



Guide to
Medical Image Sharing
with

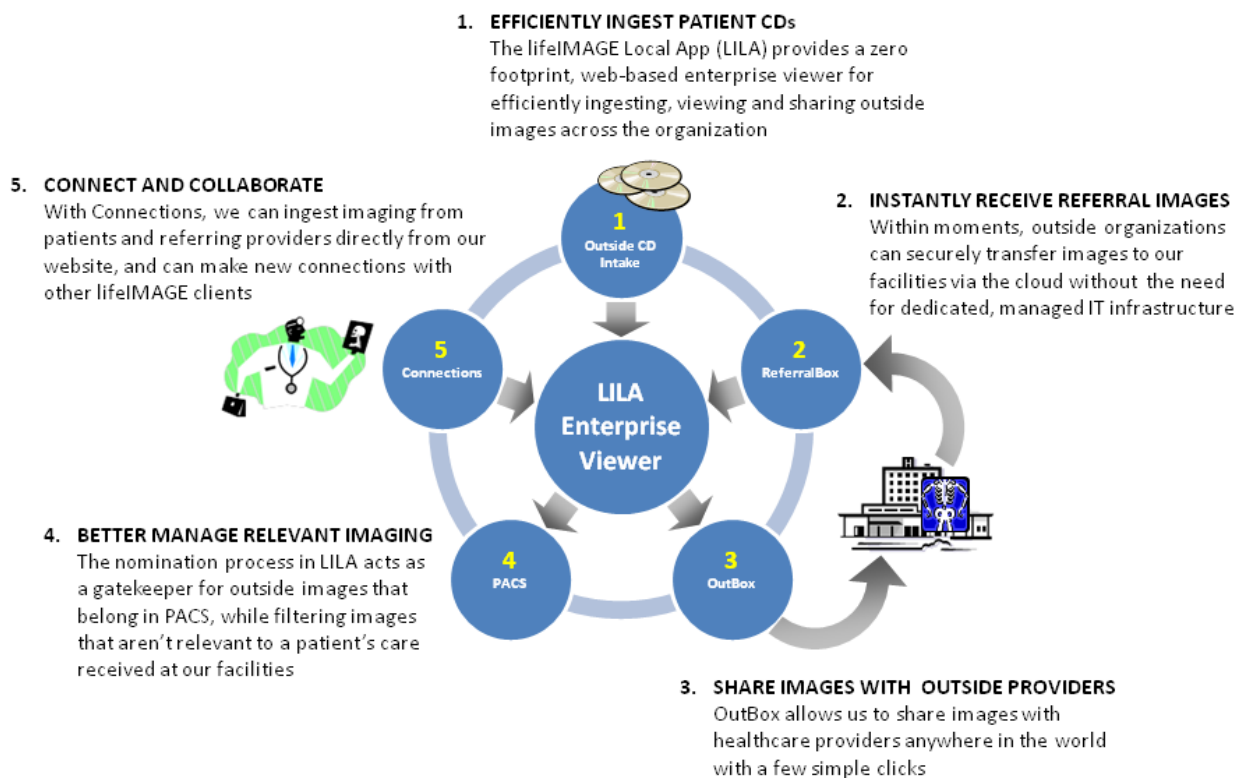
lifeIMAGE™

Introduction

UMass Memorial Health Care has invested in lifelIMAGE™ to streamline the way we exchange medical images and image related data with outside physicians, organizations and imaging providers. lifelIMAGE is a tool designed to help streamline the viewing, uploading and sharing of outside imaging studies. It can help your department more efficiently manage images that were not acquired at a UMass Memorial facility. With this service, outside facilities can electronically transfer images, reports and associated documents to our physicians and staff without relying on CD media. lifelIMAGE can also be used to import medical images from CD/DVD media so they can be instantly viewed, shared, and nominated to PACS for inclusion in the patient medical record. The lifelIMAGE service is secure and fully HIPAA-compliant.

We invite you to begin utilizing this service for more efficient access to patients' outside imaging. **There is no cost to your department to participate in this service.** To learn more, please contact the IS Project Management Office at pmo@umassmemorial.org.

Solution Overview



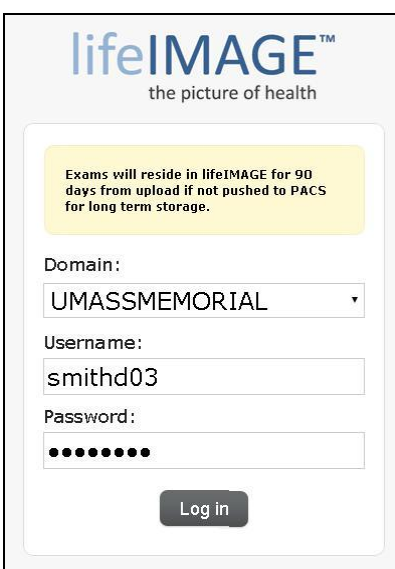
Getting Started

To start using lifeIMAGE, you first need to login so that your account can be automatically created.

1. Double-click the lifeIMAGE shortcut on your desktop, or click on the link below:

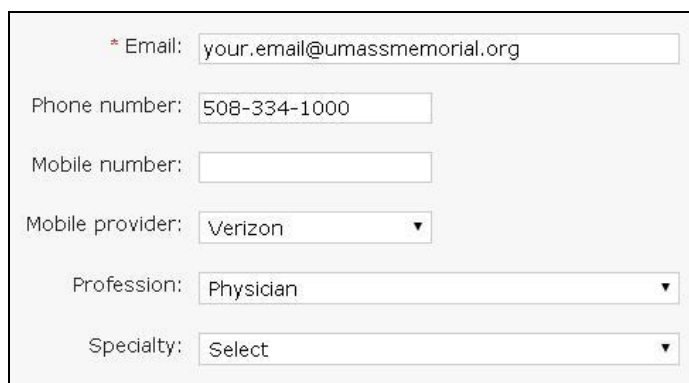
<https://lifeimage.umassmemorial.org>

2. From the login screen, select your network domain (e.g., "UMASSMEMORIAL") from the drop-down list, then enter your Active Directory (network) username and password and click "Log in".



The login screen for lifeIMAGE features the logo "lifeIMAGE™ the picture of health" at the top. Below the logo is a yellow warning box stating: "Exams will reside in lifeIMAGE for 90 days from upload if not pushed to PACS for long term storage." The login form includes a "Domain:" dropdown menu with "UMASSMEMORIAL" selected, a "Username:" text field containing "smithd03", and a "Password:" text field with masked characters. A "Log in" button is positioned at the bottom of the form.

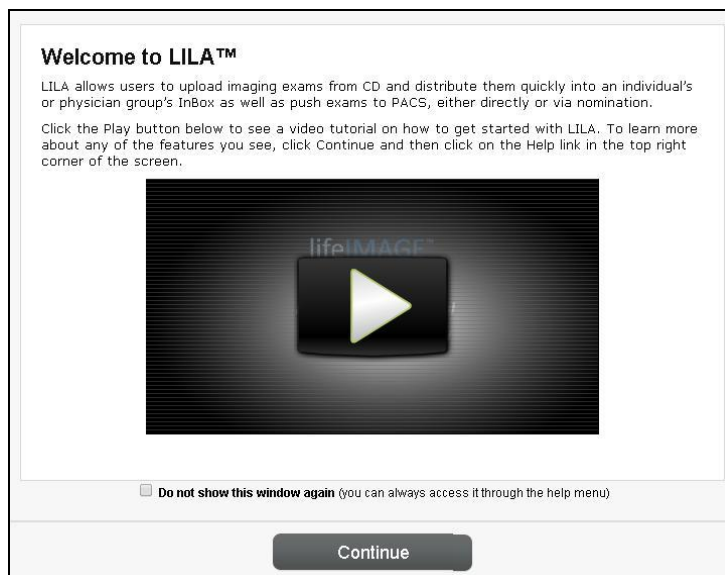
3. You will be prompted to verify your profile. Please confirm your e-mail address and select your Profession and Specialty from the drop-down lists. This step is only required on your first login.



The profile verification form contains several input fields: an "Email:" field with the placeholder "your.email@umassmemorial.org", a "Phone number:" field with "508-334-1000", a "Mobile number:" field, a "Mobile provider:" dropdown menu with "Verizon" selected, a "Profession:" dropdown menu with "Physician" selected, and a "Specialty:" dropdown menu with "Select" selected.

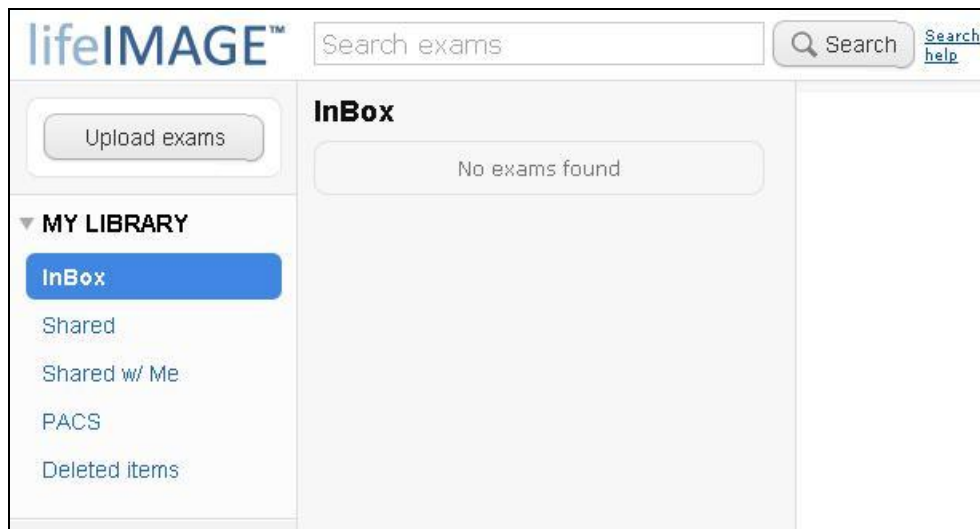
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- Next you will be presented with a welcome video tutorial. Once you have viewed the tutorial you may check the box marked “Do not show this window again”.



NOTE: You can bypass this tutorial by clicking “Continue” and proceeding directly to your Inbox. The tutorial can be accessed at any time from the Help menu.

- You will now see your personal library, **MY LIBRARY**. From here you can upload, view, share, and nominate exams to PACS (see instructions in next section). Within 1 business day you will be added to any departmental group(s) that you belong to.



Navigating lifeIMAGE

Refer to the detailed instructions below for navigating the lifeIMAGE application.

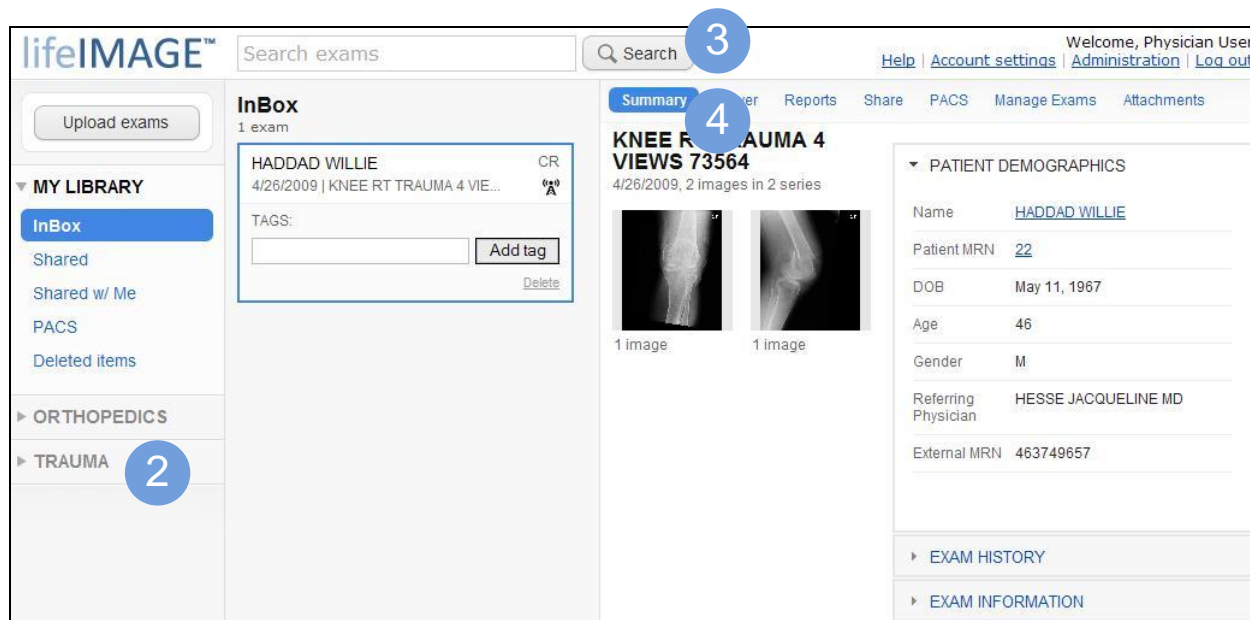


1 Getting Exams Into lifeIMAGE

1. Insert a CD/DVD into your computer and click on the **Upload exams** button.
2. Click on **Find Exams on CD/DVD** to allow lifeIMAGE to automatically upload your CD; or from a Mac click **Browse for exams** and select the CD's DICOMDIR file yourself.
3. lifeIMAGE displays the patient and exam(s) found on the CD. If this is the CD you want to upload, click **Continue**.
4. If desired, enter the UMass Memorial **MRN** for this patient.
5. If you have access to any Group InBoxes, you will need to specify whether to upload exams to your personal InBox or to one of your Group InBoxes.
6. Click **Upload exams**.

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Navigating lifeIMAGE



The screenshot displays the lifeIMAGE web application interface. At the top left is the lifeIMAGE logo and a search bar labeled 'Search exams'. A search icon and a blue circle with the number '3' are positioned above the search bar. On the left sidebar, there is a 'MY LIBRARY' section with 'InBox' selected, and a 'TRAUMA' group with a blue circle and the number '2' next to it. The main content area shows an 'InBox' with one exam listed: 'HADDAD WILLIE' with a date of '4/26/2009' and a modality of 'CR'. Below this is a 'TAGS' field with an 'Add tag' button and a 'Delete' button. To the right, the 'Summary' tab for the exam is active, showing the title 'KNEE RT TRAUMA 4 VIEWS 73564' and a date of '4/26/2009'. Two thumbnails of knee X-rays are shown, each labeled '1 image'. A blue circle with the number '4' is placed over the 'Summary' tab. On the far right, a 'PATIENT DEMOGRAPHICS' section is expanded, displaying fields for Name (HADDAD WILLIE), Patient MRN (22), DOB (May 11, 1967), Age (46), Gender (M), Referring Physician (HESSE JACQUELINE MD), and External MRN (463749657). Below this are sections for 'EXAM HISTORY' and 'EXAM INFORMATION'. At the top right, there is a 'Welcome, Physician User' message with links for 'Help', 'Account settings', 'Administration', and 'Log out'.

② Group InBoxes

Depending on your role, you may have access to one or more **Group InBoxes** in addition to your personal InBox called **MY LIBRARY**. Group InBoxes appear below your personal InBox. Exams that are in a Group are automatically shared between you and your team members. Actions you perform on Group exams are seen by all group members.

③ Finding Exams in lifeIMAGE

You can enter patient name, MRN, modality, patient DOB or exam date to find exams.

④ Exam Summary

When an exam is selected, the **Summary** tab is displayed. It shows one thumbnail for each series contained in the exam. More information is shown on the right side of the tab:

- **Patient Demographics** includes patient level information like **Patient Name**, **DOB** and **MRN**.
- **Exam History** shows all activity such as who uploaded it, who it was shared with, etc.
- **Exam Information** includes **Exam Date** and **Institution**.

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Navigating lifeIMAGE



The screenshot shows the lifeIMAGE interface with several numbered callouts:

- 5**: Points to the [Help](#) link in the top right navigation bar.
- 6**: Points to the [Search](#) button in the top navigation bar.
- 7**: Points to the [Share](#) button in the exam record navigation tabs.
- 8**: Points to the [Patient Details](#) tab in the exam record navigation tabs.

5 Help

Refer to the online help for more details on how to use lifeIMAGE.

6 Reports

If reports were readable from the CD, they are displayed in the **Reports** tab.

7 Sharing Exams

You can share exams in your Inbox. Start typing the person's name or e-mail address, or a group name, and choose from the suggested choices. Or click on **Select from list** to select from all available people and groups. Complete the other fields on this tab and then click **Share**.

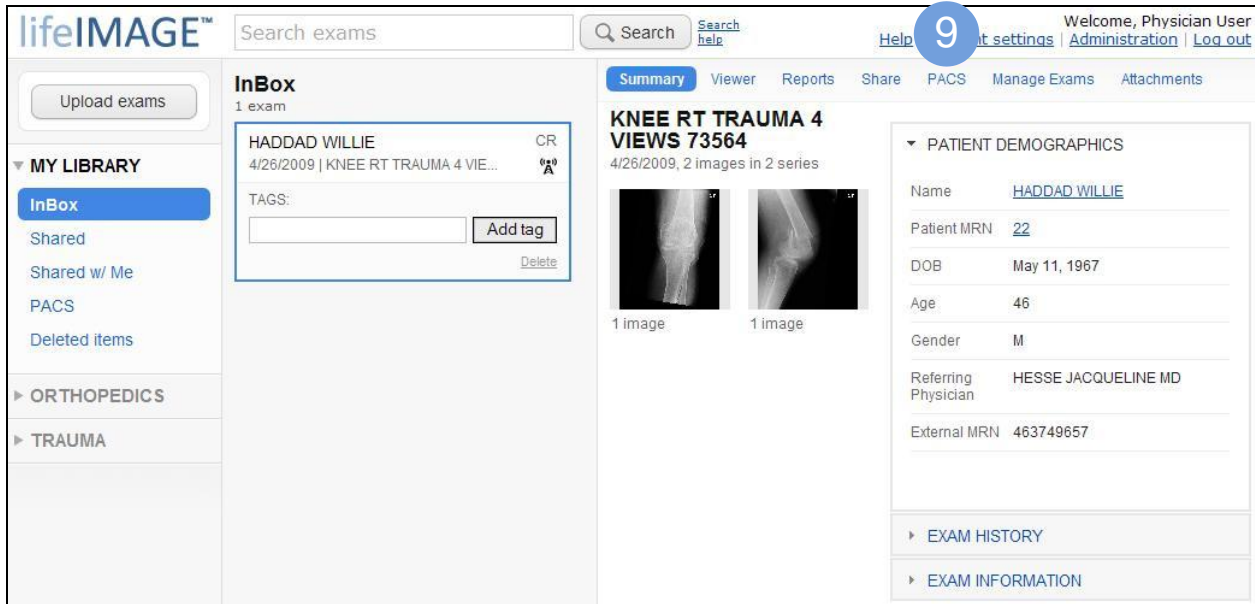
8 Managing Exams

The **Manage Exams** tab allows you to modify exams:

- Click on the **MRN** tab to change a patient's MRN.
- Click on the **Delete** tab to delete an exam or all exams that originated from the same CD. If you are the owner of a shared exam, the exam is deleted from all users' InBoxes.

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Navigating lifeIMAGE



9 Nominating Exams to PACS

The **PACS** tab allows you to nominate exams to PACS for permanent storage. By completing the fields on this screen, you can nominate an exam to be pushed to PACS, either for a comparison or secondary read, or to be archived for later reference.

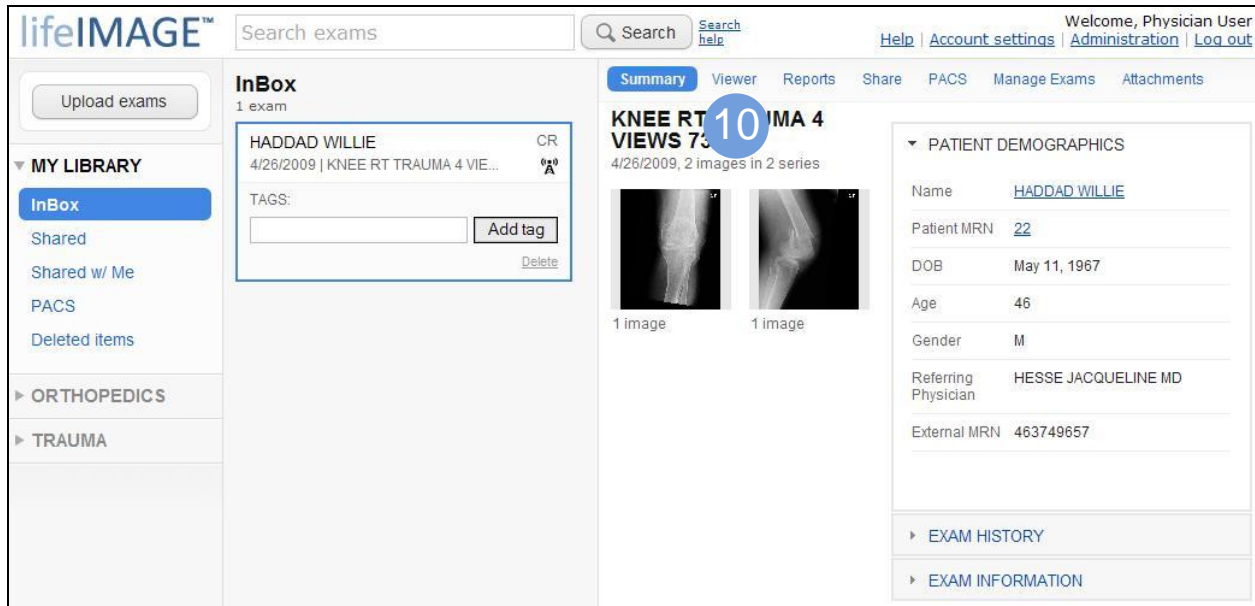
When you nominate an exam, the PACS Gatekeeper is notified of your nomination request. The PACS Gatekeeper will enter a billable or non-billable order and then push the exam to PACS. The Gatekeeper may also reject the PACS nomination if it does not meet the requirements for permanent retention in PACS.

Additional notes:

- You can check the status of your nomination on the **PACS** tab.
- While the nomination is pending, you have the option to **Cancel** the nomination.
- The **Exam History** panel in the **Summary** tab will show all actions taken by the Gatekeeper.

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Navigating lifeIMAGE





The screenshot shows the lifeIMAGE interface. On the left is a navigation menu with 'MY LIBRARY' (InBox, Shared, Shared w/ Me, PACS, Deleted items) and 'ORTHOPEDICS' (TRAUMA). The main area displays an 'InBox' with one exam for 'HADDAD WILLIE' dated 4/26/2009. The exam title is 'KNEE RT TRAUMA 4 VIEWS 73'. Below the title are two thumbnail images of a knee, each labeled '1 image'. To the right of the thumbnails is a 'PATIENT DEMOGRAPHICS' section with fields for Name (HADDAD WILLIE), Patient MRN (22), DOB (May 11, 1967), Age (46), Gender (M), Referring Physician (HESSE JACQUELINE MD), and External MRN (463749657). At the top right, there are links for 'Help', 'Account settings', 'Administration', and 'Log out'. A search bar and 'Upload exams' button are at the top left.


10 Viewer Tools


Clicking the **Viewer** tab opens up the built-in image viewer and gives you access to the following tools:


 **Full Screen** expands the viewer across the full area of your screen. Clicking the **Full Screen** button again or pressing the **Esc** key returns the screen to normal.


 **Stack** allows you to scroll through images of a series by dragging your mouse up or down over the image.


 **Window and Level** allows you to adjust 1) the window by dragging your mouse horizontally across the image and 2) the level by dragging your mouse vertically.


 **Zoom** allows you to zoom in and out by dragging your mouse up and down.


 **Pan** can be used to move around an image whenever the entire image does not fit on your screen.


 **Line Measurements** allows you to make straight line measurements. Click twice to create a line.

 **Angle Measurements** allows you to measure the angle between two lines. Click twice to create one line, then another 2 times to create the second line.

 **Invert** allows you to invert images.

 **Reference lines** allows you to show reference lines between two series of an exam.

 **Cine Start / Stop** starts cine mode. If cine mode is already running, this button stops cine mode.

 **Reset** brings the image's window, level, position and size back to original values.