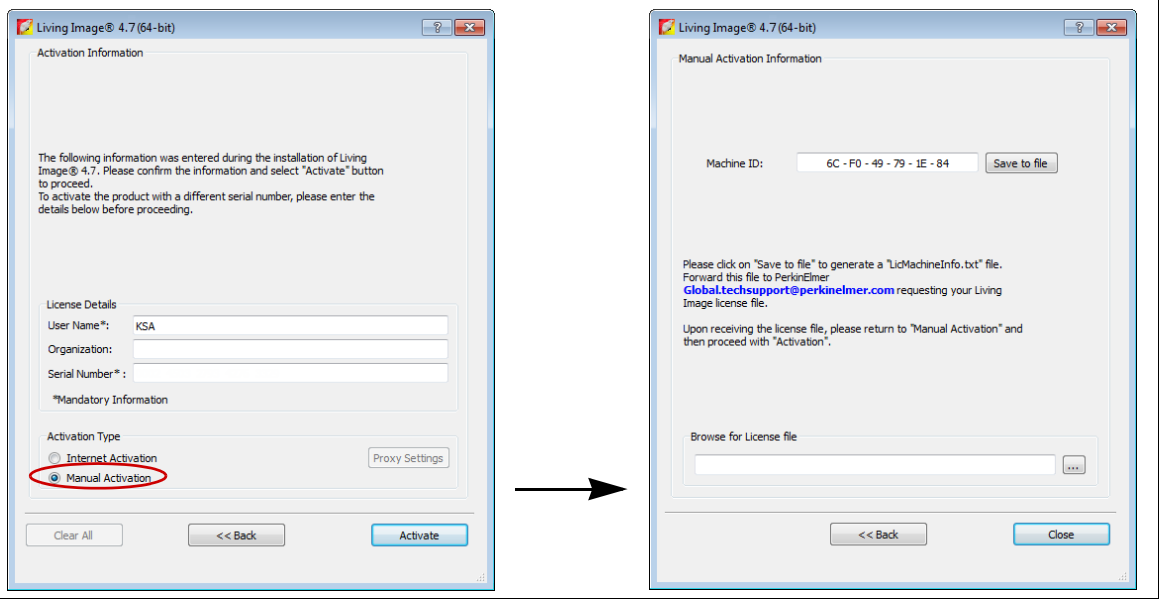



## 4.2 Manually Activating a License

For manual activation, generate a machine ID file and e-mail it to PerkinElmer technical support. You will receive a license file by e-mail that can be manually activated.

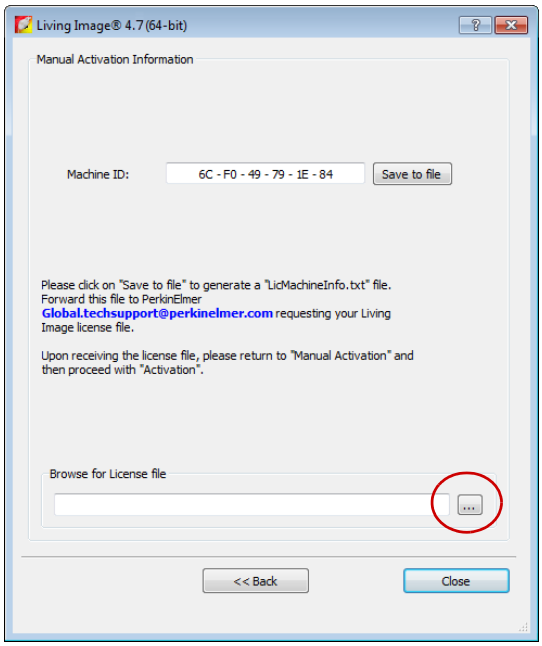
1. Start the Living Image software (double-click the icon on the desktop).
   The main window appears and shows the number of days that remain to activate the license.
2. Click **Activate License**.
3. Enter your user name, organization name, and software serial number in the dialog box that appears.
4. Choose the Manual Activation option and click **Activate.**
5. In the dialog box that appears:
   a. Click **Save to file**.
   a. Select a directory for the file and click **Save**.
6. E-mail the machine ID file to global.techsupport@perkinelmer.com.

**Figure 4.4** Manual License Activation




7. After you receive the license file from PerkinElmer technical support, click the **Browse** button [...] and navigate to the license file.

**Figure 4.5** Browse to License File




8. Click **Close**.

   The license is activated.

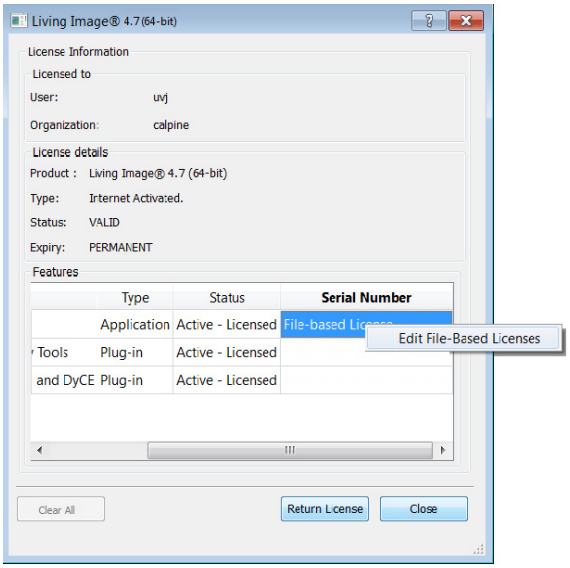
## Editing a License File

Sometimes it may be necessary to edit a license file for renewal or repair purposes.

**To edit a license file:**

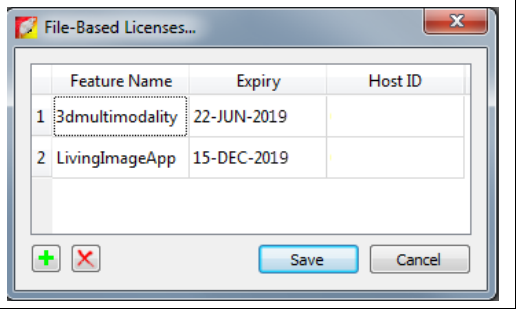
1. Open the license information dialog box (select **Help** → **License Information** on the menu bar).
2. Right-click the serial number of the file license and select **Edit File-Based Licenses** from the shortcut menu.

**Figure 4.6** License Information




3. In the dialog box that appears, use the Add or Delete buttons to edit the license configuration.

**Figure 4.7** Edit License Configuration

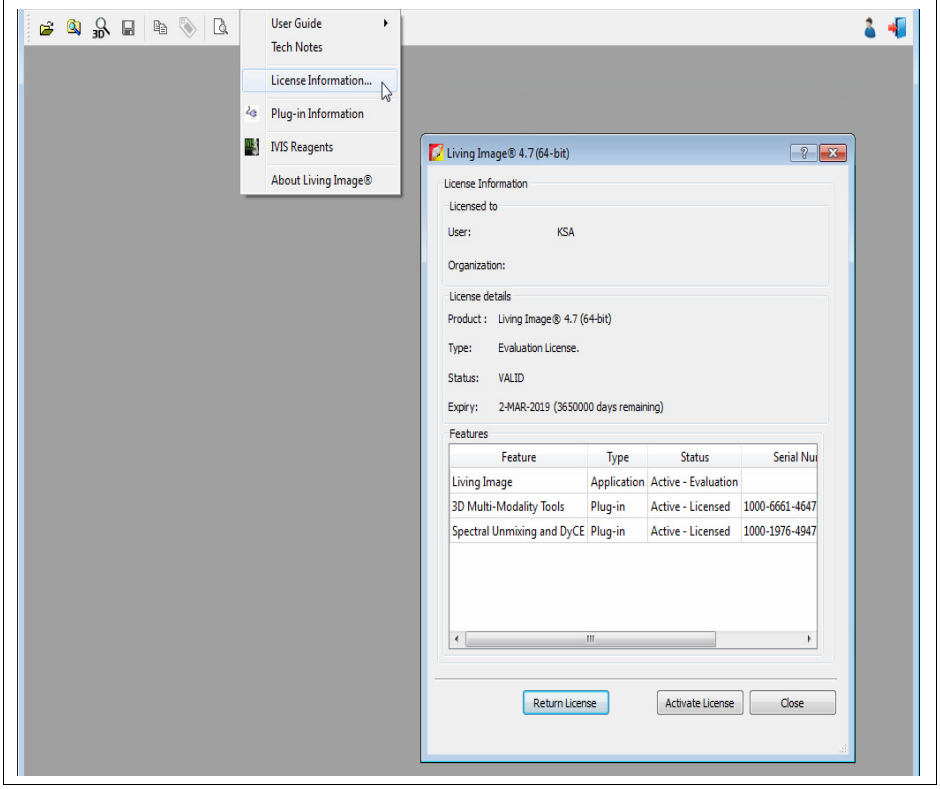



4. Click **Save**.
5. Restart the Living Image software.

## 4.3 Checking Current Licensing

Select **Help** → **License Information** on the menu bar to view current licensing (Figure 4.8)

**Figure 4.8** Checking License Information




## 4.4 Returning a License

You can return a license so that it is available for use on another workstation. If you have renewed a license, you must return the old license before you can activate the new license.

**To return a license:**

1. Select **Help** → **License Information** on the menu bar (Figure 4.8).
2. In the dialog box that appears, click **Return License** and click **Close**.

# 4.5 Troubleshooting

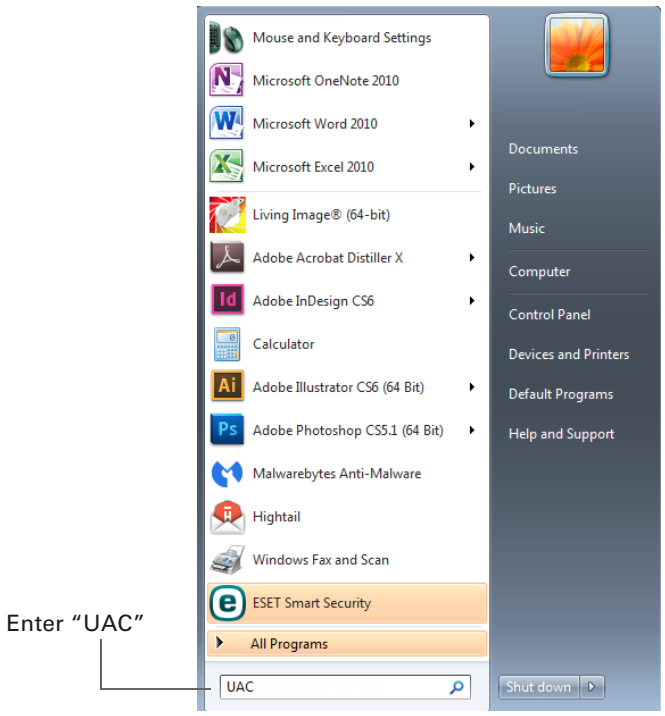
**Table 4.1** Troubleshooting

| Issue | Possible Causes | Solutions |
|---|---|---|
| Licensing error message: Unable to send application activation to remote server. | The workstation is unable to reach the PerkinElmer Licensing server on the Internet on port 443. This may be because the workstation is not connected to a network or the network firewall is preventing communication on port 443. | 1. Verify that the workstation can connect to the Internet.<br>2. Check the local firewall policies of the IT group responsible for the network. |
| Licensing error message: The activation of the fulfillment is denied by the activation policy because max extra acts exceeded #9679-7028. | The maximum number of seats available on the license have been activated. | 1. Return a Living Image 4.7 license from another workstation.<br>2. Acquire additional license seats from PerkinElmer . |
| Cannot activate Living Image software via the Internet or manually.<br>**NOTE:** Please try both solutions before contacting PerkinElmer technical support. | ▪ User account settings need adjustment.<br>▪ Living Image Software is not being run with Administrator privileges. | ▪ See *Changing the User Account Control Settings* below.<br>▪ See *Starting Living Image Software as Administrator* on page 22. |

## Changing the User Account Control Settings

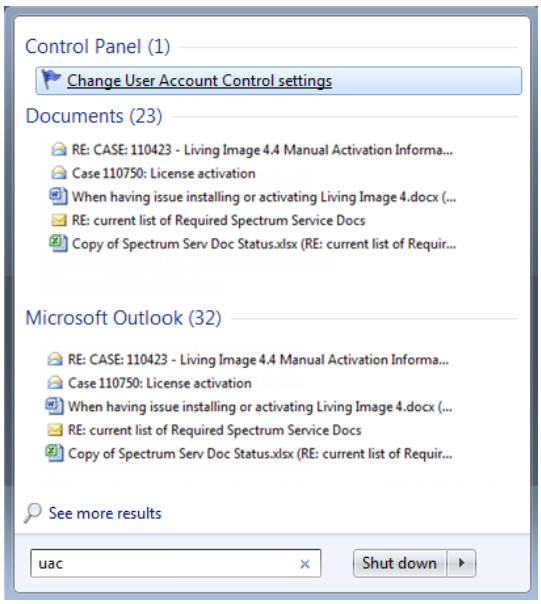
1. Log in as the Administrator (contact your IT department if you need help).
2. Click the Windows Start button.
3. Enter "UAC" in the text box (Figure 4.9).

**Figure 4.9** Start Menu



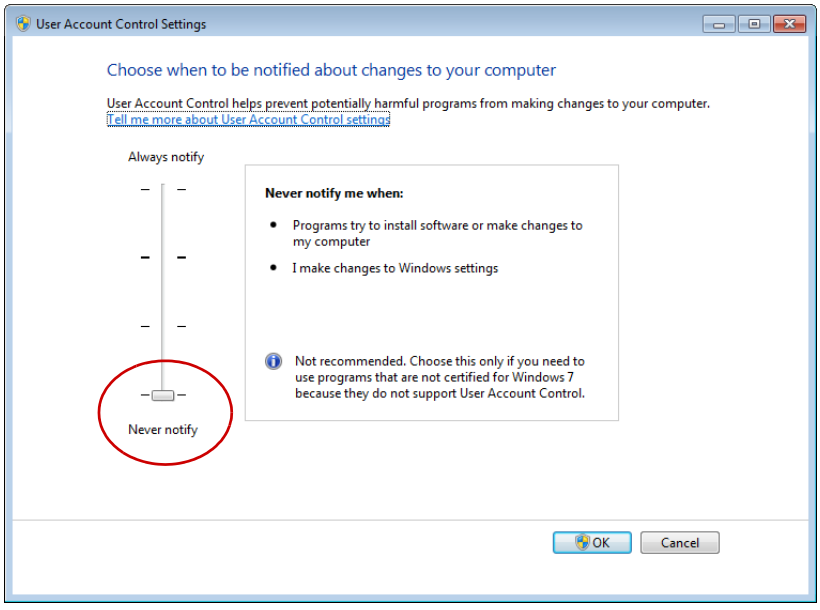
4. Click "Change User Account Control Settings" in the search results (Figure 4.10).

**Figure 4.10** Change User Account Control Settings




5. Move the slider in the dialog box that appears to "Never Modify" and click **OK** (Figure 4.11).

**Figure 4.11** User Account Control Settings

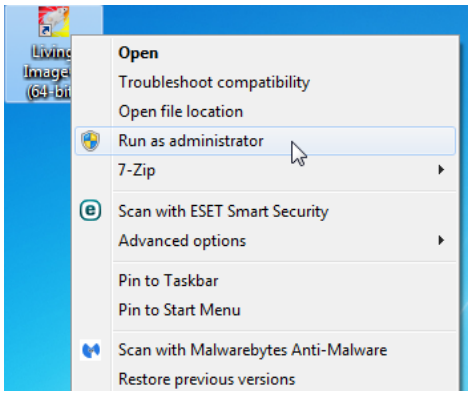



6. Start Living Image software as the Administrator by following the procedure page 22.
7. Select **Help** → **License Information** on the Living Image menu bar.
8. Activate the license via the Internet using your 20-digit license serial number. See page 14 for instructions.

## Starting Living Image Software as Administrator

1. Right-click the Living Image icon on the desk top and select "Run as administrator" on the shortcut menu.

**Figure 4.12** Start Living Image Software as Administrator




2. After Living Image software opens, select **Help** → **License Information** on the menu bar.
3. Activate the license via the Internet using your 20-digit license serial number. See page 14 for instructions.
4. If Living Image software activates properly, you can change the Privilege Level:
   a. Right-click the Living Image icon on the desktop and select properties on the shortcut menu.
   b. Click the Compatibility tab in the dialog box that appears (Figure 4.13.
   c. Put a check mark next to "Run this program as an administrator". Click **Apply** and **OK**.

**Figure 4.13** Living Image Properties – Compatibility Tab

