Northern Light Health | Optum

From the Office of Health Informatics

Enterprise Imaging (EI)

Cath, Echo, EP, Nuc Card and EMMC Vas Lab Staff Workbook

October 8, 2025

This self-guided workbook allows Cath, Echo, EP, Nuc Card, and EMMC Vas Lab staff to practice navigating through Enterprise Imaging (EI) workflow. Please note, the following scenarios are designed to demonstrate functionality and may not be inclusive of all Northern Light Health policies and procedures.

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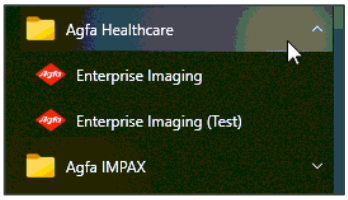
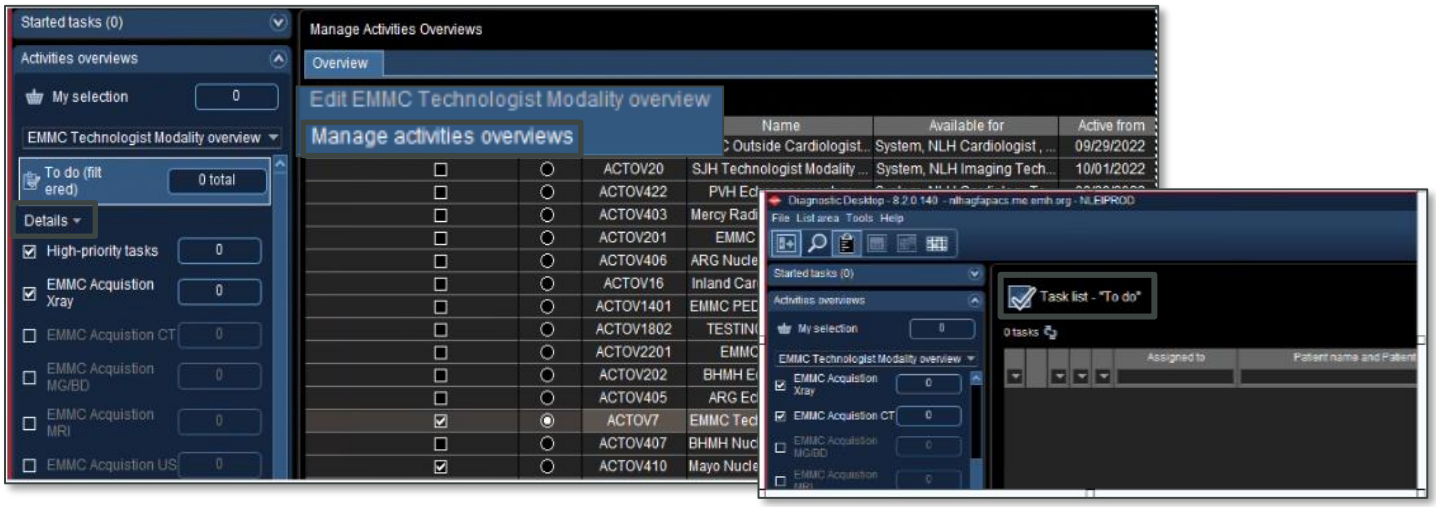
Signing into Enterprise Imaging (EI) – Diagnostic Desktop



- Click the **Windows** icon in the bottom left corner of the computer screen.
- Click **Agfa Healthcare**.
- Click **Enterprise Imaging**.
- Click **Diagnostic** icon.
- Type your network **Username** and **Password**.
- Click **OK**.

Manage Activities Overviews

- Right-click below **Activities overview** in the dropdown box.
- Click **Manage Activities Overviews**.
- Select/deselect **Exam Task lists** by checking the box in the Show in dropdown list column.
- Click the radio button in the Default column for the Exam Task list used most.
- Click **Close** in the bottom right corner of the screen to return to the Task List – "To do."
- Click the checkbox(es) to the left of the modality in the **Details** dropdown to open the Task List for the selected modalities.
- Workflow process for Activities Overview (AO).
- Select correct Activities Overview (AO), also called bucket list or Task List.



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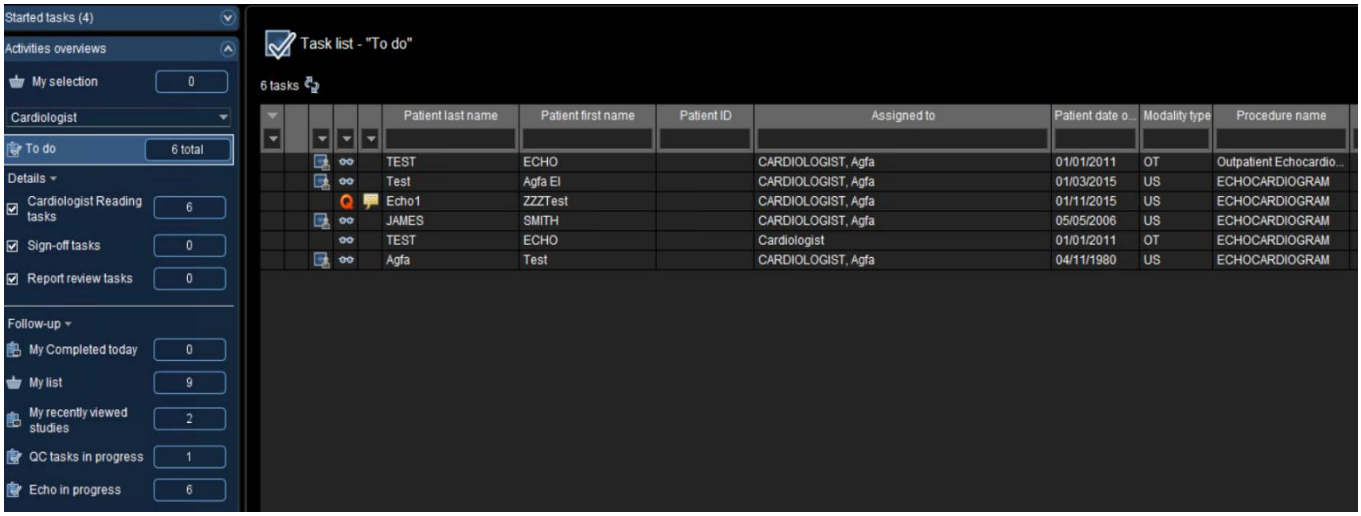
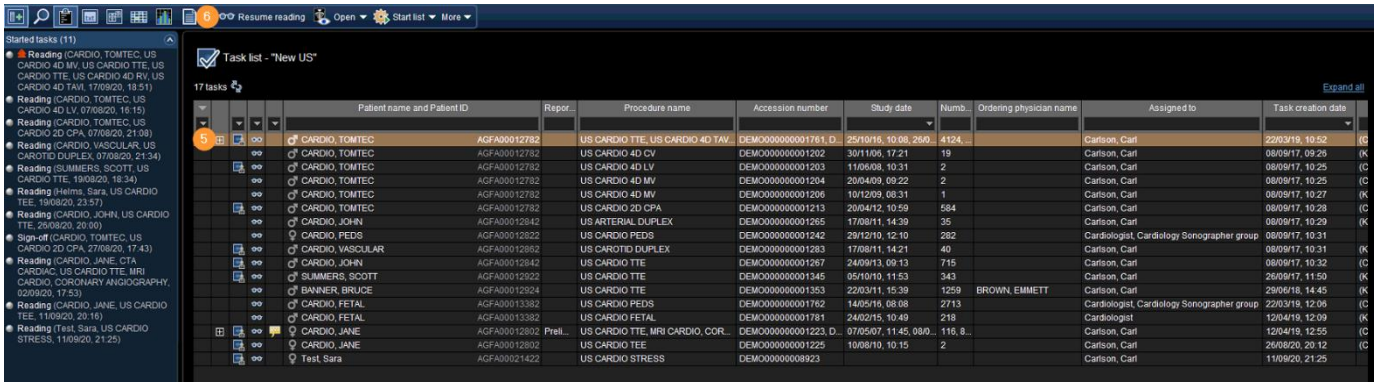
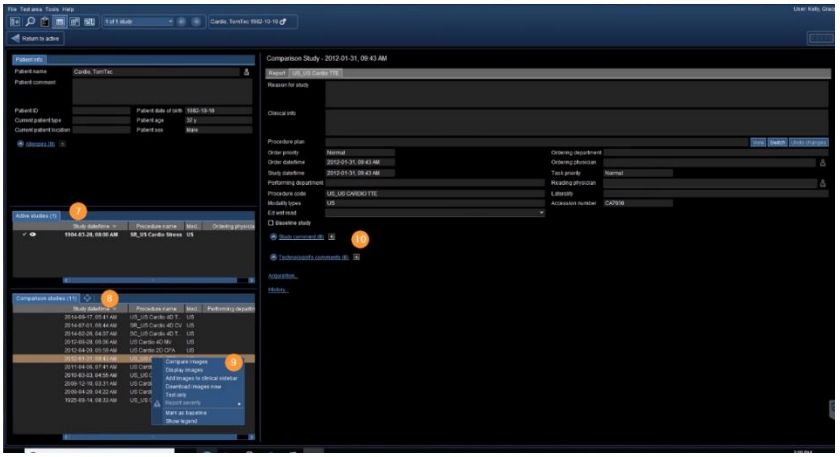


1. Select correct **Activity Overviews.**
2. Click **Task List.**
3. Locate Studies for reading.
4. Open studies by open or start reading.
5. Select **single study** or **multiple for batch** reading
6. Select **Start Reading** or **Start List.**



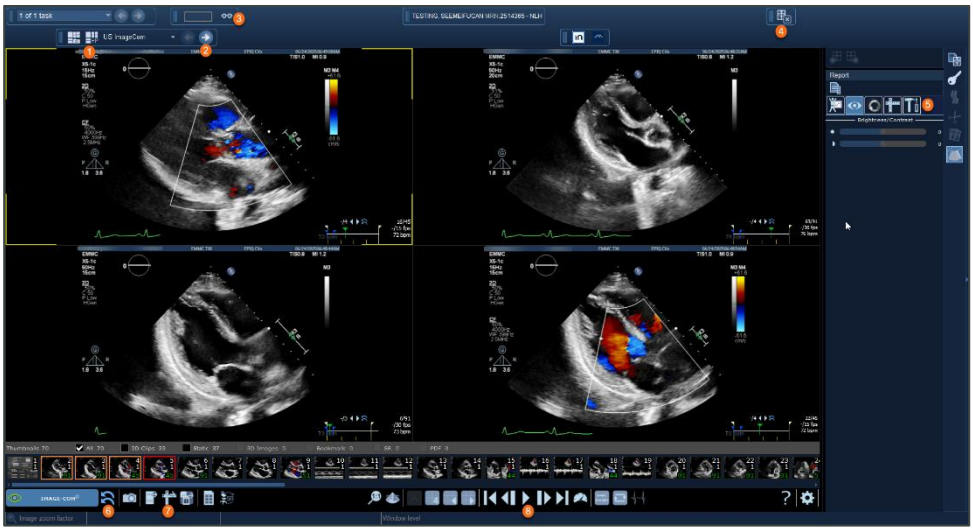


7. **Active** Study
8. Comparisons
9. View additional comparsion exams.
10. Technologists commment.

11. Active vs. Comparison

Image Visualization

NOTE: TOMTEC Image Viewer, by default, ultrasound studies launch in a quad-screen view. The default can be changed in Settings.



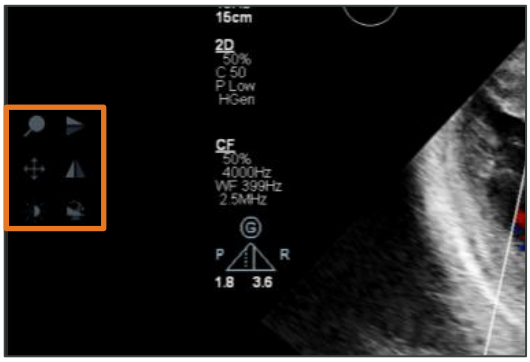
1. Hanging Protocols
2. Next presentation
3. Resume reading
4. Clear image area
5. Tools
6. Reset
7. Export measurements to report from modality
8. Play/Pause

NOTE: Click here for more information on Icon Tips and Tricks within TOMTEC Image Viewer. To view an instructional video on using the icons within TOMTEC, click here to log into PromisePoint , and register for NOLH–3445 RAD Use EI Cardiology or NOLH–3450 RAD Use EI for Echocardiology.

Smart Regions

NOTE: Each view port contains Smart Regions of special functions. The icons of the correspondent functions are visible by positioning the mouse cursor over a view port for a short time. The number of functions provided within the view port depends on the data being displayed.

1. Click **Smart Region**.
2. Left-click
3. **Move** mouse horizontally.
4. Click **icon** to activate and deactivate.



Enterprise Imaging (EI)

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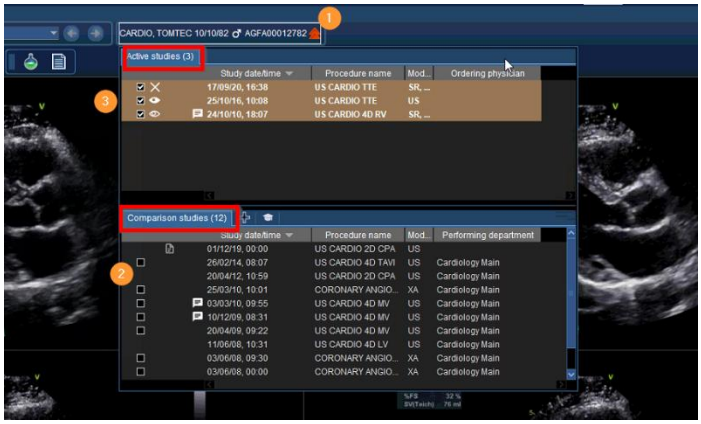
Side by Side Prior to Current Study Comparison

1. Select the **active patient study** window.
2. Select the **appropriate Comparison studies**.
3. Newly selected comparison studies are listed in the **Active studies** box.

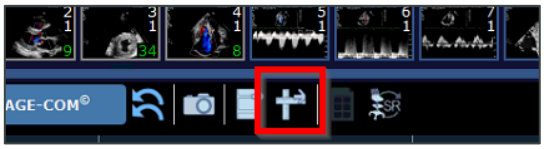


4. Select the **Patient History** icon to toggle between the comparison studies.
5. Select the desired prior comparison study in the Patient History tab.
6. The prior study loads in the thumbnail section of the viewer.
7. **Drag** and **drop** thumbnails into the **active workspace** to compare images of the prior study with the current study.

NOTE: **Prior study images will have a light blue frame outlining the image and includes the study date and time**

Exporting and Importing Measurements

To import measurements from the image viewer into the structured report, select mearsurement icon and the report will update with newly imported measurements.

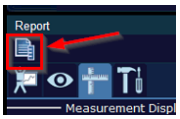


Performing Measurements

1. Select **Measurement** tab.
2. Select **exam type**.
3. Select **measurement group**.
4. Select **desired measurement**.
5. Perform **measurement on desired image**.

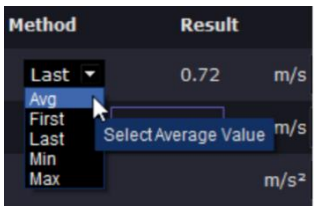
6. Press **Esc, double-click** or **right–click** to end measurement task.
7. Results can be viewed by moving the mouse off the image view port.

Measurement Worksheet



- Select the **Launch Worksheet** icon.

- If a measurement has been performed multiple times, select value that should be exported into the structured report. Example:
  - Average
  - First
  - Last
  - Min
  - Max



NOTE: **The default selected value is Average.**

- Delete measurements choosing the desired **Delete** criteria marked with a red X.
  - Selected Value
  - Entire Column
  - Entire Row

Secondary Capture

Store your measurement results on the images and cine loops using the **Save Secondary Capture** icon. The complete image region will be captured. The new object becomes visible in the thumbnail preview at the end of the study.

Exporting Images

Export a desired still image or cine image by selecting the **Save AVI** or **BPM** icon. If at least one loop is playing, the complete screen will be exported as AVI, otherwise the image will be saved as a BMP, PNG, or JPG.

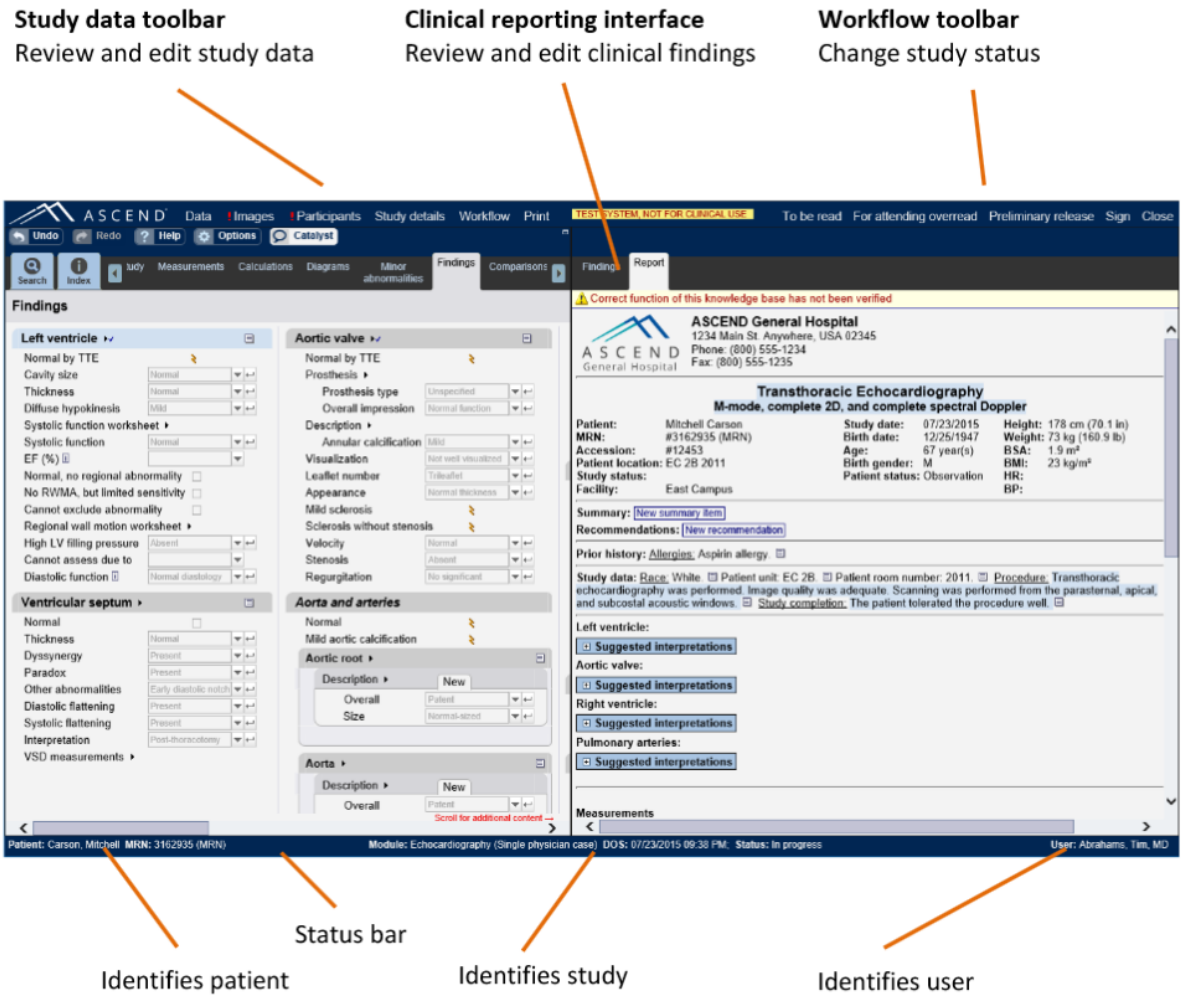
Rest Images

Restore the dataset to the original acquired layout by selecting the **Reset** icon.

Structured Reporting

1. Select **Patient**.
2. Select **Start Reading**, **RMC** or double -click patient.

3. Upon launch reporting opens and images appear in image viewer.
4. Tech reviews the images and begins structured reporting, entering test specific findings.



5. Tech selects **To Be Read** in reporting which closes reporting and image viewer.
6. Tech assigns cardiology reading group/physician via EI worklist.
7. Cardiologist group/physician finds assigned studies on EI worklist and launches study.
8. Once launched, reporting opens and images appear in image viewer.
9. Physician reviews the images and finalizes report findings.
10. Physician selects **Sign** in reporting and the report and image viewer close.
11. Finalized report sent to EHR.

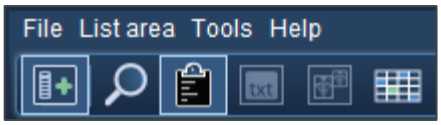
NOTE: To view an instructional video on Ascend reporting click here and register for one the following courses:

- NOLH-3470 RAD Use the Ascend Adult Echo KB
- NOLH-3472 RAD Use Ascend Cardiac Cath KB

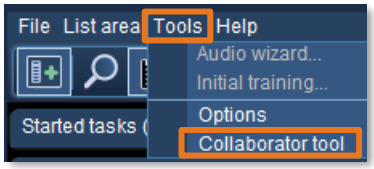
- NOLH-3478 RAD Use the Ascend Nuclear KB
- NOLH-3482 RAD Use the Ascend Vascular KB

Toolbar Icons

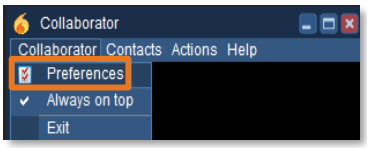
➢ **Tools necessary to manipulate the system**

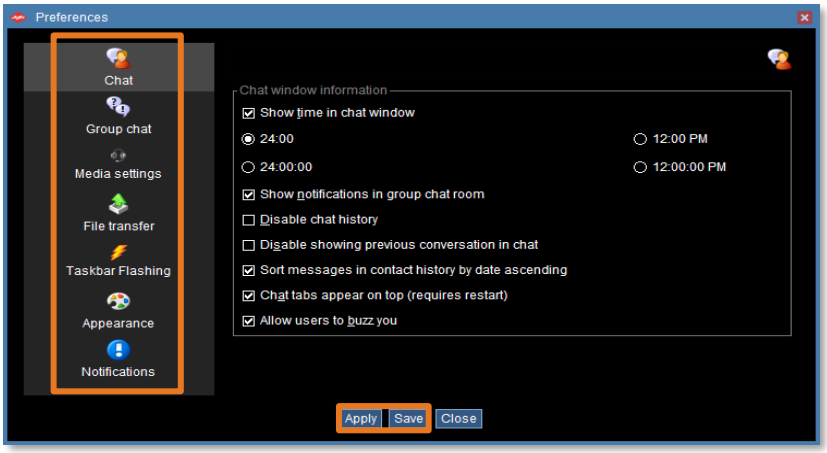


- **File** – **Menu Option**
  - Logoff
  - Exit
- **List Area** – Menu Option
  - Activities Overview
  - Customize columns

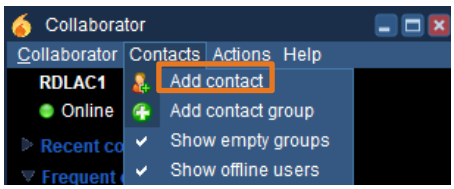


- **Tools** – Menu Option
  - Options
  - **Collaborator tool**- is used to talk to staff like current IMPAX system
    - Select **Preferences** to customize the Collaborator.
    - Click **Preferences** for each feature.
    - Click **Apply**, then **Save** to keep new preferences.
    - Unselect **Always on top** if the Collaborator is not wanted on the top.
    - Click **Exit** to leave the Collaborator

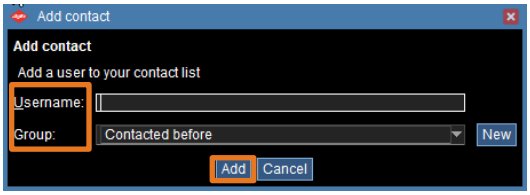




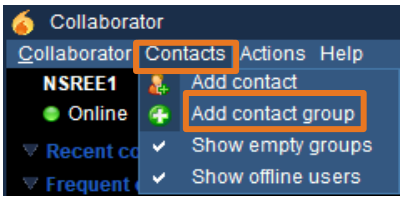
- **Adding Contracts**



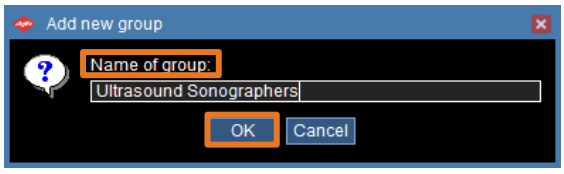
  - Click **Contacts.**
  - Click **Add Contacts.**
    - Enter the **Username.**
    - Select **Username** for the dropdown list that displays.
    - Select the **Group** the user should be added to using the Group dropdown.
    - Click **Add.**
    - The user will be added to contracted before and the selected group.



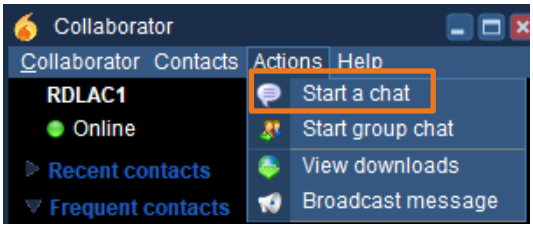
- **Create a New Group**



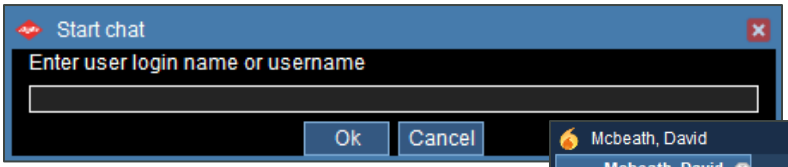
  - Click **New** to the right of Group.
    - Enter **new group name.**
    - Click **OK.**
      OR
    - Click **Contacts** and select **ADD contact group.**
    - Enter **Name of the group.**
    - Click **OK.**

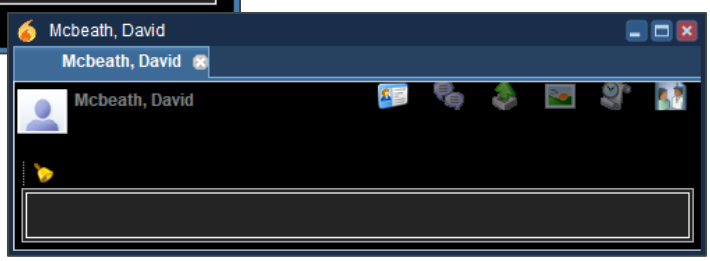


- **Starting a Chat**



  - Locate the user in the appropriate group.
  - Double-click the **user's name** in a Group.
  - The **Chat** window opens.
  - Type the **message.**
  - Hit **Enter** on the keyboard.



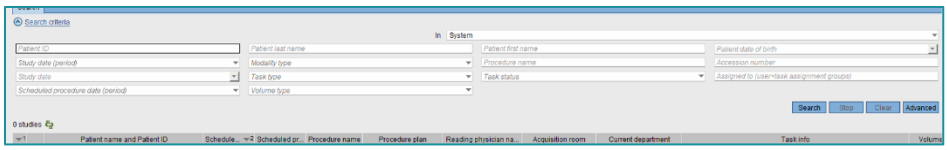


- Help – Menu Option is available to find answers needed.
- Hide Navigation
- Search
- Patient List
- Text page
- Open Images
- Calendar

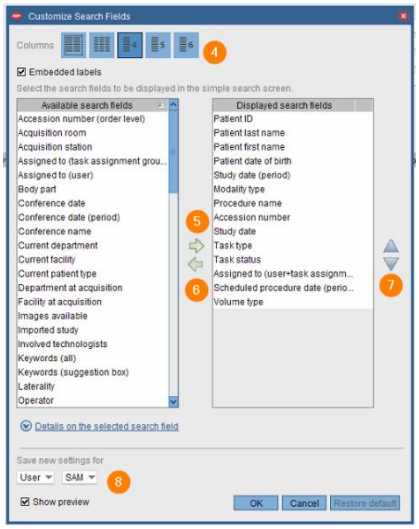
Desktop Customizations

➢ **Right-click in the white area to provide options for customization.**

1. Select white area in search field or columns.
2. Right-click.
3. Select **customize fields** or **customize columns**.



4. To specify the number of search columns, click the **Perspective Column** button.
5. To display additional search fields, select and move items from **Available** search fields to **Displayed** search fields.
6. To remove currently displayed fields, reverse the above step.
7. To change the displayed order, select up/down arrows to right of displayed field.
8. The setting saves for the login user.



NOTE: Helpful search criteria that should be added:

1. **Images available**
2. **Report available**
3. **Study verification status**

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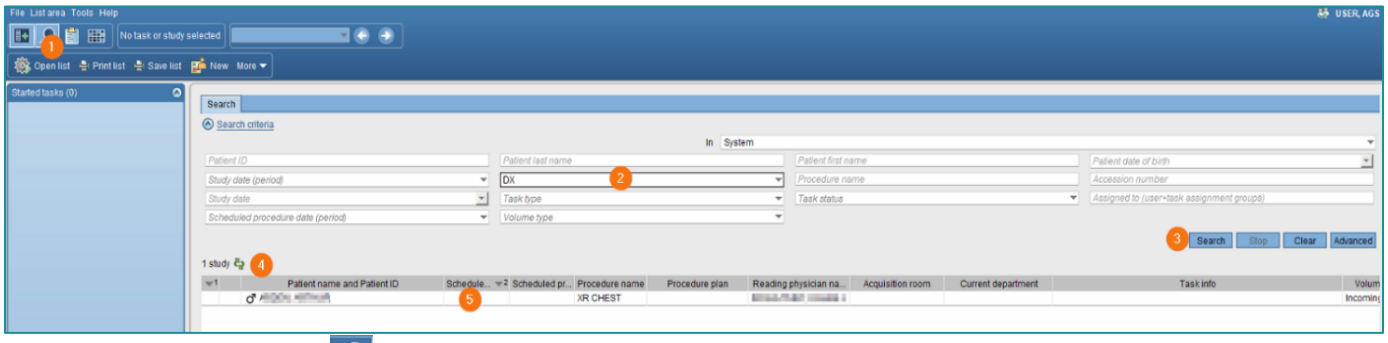
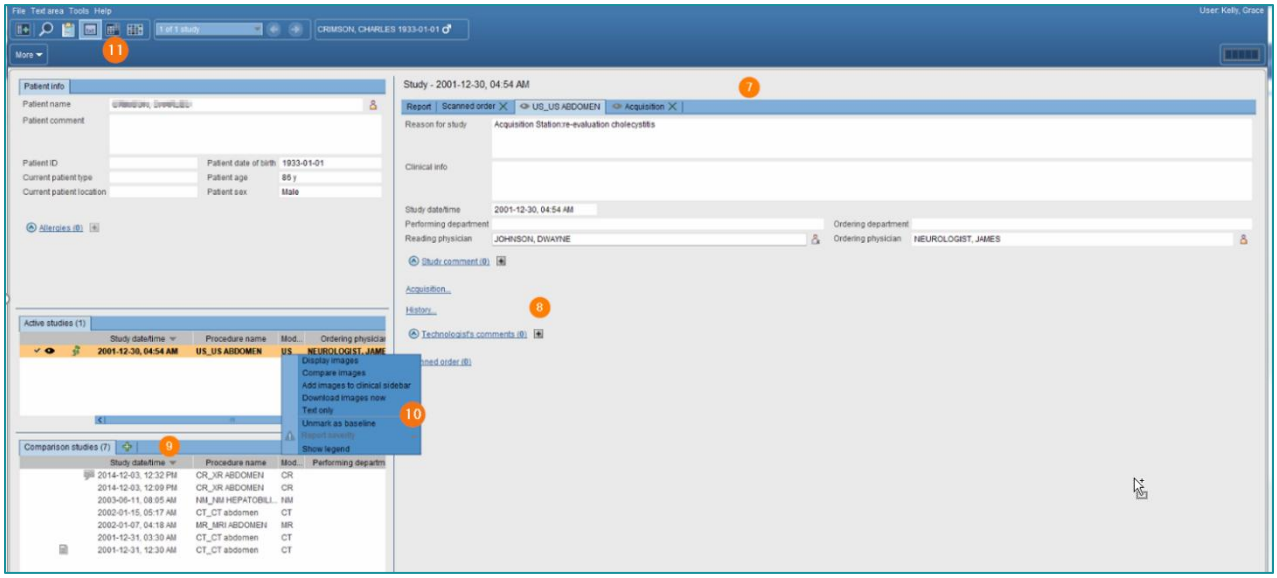
Locate Patient order

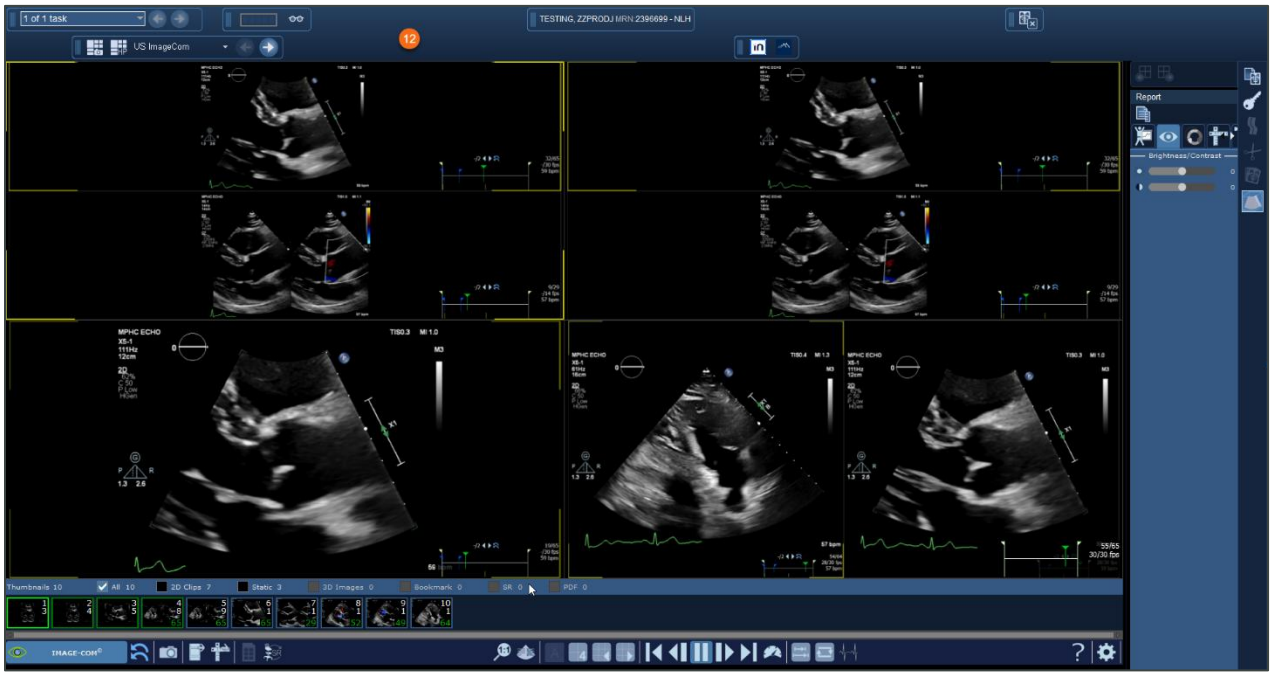
➢ **Via task list or ad hoc search**



1. Select **Search** icon in the tool to begin an ad-hoc search.
2. Input search criteria **(i.e., Patient ID, patient last name, accession number).**
3. Select **Search.** Search
4. Search results display with the number of results that meet your search criteria. 1 study
5. Select the study you want to review.
6. Double-click or right-click the line of the study you wish to display and open.
7. Text area displays.
8. Study information tab displays if report has not been created. If report is created, the report tab displays here by default. View study information and technical comments by users either entered in EI manually or in the RIS via HL7 message.
9. Comparison studies are available for this patient.
10. To display comparisons, right-click for display options.
11. On a one monitor setup, click the **image** icon to go to image display. Images



12. Image page displays.



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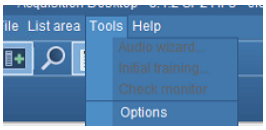
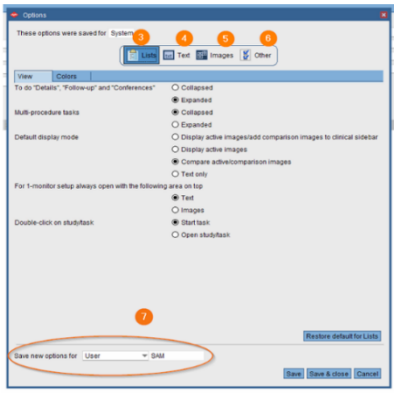
F12 Options

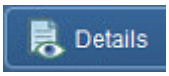


➢ **Defines the settings that change the look and feel of the desktops.**

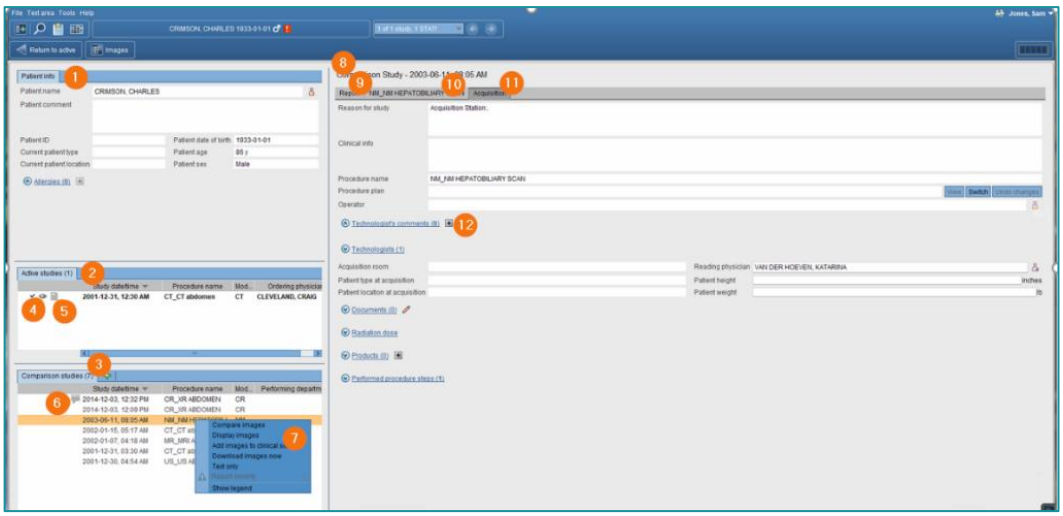
1. Select **Tools** > **Options** or **F12**.
2. Options window displays.
3. Selecting **Lists** allows customization of items related to List area.
4. Selecting **Text** allows customization of items relate to Reporting and Text area.
5. Selecting **Images** allows customization of items related to Image area including image display options, keyboard shortcuts, and saving of mark-ups.
6. Selecting **Others** allows you to turn on or off the collaborator tool for default login setting.
7. This setting saves for the login user.



Text Page Details



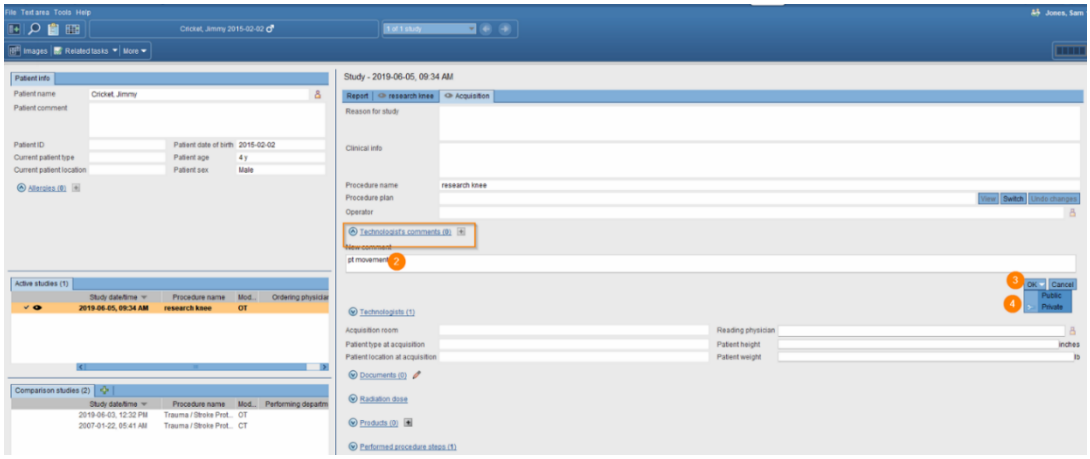
1. Patient information
2. Active studies
3. Comparison studies
4. Eyeball icon show images are in display.
5. Report icon shows the study has a report attached.
6. Study comment communication between provider and radiologist.
7. If an image is not in display, right-click for display options.
8. Study information for study that is in display.
9. Report Tab
10. Order Tab
11. Acquisition Tab
12. Comments



Technologist Comments

➢ **Allows the staff to place a descripitive message regarding the patient/exam that is visible within EI**

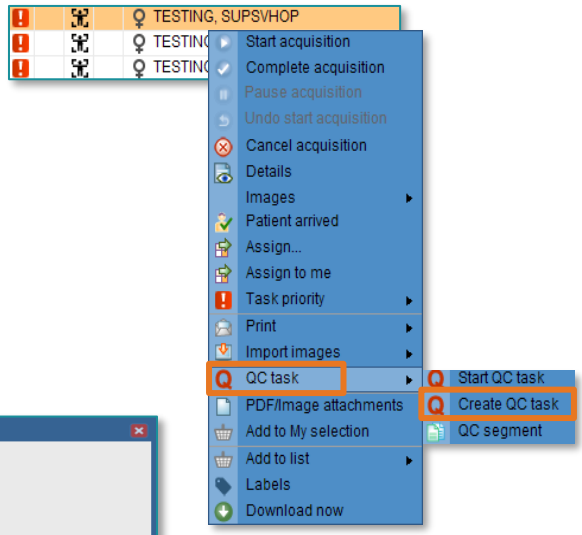
1. Select **Technologist comments.**
2. Enter comments.
3. Select **OK.**
4. Select **Public.**

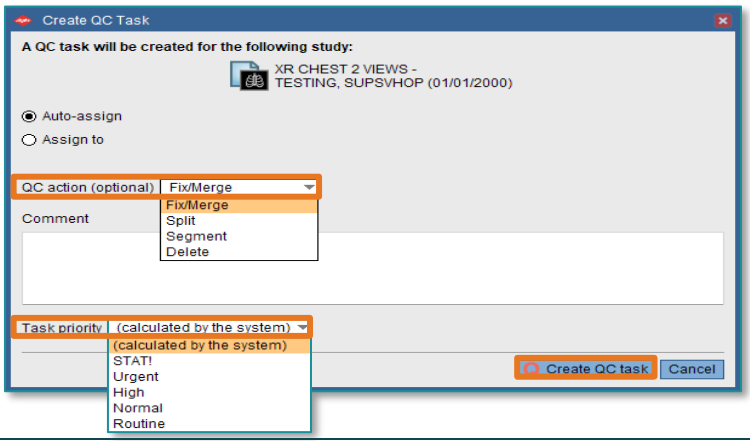


QC-Quality Control

➢ **Create QC- to assign a quality control task for the selected study or studies to yourself or another person.**

1. Select a **study** for QC.
2. Right-click and select **QC task.**
3. Create **QC task.**
4. Select **Auto-assign** or **Assign to.**
5. Select QC action-fix/merge, split, segment, delete.
6. Include Task comments if necessary.
7. Select Task Priority from dropdown.
8. Select **Create QC Task.**





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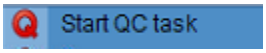
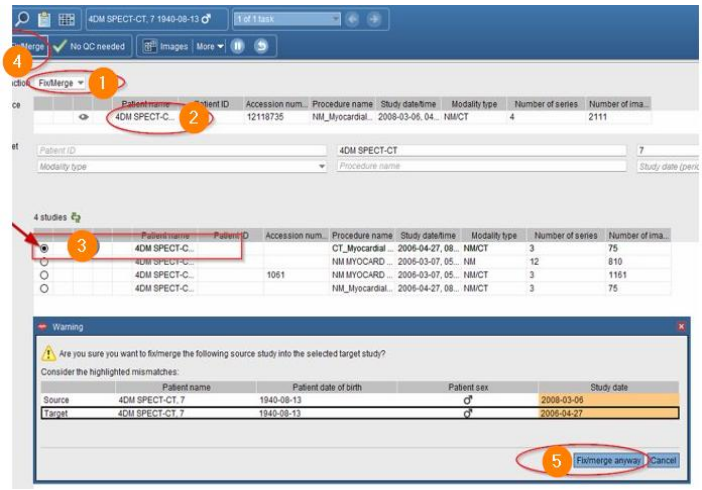
Start a QC task

➢ **Start a QC task from a task list to resolve the quality control issue.**

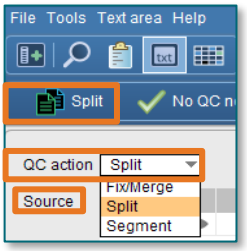




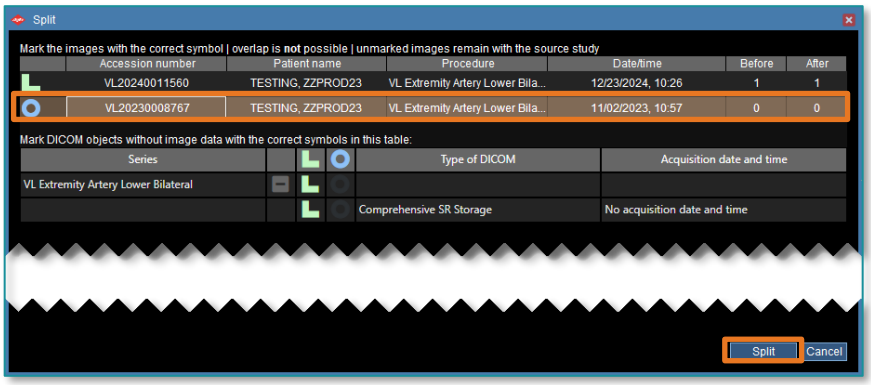
Fix/Merge – Manually fixing studies aligns patient and order information with unverified images. Merging images assembles multiple studies that belong to one patient.

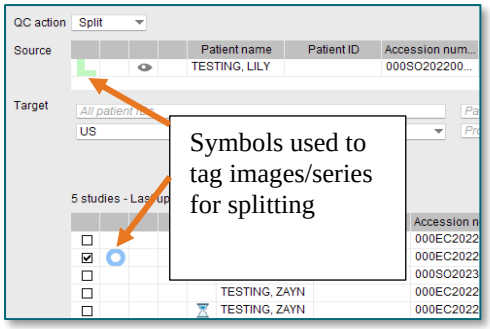
1. Select the correct action **Fix/Merge**.
2. Verify source.
3. Select the **target** for Merge.
4. Initiate the merge by clicking **Fix/Merge**.
5. Confirm and **select Fix/Merge anyway**.

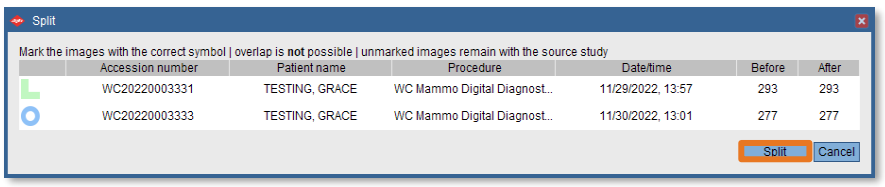
Spilt – Manually split a study with images belonging to multiple patients, orders, or procedures.



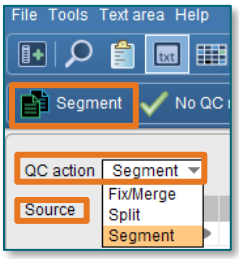
1. Select the **QC action** to split.
2. Select your **target**.
3. Click the **Split** action.
4. Select the **study** to tag and click split; symbol will activate on your cursor. You now can **select an image(s)** or the **thumbnail** to select the series.
5. Confirm and select **Split**.



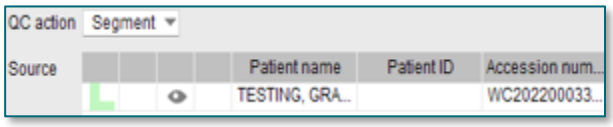




Segment – Manually segment one patient into multiple procedures for the same patient.



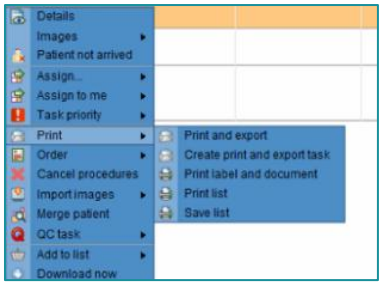
1. Select the **QC action** to Segment.
2. Select your **target**.
3. Click the **Segment** action.
4. Select **the study** you want to tag; symbol will activate on your cursor.
5. **Confirm** and select **Segment**.



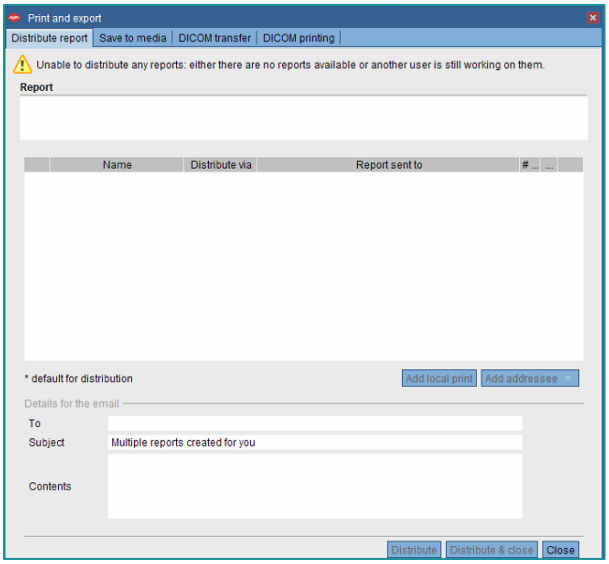
NOTE: **Delete – This is done by logging a ticket with #IS Enterprise Imaging.**

Print and Export

➢ **Print, fax, email, save to media, and transfer DICOM data.**



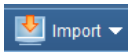
1. Select **Patient**.
2. Select **More**, top toolbar or right-click.
3. Select **Print**.
4. Select **Print and Export**.
5. Select **Distribute report**, **Save to Media**, **Dicom Transfer**, or **Dicom Print**.

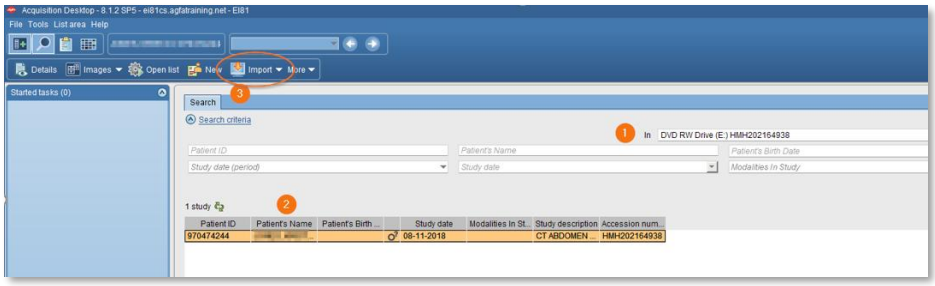


Import CD

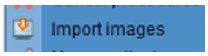
➢ **Add images from a local source by importing them to the currently selected study to a new order.**

1. Select the local drive in the search area.
2. Select **study** or studies to import.

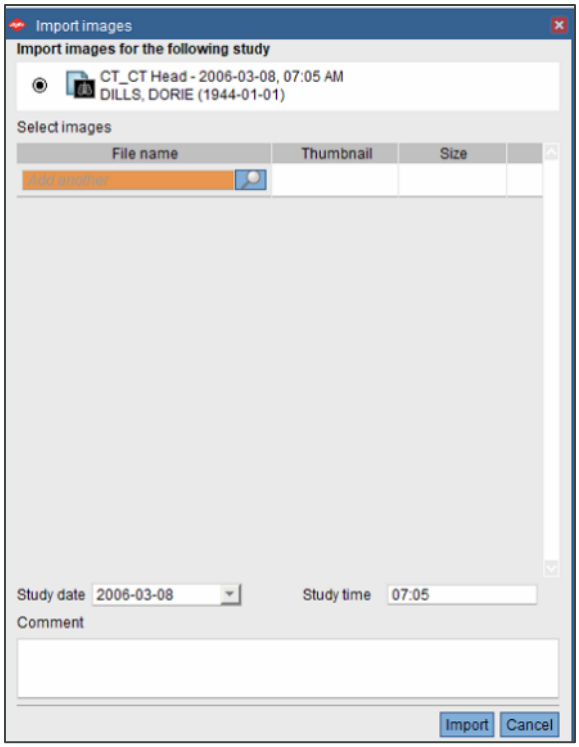
3. Click **Import** images. 



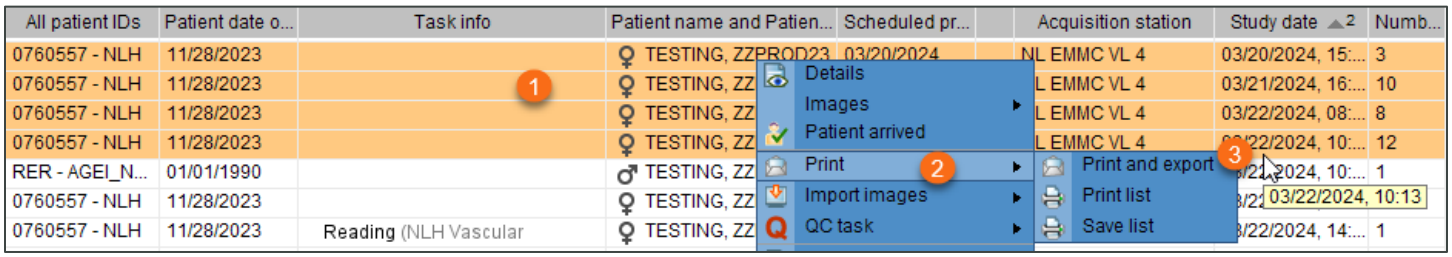
Import file from Desktop

1. Select **Patient**.
2. Select **More**.
3. Select **Import**.
4. Select **Import images** for selected study. 

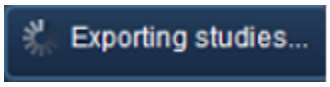
or **Import** images for new order



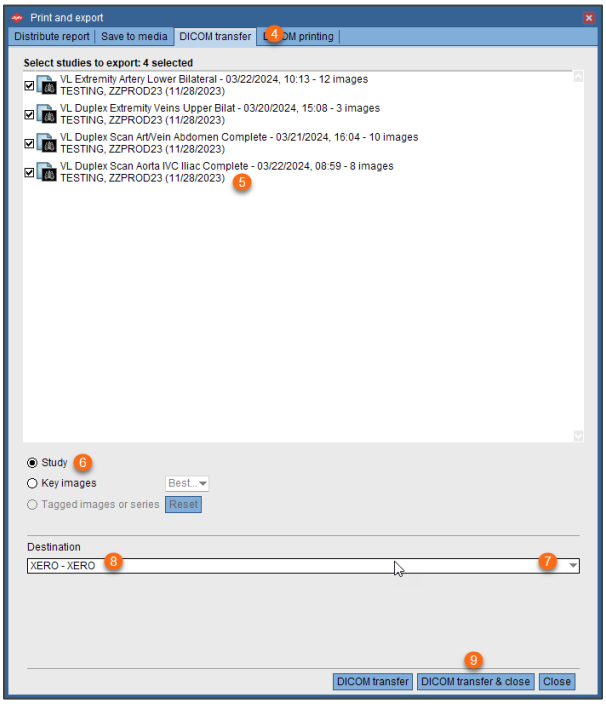
Burn or Transfer multiple studies

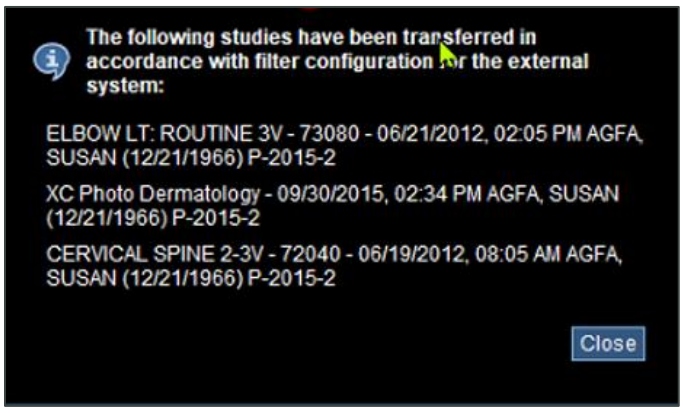


1. Highlight one or more exams.
2. Right-click and select **Print**.
3. Click **Print and export**.
4. Select **Save to media** or **DICOM transfer**.
5. Make sure the exams you want to burn or transmit have checkmarks beside them.
6. Click **Study**.
7. Use dropdown on **Destination**.
8. Select your designation.
9. Click **DICOM transfer & close** or **burn to**.
10. Box appears at top of list Exporting Studies



11. Info box will display transferred or failed



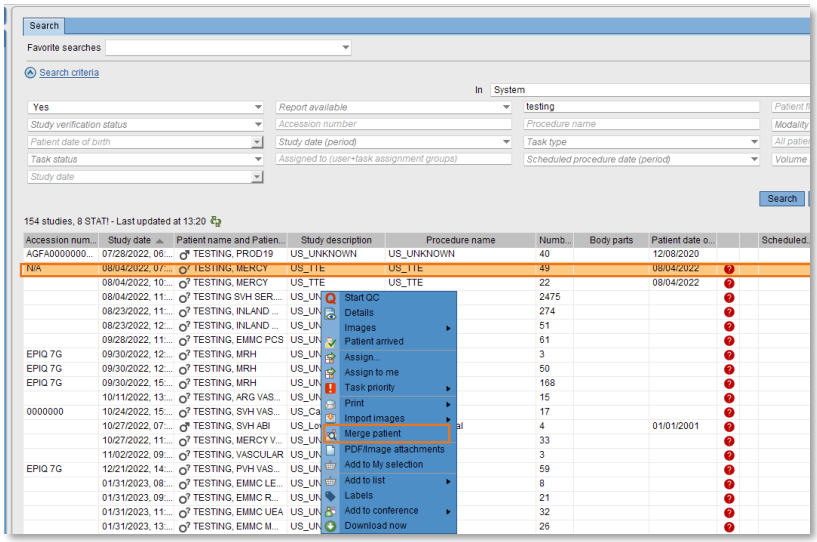


Enterprise Imaging (EI)

Cath, EP, Echo, Nuc Card, and EMMC Vas Lab Workbook

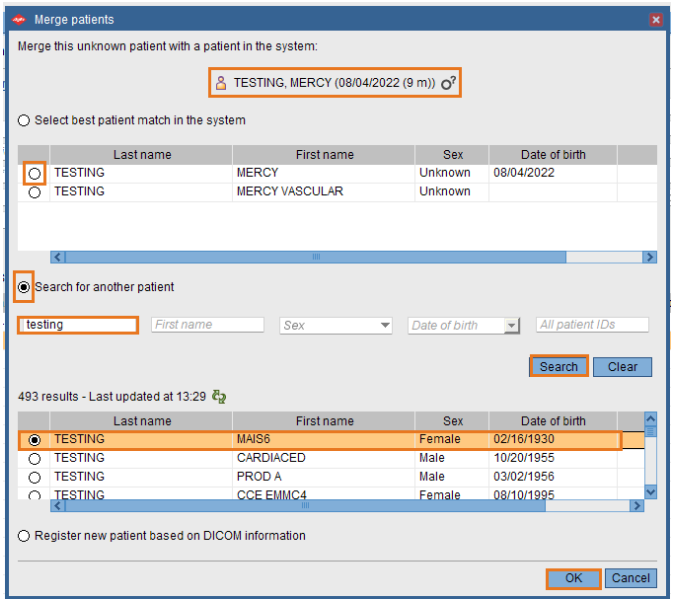
Patient Merge

Manually fixing studies aligns patient and order information with unveirifed images. Merging images assembles mutiple studies that belong to one patient.



1. Select **Patient**.
2. Right click and **Merge**.
3. Select **Merge patient**.

4. Select **OK**.
5. Select the **patient you want to merge to.**
6. Click **OK**.



Enterprise Imaging (EI)

Cath, Echo, EP, Nuc Card, and EMMC Vas Lab Workbook