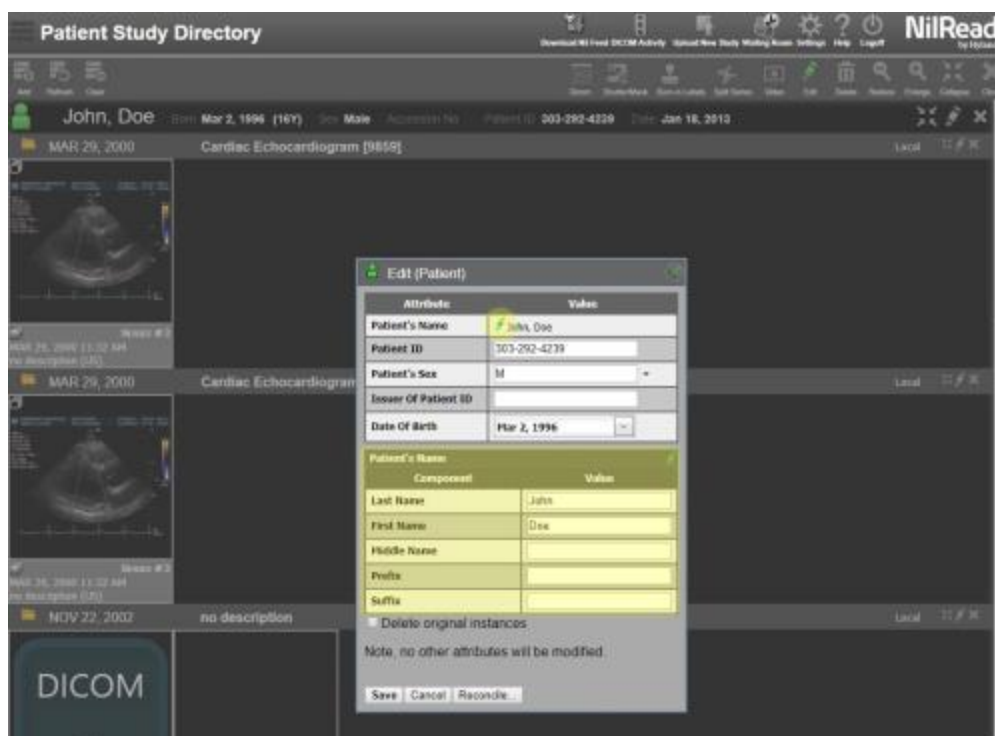


For person name (PN) attributes, click . Additional fields appear that you can edit.



3. When editing series attributes, select **Copy to new study** to save your changes in a new study. To make changes to the original study, deselect **Copy to new study**.
4. To delete the original SOP instances, select **Delete original instances**.
5. When editing patient attributes, you can retrieve information about the patient from a modality worklist. Select **Reconcile**, enter information about the patient, then select **Search**. If a match is found, select the patient and select **Select**.
6. Select **Save**.

Manage DICOM attributes




You can modify DICOM attributes for a patient, study, series or image. For example, you may need to correct a patient's name. You can also add and delete attributes.

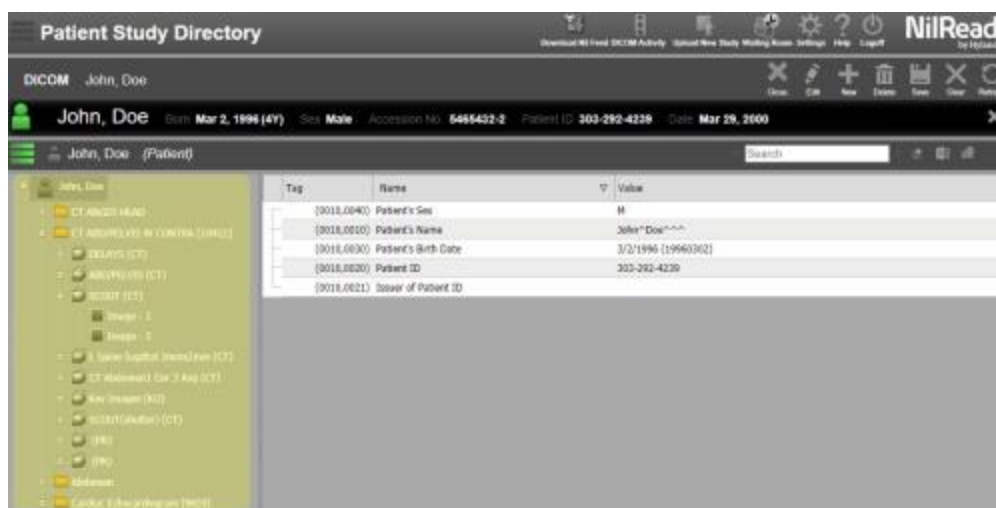
Note

Changes to attributes, including additions and deletions, will not be permanently applied until

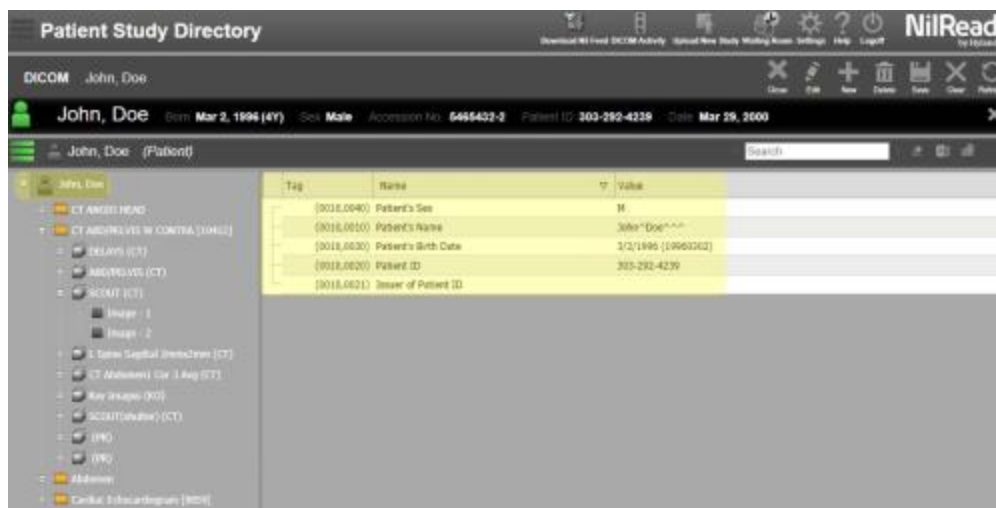
you select **Save**.


DICOM attributes conform to the following hierarchy: (1) patient, (2) study and (3) series. When you choose to edit DICOM attributes at one of these levels, attributes at the other levels are available for editing as well.

1. Select **DICOM** (toolbar).
2. Select  on a patient row. This opens the DICOM attributes with the patient selected.
or
Select  on a study row. This opens the DICOM attributes with the study selected.
or
Click (or tap) a series. This opens the DICOM attributes with the series selected.
3. The DICOM Explorer opens in a new browser tab. The left pane shows the hierarchy of DICOM attributes (patient, study, series, images). Note that the  icon is shown for multiframe images.




4. Select an item in the left pane. The item's DICOM attributes are shown in the right pane. For example, select a patient to view the patient's attributes. If you select an image, all of the attributes related to the image are shown (patient, study, series and image).



5. To reload the DICOM attributes and view the latest changes made by all users, select **Refresh**. Any unsaved changes you have made will be lost.
6. To customize the columns in the right pane:
 - Select **Customize**  in the top-right corner. To add a column, drag a column from the **Customize** list to the location where you want to place it. To remove a column, drag it to the **Customize** list.
 - Click (or tap) a column heading to sort the attributes. Click (or tap) the column heading again to sort the attributes in the reverse order.
 - To rearrange the columns, drag a column heading to a new location.

Find an attribute

If there is a long list of attributes in the right pane, use the **Search** box to find an attribute.

1. Enter your search text in the **Search** box and press ENTER.
2. Attributes matching your search text are highlighted. Use the arrows on each side of the **Search** box to go to the next or previous match.
3. Select **Clear**  beside the **Search** box to clear your search text and the highlighted matches.

Modify an attribute

1. Select an attribute in the right pane, then select **Edit**. You can also right-click (or touch and hold) the attribute, then select **Edit**.
2. The **Edit DICOM Tag** window appears. The **DICOM Tag** area shows the DICOM tag information. The **DICOM Value** area contains the values you can modify. Make your changes, then click **OK**.

Edit DICOM Tag

DICOM Tag

Group: 0010

Element: 0010

Type: 10

Description: Patient's Name

DICOM Value

Last Name: John

First Name: Doe

Middle Name:

Prefix:

Suffix:

OK Cancel

3. The modified attribute is shown in red in the right pane. The item the attribute belongs to (patient, study, series or image) is shown in red in the left pane.

Patient Study Directory

NilRead

DICOM John, Doe

John, Doe (Patient)

Search

Tag	Name	Value
(0010,0040)	Patient's Sex	M
(0010,0010)	Patient's Name	John, Doe
(0010,0030)	Patient's Birth Date	2/2/1996 (19960202)
(0010,0020)	Patient ID	303-292-4239
(0010,0021)	Issuer of Patient ID	

4. To save your changes, select **Save**. All attribute changes, additions and deletions you have made will be saved. If you do not want to save your changes, select **Clear**.

Add an attribute

You can add a DICOM attribute to a patient, study, series or image.

1. Select a patient, study, series or image in the left pane.
2. Select **New**. The **Add DICOM Tag** window appears.




3. Select **<click to select attribute>** and select the attribute you want to add. To search for an attribute, type all or part of the attribute name in the **Search** box.
4. When you select an attribute, the **DICOM Tag** area shows the DICOM tag information. The **DICOM Value** area contains the values you can modify. If the attribute already exists, the current values are shown in the **DICOM Value** area and can be modified.
5. Make your changes, then select **OK**. The new attribute is shown in red in the right pane. The item the attribute belongs to (patient, study, series or image) is shown in red in the left pane.
6. To save your changes, select **Save**. All attribute changes, additions and deletions you have made will be saved. If you do not want to save your changes, select **Clear**.

Delete an attribute

1. Select an attribute in the right pane, then select **Delete**. You can also right-click (or touch and hold) the attribute, then select **Delete**.
2. To save your changes, select **Save**. All attribute changes, additions and deletions you have made will be saved. If you do not want to save your changes, select **Clear**.

Save attributes in a spreadsheet

Select an item (patient, study, series or image) in the left pane, then select **Export**  in the top-right corner. Follow your browser instructions to save the file.

Return to the QC viewer

To return to the QC viewer, select **X** in the top-right corner (beside the patient information).

Redact images

You can redact areas on an image. For example, you may want to anonymize a study by removing patient information. You can choose to apply the redactions to the current image or to all images in the series.

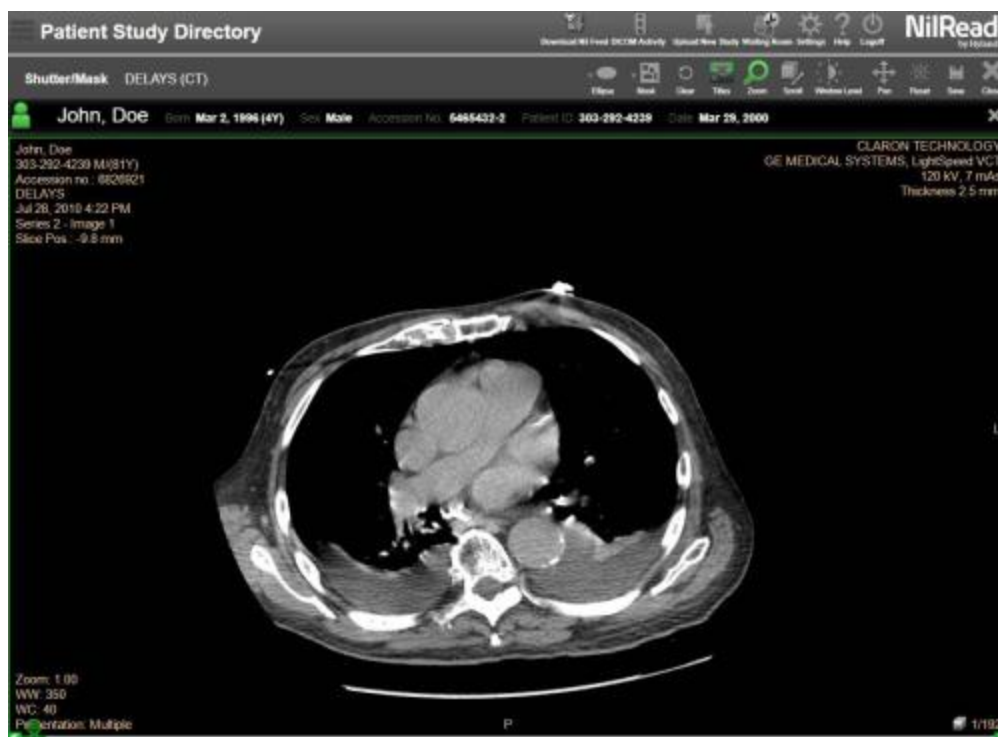
NilRead provides two methods to redact an image.

- You can add **masks** to cover areas you want to redact.
- You can use **shutters** to identify the areas you want to retain.

You cannot use both methods on the same image.

1. In the QC viewer, select **Shutter/Mask** from the toolbar.
2. Select a series. You can only select a series containing images eligible for redaction.
If the series contains at least one multiframe instance, the **Select Instance** window appears, allowing you to choose the instances you want to edit. To edit all instances, select **OK**. To edit specific instances, deselect the **Select All** checkbox, click (or tap) the instances you want to edit, then select **OK**.

3. The first image in the series opens.



4. Use **Scroll** or the scroll bar at the bottom of the window to select a different image. You can use standard tools such as titles, zoom, window level, pan, and reset to adjust the image.
5. If the study contains multiple series, they are shown in a side panel.

Apply a mask

Use masks to cover areas you want to redact.

1. Select **Mask** from the toolbar.
2. Select a shape from the toolbar (**Ellipse**, **Rectangle**, **Square**, **Circle**).
3. Draw shapes over the areas you want to redact. The areas covered by shapes will be blocked out on the image.
4. To edit a shape, right-click (or touch and hold) the shape, then select **Edit**. Change any of the following options, then select **Save**.

- **Shape** Type (**Rectangle**, **Square**, **Ellipse**, **Circle**).
 - **Color** Fill color.
 - **Border** Border color.
 - **Top, Left** Location on the image.
 - **Width, Height** Width and height.
5. To resize a shape, drag a corner of the shape.
 6. To move a shape, drag the shape to a new position.
 7. To delete a shape, right-click (or touch and hold) the shape, then select **Delete**.
 8. To remove all shutters and masks from the image, select **Clear**.

Apply a shutter

Use shutters to identify the areas you want to retain.

1. Select the arrow beside **Mask** in the toolbar, then select **Shutter**.
2. Select a shape from the toolbar (**Ellipse**, **Rectangle**, **Square**, **Circle**).
3. Draw shapes over the areas you want to retain. Only the areas covered by shapes will be visible; the rest of the image will be redacted.
4. To edit a shape, right-click (or touch and hold) the shape, then select **Edit**. Change any of the following options, then select **Save**.
 - **Shape** Type (**Rectangle**, **Square**, **Ellipse**, **Circle**).
 - **Color** Fill color for the redacted area. By default, the redacted area is black. To change the color, edit the color for the first shutter applied to the image. This color will be used for the redacted area. If the first shutter is deleted, the color for the second shutter will be used.
 - **Top, Left** Location on the image.
 - **Width, Height** Width and height.
5. To resize a shape, drag a corner of the shape.
6. To move a shape, drag the shape to a new position.
7. To delete a shape, right-click (or touch and hold) the shape, then select **Delete**.
8. To remove all shutters and masks from the image, select **Clear**.

Reverse masks and shutters

You can change the masks applied to an image to shutters. You can also change shutters to masks.

- To change the masks on an image to shutters, select **Shutter** from the toolbar.
- To change the shutters on an image to masks, select **Mask** from the toolbar.

Save redactions

The redacted image (or images) will be saved as a new series in the original study unless you choose to save the series in a new anonymized study.

You can choose to apply the redactions to the current image or to all images in the series. You can also choose to remove the redacted images from the original series.

Note

If you do not want to save your changes, select **Clear**.

1. Select **Save** from the toolbar.
2. To remove the redacted images from the original series, select **Delete original instances**.
or
To keep a copy of the images in the original series, deselect **Delete original instances**. The images will remain in their original state in the original series.
3. To save the series in a new anonymized study, select **Deidentify**, then select a confidentiality profile (for details, see [About anonymization](#)). The anonymized study will only contain the series that has been redacted.
4. Enter a **Series Description** and **Series Number** for the new series.
5. To apply the redactions to the current image only, select **Apply to image**.
or
To apply the redactions to all images in the series, select **Apply to series**.
6. Select **Save**.

Return to the QC viewer

To return to the QC viewer, select **X** in the top-right corner (beside the patient information).

Add and correct labels

You can add missing labels to an image or correct labels that have been burned into an image, such as an incorrectly placed label. To correct a label, first hide the incorrect label, then add a new label.

1. In the QC viewer, select **Burn-in Labels** from the toolbar.
2. Select a series. You can only select a series containing images that can be labelled.
3. The first image in the series opens.



4. Use **Scroll** or the scroll bar at the bottom of the window to select a different image. You can use standard tools such as titles, zoom, window level, pan and reset to adjust the image.
5. If the study contains multiple series, they are shown in a side panel.

Hide a burn-in label

1. Select the arrow beside **Left** in the toolbar, then select **Mask**.
2. Draw a mask over the label you want to hide.
3. To edit a mask, right-click (or touch and hold) the mask, then select **Edit**. Change any of the following options, then select **Save**.
 - **Top, Left** Location on the image.
 - **Width, Height** Width and height.
4. To resize a mask, drag a corner of the mask.
5. To move a mask, drag the mask to a new position.
6. To delete a mask, right-click (or touch and hold) the mask, then select **Delete**.
7. To remove all masks from the image, select **Clear**.

Add a label

1. Select a label (**Left, Right, Head, Foot, Anterior, Posterior**) from the toolbar. Note that you can change the label text after adding the label to the image.
2. Draw a label on the image.
3. To edit a label, right-click (or touch and hold) the label, then select **Edit**. Change any of the following options, then select **Save**.
 - **Text** Label content.
 - **Template** Label appearance. By default, labels are transparent. You can choose to make the label opaque or translucent.
 - **Top, Left** Location on the image.
 - **Width, Height** Width and height.
4. To resize a label, drag a corner of the label.
5. To move a label, drag the label to a new position.
6. To delete a label, right-click (or touch and hold) the label, then select **Delete**.
7. To remove all labels from the image, select **Clear**.

Save labels

The modified images will be saved as a new series. You can choose to apply the labels to the current image or to all images in the series. You can also choose to remove the modified images from the original series.

Note

If you do not want to save your changes, select **Clear**.

1. Select **Save** from the toolbar.
2. To remove the images from the original series, select **Delete original instances**.
or
To keep a copy of the images in the original series, deselect **Delete original instances**. The images will remain in their original state in the original series.
3. Enter a **Series Description** and **Series Number** for the new series.
4. To apply the redactions to the current image only, select **Apply to image**.
or
To apply the redactions to all images in the series, select **Apply to series**.
5. Select **Save**.

Return to the QC viewer

To return to the QC viewer, select **X** in the top-right corner (beside the patient information).

Split a series

You can divide a series of images into multiple series. This can be useful if the images need to be reviewed by different specialists.

1. In the QC viewer, select **Split Series** from the toolbar.
2. Select a series. You can only select a series that can be divided.
3. The Split Series window opens. If the study contains multiple series, they are shown in the side panel.

The Split Series window contains the following sections.

Preview window

The **preview window** at the top of the screen shows previews of the images in the series. You can select different layouts for the preview window (such as 1x1 or 5x5) using the toolbar.



To scroll through the images in the series, use the **Scroll** tool in the preview window. You can also use standard tools such as titles, zoom, window level, pan and reset to adjust the images.

Icons are shown on the images in the preview window to indicate if they will be included in the new series.

- **Green scissors** indicate the first image to be included in the new series.
- A **checkmark** indicates the image will be included in the new series.
- A **red X** indicates the image will not be included in the new series.
- **Red scissors** indicate the last image to be included in the new series.




You can use the preview area to quickly select a range of images for the new series. For details, see **Quickly select a range of images**.

Segment editor

The **segment editor** at the bottom of the screen contains thumbnail samples across the entire series.



Use the following tools to change the number of samples shown in the segment editor.

	Generate more samples across the entire series.
	Generate the most samples that will fit in the segment editor.
	Generate less samples across the entire series.

If you have generated more samples, use the arrows at each end of the segment editor to scroll through the samples. You can also hold SHIFT while dragging the editor. On touch devices, use a two-finger drag.

Segment Box