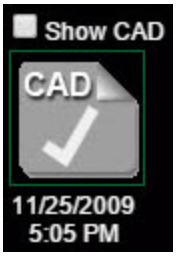
- When you hover over the series, the series description is “All stereometric images”.
- When you view images from the series, the 1x2 view is automatically applied and the images in each stereometric pair are shown side-by-side.
- Scrolling through the series will scroll through each pair of images.

View CAD marks

If a study has an associated computer-aided detection (CAD) report, you can view the CAD marks on the relevant mammography images. CAD marks are also available for DBT mammography images produced by Hologic (if CAD marks are provided by the manufacturer).

> **Important**
> Users are instructed to review all images in the study before enabling CAD marks.

1. Select **View Tools** (side panel). An icon for the CAD report is shown. For example:



2. Hover over the icon to view the following information:
   - **Manufacturer** CAD report manufacturer.
   - **Algorithms** Algorithms used by the CAD software.
   - **Calc** Number of calcification marks.
   - **Mass** Number of mass marks.
   - **Total** Total number of CAD marks in the report.
3. Select **Show CAD** to enable CAD marks on the study images. If an image contains CAD marks, the number of marks is shown on the image.
4. Deselect **Show CAD** to hide CAD marks.

Use implant masks to reduce brightness

NilRead applies a mask to implants in mammography images to reduce their brightness. You can choose to remove this mask when viewing an image.

- To remove implant masks for the current image, select **Titles** (toolbar), then deselect **Implant Masks**.
- To reapply implant masks for the current image, select **Titles** (toolbar), then select **Implant Masks**.

View DBT slice position

When scrolling through slices in a DBT series, an indicator appears in the bottom-left corner:

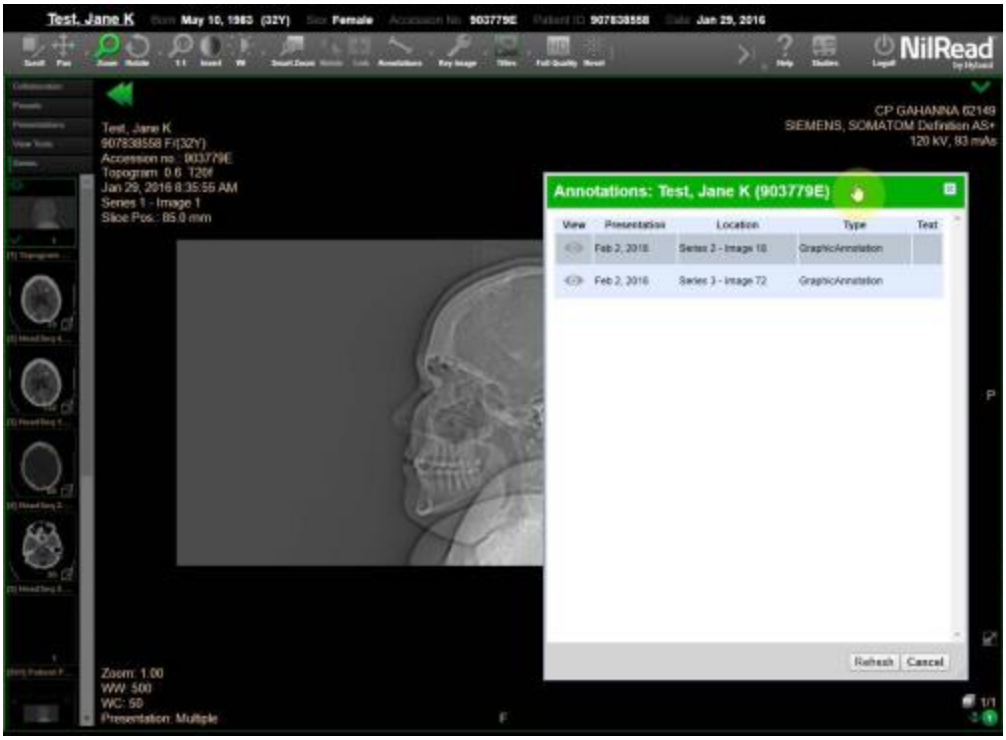
The indicator shows the current slice, total number of slices, and an orientation marker (F = feet, H = head).

View study annotations

You can quickly find the annotated images in a study (these are annotations added to the source image, not annotations added in NilRead).

1. Select **Annotations** (toolbar), then select **View**.
2. A list of the annotated images in the study appears. You can leave the window open as you work

with the study. To move the window to a different location on the screen, drag the title bar.



3. Click (or tap) **View** beside an image. The image is loaded in the viewer.

4. To check for any new annotated images in the study, select **Refresh**.
5. To close the window, select **Cancel**.

Edit videos

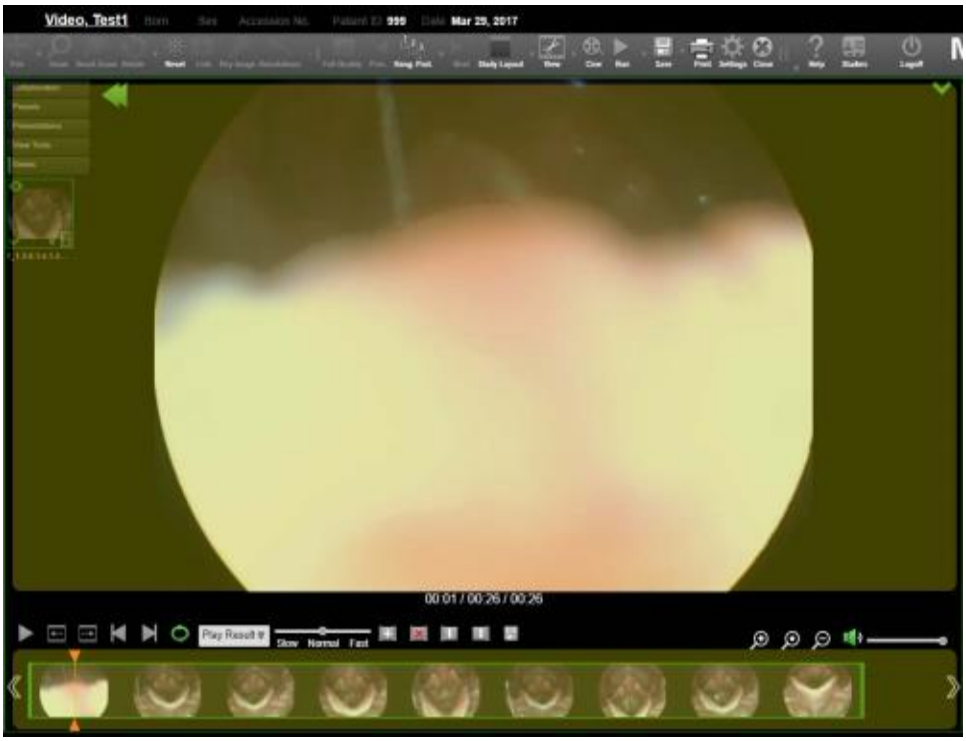
You can edit a video to remove irrelevant information. The segments of the video you want to retain are saved as a new video. The original video also remains in the study and is not modified.

1. In the Patient Study Directory, open a study that contains a video.
2. Select **Series** (side panel) and select a video. The video opens in the image viewer and begins to play. Note that if the first series in the study contains a video, the video will play automatically when the study opens.
3. Select **View** (toolbar), then select **Video Editor**. The video editor opens.

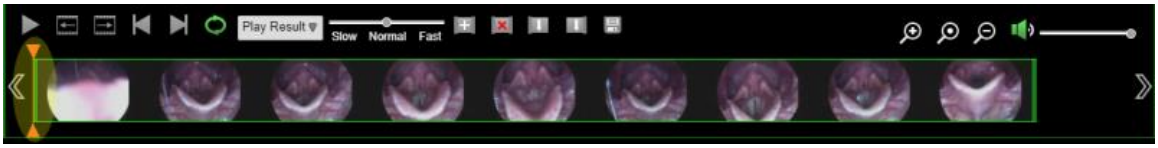
> **Note**
> If you open a video from the QC viewer, the video automatically opens in the video editor.

The video editor contains the following sections.

- The **preview window** at the top of the screen shows the location currently selected in the timeline. The **timeline** at the bottom of the screen contains thumbnail images of the video content.

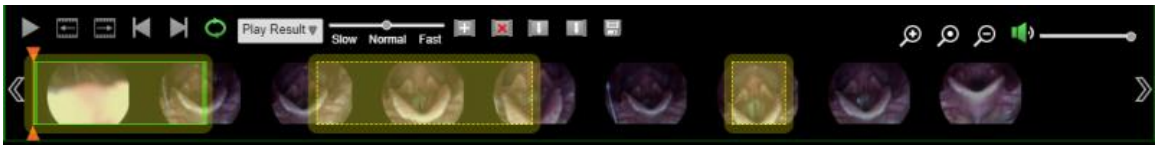


- The **position indicator** shows the current location in the video. When you first open the editor, the position indicator is at the start of the video.



- Use the **selection box** in the timeline to mark the segments you want to include in the edited video. When you first open the editor, the entire video is included in the box.

You can resize and move the selection box. You can also add more boxes to the timeline, allowing you to mark segments from different parts of the video. For example, the following timeline contains three boxes. These three segments of the original video will be included in the edited video.



The following information is shown below the preview window.

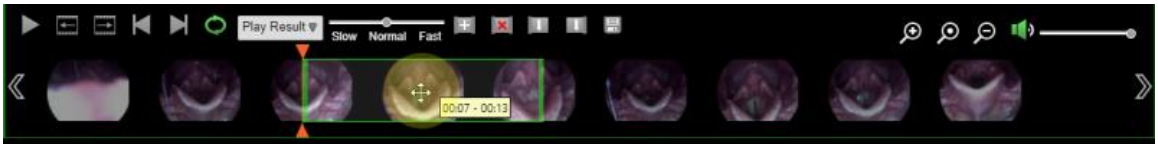
- The current playback time from the start of the original video.
- The duration of the original video.
- The total duration of the segments that will be included in the edited video.

Video, Test1
Born
Sex
Accession No.
Patient ID 999
Date Mar 29, 2017
Reset
Hang. Prot.
Study Layout
View
Cine
Run
Save
Print
Settings
Close
Help
Studies
Logoff
Collaboration
Presets
Presentations
View Tools
Series
00:01 / 00:26 / 00:11
Play Result
Slow
Normal
Fast

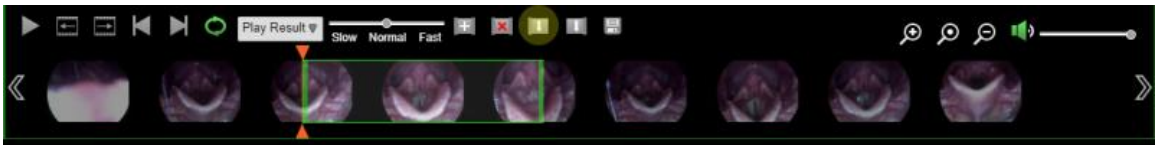
Modify a selection box

- Drag the ends of the box to resize it.

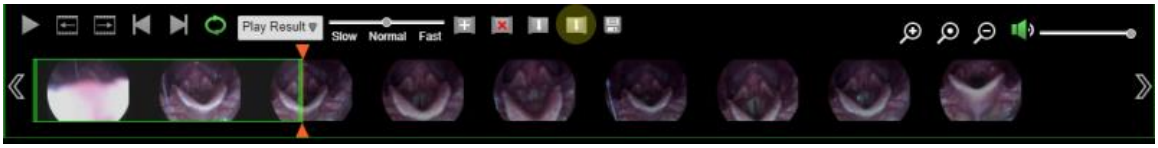
- Drag the box to a new position.



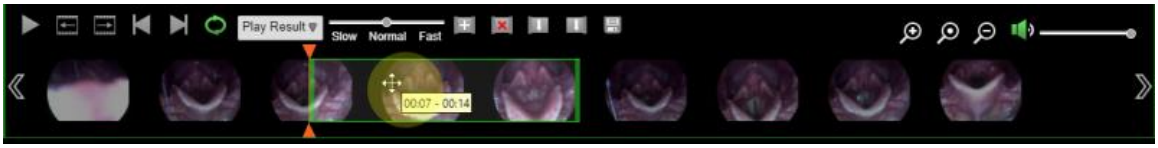
- To set the beginning of the box to the position indicator location, select the box, then select .



To set the end of the box to the position indicator location, select the box, then select .



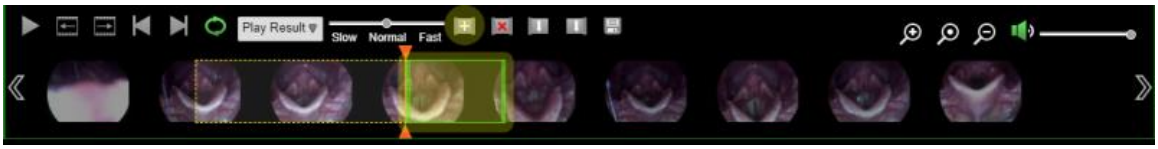
- Hover over a box to view the timeframe of the original video within the box.



Add and remove selection boxes

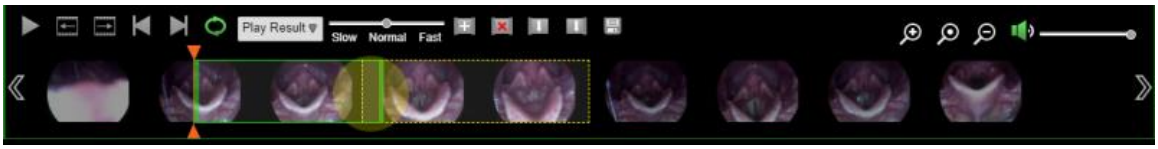
Use multiple selection boxes to mark non-contiguous segments. You can add as many boxes as needed.

- To add a box, select . A new box appears to the right of the current box. Change the box position and size as needed.



- To remove a box, select the box, then select . Note that you cannot remove all boxes; at least one box must remain on the timeline.

- Note that if boxes overlap, they will be merged together when the edited video is saved.



View thumbnail images

You may need to use the arrows at each end of the timeline to view all of the thumbnail images. You can also hold SHIFT while dragging the timeline to view additional thumbnails. On touch devices, use a two-finger drag.

Use the following tools to resize the thumbnail images in the timeline.

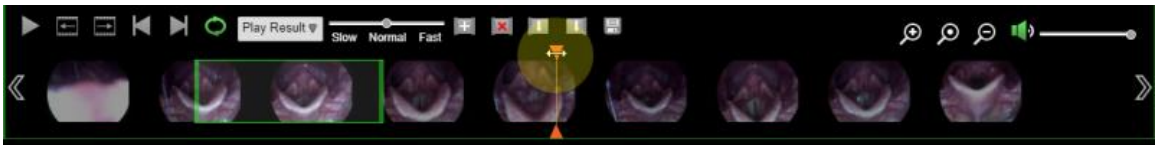
	Increase the thumbnail size. This allows you to view the thumbnails more clearly; however, this reduces the number of thumbnails shown on the screen.

	Fit all thumbnails on the screen.
	Decrease the thumbnail size. This allows you to view more thumbnails on the screen.

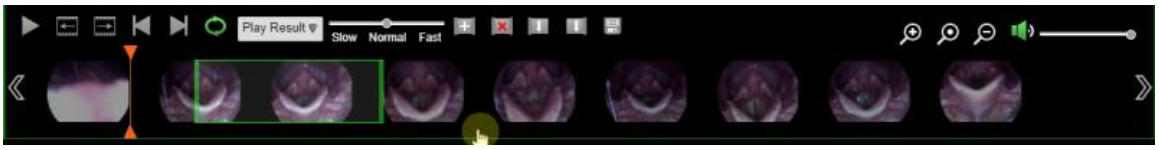
Change the position indicator

Move the position indicator to the video location you want to preview.

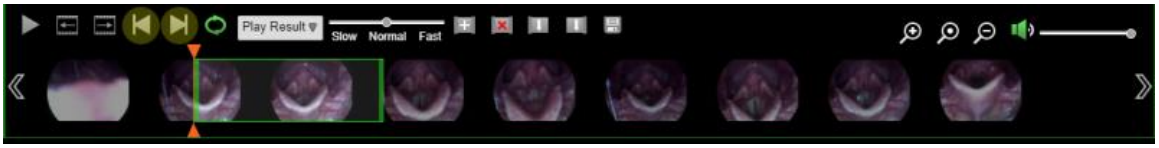
- Drag the position indicator to a new location on the timeline.



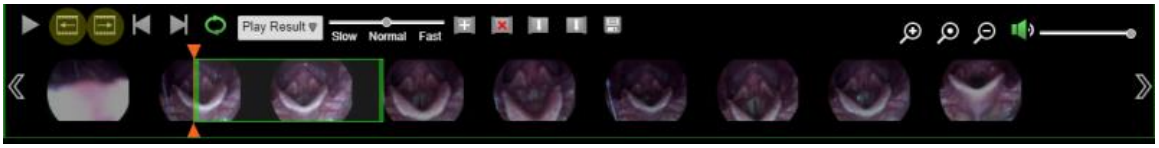
- Click (or tap) above or below the timeline to move the position indicator to a new location.



- To move the position indicator to the start of a selection box, select a box, then select . To move the position indicator to the end of a selection box, select a box, then select .



- Use and to move the position indicator forwards or backwards frame-by-frame. You can click (or tap) and hold these icons to continue moving frame-by-frame.



Preview the edited video

Select the content you want to preview, then select . You can choose from the following options:

- **Play Result** Play the entire edited video.
- **Play Segment** Play one of the segments in the edited video. Select a segment, then select .
- **Play Original** Play the original video.

You can use the following controls while playing a video.

- To skip to the start of the video or segment, select . To skip to the end of the video or segment, select .
- To change the playback speed, select **Slow**, **Normal** or **Fast**. You can also use the slider to change the speed.
- To change the playback volume, use the volume controls above the timeline .
- To loop the playback, select .
- To pause the playback, select . You can also click (or tap) on the preview window to pause and resume playback.

Save the edited video

The edited video will be saved in a new series.

1. Select .
2. Select the following options:
   - **Encoding Profile** Select the encoding profile for the edited video. The profile determines the video quality and file size.
   - **Audio** Include or exclude audio in the edited video.
   - **Series Description** Enter a description for the new series. Leave this field blank to use the description from the original series.
3. Select **Save**.

Return to the image viewer

To return to the image viewer and exit the video editor, select **View** (toolbar), then select **Video**.

Track review status

You can use folders to track whether studies have been reviewed. A typical example is to group studies that require review in a **For Review** folder, then move these studies to a **Reviewed** folder once they have been reviewed.

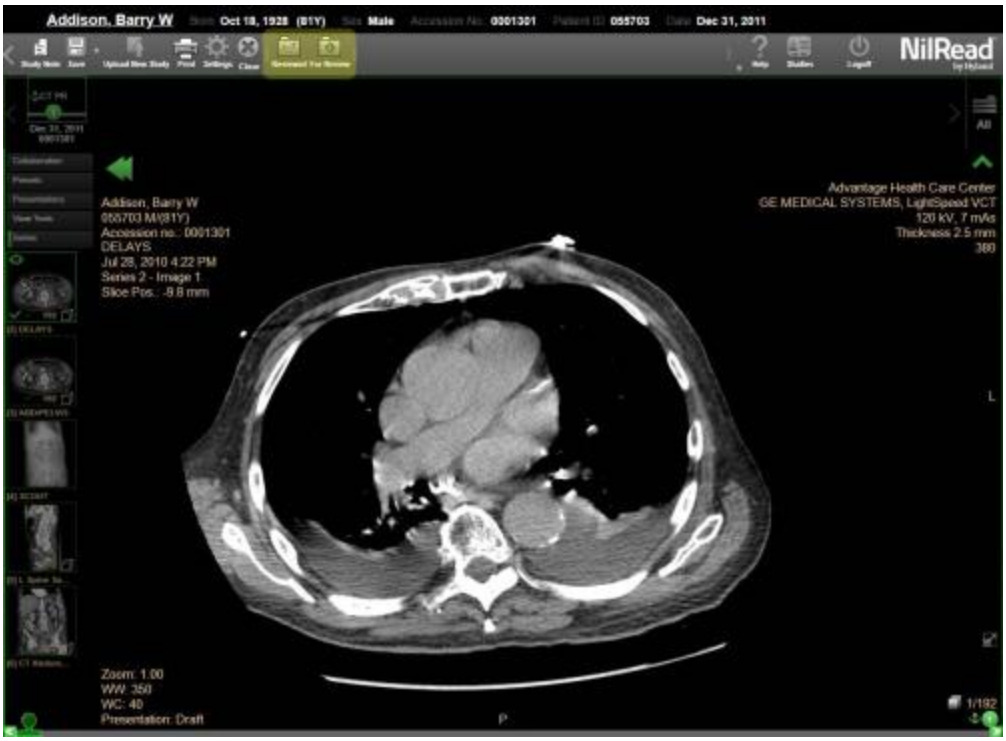
Organize studies in review folders

The folders used to review studies (such as **For Review** and **Reviewed**) must be created by an administrator. The administrator will grant access to these folders to authorized users who can then add studies to the folders. Note that you can use more than two folders for the review process and can use any name for the folders. Contact your NilRead administrator to discuss your review folder requirements.

Manage reviewed studies

When viewing a study in the image viewer, icons for the review folders are shown in the toolbar. The highlighted icon indicates which folder the study currently belongs to. For example, the following study is in the **For Review** folder. Once the study has been reviewed, select the **Reviewed** icon to move the study to the **Reviewed** folder.

Note
These are example icons. In general, click a folder icon to move the study to the folder.



Note

The review folder icons must be created by an administrator. For more information, see **Set up review folders**.

Use image visualization tools

The NilRead toolbar provides quick access to the most important commands for working with images. To move through the tools, use the arrows at the ends of the toolbar. On touch devices, fling the toolbar.

You can use the tools in any viewport. Changes to one viewport affect all viewports displaying the same series. If the Link feature is active, then changes to one series will affect all series in all viewports.

Note
You can right-click (or touch and hold) a viewport to access the tools. You can also customize the toolbar (see **Change tool preferences**) and assign tools to mouse buttons, keyboard shortcuts and touch gestures (see **Change mouse, keyboard and touch preferences**).

After using a tool, your changes are saved unless you select **Reset** (to remove changes from all images in the series) or **Annotations > Delete Last/Delete All** (to removes changes from current image) before closing the study.

Note
Some tools are only available for specific modalities and views.

Scroll

Drag or use the mouse wheel to scroll through images.

- **2D** Drag to scroll forwards or backwards through the images in a series.
- **MPR** Drag to navigate forwards or backwards through the stack of images. The navigation step depends on the slice thickness that is currently selected.
- **3D** Drag to rotate an image with a full three degrees of freedom.
- **Sculpting** Drag to navigate forwards or backwards through the stack of images. The navigation step depends on the slice thickness that is currently selected.
- **ECG** Drag to navigate forwards or backwards in time.

You can also scroll through images using the arrow keys on your keyboard, the arrows at each end of the scroll bar below an image, or by dragging the scroll bar.

Pan

Drag to move an image within a viewport. Panning is applied to all images in the series.

- **Oblique** Drag to move an image in any direction within a viewport.
- **Constrained** Drag to move an image vertically or horizontally within a viewport.

Note
To move an image at any time, hold ALT while dragging the image.

Note
To focus on a specific area, pan the image so the area is centered in the viewport, then zoom in. On mobile devices, use pinch-to-zoom to pan and zoom simultaneously.