Studycast Help

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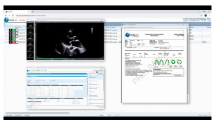
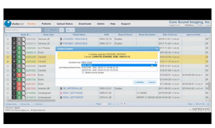
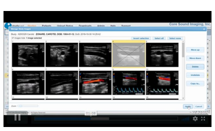
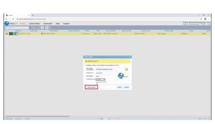
Tutorial Videos

To learn more about the Studycast system, select a video.

Getting Started

	**Studycast Orientation** New to the Studycast system? Start with this short video for an introduction to the workflow.

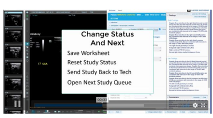
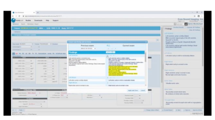
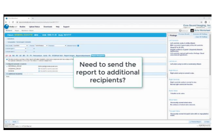
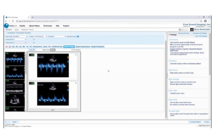
Studies Page

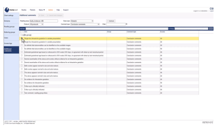
	**Combine Studies** Learn to combine up to five studies into a single study.
	**Split Studies** Learn to split a study into two studies.
	**Manage Images** Learn to reorder the images in a study, delete images, and copy images to a different study.
	**Archive and Share** Learn how to download a study to archive locally and how to use CoreShare™ to send a patient or colleague who is not a Studycast user a secure link to view the study images.

Study Viewer

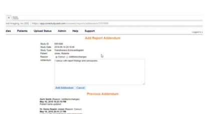
	**Calculations Panel** Learn to generate calculations and save the values to the study's Worksheet.
	**Annotate an Image or Loop** Learn how to use the annotation tools to add text or draw on images. Annotations can also be used to mask patient data that appears in the images.
	**Flagging Images** Need to draw the reading physician's attention to specific images? Flag them with just a click.

Study Worksheet

	**Change Status & Next** Need to send a study back to the technologist? With the Change Status & Next button, you can reset the study's status, send it back to the tech, and open the next study in your queue.
	**Previous Results** Learn to view and add a patient's previous results to the current worksheet and report.
	**Additional Recipients** If your account is configured to deliver final reports by email or fax automatically, you can add additional recipients for an individual study in the worksheet. Learn how.
	**Report Images and Attachments** Study images and attachments can be added to the report from the Worksheet. Learn how.

	**Results and Recommendations** Learn how to document additional communications about the study in the Results and Recommendations sections of the Worksheet.
	**Preset Favorites** Discover how to easily create, manage and share customized shortcuts for Studycast worksheet statements and observations.
	**Additional Comments** Learn how to easily create, manage and share personalized statements.
	**Obstetric Worksheet Overview** Learn to navigate the Studycast Obstetric worksheet, with an emphasis on Obstetric references, Case functionality, and Fetal Anatomy documentation.
	**Import Measurements** Learn to use Import Measurements tool to quickly populate worksheets.

Study Report

	**Add an Addendum** Learn to add an addendum to a study that has already been approved.

Administrative Users

	**User Management** Learn to add new users, reset passwords, activate and deactivate existing users, and manage user permissions.

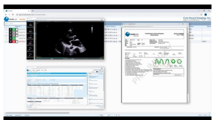
Troubleshooting Tips

	**Studies Won't Send** Having trouble uploading studies? Try these simple troubleshooting tips to get back up and running.

Part 2

Getting Started

New to the Studycast system?

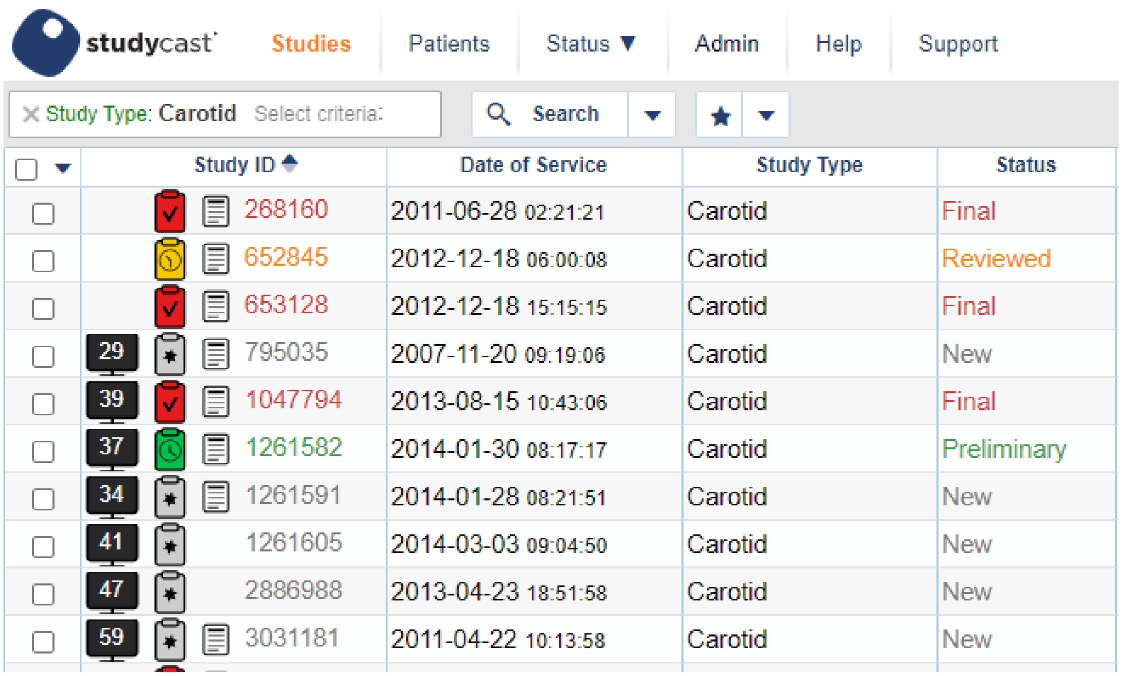
	**Studycast Orientation Video** New to the Studycast system? Start with this short video for an introduction to the workflow.

Then, check out these important overview topics:

- Studies Page
- HTML5 Study Viewer
- Worksheets
- Study Reports

Studies Page

When you log into the Studycast system, the Studies page is displayed. This page lists all studies that have been or are currently being uploaded to the Studycast system which you are authorized to view. The list includes only those studies you are authorized to view.



The grid lists each study in a separate row. Several icons appear in the Study ID column.

Icon	Description
	The Study View icon displays the number of images in the study. Click this icon to view the images in the Study Viewer.
	The Worksheet icon is color coded according to the status of the study. Click this icon to open the Studycast worksheet. For more information on status colors, see the Study Status Color Coding section below.
	The Report icon is displayed only when a report has been generated for the study. The report may be preliminary or final depending on the status of the study. Click this icon to view the report.

Other columns display information associated with the study. You can choose which columns appear in the grid and in what order. For information about configuring the columns, see Configure the Grid.

Explanation of all Studies Page grid columns

Column	Description
Study ID	Unique numerical identifier the Studycast system assigns to a study when it is uploaded.
Original Study ID	Identifies the original study from which a clone was created.
Date of Service	Displays the date the study was performed in Year-Month-Date (YYYY-MM-DD) format.
Status	Displays the current status of the study (Uploading, New, Preliminary, Reviewed, or Final). For an explanation of the color codes, see Study status color coding.
Study Type	The Studycast worksheet type currently assigned to the study. The study type should correspond to the type of exam performed on the patient.
Study Protocol	Selected protocol for type of exam performed. For example, a Venous LE study can have a protocol of Insufficiency, Duplex, Reflux, or Post Ablation.
Study Description	If the user has entered a description for the study (not available on all worksheets), it is displayed here.
Sender	ID signifying the server or PC from which a study was uploaded to the Studycast system.
Division Code	This code is used to assign studies to divisions automatically. This code cannot be changed.
Division Name	Name of the division a study is assigned to in the Studycast system. The division name can be changed.
Patient Name	Patient's name (Last, First).
Patient ID	Medical Record Number, or another unique identifier for the patient.
DOB	Patient's date of birth in Year-Month-Date (YYYY-MM-DD) format.
Reading Group	Name of physician (or group of physicians) assigned to read the study.
Reading User	If the Reading Group selected has multiple members, the Reading User field can be used to select a specific physician from that group.

Column	Description
Referring Group	Name of physician (or group of physicians) who referred the study.
Referring User	If the Referring Group selected has multiple members, the Referring User field can be used to select a specific physician from that group.
Ordering Physician	A secondary referring field where you can select another provider to also receive a copy of the final report.
Performing User	Initials sent by the modality to identify the sonographer/technologist.
Approved By	Name of the physician who approved the study.
Approved Date	Date the study was approved by the reading physician.
Care Type	When enabled, Care Types allow you to categorize studies to trigger visual cues at set intervals.
Location	Site-specific location where a study was performed.
Procedure	Displays the procedure selected on the worksheet for a study: Complete, Limited, Duplex, etc. This option is available only on ultrasound studies.
Modality	Displays the modality, which is captured when the study is uploaded. The modality can be changed on the Worksheet.
Accession / Encounter #	Displays the accession or encounter number uploaded with the study.
Verified Date	Date the study was verified (only applies to Studycast accounts that use the Verifying Physician functionality).
Verified By	Name of the reading group assigned to verify the study (only applies to Studycast accounts that use the Verifying Physician functionality).
Verifying Physician	Name of physician who verified the study (only applies to Studycast accounts that use the Verifying Physician functionality).
Procedure Code	Displays the procedure code for the study.
Diagnosis Code	Displays the diagnosis code for the study.

Study status color coding

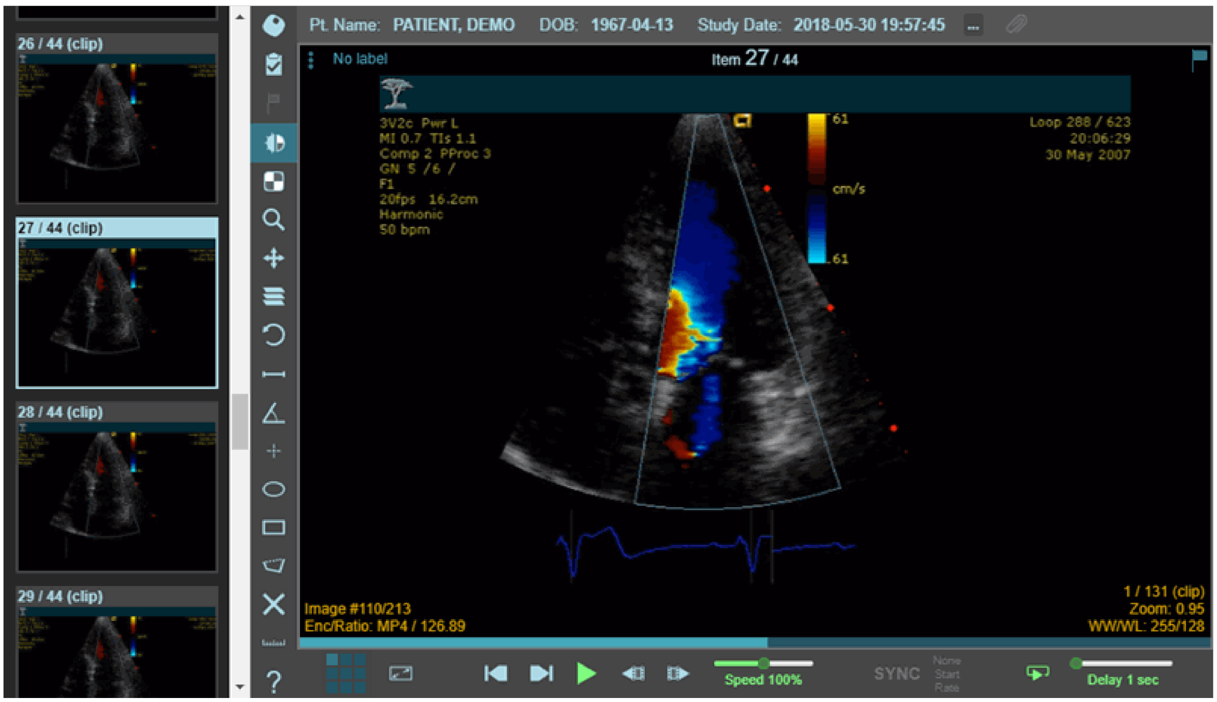
Each study is color coded to indicate its status. The color coding is applied to the Worksheet icon, Study ID, and Status.

Color	Status	Description	Who Can View the Study
	**Uploading**	The study record has been created and is currently uploading to the Studycast system. NOTE: Only studies transmitted through the CoreConnect™ uploader will appear with this status. If your studies are transmitted through the CoreGateway™ uploader, this status is not used.	Staff, admin, and technologists
	**New** *(Optional)*	The study has been uploaded but is not yet available for the reading physician. The technologist may enter information in the worksheet and then set the status to Preliminary. Once the status is Preliminary, the study will be available for the reading physician. *NOTE: This status is optional and might not be applicable in your implementation of the Studycast system.*	Staff, admin, and technologists
	**Preliminary**	The study is ready for the reading physician to review.	Reading physicians and reading staff (Referring physicians can view study images only)
	**Reviewed** *(Optional)*	The reading physician has approved the study, and a report has been generated, but it has not been assigned to the referring physician. This status allows for ▪ Another user to view the report before it is sent to the referring	All users authorized to view the study

Color	Status	Description	Who Can View the Study
		physician or other final destination, or ▪ A second physician to verify the study before the report is finalized *NOTE: This status is optional and might not be applicable in your implementation of the Studycast system.*	
	**Final**	The study has been approved by the reading physician, and the final report has been generated.	All users authorized to view the study

Studycast Viewer

When you open the Study Viewer, the first image in the study is displayed. If the first image is a cine loop, it begins playing automatically. Thumbnails of available images appear in a scrolling list on the left side of the viewer. To view an image or loop, select it from this list. You can also navigate study images using the arrow keys on your keyboard and the play controls below the image.



Thumbnails of cine loops and image stacks have icons in their top right corner to differentiate them from single or static images.

Cine loop icon.

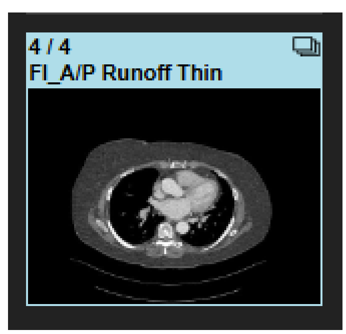
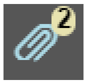


Image stack icon.

Study Information

The patient's name, DOB, and study date appear at the top of the window. To see additional information, click the three dots to the right of the study date.



If the study has attachments, the **Attachments** button will be active and will display the number of attachments. To open the attachments, click the button.

If the patient has previous studies, the **Other Studies** button will be active. Click the button to see a list of previous studies available. Click on a study in the list to open it in a new tab.

DICOM Overlays

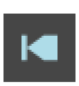
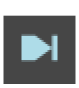
The viewer will display the following DICOM tags if they are present:

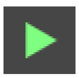
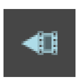
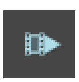
- Heart Rate (HR)
- Patient Name
- Patient DOB
- Sex
- Institution Name
- Study Date
- Study Time

If you would like to suppress these tags so they are not displayed on study images and loops, contact Studycast support.

Play Controls

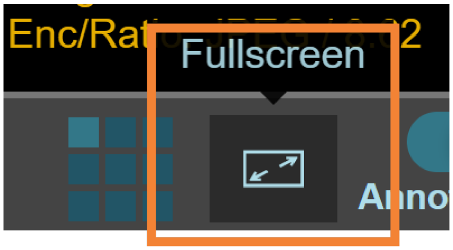
Play controls are located at the bottom of the Study Viewer.

Button	Keyboard Control	Function
 **Previous Item**	Up Arrow	Displays the previous image in the study. If you are viewing images 2-up or 4-up, the Previous Page button displays the previous 2 or 4 images.
 **Next Item**	Down Arrow	Displays the next image in the study. If you are viewing images 2-up or 4-up, the Next Page button displays the next 2 or 4 images.

Button	Keyboard Control	Function
 **Play All**	None	Plays all images in the study in order with the selected delay between the images.
 **Delay**	None	Sets the amount of time each image is displayed in Play All mode.
 **Play**	Space Bar	Plays the cine loop.
 **Pause**	Space Bar	Pauses the cine loop.
 **Previous Frame**	Left Arrow	Steps back one frame at a time in the cine loop.
 **Next Frame**	Right Arrow	Steps forward one frame at a time in the cine loop.
 **Speed Slider**	None	Controls the speed at which cine loops play.

Fullscreen Viewing

Use the **Fullscreen** button to the left of the play controls to toggle between full-screen mode and back. You can also exit fullscreen mode by pressing the ESC key on your keyboard.

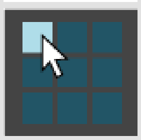
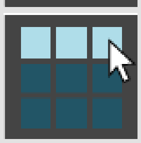
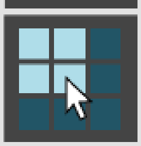
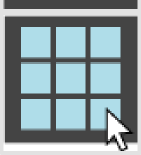


View Multiple Images

When the Study Viewer opens, it displays a single image from the study. To view up to nine images simultaneously, use the control at the bottom left.

When viewing images in the viewing pane, you can choose any combination of images you'd like to see. Simply find an image in the list of thumbnails on the left. Then drag and drop the image into the viewing pane. When you open a new study, the viewer will default to the view you most recently used for the same study type.

To select the number and layout of simultaneous images in the viewer, move your cursor over the control, as shown in the examples below. When the desired layout is highlighted in the control, click to select it.

Button	Displays...
	A single image or loop.
	Three images or loops, side by side.
	Four images or loops.
	Nine images or loops.

View Reference Lines

For series that include reference line data, the reference lines will be displayed automatically in the inactive viewports when viewing multiple series simultaneously. Click a viewport to make it the active one. The reference lines in the inactive viewports automatically update as you scroll through the series in the active viewport.

To hide the reference lines, click the toggle at the bottom of the viewer. To once again show the reference lines, click the toggle again.

Speed and Sync

To control the speed of a cine loop, use the **Speed** slider control at the bottom of the Study Viewer.

When viewing two or four cine loops at a time, you can sync the loops using the **SYNC** menu at the bottom of the Study Viewer.

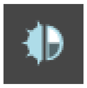
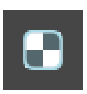
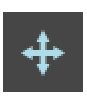
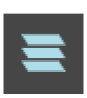
Sync Option	Description
None	Cine loops play at their own rate and are not synced with each other.
Start	All cine loops start at the same time and play at normal speed.
Rate	All cine loops start at the same time and automatically adjust to end at the same time. Faster loops are slowed down to match the speed of slower loops.

Play All and Delay

To view all images in the list of thumbnails in sequence, click the **Play All** button in the bottom right. Use the **Delay** slider to set the amount of time the viewer displays each image. The delay value you select will be used for all studies and images until you choose a different value or close the browser.

View Controls

When you open a new study, the viewer will automatically select the control you used most recently for the same study type.

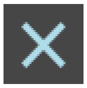
Button	Function
 WW/WC	For ultrasound and other imaging modalities that do not produce images with a high bit-depth, this control functions as brightness and contrast. To change the brightness, click and drag the mouse up and down in the viewport. To change the contrast, click and drag the mouse right and left. To apply brightness and contrast to all viewports (all images in the study), hold Ctrl key while dragging the mouse. For CT scans and other modalities that produce high bit-depth images, the window width and window center control the range of grayscale that can be displayed. With this tool, the user can specify the range of colors that are visible. Colors above this range appear as white. Colors below this range appear as black. To adjust these settings, click and drag the mouse in the viewport. • Right increases the window width • Left decreases the window width • Up increases the window center • Down decreases the window center For information on applying WW/WC presets, see WW/WC Presets for CT.
 Invert	Inverts the colors in the image.
 Zoom	Allows the user to zoom the item in the viewing pane in and out. To zoom, hold the left mouse button down and move the cursor up or down.
 Pan	Allows the user to drag the item in the viewing pane in any direction.
 Stack Drag	To scroll through frames in a loop using the mouse: 1. Click the Stack Drag button 2. Place the cursor over the item in the viewing pane 3. Hold the left mouse button down and scroll up or down

3D Cursor	Allows the user to locate a single point in multiple views on different planes. When the 3D Cursor is placed on an image in the active viewport, the series in the inactive viewports automatically update to display the corresponding view with crosshairs marking the same anatomical location.
Reset View	Resets the item to the default view.

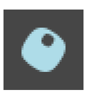
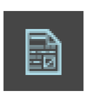
Measurement Tools

This menu to the left of the viewing pane provides tools for taking manual measurements on images and paused loops. For more information on how to use these tools, see Measure an Image.

Button	Function
Length	Allows the user to measure length along a straight line.
Angle	Allows the user to measure an angle.
Crosshairs	Allows the user to mark a spot on an image to take a velocity measurement using the point method.
Elliptical ROI	Allows the user to measure an elliptical area and circumference.
Rectangular ROI	Allows the user to measure a rectangular area.
Custom Polygon ROI	Allows the user to define and measure the area of a custom polygon.
	Allows the user to define and measure the area of a drawn shape.

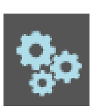
Freehand ROI	
 Delete Measurements	Deletes measurements from the item in the viewing pane.
 Measurement Calibration	Allows the user to calibrate manually if an item does not have the necessary calibration information from the modality.
 Calculations	Allows the user to take measurements that the software will use to calculate velocity, pressure gradient, pressure half time, velocity time integral, and ejection fraction on Doppler images.

Navigation

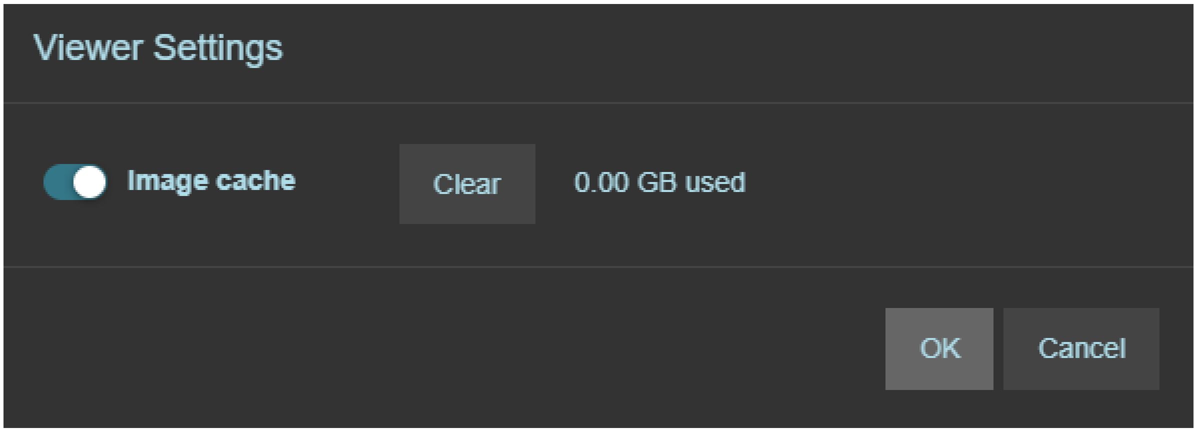
Button	Function
	Click to return to the Studies page.
	Click to open the Worksheet. This icon changes color to indicate the study's status.
	Click to view the Study Report.

Viewer Settings: Clearing/Disabling the Image Cache

The image cache can be manually cleared or disabled from **Viewer Settings**.

 Click the gears button in the upper right to access Viewer Settings.

The Viewer Settings window opens.

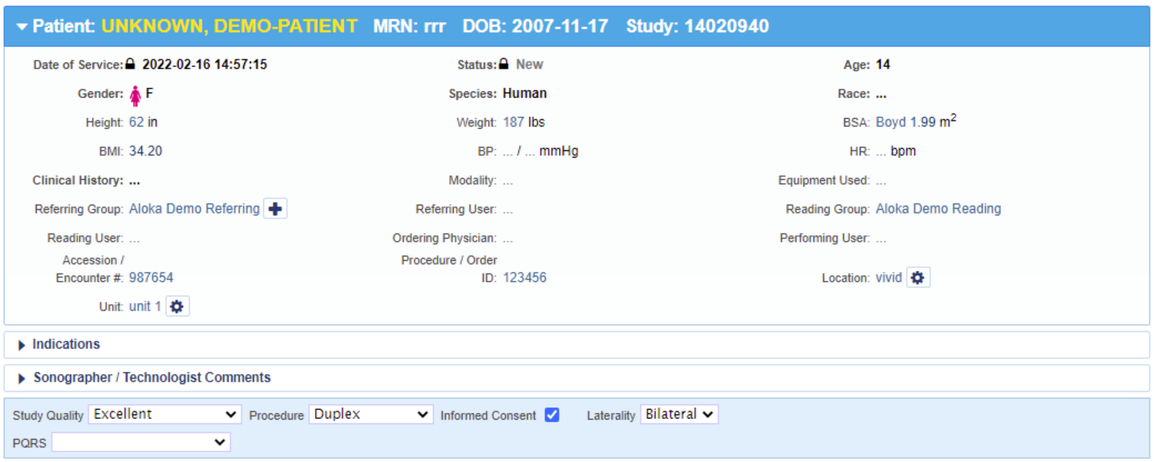


To disable image caching, click to toggle the **Image cache** option to the off position. To clear the image cache, click **Clear**.

Worksheets

The worksheet is where you enter measurements, observations, and notes for a study, generate the findings, and finalize the conclusions. Each study type has its own worksheet with fields tailored to that type of study.

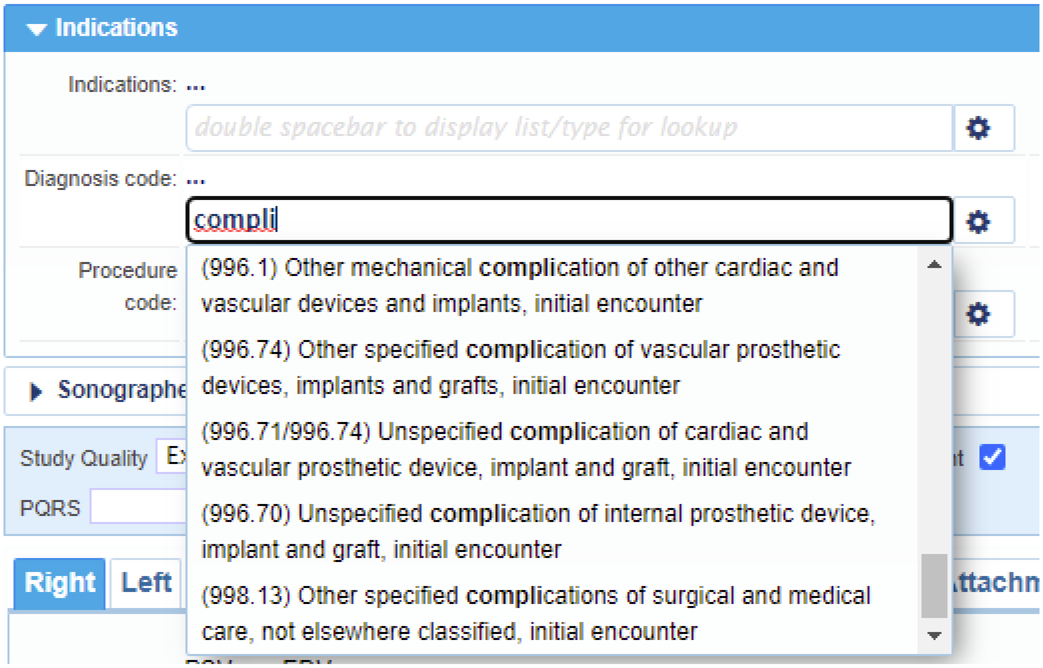
The left side of the worksheet contains several sections to capture the patient demographics, indications, notes, and the study's measurements and observations. Some sections can be opened and closed by clicking the section's header bar.



Enter and Edit Worksheet Information

Some of the information in the worksheet is automatically populated from the modality when the study is uploaded to the Studycast system.

- Some text can be edited. To edit, click the text and begin typing.
- To enter information in an empty field, click the dots (**....**) in that field and begin typing.
- Some text fields have a list of items you can choose. To see the entire list, press the space bar twice.
- To look up a specific item in the list, begin typing. The list narrows as you type. To select an item, click it with your mouse or use the arrow keys on your keyboard to highlight it and hit Enter.



You can edit any Additional Comments list in your worksheets by clicking the gear icon next to the field. For information about how to do that, see Additional Comments.

Warning: If another user already has the worksheet open, you will see a warning message at the bottom of the page. The Studycast system saves only the most recent changes. Be sure to coordinate with your colleagues to avoid overwriting one another's changes.

Patient Information

This section contains information about the patient, the study that was performed, and the referring and reading physicians. Use this section to assign the study to a reading group or reading physician.

Indications

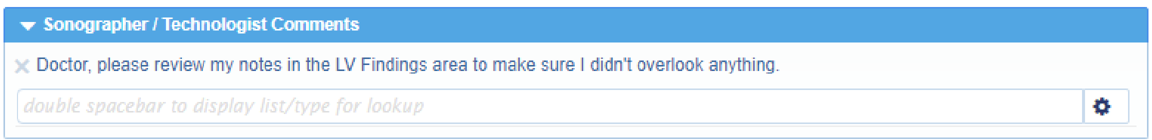
This section contains fields for:

- Indications
- Diagnosis Code (ICD-10 codes are pre-populated in this list)

- Procedure Code (CPT codes are pre-populated in this list)
- Risk Factors
- Complications
- Medications

Sonographer/Technologist Comments

Use this section to write notes for the doctor. The notes entered here do not appear on the final report.

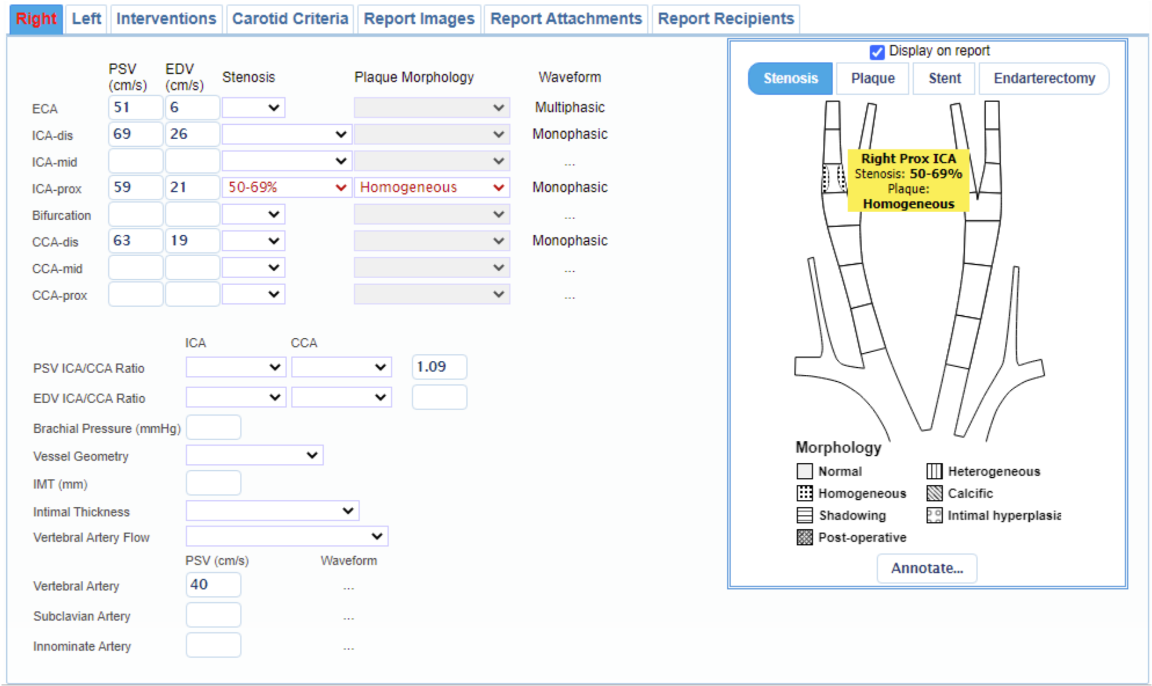


Protocol

If multiple protocols are available, you can select the protocol from the drop-down list. For some study types, some items on the measurements and observations tabs change when you select a different protocol.

Measurements and Observations

The Studycast system uses structured report data from the modality to populate measurements on the worksheet. Other items must be completed by a sonographer, technologist, or physician.



Abnormal Observations Color Coded

The worksheet automatically identifies abnormal values and observations. These items are color coded red. When a tab has an abnormal value or observation, the tab label is also color coded red.

Interactive Diagrams

Some worksheets include interactive diagrams to illustrate abnormal study results.

To see the details for a segment of the diagram, hover the cursor over that segment. To apply a different color or pattern code, click the mouse. With each click, the next choice in the legend is applied.

If a diagram includes an **Annotate** button, you can add simple line drawings and text to the diagram. Click the button to open the **Annotation Editor** window.

For more information, see Annotate a Diagram.

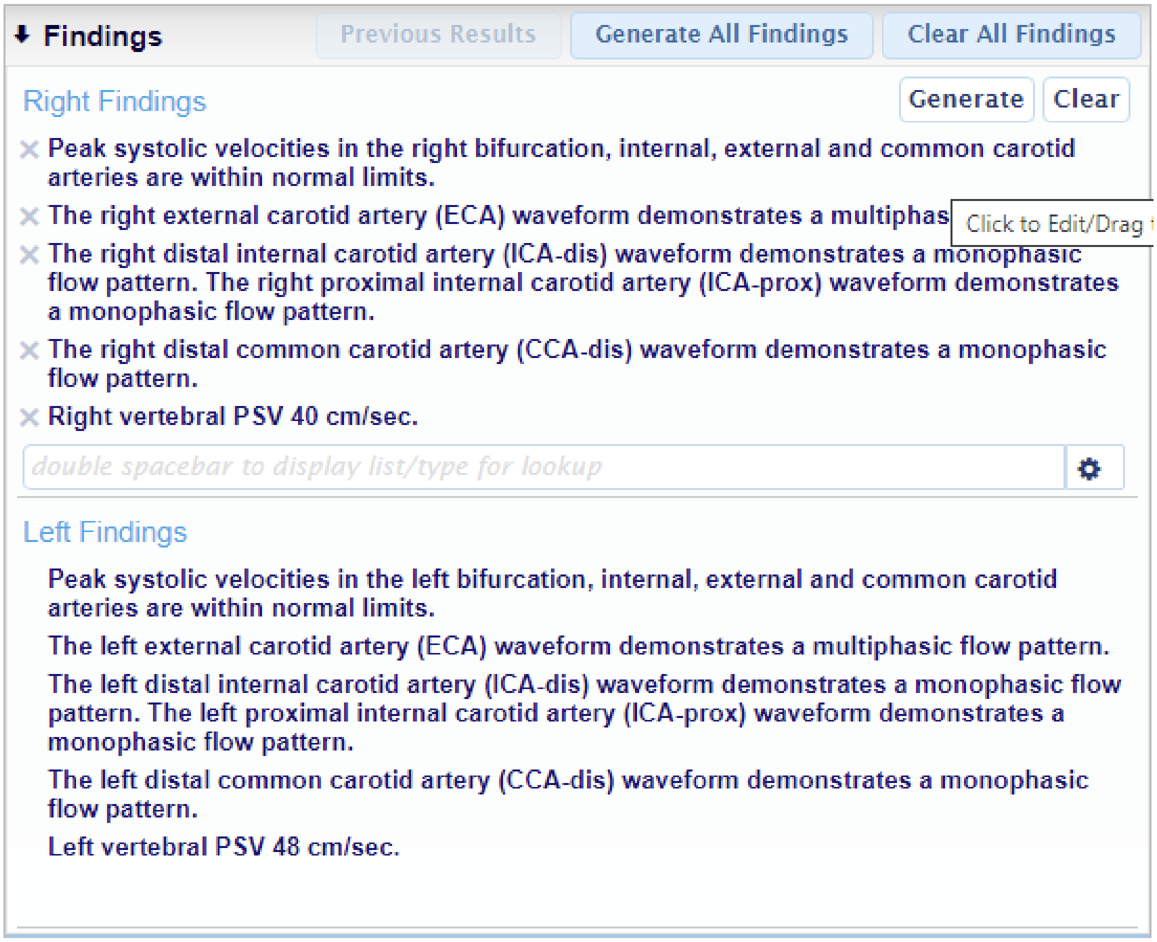
Report Recipients

Many worksheets include a tab that lists the notifications that will be sent when the study is approved or when an addendum is added. For information on managing this list, see Manage Report Recipients.

Findings

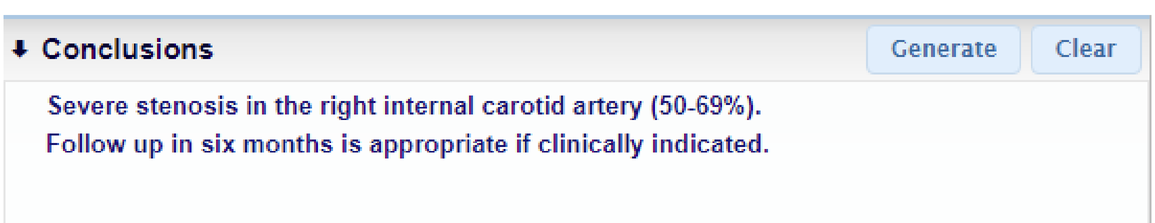
On the right side of the worksheet, the Findings section displays text generated by the Studycast system based on the measurements and observations in the worksheet. When you are finished entering information into the worksheet, click the **Generate All Findings** button to generate the text.

To edit the findings, click the text and begin typing. When you hover over a section of the findings, additional options appear.



Conclusions

This section displays conclusions statements generated by the Studycast system based on the data and observations in the worksheet. The conclusions statement appears on the Study Report.



When you are finished with the worksheet, click the **Generate** button to display a conclusions statement. The statements summarize the abnormal findings. You can edit the conclusions statements and add your own comments.

Results

Additional information about the study findings can be captured in this section. The results can be categorized as Abnormal, Critical, or No Change. If Critical is chosen, additional fields appear for documenting verbal communication with physicians about the study findings and any instructions provided to the patient. Studycast can send notifications based on the results category. See Set Up Notifications for more information.

Recommendations

Follow-up care recommendations for the patient or primary care physician can be documented in this section. The recommendations entered here appear in a separate section below the Conclusions on the study report.

Status and Work Flow Options

The available buttons in the bottom right corner depend on your user type and permissions.

Button	Available for...	Description
Save	All Users	Saves changes to the worksheet. If you exit the worksheet without saving, your changes will be lost.
Preview Report	All Users	Opens the report in a new window.
Set to Preliminary	Sonographer/ Technologist	Sets the study status to preliminary.
Approve Study	Reading Physician	Finalizes the study report and sets the study status to Final.
Approve & Next	Reading Physician	Same as Approve Study, but also opens the next study for approval.
Change Status & Next	Reading Physician	Sets study status to new so the sonographer or technologist can edit the worksheet and opens the next worksheet for

Button	Available for...	Description
		approval. This option is useful if the physician finds that the exam is incomplete and not ready for approval.

Study Reports

The study report includes patient information, study findings, and conclusions as approved by the reading physician. The report can also include study images. For information about adding images to the report, see Add Images to a Report.

The report is a PDF that can be printed or saved locally. For information about printing multiple reports at once, see Print Reports.

To view a study report:

On the Studies Page or Study Viewer, click the report icon.

On the Worksheet, click the Report link at the top left or the Preview Report button in the bottom right.

If the study is not yet approved, the report contains a “Preliminary” watermark. Once the study is approved, the watermark is no longer included in the report.

If changes need to be made after the study is approved, there are two options: reset the study status to Preliminary or add an addendum. To reset the study status, contact your admin.

Add an Addendum

To add an addendum, open the study worksheet and click on the **Add Addendum** button at the bottom. On the **Add Report Addendum** page, you can enter text in the box to explain the additions or changes. If you click Concur, a standard statement is automatically entered into the box. When you are finished with the text, click the **Add Addendum** button below the text box.

An addendum can only be added to a study that has been finalized. If an addendum has been added, the following note will appear in the Conclusions section of the study report:

THIS REPORT HAS BEEN UPDATED; SEE ADDENDUM.

Custom Logo

Study reports can contain a custom logo. A single logo can be used for all study reports, or you can use different logos for different divisions, reading groups, or referring groups. To have a logo added to your reports, contact your admin.

Signature Image

An image file of a reading physician's signature can be uploaded to the Studycast system and included on finalized study reports. If no signature image file is uploaded, the study report will include only the doctor's printed name and the text: *Electronically Signed on Studycast*.

To have an image of your signature added to the reports, contact your admin.

Report Configuration Options

Studycast supports dozens of report configuration options enabling users to produce customize reports. Many report fields can be altered, and configurable options are available for:

- Overall Report Layout
- Logo Options
- Accreditation Seals
- Header Layout
- Patient Name Options
- Conclusions & Physician Signature
- Patient Addendum
- Footer Options

Please contact Studycast support (support@corestudycast.com or 919-277-0636, option 3) to learn more about report configuration options.

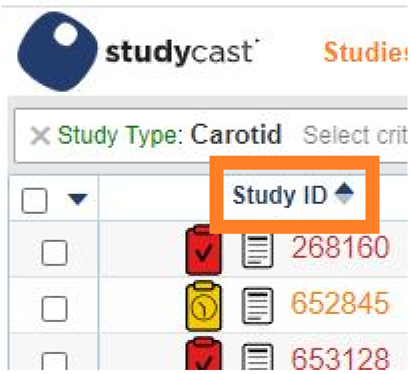
Manage the List of Studies

Part 3

Manage the List of Studies

Sort the List of Studies

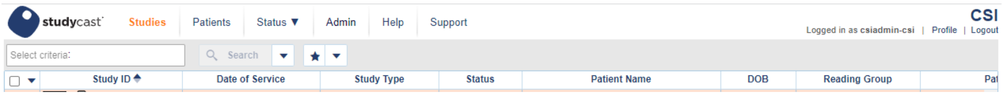
You can sort the list of studies by any column. To sort, click the column header.



An arrow appears to the right of the header indicating whether the studies are sorted in ascending or descending order. To switch that order, click the header again.

Search for Studies

Using the search bar at the top of the Studies page, you can search for studies that meet criteria you select.



Define a search

1. On the left side of the search bar, click **Select Criteria** and select an item from the list. All columns on the Studies page are available as search criteria.
2. Enter the requested information for the item you selected. Depending on the item, you will see one of the following:
    - **Blank field:** Enter the text you wish to search for.
    - **Drop-down list:** Select the option you wish to search for.
    - **Calendar:** Select the date you wish to search for. If you want to search a range of dates, you will need to select both **Date From** and **Date To** in the search criteria.
3. Select additional search criteria if needed.
4. When you are finished selecting criteria, click the **Search** button. The Studies page now lists only the studies that meet your search criteria.

Clearing Search Criteria

To remove any item from your search criteria, click the **X** next to that item.

To clear all search criteria and return to the complete list of studies, open the drop-down menu on the **Search** button and select **Reset**.

Note: If you do not reset your search, the system continues to apply the selected search criteria each time you view the Studies page. The next time you log in, the Studies page will display only those studies that meet the search criteria.

If there are searches you perform often, it can be helpful to save them as reusable filters. To learn how, see Filter the List.

Expert Mode Search

Expert mode is an advanced search feature. To perform a search in expert mode, you must use the conventions listed below.

To search in expert mode:

1. Open the drop-down menu on the **Search** button and select **Expert Mode**. On the left side of the search bar, **Select Criteria** will be replaced with a blank field.
2. Enter your search string into the field using the correct conventions.
3. Click **Search**.

Expert Mode Search Conventions

```
CoreWeb Search DSL (Domain Specific Language) parser


===================
Experty Search Mode
===================
Allow users while on the Studies and Patients views to  type search
criteria.

=====================
Search By Study Date
=====================

When searching for a study by date, the format of the search string follows
the standard FIELD OPERATOR CRITERIA format.

Study Date Fields
-----------------
dt:                    date study performed
cdt, createdt:         date study created in CoreWeb
mdt, moddt:            date study last modified in CoreWeb
pdt, preliminarydt:    date study marked as preliminary in CoreWeb
rdt, revieweddt:       date study marked as reviewed in CoreWeb
fdt, finaldt:          date study marked as final (approved) in CoreWeb

Study Date Operators
--------------------
=, is:     on the date
```

```
<, before: before the date
>, after:  after the date

Study Date Criteria
-------------------
YYYY-MM-DD:      where YYYY is 4 digit year, MM is 1-2 digit month, and DD
is 1-2 digit day.
now, today:      current day
yest, yesterday: previous day
eolm:            last day of the previous month
eoly:            last day of the previous year
boy:             first day of this year

Examples
--------
dt  < 2012-01-01  # studies performed before Jan 1st 2012
cdt = 2012-01-01  # studies created in CoreWeb on Jan 1st 2012
fdt > 2012-01-01  # studies marked final after Jan 1st 2012
dt  > eolm        # studies performed in the current month
dt  > eoly        # studies performed in the current year

==========================
Search By Study Date Range
==========================

Study Date Fields
-----------------
dt:                  date study performed
cdt, createdt:       date study created in CoreWeb
mdt, moddt:          date study last modified in CoreWeb
pdt, preliminarydt:  date study marked as preliminary in CoreWeb
rdt, revieweddt:     date study marked as reviewed in CoreWeb
fdt, finaldt:        date study marked as final (approved) in CoreWeb

Date Range Criteria
-------------------
YYYY-MM-DD:      where YYYY is 4 digit year, MM is 1-2 digit month, and DD
is 1-2 digit day.
YYYY-MM-DD:      where YYYY is 4 digit year, MM is 1-2 digit month, and DD
is 1-2 digit day.
now, today:      current day
yest, yesterday: previous day
back:            back (0-9)
since:           sicnce (0-9) days ago

Examples
-------------------
dob today yesterday    #studies whose patients have birthdays between today
and yesterday

============
Search by ID
============
```

```
Study ID Field
--------------
id: CoreWeb study id

Study ID Operators
------------------
=, is:           is equal to
!=, is not:      is not equal to
<, before:       less than
>, after, since: greater than

Study ID Criteria
-----------------
integer value

Examples
---------
id=1         # the study with id 1
id before 9  # studys with ids less than 9 ie. studys 1-8

======================
Search by Study Status
======================

Status Fields
-------------
stat, status: study status

Status Field Operators
----------------------
=, is:           is equal to
!=, is not:      is not equal to
<, before:       less than
>, after, since: greater than

Status Field Criteria
---------------------
upl, upload, uploading:   uploading status
new:                      new status
pre, prelim, preliminary: preliminary status
rev, review, reviewed:    reviewed status
fin, final:               final status

Examples
---------
stat = upl or stat = new  # studies with new or uploading status

==============
Search by Size
==============

Size Fields
```

```
-----------
cnt, sicnt:
kb, totalkb: (searches for totalkb studies)

Size Operators
------------------
=, is:            is equal to
!=, is not:       is not equal to
<, before:        less than
>, after, since: greater than

Size Criteria
-----------------
integer value

Examples
---------
kb != 7  #kb studies without id 7

=====================
Search by Patient DOB
=====================

Patient DOB Fields
------------------
dob    # patient's date of birth

Patient DOB Operators
--------------------
=, is:     on the date
<, before: before the date
>, after:  after the date

Patient DOB Criteria
-------------------
YYYY-MM-DD:      where YYYY is 4 digit year, MM is 1-2 digit month, and DD
is 1-2 digit day.
now, today:      current day
yest, yesterday: previous day
eolm:            last day of the previous month
eoly:            last day of the previous year
boy:             first day of this year

Examples
--------
dob > eoly  # patients/studies with DOb this year

===========================
Search By Patient Dob Range
===========================

Dob Range Field
----------------
```

```
dob: patient's date of birth

Dob Operator
-------------
YYYY-MM-DD:      where YYYY is 4 digit year, MM is 1-2 digit month, and DD
is 1-2 digit day.
now, today:      current day
yest, yesterday: previous day
back:            back (0-9)
since:           sicnce (0-9) days ago

Dob Range Criteria
-------------------
YYYY-MM-DD:      where YYYY is 4 digit year, MM is 1-2 digit month, and DD
is 1-2 digit day.
now, today:      current day
yest, yesterday: previous day
back:            back (0-9)
since:           sicnce (0-9) days ago

Examples
-------------------
dob today yesterday    #studies whose patients have birthdays between today
and yesterday

=============================
Search by Patient Name or MRN
=============================

Patient Name/MRN Fields
-----------------------
mrn:                patient MRN
mrn_alt:            patient alternate MRN
last, lastname:     patient last name
first, firstname:   patient first name
middle, middlename  patient middle name


Patient Name/MRN Operators
--------------------------
like,begins,starts,startswith,starts with:  field starts with
cont,contains:                              field contains
ends,endswith,ends with:                    field ends with
=,is:                                       field equals

Patient Name/MRN Criteria
--------------------
any series of letters and numbers


=============================
Search by Other Study fields
=============================
```

```
Other Study Fields
----------------------
ct,care, ctype, caretype:                                 study care type
appr,approv,approved,approvedby,approved_by:              study approved by
puser,performing,performinguser,performing_user:          study performing user
type,stype,studytype,study_type:                          study type
rfg,refer,referring,referringgroup,referring_group:       study referring group
rdg,read,reading,readinggroup,reading_group:              study reading group
loc,location:                                             study location field
uid:                                                      study uid field
ccid, sender:                                             study sender
div,divcode,division:                                     study division


Other Study Fields Operators
----------------------------
like,begins,starts,startswith,starts with:  field starts with
cont,contains:                              field contains
ends,endswith,ends with:                    field ends with
=,is:                                       field equals

Other Study Fields Criteria
---------------------------
any series of letters and numbers
```

Filter the List of Studies

If there are searches you perform often, it can be helpful to save them as reusable filters.

To save your search:

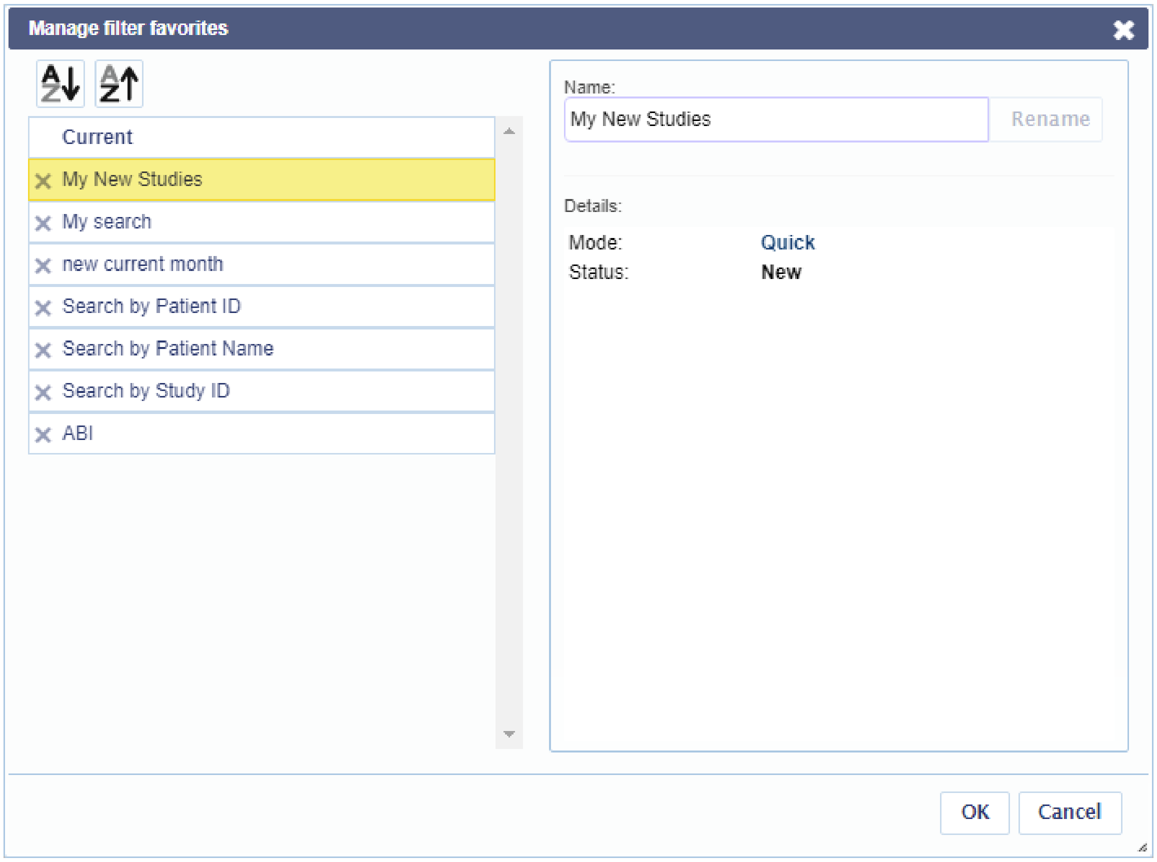
1. Select your search criteria and click the **Search** button. For more information, see Search for Studies.
2. Click the **Favorites (star)** button. The **Manage filter favorites** window opens.
3. Enter a name for your search and click **Save**.
4. Click the **OK** button.

Apply the saved filter later

To apply a filter you've already saved, click the down arrow next to the **Favorites** button to open the list of saved filters. Select the filter you want to apply. This filter will remain in place until you remove it. To remove the filter, click the **X** next to it in the search bar, or click the down arrow to the right of the **Search** button and select **Reset**. If you do not remove the filter, the next time you log in, the filter will be applied and the Studies page will display only the studies that meet the criteria in the filter.

Manage your filter favorites

To manage your list of filter favorites, click the **Favorites (star)** button. The **Manage filter favorites** window opens.



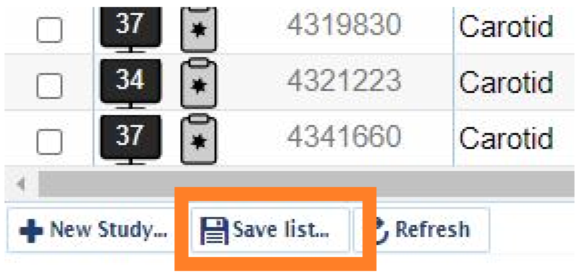
- To reorder your filter favorites, click and drag an item to a different spot in the list.
- To order the list alphabetically, click either the **A-to-Z** button or the **Z-to-A** button above the list.
- To rename a filter favorite, select that item, enter a new name into the field, and click **Rename**.
- To delete a filter favorite, click the **X** next to that item.

Save a List of Studies

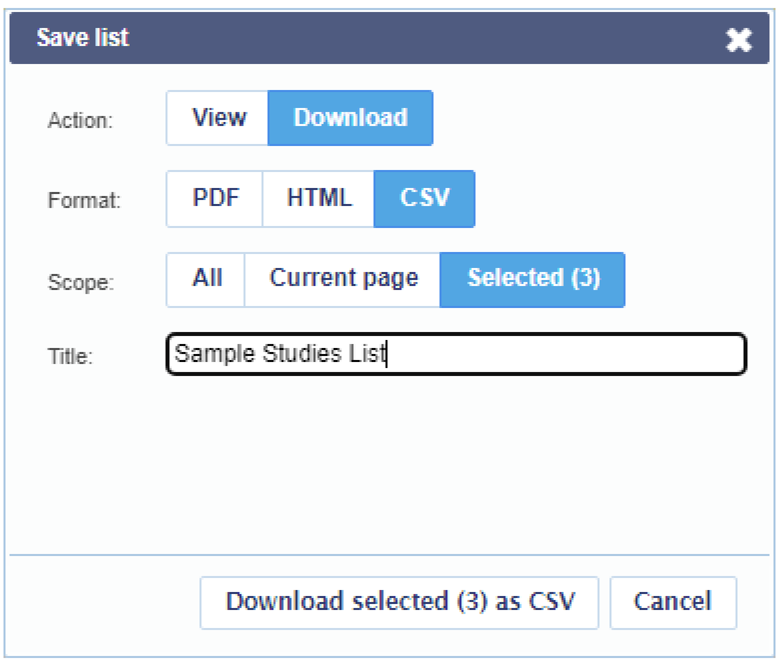
You can save a list of studies from the Studies page to your computer or network.

To save a list:

1. Click the **Save List** button in the bottom left.



The **Save list** window opens.



2. **Action:** Choose to view the list or download it.
3. **Format:** Select a file format. CSV is a useful format for exporting the data to a spreadsheet.
4. **Scope:** Choose the scope of studies you want to include.

- **All** includes all studies across all pages currently displayed. If you have performed a search or have a saved filter applied, the list will include only those studies that meet the search criteria.
- **Current page only** include all studies on the current page.
- **Selected** includes the studies you selected on the current page by checking the box next to each study.

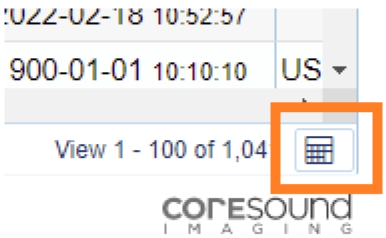
5. **Title:** Enter a name for the list. This name will appear as a title at the top of your list.
6. Click the **View/Download** button. The label on this button updates as you make selections in the window.

Configure the Studies Grid

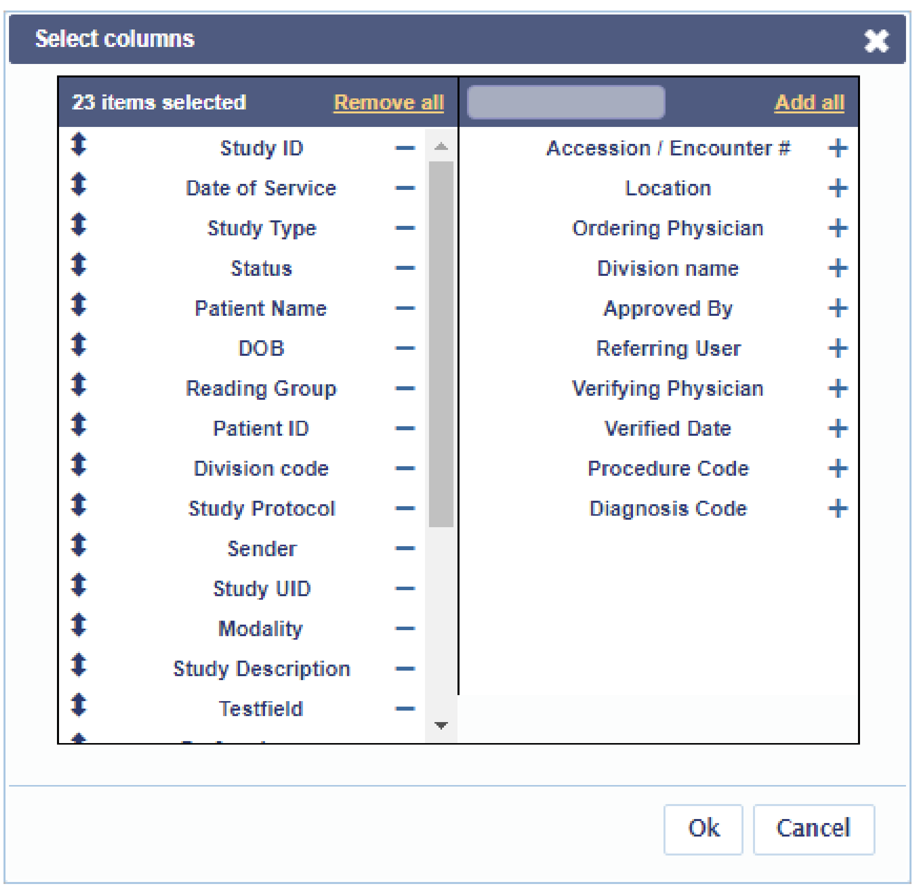
The Studies page can be configured to display only the columns you want in whatever order you choose. Your configurations are specific to your username and do not affect other users.

To configure the Studies page:

1. Click the  **Grid Setup** button in the lower right corner of the Studies page.



The **Select columns** window appears.



The left side of the window lists columns that are currently displayed in the Studies page. The right side lists columns that are not currently displayed. For an explanation of the available columns, see the Studies Page help topic.

- **Reorder Columns:** To reorder the columns on the Studies page, click and drag each column you would like to move to a different spot in the list.
- **Remove Columns:** To remove a column so that it does not appear on the Studies page, click the minus sign next to that column's name. Removing a column from your Studies page view does not affect the data. You can add the column back to your Studies page at any time.
- **Add Columns:** To add a column to your Studies page that is not currently displayed, click the plus sign next to the column name in the right side of the window. The added column appears at the bottom of the list on the left side of the window. Click and drag it to move the column to a different spot in the list.

2. Click **OK** to apply your changes and close the window.

Part 4

Manage Studies

Change Study Type

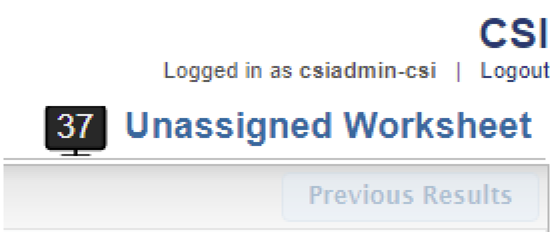
If the study type is incorrect or is listed as Unassigned, you can change it on the Studies page or the Worksheet.

Studies Page

1. Click the study ID to open the **Study Properties** window.
2. Click the study type text and select the correct study type from the drop-down list.
3. Click the **OK** button.

Worksheet

1. Click the study type in the top right corner.



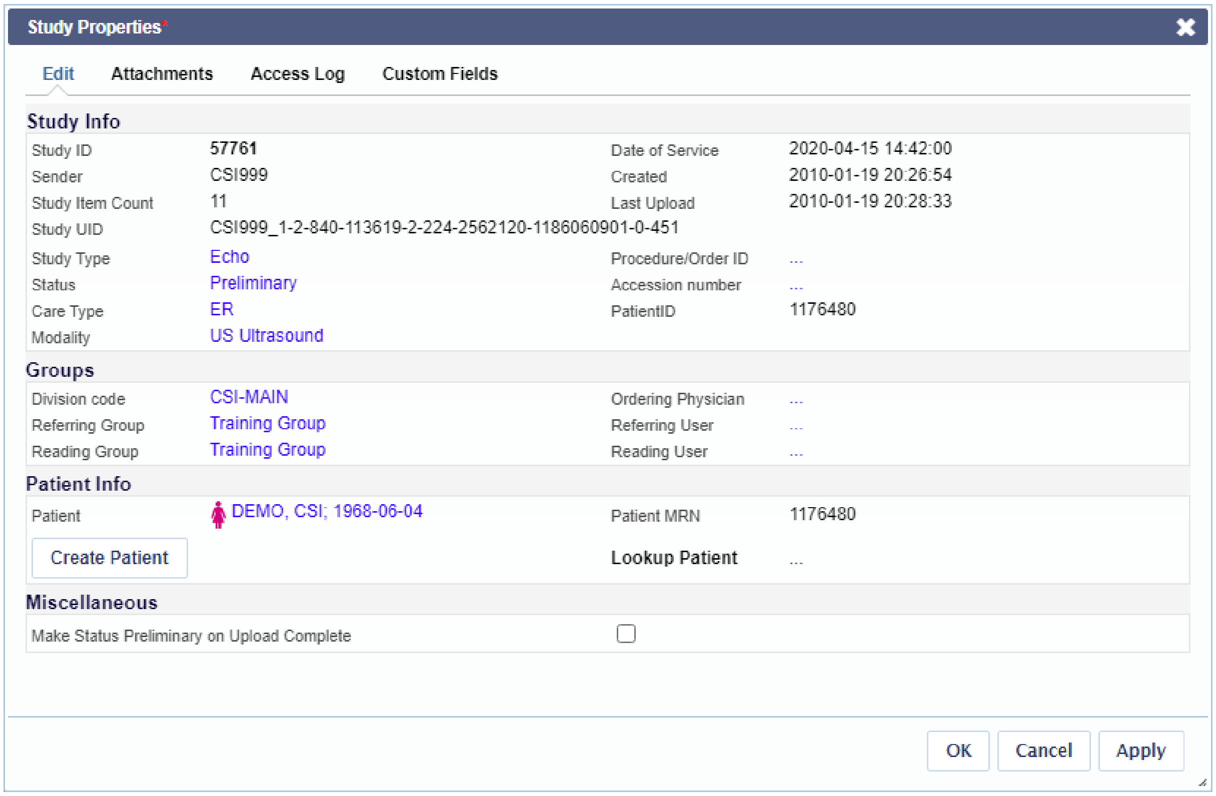
2. In the **Change Study type** window, select the correct study type from the drop-down list.
3. Click the **Change** button and then the **Confirm** button.

Edit Study Properties

The **Study Properties** window displays information associated with the selected study.

View or Edit Properties for a Single Study

To view or edit the properties for a single study, click the Study ID on the Studies page. The **Study Properties** window opens.



This window contains four tabs:

Edit: Displays the Study Info, Groups, Patient Info, and an option to make status preliminary on upload complete, which only applies if studies are uploaded with the CoreConnect™ uploader. Some text can be edited. To edit, click the text. Empty fields display dots (**...**). Click the dots to enter text.

Attachments: Lists the study's attachments. To add an attachment, click **Attach file**.

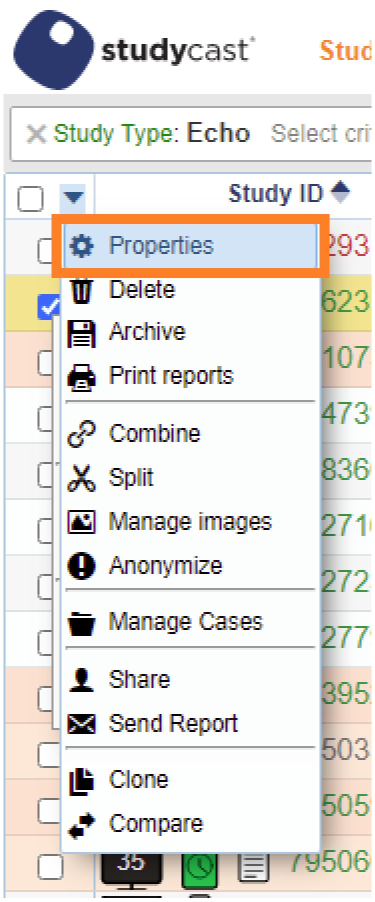
Access Log: Displays the list of actions performed on the selected study. Other columns indicate the date and time, user, IP address, and location, along with additional information about the action performed. This tab is available only to users with administrative access.

Custom Fields: Columns that display custom fields can be added to your Studies page. To set up custom fields, contact Studycast support. If you have custom fields, they are listed here. Data can be entered into these fields only from this tab. To enter data, click the dots (**...**).

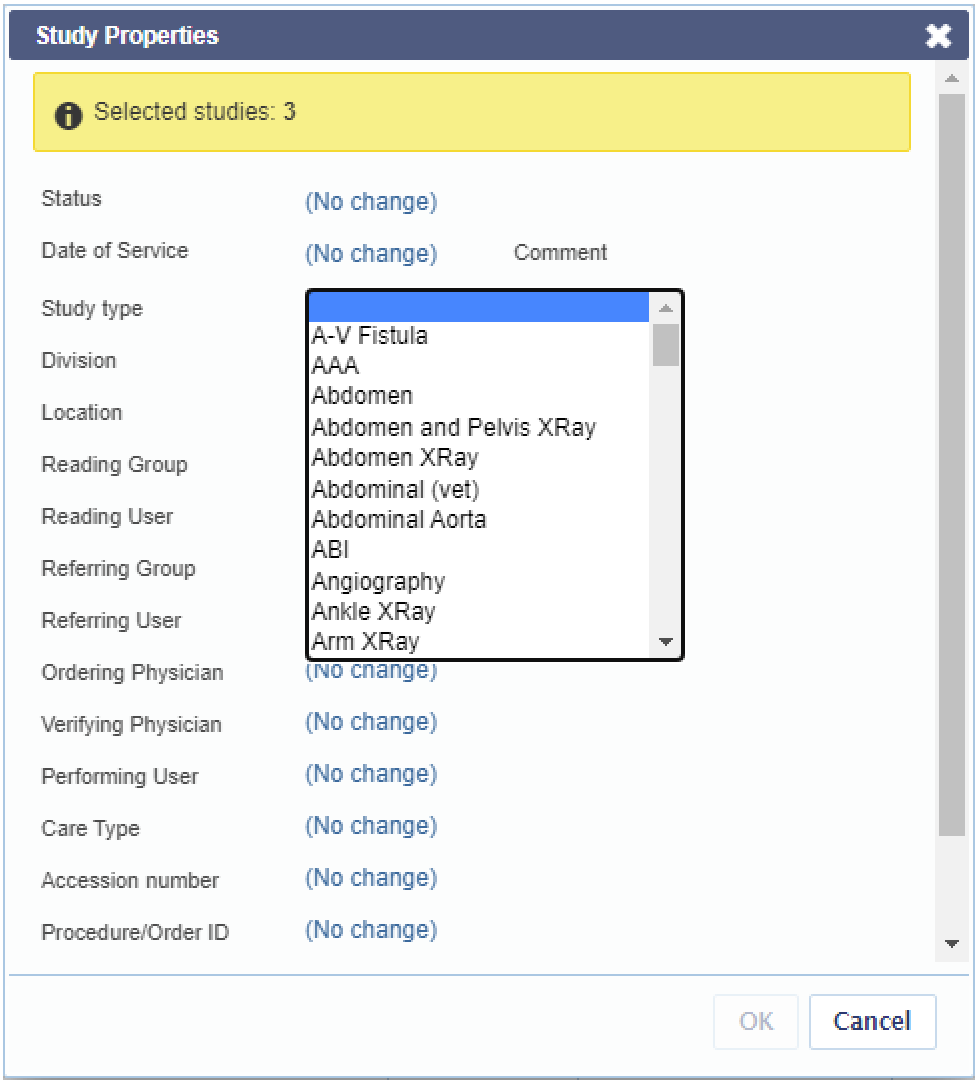
View or Edit Properties for Multiple Studies

To edit the properties for multiple studies, start from the Studies page.

1. Click the check box next to each study you want to edit.
2. Click the down arrow at the top of the check box column. In the menu that appears, select **Properties**.



The **Study Properties** window opens. It displays only the properties you can change for all selected studies.



3. To change a property, click **No change** and select a different option. If you change the date of service, you can enter a comment to explain the change. If a study's status is Final, you cannot change the Reading Group, Reading User, Referring Group, or Referring User.

4. To apply your selections, click **OK**.

Reset Study Status

Administrators can reset a finalized study back to New or Preliminary status at any time. Users who are not administrators do not have this permission by default, but it can be added to the user's permissions.

To reset a study's status:

1. On the Studies page, click the study ID to open the **Study Properties** window.
2. Click the status and select a new status from the drop-down list.
3. Click **Submit**.

When you close the **Study Properties** window, you might need to refresh the Studies page to see the new status.

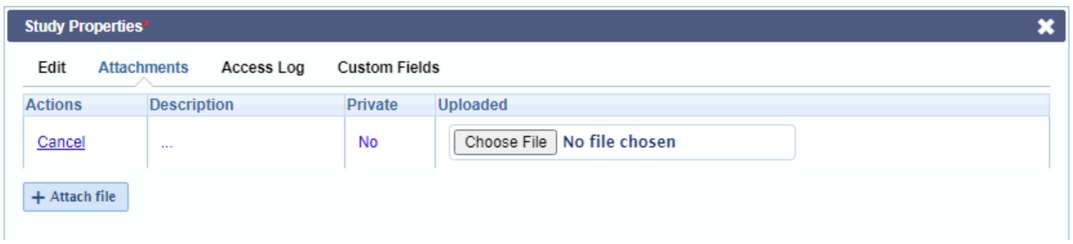
Attach Files to a Study

In the Studycast system, you can attach files to studies. For example, you might want to attach a patient's insurance information to a study or create a non-image study with attachments for EKG or Holter information.

Attach Files to an Existing Study

Files can be attached to a study from the **Study Properties** window.

1. On the Studies page, click the study ID to open the **Study Properties** window.
2. Select the **Attachments** tab.



3. Click the **Attach file** button.
4. Then locate and select file you want to attach.
5. Click the **OK** button to upload the file and attach it to the study.
   - To enter a description, click the dots (**...**) and enter text.
   - To make the attachment private, select **Yes** from the drop-down options in the **Private** column. Once it is marked private, only users who have the View Private Attachments permission will be able to view it.

Create a Non-Image Study and Attach Files

It can be useful to create a study in the Studycast system that does not contain images but does have attachments, such as EKG or Holter information.

Note: By default, only admins and sonographers/technologists have permission to create new studies manually. If you need for this permission to be added, contact your admin.

To create a non-image study with attachments, start from the Studies page.

1. In the bottom left corner of the Studies page, click the **New Study** button.
2. In the **Create New Study** window, enter the required information, including study type, assigned physicians, and patient information.
   - To enter information, click the text you want to edit or the dots for an empty field (**...**).
   - If the patient is already in the Studycast system, click the dots (**...**) next to **Lookup Patient**. If the patient is not in the Studycast system, click the **Create Patient** button to add the patient.
3. Click the **Attach file** button.
4. Then locate and select the file you want to attach.
5. Click the **Create** button to create the new study with the file attached.
   - To enter a description for the attachment, click the dots (**...**) and enter text.
   - To make the attachment private, select **Yes** from the drop-down options in the **Private** column.

View Attached Files

You can view attached files from several places in the Studycast system:

- **Study Properties window:** On the Studies page, click the study ID to open the **Study Properties** window. Click the **Attachments** tab. In the **Actions** column, click **View**.
- **Study Viewer:** If the study has attachments, the **Attachments** button will be active and will display the number of attachments. To open the attachments, click the button.
- **Worksheet:** In the **Attachments** tab, you can view attachments and add them to the study report.

Delete Attached Files

You can delete an attached file from the **Study Properties** window. To delete an attached file:

1. On the Studies page, click the study ID to open the **Study Properties** window.
2. Click the **Attachments** tab.
3. In the **Actions** column, click **Delete**.

Restricted File Types

For security reasons, some file types are restricted, and cannot be attached for upload in the Studycast system.

The following file types are restricted:

- .exe
- .bat
- .cmd
- .js
- .vbs
- .zip
- .rar
- .7z
- .html
- .php
- .mp3
- .wav
- .mp4
- .dll
- .sys
- .c
- .cpp
- .java
- .py
- .ini
- .conf
- .db
- .sql
- .mdb
- .vmdk
- .vdi
- .iso
- .ttf

- .otf
- .bin
- .dat
- .tmp
- .bak

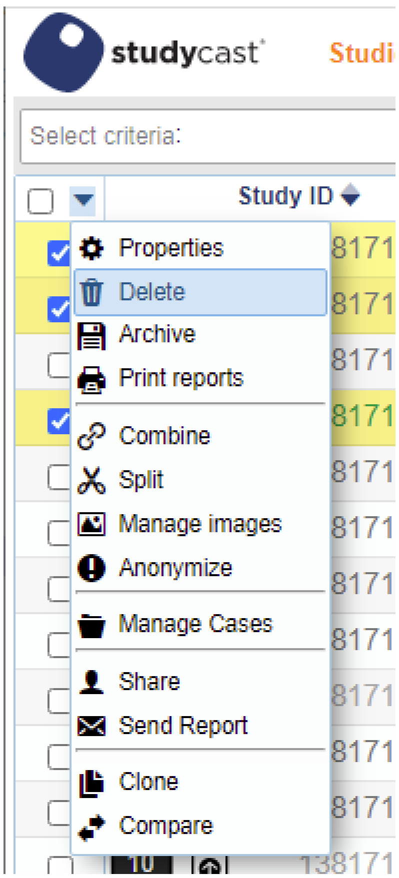
Delete Studies

If you have the manage study permission, you can delete studies from the Studies page.

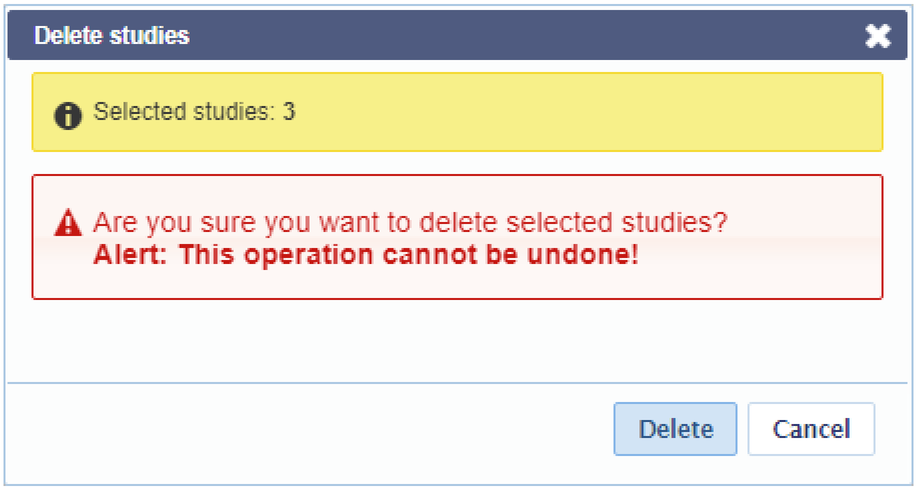
Note: Deletion is permanent. Once studies are deleted, they cannot be restored. A study cannot be deleted if it has a clone. The clone must be deleted first.

To delete studies:

1. Check the box next to each study you want to delete.
2. Click the down arrow at the top of the check box column. In the menu that opens, select **Delete**.



The **Delete studies** window opens.

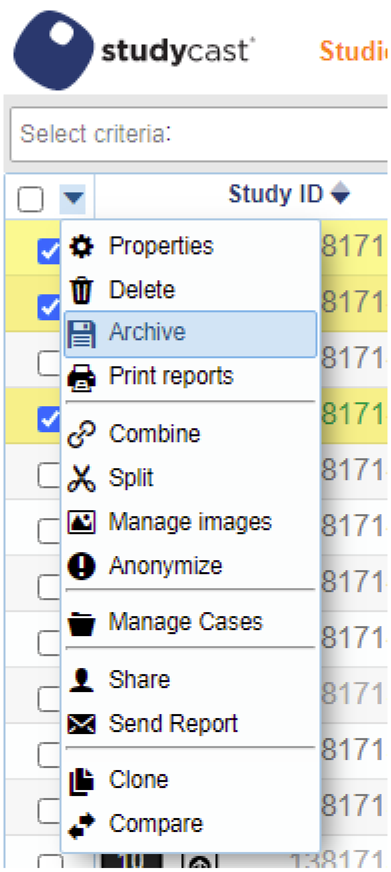


3. Click the **Delete** button and then the **Confirm** button. The studies are permanently deleted.

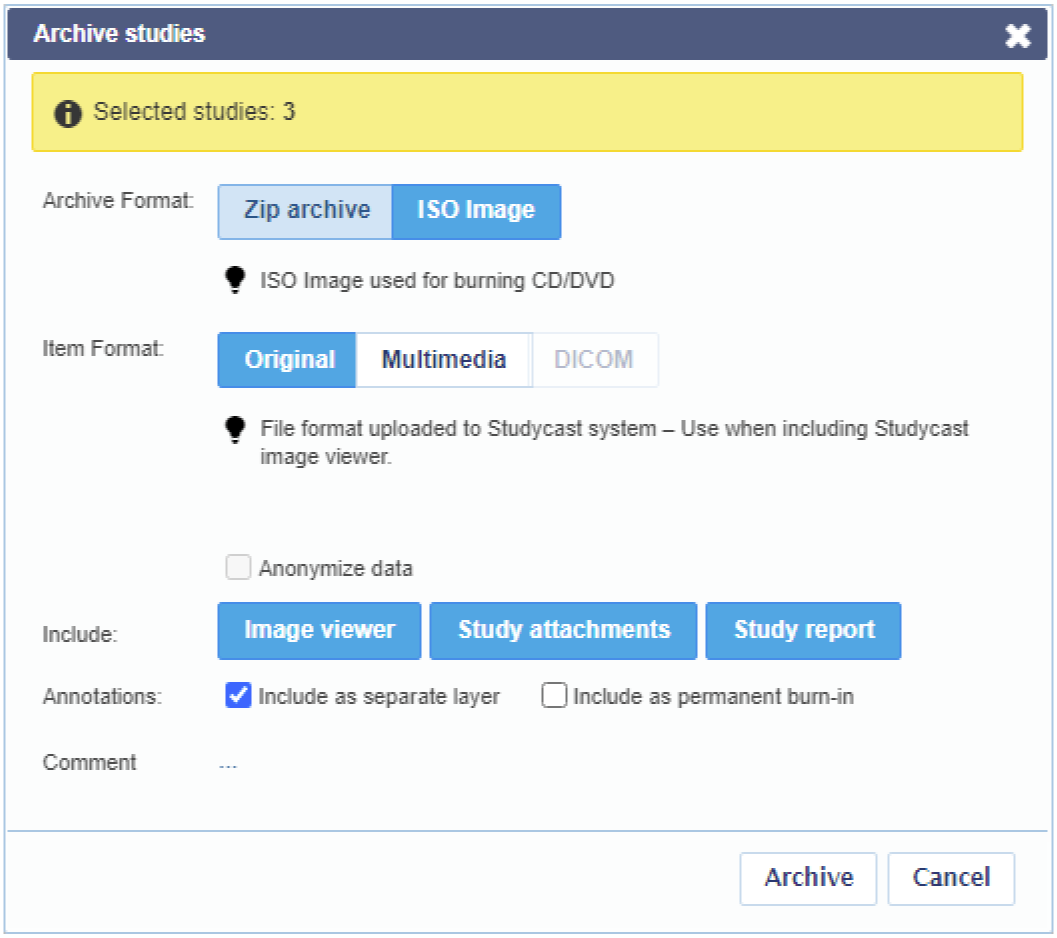
Archive Studies

To archive studies locally, you can use the Studycast archive feature to create the archive file. To archive studies, start from the Studies page.

1. Click the check box next to each study you want to archive.
2. Click the down arrow at the top of the check box column. In the menu that opens, select **Archive**.



The **Archive studies** window opens.



1. **Archive Format:** You have the option to generate a Zip archive or ISO Image. If you plan to burn the archive to a CD or DVD, choose ISO Image. If you plan to save the archive on a local or network drive, choose Zip archive.
2. **Item Format:** You can choose to archive the study in the Original format, Multimedia, or DICOM.
    - **Original:** File format that was uploaded - Use when including Studycast image viewer.
    - **Multimedia:** Useful for presentations (jpeg/mp4).
    - **DICOM:** Medical image format (useful for viewing in DICOM viewer). To see annotations in a non-Studycast viewer, check the **Include as permanent burn-in** box for Annotations. The archive will include the SR DICOM file if it was uploaded with the study.
3. **Anonymize data:** Check the box to anonymize study data.

> **Note:** This option does not affect patient data displayed within study images. To anonymize the study completely, you must mask patient information in the images with annotations first. Be sure the **Include as permanent burn-in** box is checked.

4. **Include:** Choose whether to include the Image Viewer, Study attachments, and/or Study report.
5. **Annotations:** If you've made annotations on any of the study's images or loops, you can choose to include the annotations as a separate layer or have them permanently burned into the images and loops. If you include them as a separate layer, they can only be viewed in the Studycast image viewer.
6. **Comment:** To add a comment, click the dots and begin typing. This comment can be helpful in identifying the study on the Downloads page when multiple studies are listed.
7. Click the **Archive** button to submit the archive request.

Archive Size Limitations

Both ZIP and ISO archive formats have size limitations:

- **ZIP** Max Size = 4 Gigabytes
- **ISO** Max Size = 8.4 Gigabytes

Item format and selected options affect the overall size of your archive.

- **Original** and **Multimedia** are typically smaller in size because they use the format the image was uploaded to Studycast in. Often this is JPEG for images and MP4 for cine loops.
- **DICOM** images are much larger in size and fewer will fit into a single archive.

If the archive you are trying to create is too large, there are a few things you can try to reduce the size:

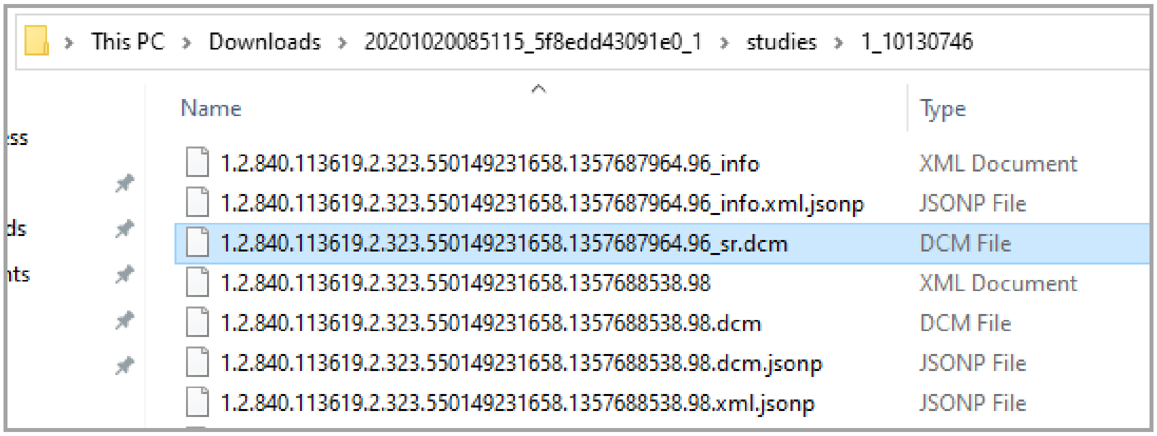
- Switch to ISO format instead of ZIP
- Select fewer studies to include in the archive
- Choose Original or Multimedia format instead of DICOM
- Exclude the Studycast Image Viewer or Study Attachments

Retrieve Archived Studies

To retrieve your archived studies, click on **Downloads** in the main menu at the top of the page. The Downloads page indicates the status of each archive request. When the study has been archived, the status will be **Completed**, and a link will be provided for you to download the study.

Archived studies are available on the Downloads page for one week. The date that each study will be removed from the Downloads page is listed in the **Expiration Date** column.

The archive will include the SR DICOM file if it was uploaded with the study.



Extract Files from a Zip Archive

If you saved the studies in a Zip archive, you will need to unzip the downloaded file and extract the contents to view the files. To do that:

1. Open the .zip file.
2. Click the **Extract all files** button.
3. Click the **Extract** button.

Burn the archive to a CD or DVD

If you chose to archive the studies as an ISO image, place a blank disc in the CD/DVD drive. To burn the disc using Windows Image Burner:

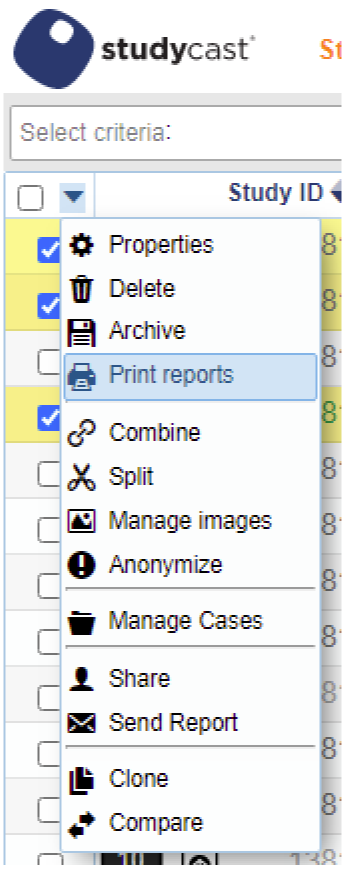
1. Right click the .iso file and select **Burn disc image**.
2. Click the **Burn** button. The status will indicate when the disc has been burned successfully.

Print Reports

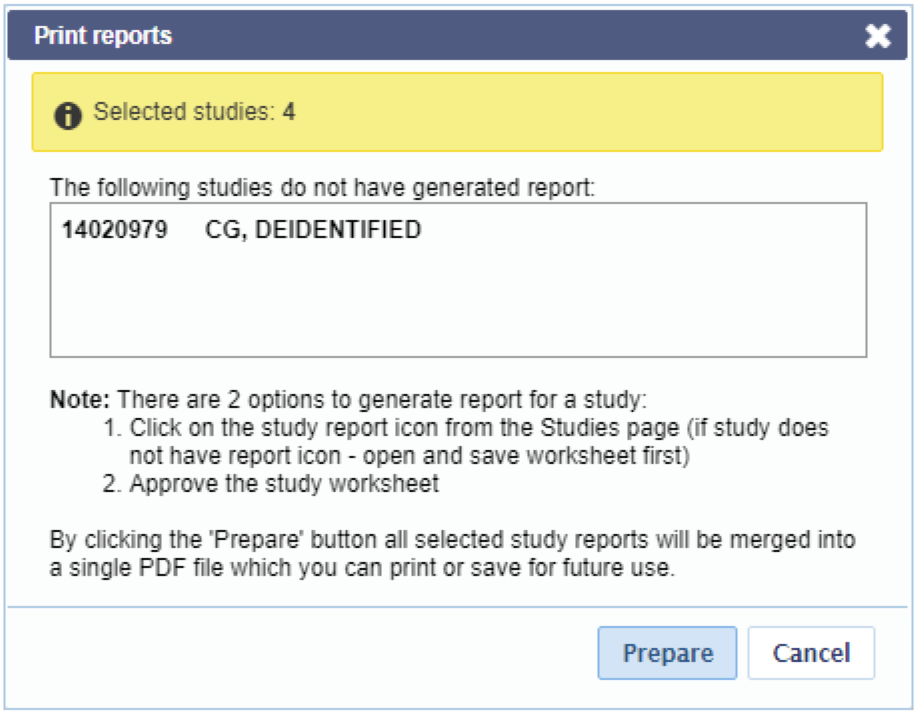
You can print multiple study reports at a time from the Studies page.

To print reports:

1. Check the box next to each study you want to include.
2. Click the arrow at the top of the check box column. In the menu that opens, select **Print reports**.



The **Print reports** window opens. If any studies you selected do not have a report, they are listed here.



3. Click the **Prepare** button to generate the PDF. A single PDF is created. This PDF contains all the reports you selected.

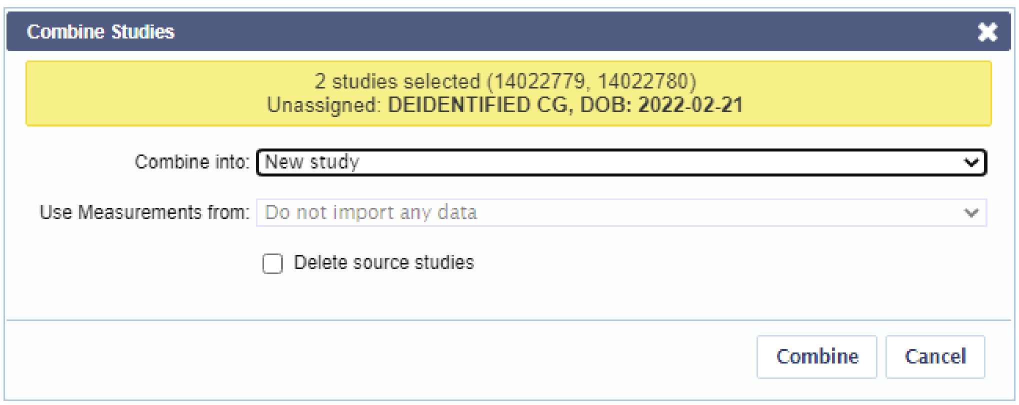
Combine Studies

You can combine up to five studies into a single study as long as they all meet these criteria:

- Same patient
- Same study type
- Study status other than Final

To combine studies:

1. On the Studies page, click the check box next to each study you want to combine. You can choose up to 5 studies.
2. Click the down arrow at the top of the check box column.
3. In the menu that opens, select **Combine**. The **Combine Studies** window opens.



4. Choose whether to combine the studies into a new study or into one of the selected studies.
   - If you choose to combine them into a new study, you will need to choose whether to use the measurements from
     - one of the selected studies
     - all studies (multiple DICOM SR sources)
     - none of the studies (do not import any measurements)
   - If you choose to combine them into a selected study, the measurements from that study will remain and no measurements from other studies will be added.
5. Choose whether to delete the source studies. If you check the box, when the studies are combined, the only study that will remain will be the combined study. Any other studies you selected to combine will be deleted.

Studies with Multiple DICOM SR Sources

Studies with more than one source of DICOM SR can be uploaded if you are using the CoreGateway upload application to transfer the studies to your Studycast account. For example, if your diagnostic equipment is capable of sending DICOM data for an ABI, you can include that data in an Arterial LE exam.

With an Orders Interface

If you have an orders interface with your EMR (CoreMWL), you can simply place a single order for the studies (e.g., one order for an Arterial LE ultrasound and an ABI). The DICOM data from both sources will be combined automatically when the study is transferred to your Studycast account.

Without an Orders Interface

If you do not have an orders interface, you will need to combine the studies manually after they are uploaded.

To combine the studies:

1. Change the study type so that all studies to be combined have the same study type. For example, if you want to include the DICOM SR from an ABI in an Arterial LE exam, change the study type of the ABI to Arterial LE. Only studies of the same study type can be combined.
2. On the Studies page, select the studies you want to combine and choose **Combine** from the Batch Actions menu.
3. In the **Combine Studies** window, make the following selections:
    a. **Combine into:** New study
    b. **Use Measurements from:** All studies (merge)
    c. Leave the **Delete source studies** box unchecked
4. Click **Combine**. The selected studies will be combined, and measurements from all sources will automatically populate your worksheet.

If you have questions about combining studies with multiple DICOM SR Sources, contact Studycast support.

Split Studies

The **Split** action lets users create new studies from the images in a study. Users can only split one study at a time. Users cannot split cloned studies or studies with the Final status.

Split a study from the Studies page:

1. Click the check box next to the study to split.
2. Click the down arrow at the top of the check box column.
3. Select **Split**. The **Split Study** window opens.
4. Find the point to split the study and select the image that will be the first image of the split study.

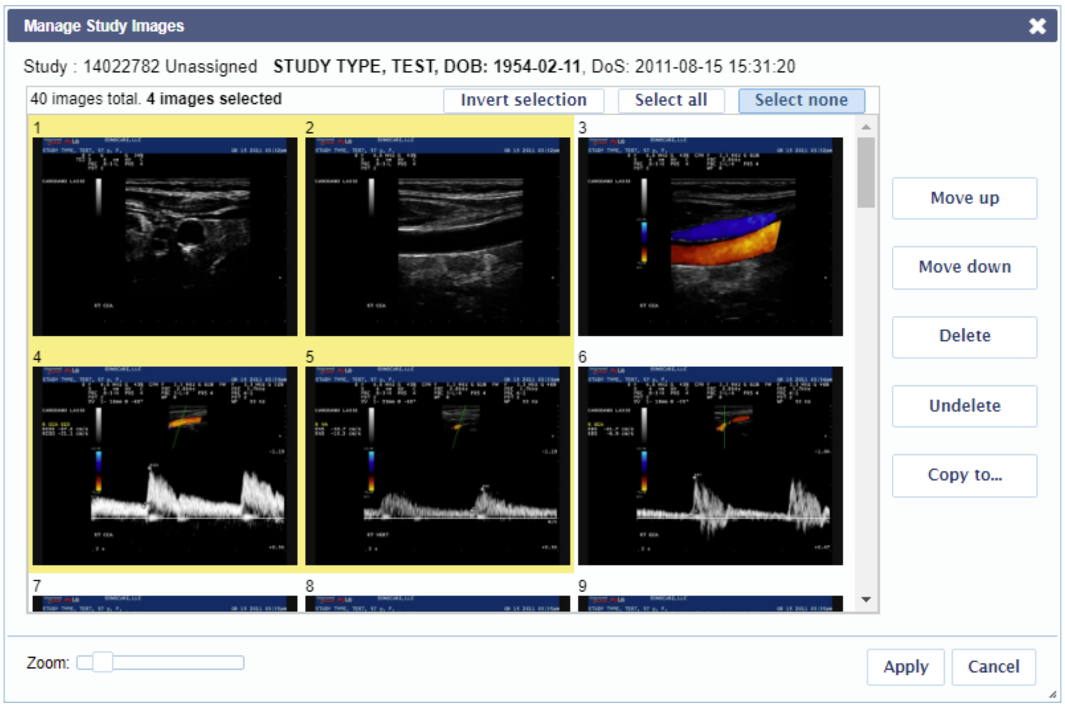
5. If the study needs to split into more than two studies, click **+ Split Again** and select the next split image. Repeat this step for each new study.
6. *(Optional)* Click and set any of the study properties for each new study.
7. Click **Split** and click **OK** in the **Split Study confirmation** window.

Manage Images

In the **Manage Studies** window, you can reorder the images in a study, delete images, and copy images to a different study.

To manage a study's images:

1. On the Studies page, click the check box next to the study you want.
2. Click the down arrow at the top of the check box column to open the Batch Actions menu.
3. Select **Manage Images**. The **Manage Study Images** window opens.



4. Make the changes you want.
   - To reorder the images:
     - Click and drag images to a new location, or
     - Select one or more images, and then use the **Move up** and **Move down** buttons to change their location.
   - To delete images:
     - Select each image you want to delete.
     - Click the **Delete** button. The images will not be deleted until you click the **Apply** button.

    - If you have chosen to delete images and then change your mind, you can select a deleted image and click the **Undelete** button as long as you have not clicked the **Apply** button yet.

- To copy images to another study:
    - Select the images you want to copy.
    - Click the **Copy to...** button.
    - In the **Copy Images to...** window, choose whether to copy the selected image(s) to a new study or to an existing study, you can find the study by typing in the look-up field. You can enter the first few characters in the Study ID, Study Type, Patient Name, or Date of Service. Matching studies will appear in a drop-down list. Or you can simply tap on your space bar twice, and the first 100 studies on the Studies page will be displayed in the list.

5. When you click **Apply**, all your changes will be made. If you've chosen to delete images, they cannot be recovered after you click **Apply**.

Manage Cases

In Studycast, cases allow you to group studies when they belong to a single pregnancy. Cases apply to Obstetric, Fetal Echo, and Fetal Non-Stress Test study types, and allow you to:

- Populate the EDD from the previous Obstetric study in the pregnancy
- Plot the EFW and other relevant values from previous studies in a case
- Enable in-worksheet access to the Compare function for studies in a case

Note: The Studycast Advisor prompts you when the study you are working on should be added to a case or used to create a new case. The workflow described below outlines an alternative way to manage cases. To learn more about the Advisor functionality, visit the Studycast Advisor page. To learn more about using the Advisor to manage cases, visit Studycast Advisor for Obstetric.

On the Studies page, you can add multiple studies for the same patient to a case. Once you have created a case, the case will be available on the patient's current study as a reference.

Open the Manage Cases Window

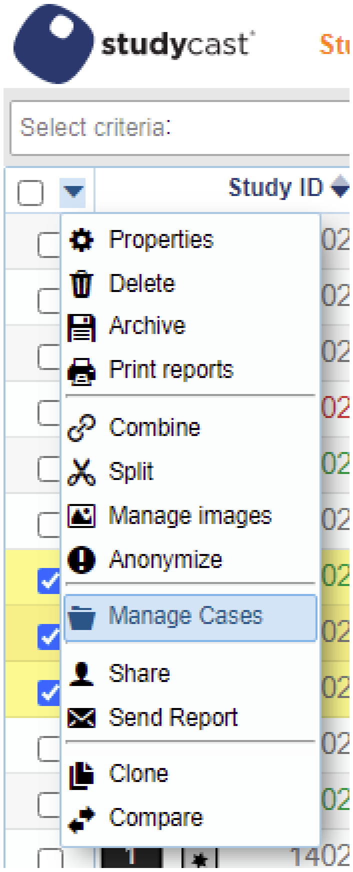
You can manage cases from the Obstetric worksheet or from the Studies page.

On the worksheet:

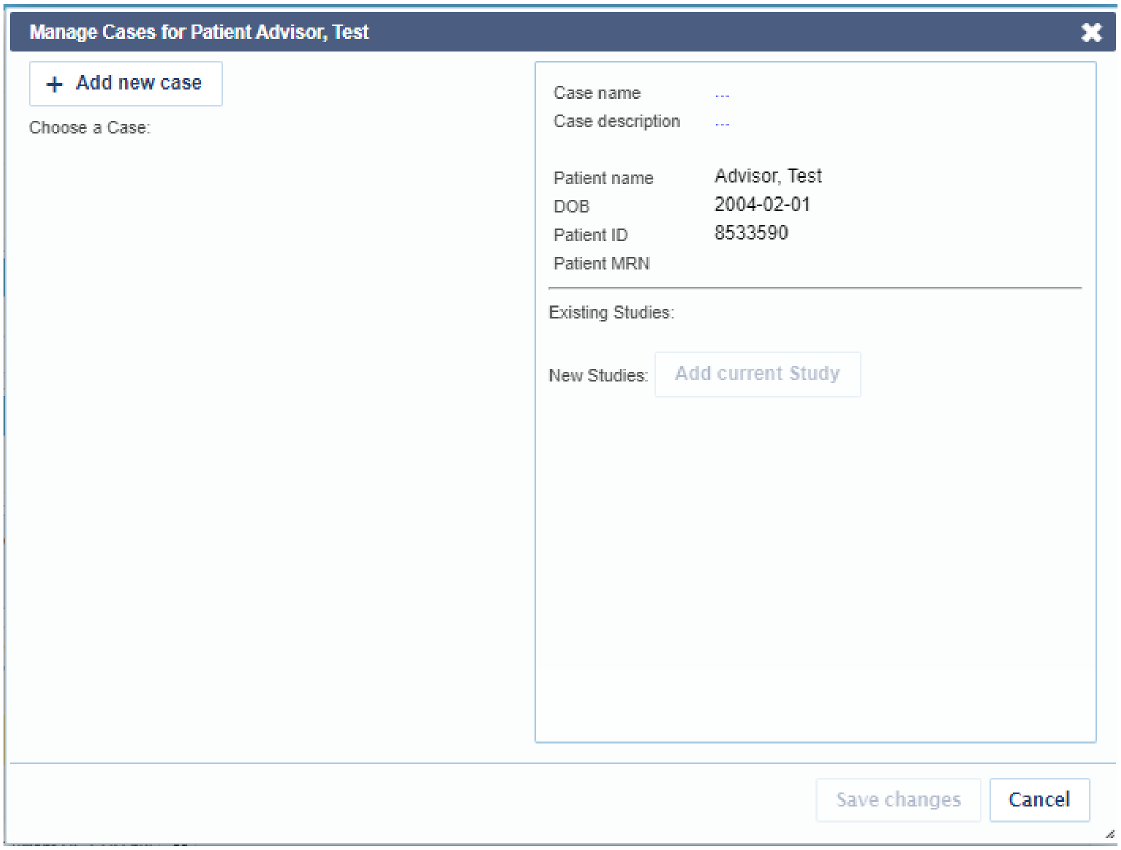
1. Click the **Patient Cases** button, located in the **Studies in a Case** section of the worksheet. The **Manage Cases** window opens.

On the Studies page:

1. Search for studies by patient name. Only studies with the same patient name can be added to a case. For help with the search, see Search for Studies.
2. In the search results, check the box next to each study you want to add to the same case.
3. Click the down arrow at the top of the check box column. In the menu that opens, select **Manage Cases**.


studycast
Select criteria:
Study ID
Properties
Delete
Archive
Print reports
Combine
Split
Manage images
Anonymize
Manage Cases
Share
Send Report
Clone
Compare

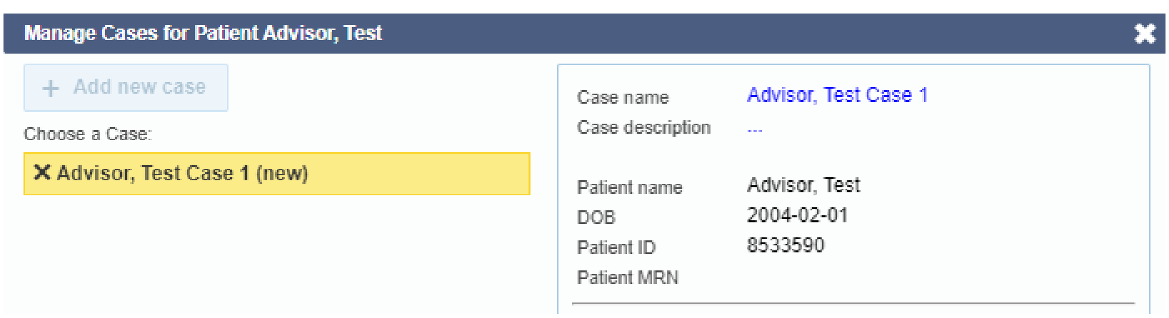
The **Manage Cases** window opens.



Create a New Case

To create a new case:

1. In the **Manage Cases** window, select **+ Add new case**. A new case is added and the name is generated automatically.



2. To rename the case, click the existing name (in blue text, next to **Case name** on the right side of the window) and type a name.
3. To add the studies you selected on the Studies page to this case, click the **Add selected Studies** button. The studies you selected appear under the button.
4. At the bottom of the list of new studies is a blank row. To find additional studies to add, click the dots (**...**). All of this patient's Obstetric, Fetal Echo, and Fetal Non-Stress Test studies appear in a drop-down list. Select a study to add it to this case.
5. Click **Save Changes**.

Add Studies to an Existing Case

The left side of the **Manage Cases** window lists cases that already exist for the selected patient. To add studies to an existing case:

1. Select the case from the list on the left. The box on the right lists existing studies that are already associated with the selected case.
2. To add the studies you selected on the Studies page to this case, click the **Add selected Studies** button. The studies you selected appear under the button.
3. At the bottom of the list of new studies is a blank row. To find additional studies to add, click the dots (**...**). All of this patient's Obstetric, Fetal Echo, and Fetal Non-Stress Test studies appear in a drop-down list. Select a study to add it to this case.
4. Click **Save Changes**.

Create a New Study

You can create a study manually without importing it from your medical device.

Note: By default, only admins and sonographers/technologists have permission to create new studies manually. If you need for this permission to be added, contact your admin.

To create a new study, start from the Studies page.

1. In the bottom left corner of the Studies page, click the **New Study** button.
2. In the **Create New Study** window, red fields are required. Enter the required information, including study type, assigned physicians, and patient information. To enter information, click the text you want to edit or the dots for an empty field (**...**).
   - If the patient is already in the Studycast system, click the dots (**...**) next to **Lookup Patient**.
   - If the patient in not in the Studycast system, click the **Create Patient** button to add the patient.
3. To attach a file, click the **Attach File** button.
   - Click locate the file on your computer.
   - To enter a description, click the dots (**...**) and enter text.
   - To make the attachment private, select **Yes** from the drop-down options in the **Private** column.
4. Click the **Create** button to create the new study with the file attached.

If you want to save your selections as default values, click the **Save default values** button. If you manually create a lot of studies, saving default values, such as study type, division, and reading group, can save you time. These values automatically populate the **Create New Study** window when you click **New Study**.

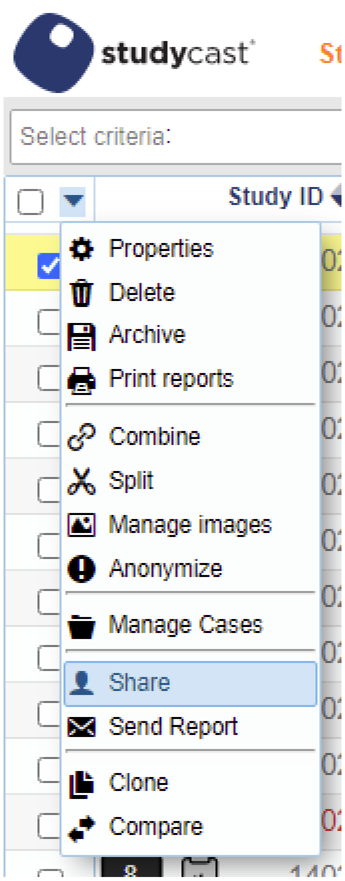
Share Studies

Studycast CoreShare™ is an easy way to send colleagues or patients a message with a secure link to view studies even if they do not have access to the Studycast system. The link can be sent by email or text message (SMS). When recipients click the link in the message they receive, they will be required to enter a passphrase to view the study.

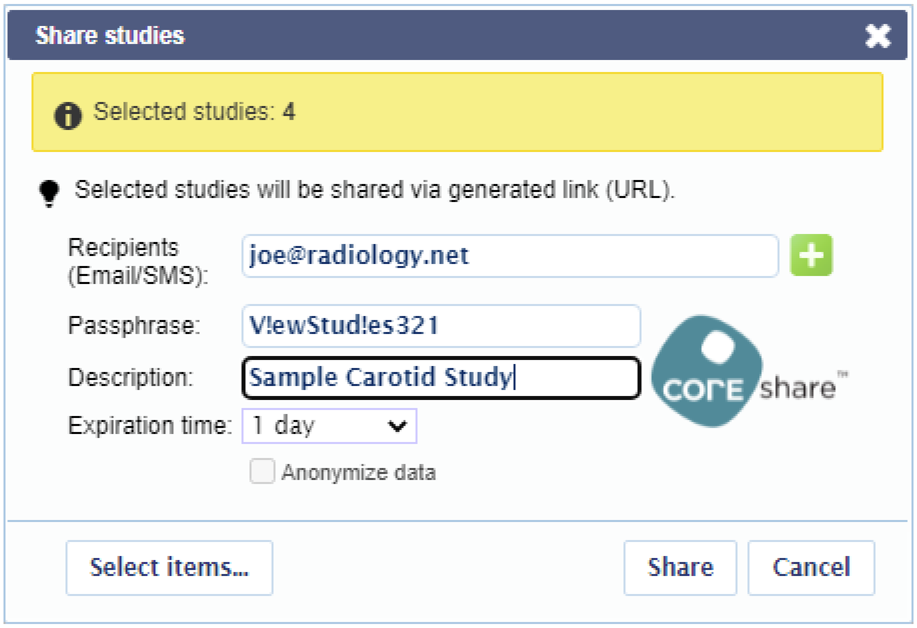
If you do not have access to CoreShare, ask your administrator to add the **download archive/share study** permission to your username. Once you have this permission, you can share studies from the Studies page.

To share studies:

1. Click the check box next to each study you want to share.
2. Click the down arrow at the top of the check box column. In the menu that opens, select **Share**.



3. In the **Share studies** window, enter the necessary information.

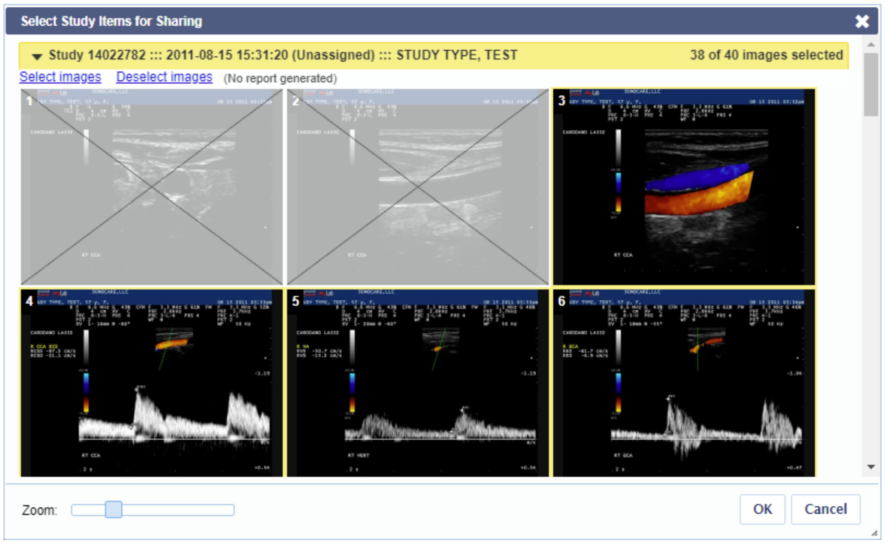


- **Recipients:** For each recipient, enter the email or phone number and click the green plus button to add. If you want to remove a recipient, click the red minus button next to that recipient.
- **Passphrase:** To maintain the security and confidentiality of the studies, a passphrase is required. Enter any passphrase you want to use. The passphrase will **not** be included in the message. You will need to communicate the passphrase to recipients separately outside of the Studycast system.
- **Description:** Enter a short description of the studies.
- **Expiration time:** As a security measure, the link sent to the recipients will expire after the time specified. After that time, recipients will no longer be able to use the link to view the studies. Select the expiration time from the drop-down list. Each time you open CoreShare, it will display the expiration time you previously selected.

- **Anonymize data:** Check the box to anonymize study data.

> **Note:** This option does not affect patient data displayed within study images. To anonymize the study completely, you must mask patient information in the images with annotations first. Be sure the **Include as permanent burn-in** box is checked.

- **Select items:** Click the button to open the **Select Study Items for Sharing** window. When the window opens, click the bar for each patient to select items.



Recipients will be able to view all items selected in this window. By default, the box for **Include report** is checked. Uncheck the box to send images without the report. All images are selected by default. Click each image you want to exclude. Excluded images are covered with a large X.

If you selected multiple studies, click the bar for each study to select items.

When you are done selecting images, click **OK**. The **Select Study Images for Sharing** window closes.

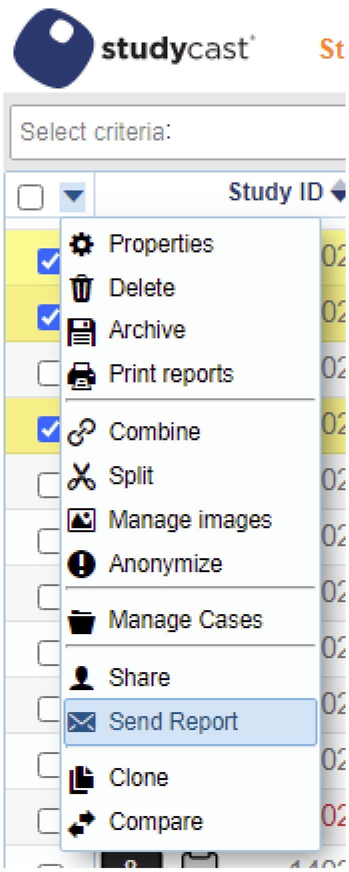
4. In the **Share studies** window, click **Share** to send the message.

Send Study Report

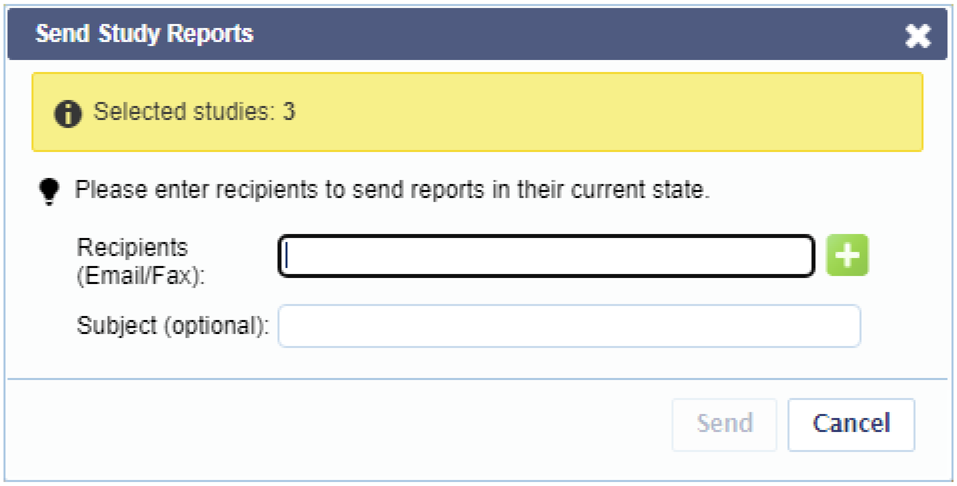
By default, administrative users have access to the Send Study Report feature in the Batch Actions menu.

To send study reports from the Studies page:

1. Click the check box next to each study you want to send to the same recipient(s).
2. Click the down arrow at the top of the check box column. In the Batch Actions menu that opens, select **Send Report**.



3. In the **Send Study Reports** window, enter the recipient's email address or fax number, and click the green plus button. You can enter as many recipients as you want. The subject is optional.

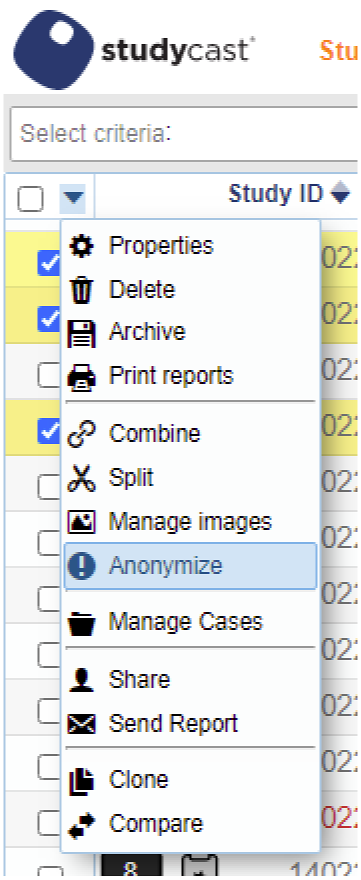


4. Click the **Send** button. You can check the status of the fax on the Notifications Status page. For more information, see Notifications.

Anonymize Studies

To create an anonymized copy of a study:

1. Click the check box next to each study you want to anonymize. Note that only DICOM source studies can be anonymized.
2. Click the down arrow at the top of the check box column. In the menu that opens, select **Anonymize**.



3. In the **Anonymize studies** window, click **Anonymize**.

> **Note:** The Anonymize function does not affect patient data displayed within study images. To anonymize the study completely, you must mask patient information in the images with annotations first.

A new anonymized copy of each study will be available from the Studies page. The anonymized copies will not contain SR data, attachments, or study reports. The original studies will also still be available and will not be affected in any way.

Assign Care Type

When care types are enabled, they offer a way to categorize studies so they can be prioritized appropriately.

When a care type is assigned to a study, that study will be highlighted on the Studies page after the period of time set for that care type. The timer is based on the study's Date of Service, viewed in the study properties within Studycast. For example, you might want a care type called STAT that highlights studies after 30 minutes to indicate that they should be read first.

Only admins can enable and define care types. Care types can also allow notifications to be sent to reading groups for studies with care types assigned. If you need to have care types enabled, added, or modified, contact your admin.

Once care types have been enabled, you will need to configure the Studies page grid to add the Care Types column. For instructions on how to do that, see Configure the Grid.

To assign a care type to a study:

1. On the Studies page, click the study ID to open the **Study Properties** window.
2. Click the dots (**...**) next to **Care Type** and select from the drop-down list.

If the study is not read or finalized in the time defined for that care type, the study will be highlighted on the Studies page.

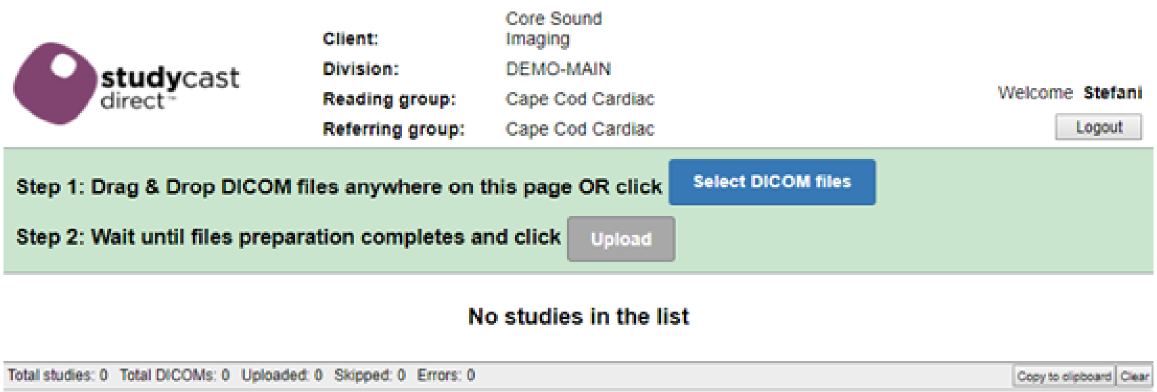
Studycast Direct

The Studycast Direct uploader is a secure web-based tool you can use to upload studies from devices that do not have an installed Studycast uploader (CoreGateway™ or CoreConnect™). This option is useful for occasionally uploading files from CDs, DVDs, USB storage devices, or computers that are not connected to the modality.

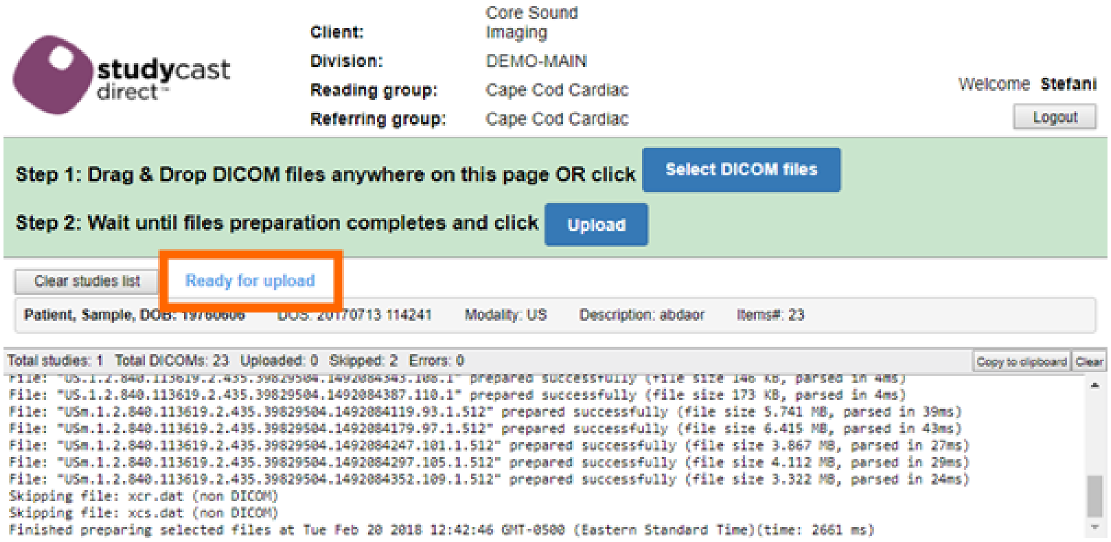
The Studycast Direct uploader is accessed from a separate login page and requires an access key. To get an access key, contact Studycast support.

Uploading Files

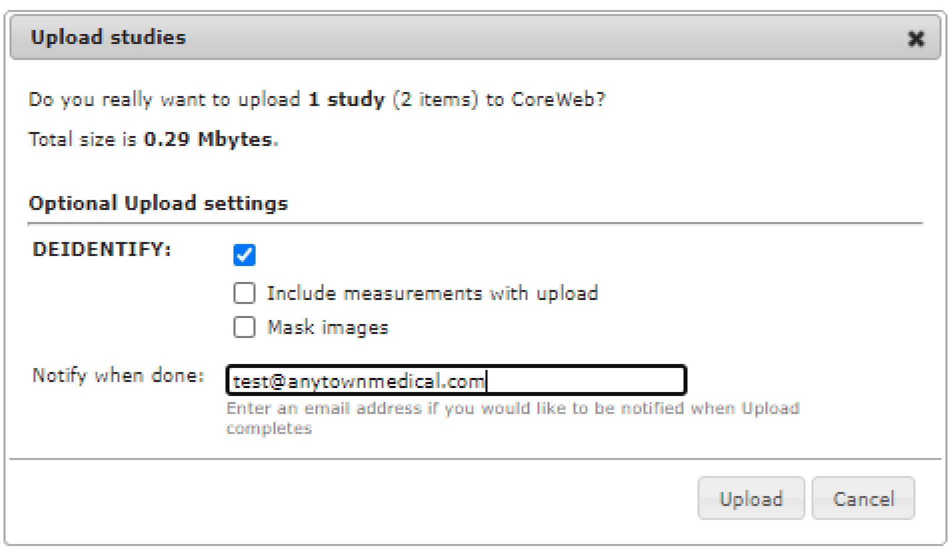
When you log into the Studycast Direct uploader, the screen displays instructions for uploading study files.



1. Click the **Select DICOM files** button.
2. Locate the files you want to upload. You will see activity at the bottom of the window indicating your files are being imported. Once this process is complete, a **Ready for upload** message will appear.



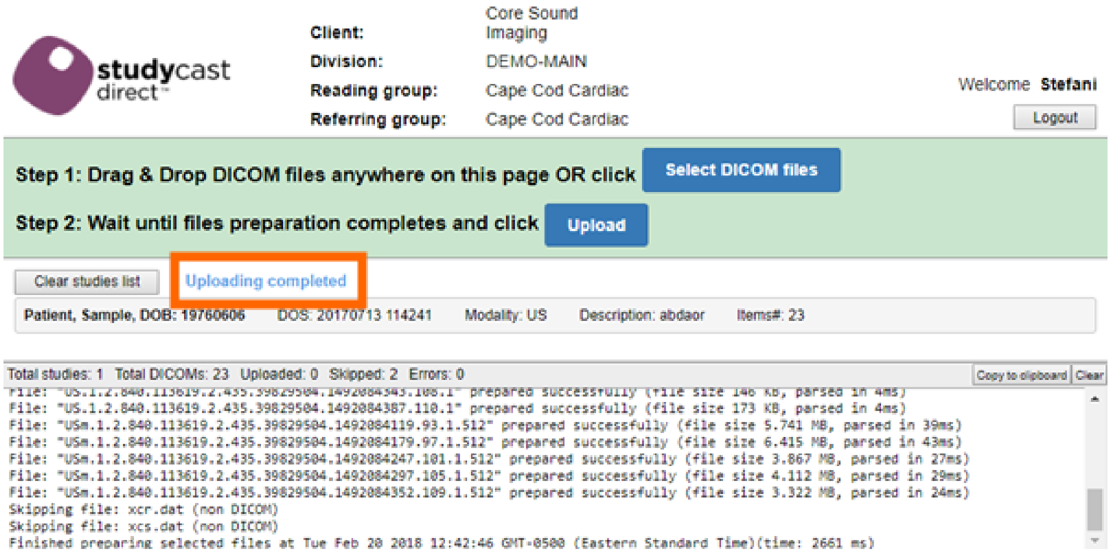
3. Click the **Upload** button. The **Upload studies** window opens.



- If you would like to receive an email that confirms the studies have uploaded, enter your email address.
- To remove Protected Health Information (PHI) from the study data, check the **Deidentify** box. Two additional options will appear:
  - **Include measurements with upload**: keeps study measurements but removes PHI from SR data

- **Mask images**: places a mask over PHI in study images

4. Click the **Upload** button. A status bar will show the progress of the upload. A message will appear when the upload is complete.



Compare Studies

The Compare function enables the comparison of data from multiple studies of the same study type and protocol. The comparison includes:

- Patient demographics
- Study measurements
- Observations
- Findings

To compare studies:

1. On the Studies page, select at least two studies. There is no limit to the number of studies you can select for comparison.
2. Click the down arrow at the top of the check box column.
3. In the menu that opens, select **Compare**. The **Compare studies** window opens.

In the **Compare studies window**, each study is displayed in a separate column. To resize a column, click and drag the border.

Differences between the studies are highlighted in a different color. To see **only** the differences between the two studies, check the **Show only differences** box at the bottom left.

Exporting the data

To export or print the data:

1. Select an output format (PDF, CSV, or HTML). If you plan to analyze the data in Excel, choose CSV.
2. Click the **Export/Print...** button.

The output file will include only the data you are currently displaying. If the **Show only differences** box is checked, the output file will include only the fields where the studies differ.

Clone a Study

A clone is similar to a copy of a study, with several key differences. When a study is cloned, the clone appears as a separate study on the Studies page with its own worksheet and report, once one is generated, along with the original study's images. When creating a clone, you can choose which study data is included. The clone is not counted toward your monthly study volume total.

Cloned studies can be useful for:

- Peer review
- Quality assurance/quality control programs
- Oversight of residency programs
- Training new technologists on facility protocols and expectations
- Accreditation/re-accreditation

Only users with the **clone study** permission can clone a study. By default, administrative users have this permission.

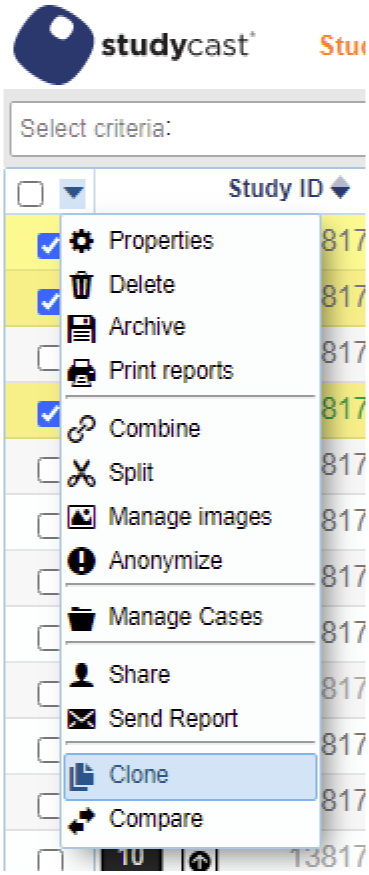
Cloning a study

To clone a study:

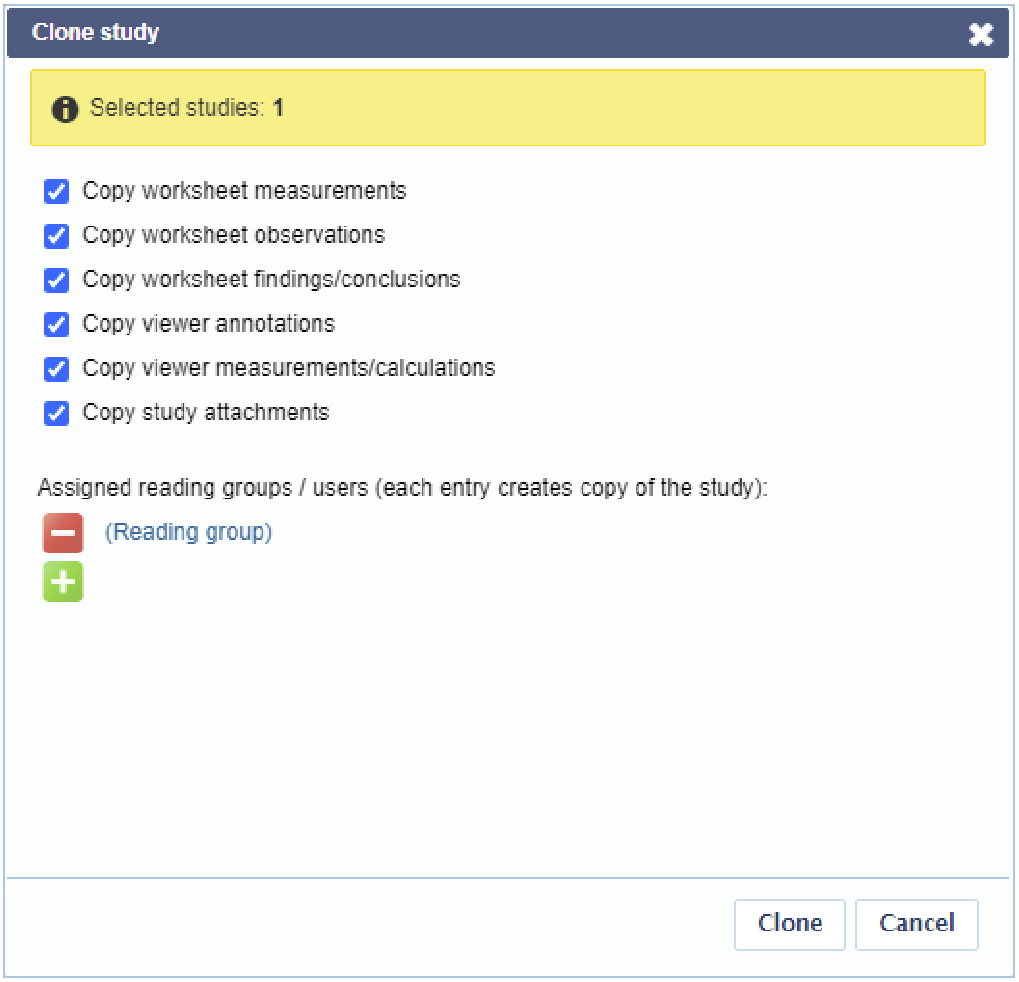
1. On the Studies page, click the check box next to the study you want to clone.

   > **Note:** To clone a study, you must start with an original uploaded study. A clone cannot be cloned.

2. Click the down arrow at the top of the check box column.
3. In the menu that opens, select **Clone**.



4. In the **Clone Study** window, select the items from the original study that you would like to include in the clone.



5. Assign the clone to a reading group and reading user. If you choose multiple reading groups or reading users, a separate clone will be created for each. If the reading group has notifications set up, a notification will be sent for each clone.
6. Click the **Clone** button.

The cloned study is now available on the Studies page and includes only the items you selected, along with the study's images and cine loops. You can view the images and document findings for the clone the same way you would for any other study.

Note: By default, notifications are not sent when a clone's status is set to Final. To enable these notifications for clones, contact Studycast Support.

Searching for Clones on the Studies Page

By default, the Studies page displays all studies, including clones. To limit the list of studies:

1. On the left side of the search bar, click **Select Criteria** and select **Clones** from the list.
2. Then, choose an option:
   - **Hide:** Shows all studies that are NOT clones
   - **Show:** Shows ONLY clones
   - **Show + their originals:** Shows clones and the original studies from which they were cloned. Does not show studies that have not been cloned.
3. Click the **Search** button. The Studies page now lists only the studies that meet your search criteria.

Study Type Codes

STUDYTYPE	PROTOCOL	ALIAS
AAA		aaa
Abdomen	Abdomen	abd
Abdomen	Gallbladder	gall
Abdomen	Liver	liv
Abdomen	Renal	ren
Abdomen	Retroperitoneal	ret
Abdomen	RUQ	ruq
Abdomen (Vet)		abdvet
Abdomen and Pelvis XRay		abdpelxr
Abdomen XRay		abdxr
Abdominal Aorta	Duplex	abdaor
Abdominal Aorta	EVAR	evar
Abdominal Aorta	Duplex with Exercise	abdaorexer
ABI		abi
ABI	Exercise	abiexer
ABI	Digit Analysis	abidigit
Angiography	Abdominal Angiogram	angiogr
Angiography	Abdominal Ao with Runoffs (Suprarenal)	angiogrsup
Angiography	Abdominal Ao with Runoffs (Infrarenal)	angiogrinf
Angiography	Upper Extremity Angiogram	angiogrue
Ankle XRay		anklexr
Arm XRay		armxr
Arterial LE	Graft	artgraftle
Arterial LE	Duplex	lea
Arterial LE	Duplex	art
Arterial LE	Duplex with Exercise	leaexer
Arterial UE	Duplex	uea

Arterial UE	Graft	ueagraft
Arthrography		arthrogr
A-V Fistula		avfistula
A-V Fistula	Radialcephalic	avfrad
A-V Fistula	Brachialcephalic	avfbc
A-V Fistula	Brachialbasilic	avfbb
A-V Fistula	Endovascular	avdendo
Barium xray		bariumxr
Biopsy		biopsy
Body CT		bodyct
Breast		bre
Cardiac cath		cardcath
Carotid		Carotid
Carotid		car
Carotid		carltd
Chest CT		chestct
Chest Wall		chw
Chest XRay		chestxr
CIMT		cimt
Coronary Angiogram		corangiogr
CT Abdomen and Pelvis		ctabdpelv
CT Colonography		ctcolon
CT Enterography		ctenterogr
CT Head Perfusion		ctheadperf
Custom		cust
Digital Subtraction Angiography		digsubtrangiogr
Echo		echoafib
Echo	Transthoracic	echo
Echo	Transthoracic	ech

Echo	Pediatric	ped
Echo	Transesophageal	tee
Echo (vet)	Transthoracic	echvet
Echo (vet)	Transesophageal	teevet
EEG		eeg
EKG		ekg
Elbow XRay		elbowxr
Electrophysiologic procedure		electrophys
ETT		ett
Fetal Echo		fetech
Fetal Echo	Extensive	fetechext
Fetal Non-Stress Test		fnst
Fistulography		fistulogpr
Focused Echo		focused
Foot XRay		footxr
Guided injection		guideinj
Hand XRay		handxr
Head CT		headct
Hip XRay		hipxr
Holter		holter
Hystersalpinogram		hystersalpinogr
IV placement		ivplacement
Knee XRay		kneexr
Leg XRay		legxr
Lumbar puncture		lumbpunct
Lung XRay		lungxr
Mesenteric Artery	Duplex	sma
Mesenteric Artery	Graft	smagraft
Mesenteric Artery	Post-Operative Duplex	smapostop

Mesenteric Artery	Post-Prandial	smapp
MMT		mmt
MR Angiography		mrangiogr
MRI: Prostate		mripro
MSK		msk
Nuclear Cardiac	SPECT	nuclear
Nuclear Cardiac	PET	nucpet
Nuclear Cardiac	MUGA	nucmuga
Obstetric		obs
Parathyroid 4 DCT		parathyroid
Pediatric CT		pedct
Pelvic	Female	pel
Pelvic	Male	pelm
Pelvic	Sonohysterosalpingogram	pelshs
Pelvic	Sonohysterography	pelshg
Pelvic Venous	Pelvic Venous Duplex	pelvenousdup
Pelvic Venous	Post-Embolization	postembol
Pelvis XRay		pelvxr
Percutaneous vertebroplasty		percuvert
PET/CT		petct
Post Void Residual		void
Prostate		pro
Renal Artery		renart
Retrograde urethogram		retrogruret
Screening	HeartScan	hsc
Screening	LifeScan	lifescan
Screening	Vascular	vsc
Scrotal		scr
Segmental Pressures	LE Complete	seg

Segmental Pressures	LE Complete w/ Exercise	segexer
Segmental Pressures	LE Limited	seglim
Shoulder XRay		shouldxr
Sinuses CT		sinusct
Sleep		sleep
Soft Tissue		sti
Spinal Lower		lspinal
Spinal Upper		uspinal
Spine CT		spinect
Spine XRay		spinexr
Stress Echo	Adenosine	straden
Stress Echo	Dipyridamole	strdip
Stress Echo	Dobutamine	pst
Stress Echo	Exercise	str
Thigh XRay		thighxr
Thyroid		thy
Transcranial Doppler	Complete	tcd
Transcranial Doppler	Limited	tcdlim
Unassigned		ncs
Unassigned		ncsemg
VAT		vat
Vein Mapping		veinmp
Vein Mapping LE		veinmple
Vein Mapping UE		veinmpue
Venous Intervention		venint
Venous LE	Duplex	ven
Venous LE	Duplex	lev
Venous LE	Insufficiency	venins
Venous LE	Post Ablation	venpa

Venous LE	Reflux	levre
Venous LE	Abdominal Venous	levabdven
Venous LE	Iliocaval	levilio
Venous UE		uev
Vestibular		vestibular
Vscan Focused Echo		vscanfocused
Wrist XRay		wristxr

DICOM Forward

Forwarding to a Remote Archive

For assistance sending studies to a remote archive such as a PACS or VNA, please contact our Support team. They will need the port, IP, and AE Title of the remote archive that you would like to forward studies to. They will also need the criteria for which studies should forward to the archive.

Note: If you are using a piece of equipment that does not support exporting images in DICOM format, we will not be able to forward the study. This includes MyLab, Sonosite, and Cypress ultrasound equipment.

Automatic Forwarding

Please contact Support to set up CoreGateway TM routing rules for studies that should be automatically forwarded to a DICOM destination upon upload.

Manual Forwarding

To manually forward a study or images from a study after it has been uploaded to Studycast, navigate to the **Studies** page.

1. Click the check box next to each study you want to share.
2. Click the down arrow at the top of the check box column. In the menu that opens, select Forward.
3. In the Forward window, enter the necessary information.
4. **Select items**: Click the button to open the **Select Study Items for Forwarding** window. When the window opens, click the bar for each patient to select items.

   All images are selected by default. Click each image you want to exclude. Excluded images are covered with a large X.

   If you selected multiple studies, click the bar for each study to select items. When you are done selecting images, click **OK**. The **Select Study Items for Forwarding** window closes.
5. In the **Forward** window, click **Forward** to send the message.

To see the status of a DICOM forward, navigate to the Forwards page.

DICOM Query Retrieve

Studycast supports the ability to view a study from a DICOM destination, such as a PACS or VNA that supports DICOMWeb. To configure DICOM Query Retrieve, contact Studycast Support.

To complete the configuration, support will need the following information:

1. The display name of the remote archive that you would like to display in the viewer
2. The URL root of the remote archive
3. Authentication headers (if applicable to your remote archive)
4. The desired format of image when loading from the remote archive. Options are:
    a. Default – use multimedia format for low-bit depth images, otherwise use DICOM format
    b. Multimedia - Always use multimedia format
    c. DICOM - Always use DICOM format
5. Confirmation if remote archive supports returning H.264 MP4 video
6. Patient information to use when looking up studies in the remote archive. Examples include:
    a. Patient’s first name, last name, and date of birth
    b. Patient MRN and date of birth
    c. Patient MRN
7. Which Studycast divisions should be able to access the remote archive

Once configuration for DICOM Query Retrieve is complete, you will see studies from the specified archive in the viewer under **Other Studies**, easily identifiable by the display name of the remote archive that you provided during setup.

Part 5

View Studies

Add a Cine Frame to a Study

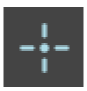
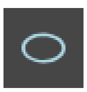
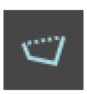
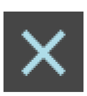
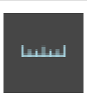
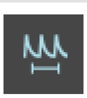
To add a frame from a cine loop to a study as a still image:

1. Pause the cine loop using the **Pause** button at the bottom of the Study Viewer. Use the controls to step forward or backward to get to the frame you want to add.
2. In the top left corner of the image pane, click the three dots icon.
3. In the menu that opens, select **Add frame to study**.

The frame is added to the bottom of the list of thumbnails on the left side.

Measure an Image

The measuring tools calculate distances and areas on a still image or paused frame of a loop that you identify. The measurements and calculations can be saved to the Worksheet.

Button	Function
 Length	Allows the user to measure length along a straight line.
 Angle	Allows the user to measure an angle.
 Crosshairs	Allows the user to mark a spot on an image to take a velocity measurement using the point method.
 Elliptical ROI	Allows the user to measure an elliptical area and circumference.
 Rectangular ROI	Allows the user to measure a rectangular area.
 Custom Polygon ROI	Allows the user to define and measure the area of a custom polygon.
 Delete Measurements	Deletes measurements from the item in the viewing pane.
 Measurement Calibration	Allows the user to calibrate manually if an item does not have the necessary calibration information from the modality.
 Calculations	Allows the user to take measurements that the software will use to calculate velocity, pressure gradient, pressure half time, velocity time

	integral, ejection fraction, and time on Doppler images. For more information, see Generate Calculations.

If an image does not contain the necessary calibration information from the modality, you must calibrate manually before you can take any measurements. For calibration instructions, see Calibrate Manually.

Measure Length

In the measurement tools menu to the left of the viewing pane, select the **Length** tool.

1. Click the point in the image where you want the distance measurement to begin.
2. Move the cursor to draw a line across the distance you want to measure.
3. Click to define the end point of the line. The distance is displayed next to the line.

Measure an Angle

In the measurement tools menu, select the **Angle** tool.

1. Click to place the angle on the image. The measurement is displayed in degrees next to the angle.
2. To move the sides of the angle, click a handle and drag it.

Note: It is possible to separate the sides of the angle so that they no longer meet in a point. This option allows for greater flexibility in measuring angles. To separate the sides, grab and drag the handle at the vertex.

Measure Area

To measure the area of a region of interest (ROI), select Elliptical, Rectangular, or Custom Polygon ROI.

1. Draw your shape.
   - **Elliptical ROI:** Use this option to draw an oval or circle. Click on the image and use your cursor to draw. To adjust the shape, click and drag the handles.
   - **Rectangular ROI:** Use this option to draw a rectangle or square. Click on the image and use your cursor to draw. To adjust the shape, click and drag the handles.

- **Custom Polygon ROI:** Use this option to draw a custom shape. Click to define the first corner. Move the cursor to the location of the next corner and click again. Click once for each corner of the shape. Double click to close the shape.

2. The area is displayed next to the shape.

Delete Measurements

To delete measurements:

1. Select the tool for the type of measurement you want to delete (Length, Angle, Elliptical ROI, Rectangular ROI, or Custom Polygon ROI).
2. Click the **Delete Measurements** button.
3. Click on each measurement you want to delete.

Calibrate Manually

Calibration regions contain essential information that enables measurements and calculations in real physical units. If an image does not contain the necessary calibration information from the modality, users must calibrate manually before taking any measurements. If an image needs manual calibration, a Calibrate button displays above the image.

To calibrate:

1. Click the **Measurement Calibration** button.
2. Click the **Create calibration region** button in the top left.
3. Click and drag across the image to draw a rectangle.
4. Select the **Calibration type**, **Spatial Format**, and **Data Type** to use.
   - **Calibration type:** **Horizontal & Vertical** or **Diagonal**. The diagonal metric can be used when both the horizontal and vertical axes are on the same scale.
   - **Spatial Format:** **2D**, **M-Mode**, or **Spectral**. Choosing **Spectral** disables the **Diagonal Calibration type**.
     - The default units for **2D** and **M-Mode** are centimeters (cm).
     - The default units for **Spectral** are seconds (sec) for the X-axis and centimeters per second (cm/sec) for the Y-axis.

- **Data Type:** For **2D** and **M-Mode**, **Tissue** or **Color Flow**. For **Spectral**, **CW Spectral Doppler** or **PW Spectral Doppler**.

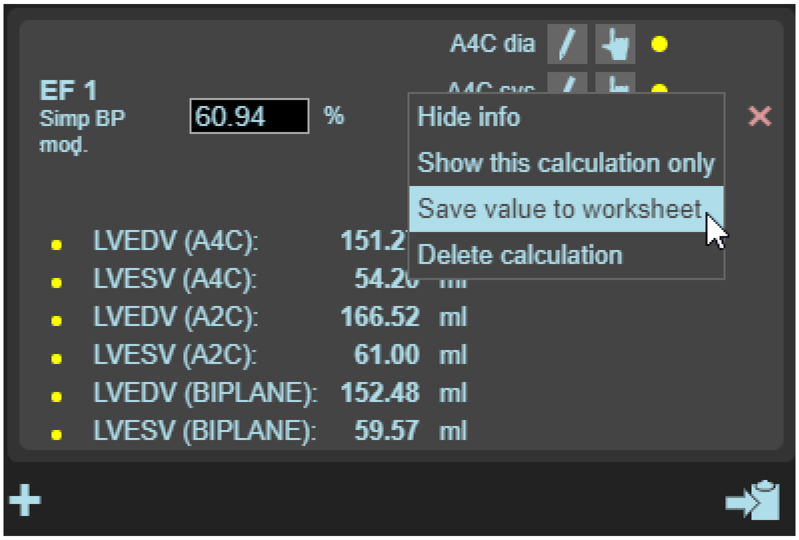
5. Draw a line inside the rectangle. If using **Horizontal & Vertical**, first draw the horizontal line and then the vertical line.
6. In the fields provided at the top, enter values and choose the units for each line and click **Done**.
7. To define a second region, click the **Create calibration region** button and repeat steps 3 through 6.

To delete calibrations, click **Delete calibration region** above the viewing pane, and then click on the region to delete.

Generate Calculations

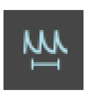
Perform Calculations and Save Them to the Worksheet

In the **Calculations** panel, you can generate measurements and calculations and save the values to the study's worksheet.

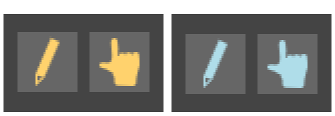


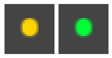
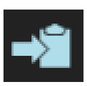
To perform a calculation:

1. Click the **Calculations** button to open the **Calculations** panel.



2. Then, click the **+** button to add a measurement or calculation.
3. Select the type of measurement or calculation you want to add.

	For each measurement requested, you can either use the **Draw** tool to define the measurement or the **Select** tool to choose a measurement you've already drawn. When a value has been calculated, the **Draw** and **Select** tools turn blue.
	To identify a field on the worksheet for a measurement or calculation, click the name of the calculation and select from the drop-down list. When the measurement or calculation is associated with a specific worksheet field, the name turns blue, and the field name appears.

	The indicator changes color depending on the status of the value: • **Yellow:** The value has been generated, and a field on the worksheet has been selected for it. To save the value to the worksheet, click the indicator when it is yellow. • **Green:** The value has been saved to the selected field on the worksheet.
	Click the hamburger menu button to the right of each measurement or calculation to open a menu of options, which include: • Hide info / Show info • Show this calculation only / Show all calculations • Move this calc / group • Save value to worksheet • Delete calculation
	Click to delete the measurement or calculation.
	To save all values in the **Calculations** panel to the worksheet at once, click the **Save All** button at the bottom of the **Calculations** panel. Once you have saved a value to a specific field on the worksheet, you cannot save a second value to that same field. Before you can save a new value to that field on the worksheet, you will need to delete the value currently associated with that field in the Calculations Panel.

Note: If the study's worksheet is open when you save measurements and calculations to the worksheet, you will need to refresh the worksheet to see the values. To do that, click your browser's Refresh button. If the worksheet is not open when you save the calculations, the worksheet will contain your saved calculations when you open it. To replace your saved calculations with the values uploaded with the study, open the **Tools** menu in the bottom left of the worksheet and select **Reload Measurements**.

Reordering Calculations

To move a calculation calculation to a different spot in the list:

1. Click the hamburger menu button to the right of the calculation you want to move.
2. Select **Move this calc** (or **Move this group** if you are moving a group of calcs of the same type).
3. Place the cursor over the spot where you want to move the calculation/group. When the blue line appears, click to place the calculation/group in this spot.

Calculating Multiple Values for the Same Worksheet Field

	If you generate multiple values for the same field on the worksheet, you will need to choose which value to save to the worksheet. To select a value, click the worksheet icon next to the calculation name. The minimum, maximum, and average of all the calculated values also appear in the panel. These values can be selected to save to the worksheet. To select the minimum, maximum, or average, click the worksheet icon next to that value.

Available Calculations

In addition to length, area, and time, the following calculations are available and can be saved to the worksheet for images that meet certain technical requirements.

Volume

To determine volume:

1. In the **Calculations** panel, click the **+** button to add a new value.
2. Click the **Volume** button.
3. Choose Simpson Single Plane, Simpson Biplane, Simpson Biplane modified, or Area-Length.
4. For each measurement requested, either draw the measurement on the image or select a measurement you've already drawn. When all requested measurements have been taken, the volume is displayed. To see additional values generated in this calculation, click the hamburger menu button to the right of the ejection fraction in the **Calculations** panel and select **Show info**.
5. If you've generated a volume calculation on an Echo study, the value can be saved to the worksheet. To identify a field on the worksheet for this calculation, click **Volume** and select from the drop-down list.

6. To save the volume and the additional values generated in this calculation to the worksheet, click the yellow indicator, or click the hamburger menu button to the right of the calculation and select **Save value to worksheet**.

Velocity (VEL)

To determine velocity:

1. In the **Calculations** panel, click the **+** button to add a new value.
2. Click the **VEL** button.
3. Choose **Point** or **Line**.
   a. **Point:** Click the point where you want to take the measurement. The velocity is displayed.
   b. **Line:** To set the starting point for the measurement, click that point in the calibration region. Then, move the mouse and click again to set the ending point. The velocity is displayed.
4. To identify a field on the worksheet for this calculation, click **VEL** and select from the drop-down list.
5. To save the value to the selected field on the worksheet, click the yellow indicator, or click the hamburger menu button to the right of the calculation and select **Save value to worksheet**. If the worksheet already contains a value for the selected field, it will be overwritten with the one you have generated.

Pressure Gradient (PG)

To determine the pressure gradient:

1. In the **Calculations** panel, click the **+** button to add a new value.
2. Click the **PG** button.
3. To set the starting point for the measurement, click that point in the calibration region.
4. Move the mouse and click again to set the ending point. The pressure gradient is displayed. To see the velocity, click the hamburger menu button to the right of the pressure gradient in the **Calculations** panel and select **Show info**.
5. To identify a field on the worksheet for this calculation, click **PG** and select from the drop-down list.
6. To save the value to the selected field on the worksheet, click the yellow indicator, or click the hamburger menu button to the right of the calculation and select **Save value to worksheet**. If a field on the worksheet is identified for the velocity, it will be saved, too. If the worksheet already contains values for these fields, they will be overwritten with the ones you have generated.

Pressure Half Time (PHT)

To determine the pressure half time:

1. In the **Calculations** panel, click the **+** button to add a new value.
2. Click the **PHT** button.

3. To set the starting point for the measurement, click that point in the calibration region.
4. Move the cursor to the end point and click again. The pressure half time is displayed. To see the maximum velocity, deceleration time, and deceleration slope, click the hamburger menu button to the right of the pressure half time in the **Calculations** panel and select **Show info**.
5. To identify a field on the worksheet for this calculation, click **PHT** and select from the drop-down list.
6. To save the value to the selected field on the worksheet, click the yellow indicator, or click the hamburger menu button to the right of the calculation and select **Save value to worksheet**. If a field on the worksheet is identified for the additional values generated in this calculation, they will be saved, too. If the worksheet already contains values for these fields, they will be overwritten with the ones you have generated.

Velocity Time Integral (VTI)

To determine the velocity time integral:

1. In the **Calculations** panel, click the **+** button to add a new value.
2. Click the **VTI** button.
3. To define the area you want to measure, click to mark the first corner.
4. Move the cursor to the location of the next corner and click again. Click once for each corner of the shape.
5. To close the shape, double click. The velocity time integral is displayed. To see the maximum velocity, mean velocity, peak pressure gradient, and mean pressure gradient, click the hamburger menu button to the right of the velocity time integral in the **Calculations** panel and select **Show info**.
6. To identify a field on the worksheet for this calculation, click **VTI** and select from the drop-down list.
7. To save the value to the selected field on the worksheet, click the yellow indicator, or click the hamburger menu button to the right of the calculation and select **Save value to worksheet**. If a field on the worksheet is identified for the additional values generated in this calculation, they will be saved, too. If the worksheet already contains values for these fields, they will be overwritten with the ones you have generated.

Ejection Fraction (EF)

To determine the ejection fraction:

1. In the **Calculations** panel, click the **+** button to add a new value.
2. Click the **EF** button.
3. Choose Simpson Single Plane, Simpson Biplane, Simpson Biplane modified, or Teichholz.

4. For each measurement requested, either draw the measurement on the image or select a measurement you've already drawn. When all requested measurements have been taken, the ejection fraction is displayed. To see additional values generated in this calculation, click the hamburger menu button to the right of the ejection fraction in the **Calculations** panel and select **Show info**. If more than one ejection fraction has been calculated using the same method, the minimum value, maximum value, and average are also displayed.
5. To identify a field on the worksheet for this calculation, click **EF** and select from the drop-down list.
6. To save the ejection fraction and the additional values generated in this calculation to the worksheet, click the yellow indicator, or click the hamburger menu button to the right of the calculation and select **Save value to worksheet**.

Time

To take a time measurement:

1. In the **Calculations** panel, click the **+** button to add a new value.
2. Click the **Time** button.
3. To set the starting point for the measurement, click that point on the image.
4. Move the cursor to the end point and click again. The time is displayed.
5. To identify a field on the worksheet for this calculation, click **Time** and select from the drop-down list.
6. To save the value to the selected field on the worksheet, click the yellow indicator, or click the hamburger menu button to the right of the calculation and select **Save value to worksheet**. If the worksheet already contains a value for the selected field, it will be overwritten with the one you have generated.

Circumference

To measure circumference:

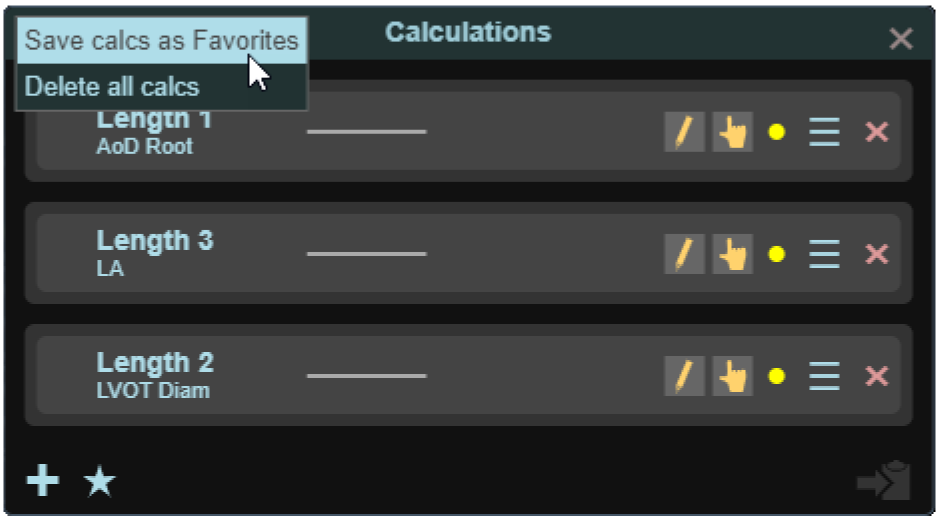
1. In the **Calculations** panel, select the + button then select **Circumference**.
2. Use **Draw** or **Select** to set a circumference value in the **Calculations** panel.
3. (Optional) For obstetric worksheets, users can map the circumference to a specific fetal measurement.
   a. Select **Circumference** in the **Calculations** panel. A menu with fetus options opens.
   b. Choose the desired fetus. A submenu with the different biometry measurements opens.
   c. Choose the desired measurement.
4. Select **Save All** in the bottom left of the **Calculations** panel to add the value to the worksheet. Saving a value in the **Calculations** panel overwrites any existing values in the worksheet.

Save Calcs as Favorites

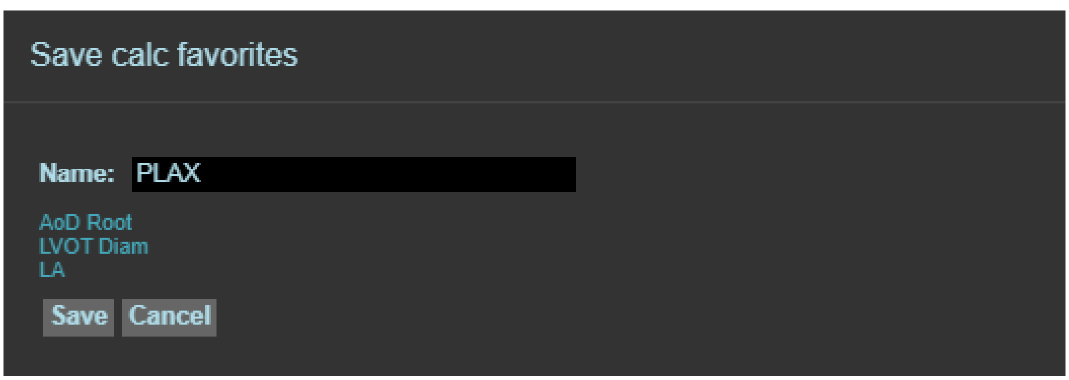
If there is a sequence of measurements and calculations you perform often, you can save the sequence to the Favorites list.

To save a sequence:

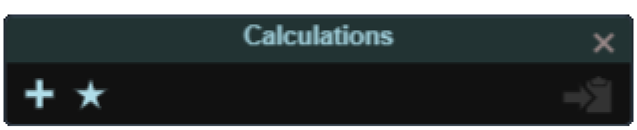
1. Choose the calculations you want.
2. Click the hamburger menu in the top left corner of the **Calculations** panel and choose **Save Calcs as Favorites**.



3. In the **Save calc favorites** window, name the sequence and click **Save**. The sequence is now saved to the Favorites list for this study type and is available to all users.



To use a saved favorite, click the **Favorites (star)** button at the bottom left of the **Calculations** panel and choose the sequence you want.



To delete a favorite, click the **Favorites (star)** button, then click the **Delete** button for the favorite you want to delete.

Download an Image

You can download an image or a paused cine loop frame to a local or network drive.

To download an image:

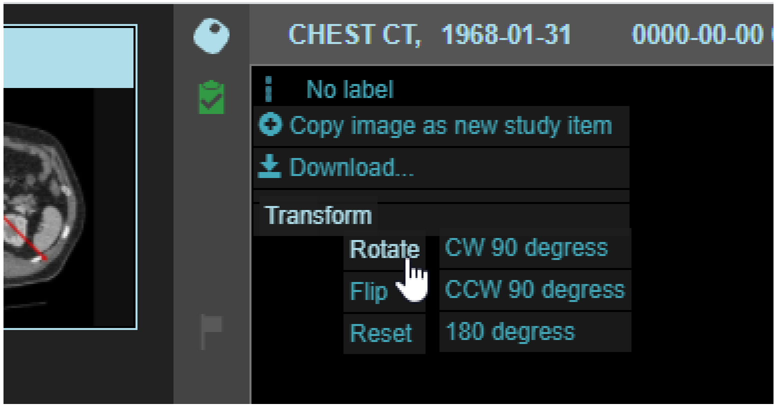
1. In the top left corner of the image pane, click the three dots icon.
2. In the menu that opens, select **Download**.

3. Select a location and save the image.

Rotate or Flip an Image

To rotate or flip an image:

1. In the top left corner of the image pane, click the three dots icon.



2. In the menu that opens, select **Transform**.
3. Select **Rotate** or **Flip**.
   - If you select **Rotate**, you can choose to rotate the image clockwise 90 degrees, counterclockwise 90 degrees, or 180 degrees.
   - If you select **Flip**, you can choose to flip the image along its horizontal or vertical axis.

   If you are viewing multiple images at a time, only the image in the active viewport will be affected.

To return the image to its original orientation, open the **Transform** menu and select **Reset**.

View Only Flagged Items

Sometimes, it can be useful to flag certain images and loops so they can be located quickly. To flag an item in the Study Viewer:

1. Navigate to an item you want to flag.
2. In the upper right corner, click the Flag icon. The flagged item is highlighted in the menu of thumbnails to the left of the viewing pane.

You can flag as many items as you like.

To view only the items you've flagged, click the Flag icon to the left of the viewing pane. The list of thumbnails now includes only flagged images.

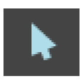
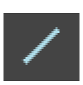
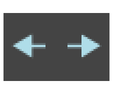
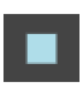
To return to the full list of items, click the Flag icon to the left of the viewing pane again.

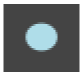
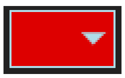
Annotate an Image

Annotations can be added to any image or loop. When added to a loop, the annotations appear over all frames in the loop. To open the Annotate tools menu, click the Annotate button in the lower left corner of the viewer.

To use the annotation tools, you must be viewing a single image or loop. The Annotate button is inactive when you are viewing multiple images/loops at a time.

The following Annotate tools appear above the image/loop.

Button	**Function**
 **Select**	Select an existing annotation. Once selected, you can: • Use the handles to move, resize, or rotate the item • Click the **Delete Selection** button to delete the item • Click **Copy to all images** to copy the selected annotations to all images and loops in the study To select multiple annotations at one time, hold the SHIFT key down while you select the items.
 **Freehand drawing**	Draw freehand lines and shapes.
 **Line**	Draw a straight line. When this tool is selected, the Arrow Start and Arrow End buttons appear.  Click these buttons to add arrows to the start and end of the line.
 **Rectangle**	Draw a rectangle.

 **Ellipse**	Draw a circle or oval.
 **Text**	Type text.
 **Delete Selection**	Delete a selected annotation.
 **Clear All**	Clear all annotation objects on the current image or loop. To clear all annotations from all images and loops, check the **from all images** box.
 **Select Color**	Set or change the color of an annotation item.
 **Set Line Thickness or Text Size**	Set the line thickness when the **Freehand drawing**, **Line**, **Rectangle**, or **Ellipse** tool is selected. Set the text size when the **Text** tool is selected.
 **Copy to all images**	To copy annotations to all images and loops in the study, use the **Select** tool to choose the annotations you want to copy. Then click **Copy to all images**.

To hide the annotations while you are viewing the images and loops, click the toggle at the bottom of the viewer. To once again show the annotations, click the toggle again.

Presentation States

A DICOM Presentation State is a separate SOP instance that has instructions on how an image should be displayed (zoom, rotate, annotate, etc.). Presentation States allow images to be displayed in a certain way without changing the original DICOM image. For example, a presentation state might be used to rotate an image 90 degrees or add an arrow to an image pointing out an area of interest.

Note: CoreGateway version 1.2.250128 (rev.1076) or greater required to upload Presentation States.

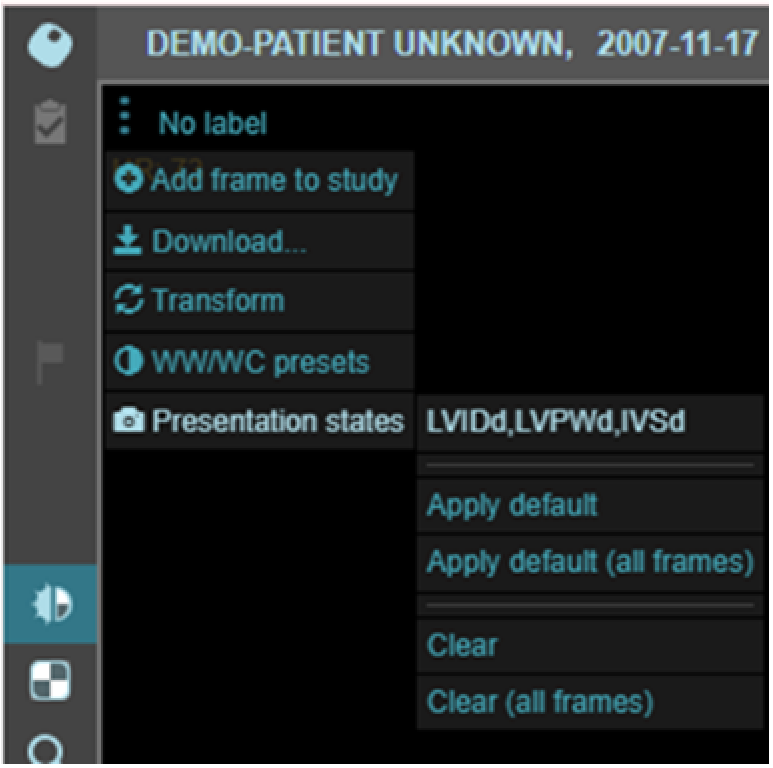
Presentation States support the following:

- GraphicObjectSequence
- TextObjectSequence
- Shutter Mask
- Display Area
- WW/WC
- Spatial transformations
- Lookup Tables (LUTs)
- DICOM Overlays

Multiple presentation states can be received for one DICOM item. If multiple presentation states are received, the last received will be displayed by default. Other presentation states can be applied by clicking the three vertical dots in the top left corner of the image pane and selecting Presentation States.

Available presentation states display at the top of the list.

- **Apply default:** Applies the default presentation state to the selected image only. The default presentation state is defined as the last received presentation state.
- **Apply default (all frames):** Applies the default presentation state all images in the study.
- **Clear:** removes the presentation state from the selected image.
- **Clear (all frames)** removes presentation states from all images in the study.

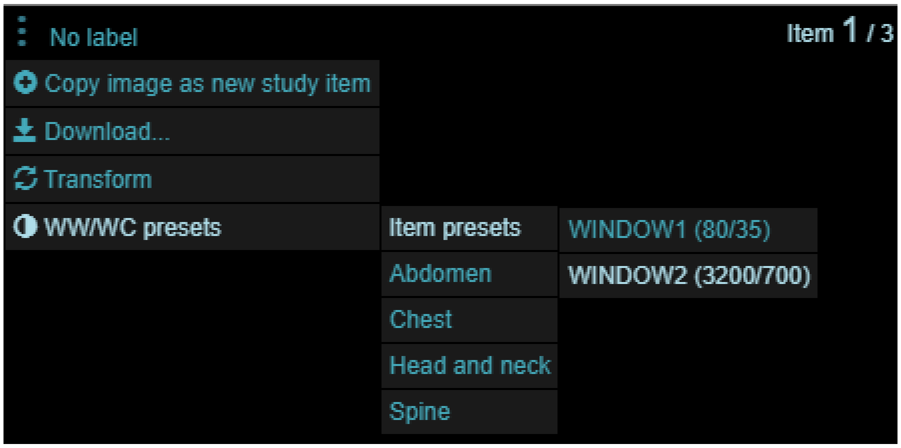


When viewing a cine, the scrub bar appears darker on frames that have a Presentation State applied so that a user can easily navigate to those frames.

WW/WC Presets for CT

To select a Window Width / Window Center preset:

1. In the top left corner of the image pane, click the kebab icon (three vertical dots).
2. In the menu that opens, select **WW/WC presets**.



3. When you select a preset, it will be applied to the active viewport. The window width and window center values are displayed in Hounsfield units in the lower right corner of the viewport.
4. Ctrl+click a preset will apply it to all viewports. Relative Hounsfield values will be applied to all viewports. To cancel the apply all use "Reset View" tool.

Available Presets

Head and neck

Brain: 80/40

Subdural: 210/100

Stroke: 40/40

Temporal bones: 2800/600

Soft tissues: 375/40

Chest

Lungs: 1500/600

Mediastinum: 350/50

Abdomen

Soft tissues: 400/50

Liver: 150/30

Spine

Soft tissues: 250/50

Bone: 1800/400

Stress Echo Views

When viewing stress echo images and loops, you have additional options for displaying loops by stage and view.

Enabling Stress Views

	The **Enable Stress Views** button displays standard quad views for stress echo exams. When clicked, the **Stress Views** list at the bottom of the Study Viewer becomes active. Open the list to choose a different view.
	The **Apply Default Stress Labels** button applies standard labels to the images based on the stage and view data in the DICOM. The labels are automatically applied when the study is uploaded. However, if you have overwritten the labels that were uploaded, click this button to reset them.

For Stress Echo and Pharmacological Stress Echo studies, the groups and labels listed below are applied by default, but alternate lists are available. To use an alternate list, contact Studycast support.

Group	Contains Images Labeled...
Rest	Rest Ap2, Rest Ap4, Rest PLAX, Rest PSAX
Impost	Impost Ap2, Impost Ap4, Impost PLAX, Impost PSAX
Parasternal	Rest PSAX, Impost PSAX, Rest PLAX, Impost PLAX
Apical	Rest Ap2, Impost Ap2, Rest Ap 4, Impost Ap4
Low	Low Ap2, Low Ap4, Low PLAX, Low PSAX
Inter	Inter Ap2, Inter Ap4, Inter PLAX, Inter PSAX
Peak	Peak A2C, Peak A4C, Peak PLAX, Peak PSAX
Recovery	Recovery A2C, Recovery A4C, Recovery PLAX, Recovery PSAX

Group	Contains Images Labeled...
Ap2 Pharm	Rest Ap2, Low Ap2, Inter Ap2, Impost Ap2
Ap4 Pharm	Rest Ap4, Low Ap4, Inter Ap4, Impost Ap4
PLAX Pharm	Rest PLAX, Low PLAX, Inter PLAX, Impost PLAX
PSAX Pharm	Rest PSAX, Low PSAX, Inter PSAX, Impost PSAX

Creating Custom Views

In addition to the standard stress views, you can create custom groups that include images or loops you choose.

To create and view a custom group:

1. Select an item in the list of thumbnails on the left side of the Study Viewer.
2. In the top left of the image pane, click **No label**. In the menu that opens, select a label for the current item. To create custom groups, select one of the numbered custom labels.
3. Repeat steps 1 and 2 for each item you want to label.
4. When you are finished labeling items, click the **Enable Stress View** icon to the left of the viewing pane. The **Stress Views** list below the viewing pane is now active.
5. Open the **Stress Views** list to select a different view. The menu includes groups listed in the table below, as appropriate, and two custom groups, the images you labeled Custom 1-4 and the images you labeled Custom 5-8.

Complete Worksheets

Part 6

Complete Worksheets

Additional Comments

Throughout the Studycast system, you will see text input fields with a gear icon, called Additional Comments fields.

These fields have type-ahead functionality, meaning that the list of items matching your search will adjust to maintain relevance as you type. Additionally, you can add and edit personalized statements, or comments, in the Additional Comments list.

Once created, these comments will be available to the entire reading group associated with the worksheet in use at the time of creation.

To edit a list of comments:

1. Click the gear (if active) to the right of an Additional Comments field. An edit window opens.
   - To add a new item to the list, type the text into the field and click the **Add** button.
   - To reorder the list of comments, click and drag the comments to the desired spots in the list.
   - To delete a comment from the list, click the **X** next to that item.
2. When you are finished editing the list, click the **Save** button to save your changes.

Note: Changes made to Additional Comments will be reflected across the entire reading group to which they are assigned. Deleting a comment will also remove it from the list for all other members of your reading group.

Reload Study Measurements

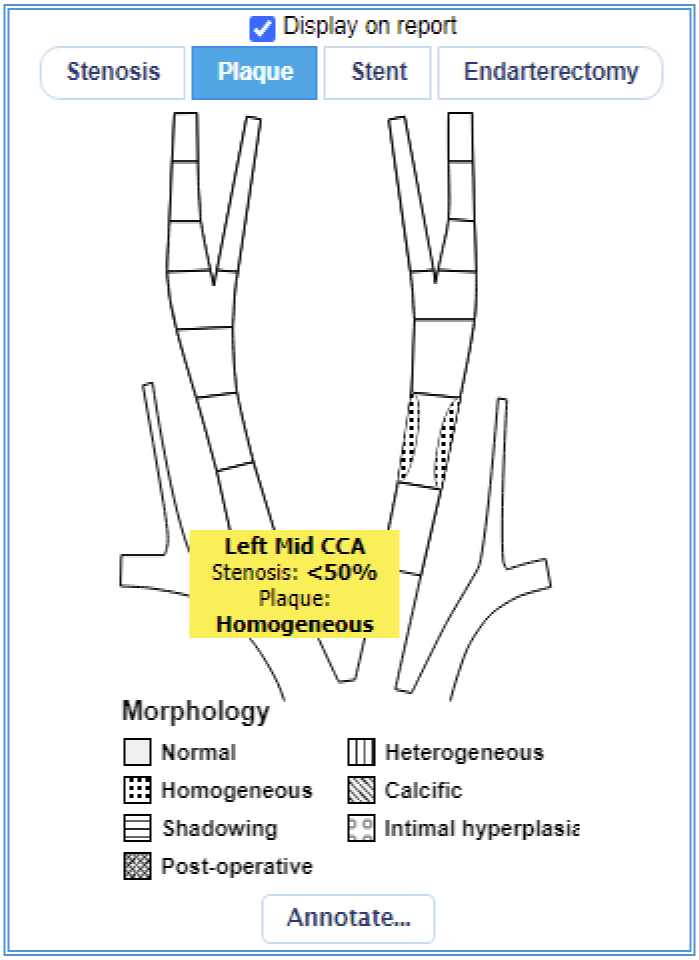
If you upload studies with the CoreGateway™ uploader, it is possible to open a study worksheet before all the measurements have been populated. Once the worksheet is open, the measurements will not automatically populate as you work, but you will receive a notification along the bottom of the screen that indicates that new measurements have been received.

To populate new measurements from the modality:

1. Open the **Tools** menu in the bottom left of the worksheet and select **Reload Measurements**. (Or, click **Show Details** in the notification at the bottom of the screen).
2. The **Apply Measurements** window opens. By default, the values received from the modality are checked. If more than one value was received for the same measurement field, the most recently received measurement will be checked by default. Ensure that the values you would like to populate in the worksheet are checked.
3. The **Re-generate findings statements** box is checked by default. If this box is left checked, the **Edit Findings** window will open. This window allows you to edit individual findings statements impacted by the measurements that have been selected.
4. Click **OK**.
5. Selected values will populate in the worksheet.

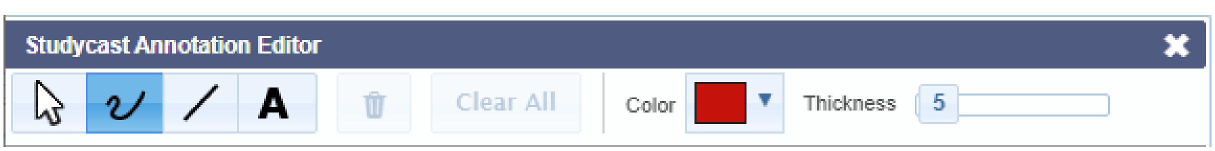
Annotate a Diagram

Some Studycast worksheets contain an interactive diagram. Different worksheets have different options for annotating the diagram.

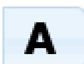


In some worksheets, segments of the diagram can be coded with a color or pattern to indicate an abnormality. When you roll the cursor over the diagram, text is displayed showing current selections for each segment. To apply a color or pattern code, click the segment. Click multiple times to cycle through the available choices shown in the legend.

If the diagram has an Annotate button, you can draw directly on the diagram and add text to it. Click the Annotate button. In the window that opens, use the tools at the top of the window to annotate the diagram.



Use the four buttons on the left to draw on the diagram and add notes.

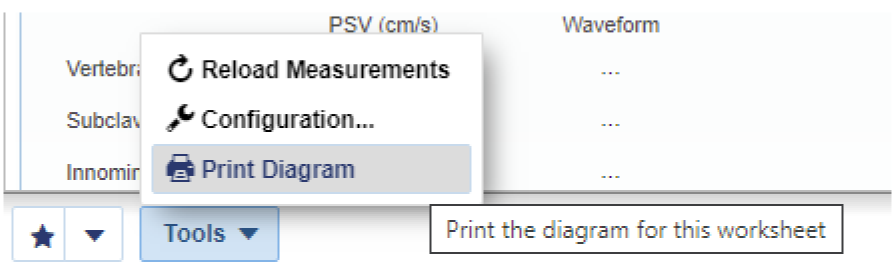
Button	Click this button to...
	Select or move a line or text
	Draw freehand
	Draw a straight line
	Enter text

To save your annotations, click **Save** in the lower right corner.

Printing a Full-Page Diagram

The annotated diagram can be printed as a full-page image. This printed copy can be useful for consultation with the patient or for reference and notes during a procedure.

To print a full-page diagram, open the **Tools** menu in the bottom left of the worksheet and select **Print Diagram**.



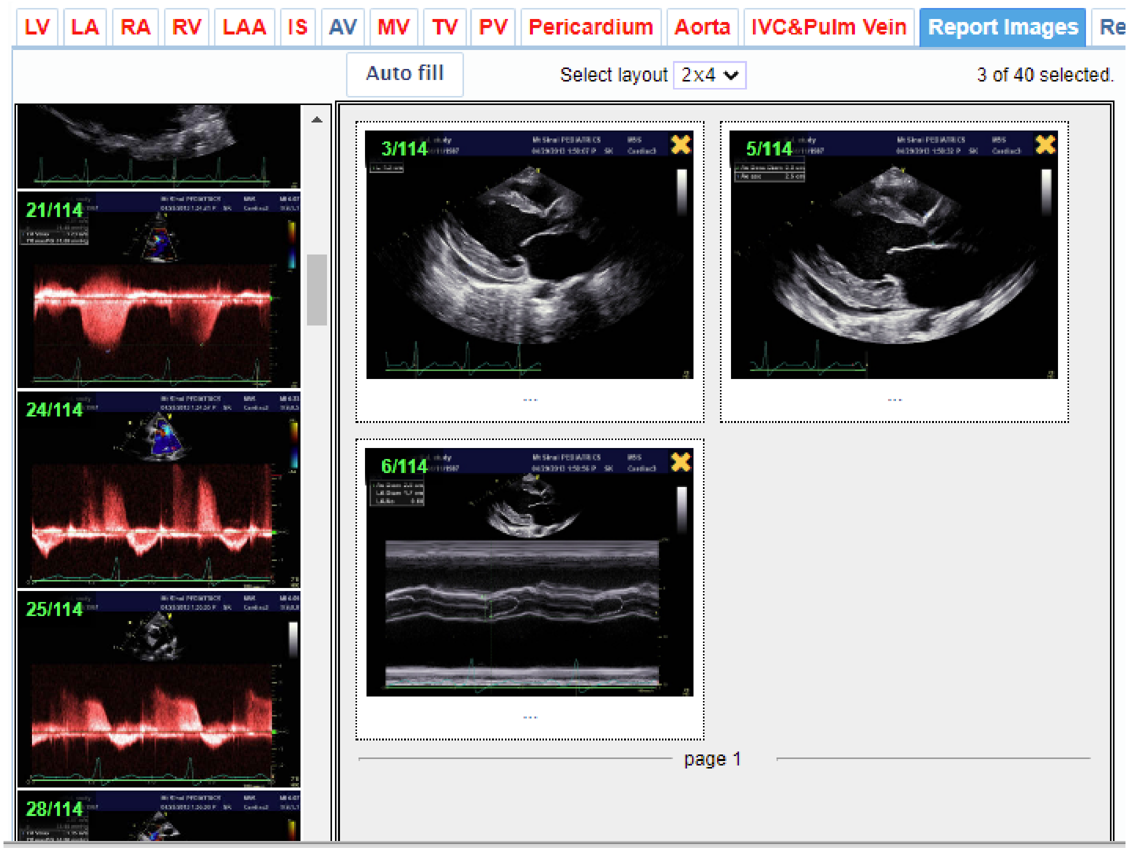
The document will open in your browser as a PDF that can be downloaded or printed.

The document includes:

- Patient Name
- DOB
- Study ID
- Study Date
- MRN
- All annotations on the diagram

Add Images to a Report

From the worksheet, you can add up to five pages of study images to the report.



To add images:

1. In the Measurements and Observations section, click the **Report Images** tab. The study images are listed on the left side. Cine loops are not included in this list.
2. Select a layout (1x1, 1x2, 2x2, 2x4). The layout indicates how the images will be arranged on the page and affects the total number of images that can be added to the report. For example, if you select 1x1, you can add one image per page for a total of five images. If you select 2x4, you can choose eight images per page for a total of forty images.
3. To fill the report pages with images automatically, click the **Auto fill** button. Images will be added sequentially beginning with the first image in the list and continuing until five pages are filled. To add individual images to the report, click and drag an image from the list to the box provided. The images in this box are added to the study report.
4. To add a label to an image, click the dots (**...**) under the image and begin typing.

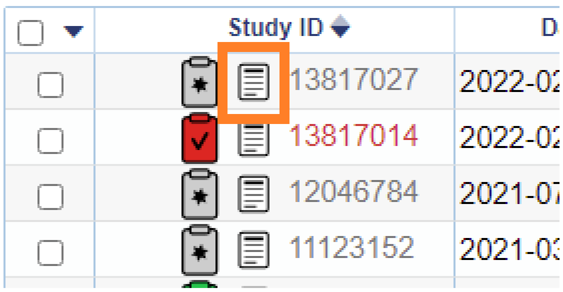
To remove an image from the report, click the **X** in the top right corner of the image.

View a Study Report

There are several options for viewing the study report whether the study is final or not.

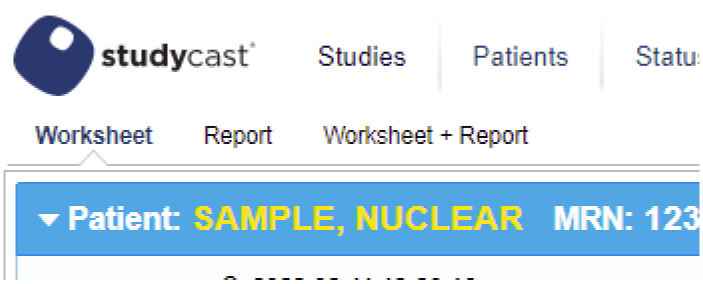
Studies Page

If a study report has been created, the report icon is displayed in the Study ID column. The icon appears whether the report is final or not. To view the report, click the icon.



Worksheet

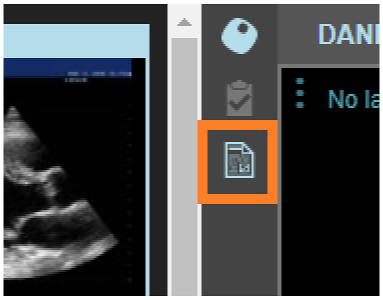
In the worksheet, you have several options for viewing the study report.



- At the top of the worksheet, click **Report** to view the report instead of the Worksheet, or click **Worksheet + Report** to view the worksheet and report side by side in the same window. This option is available only on displays with a width of 1920 pixels or greater. In this view, changes to the worksheet do not automatically update the report. To see your changes in the report, click the **Refresh Report** button.
- In the bottom right corner, click the **Preview Report** button.

Study Viewer

On the right side of the Study Viewer, click the Report icon.



The report opens in a new window.

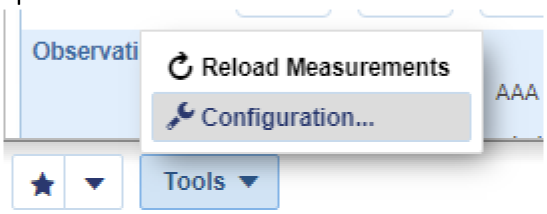
Configure Worksheet

Some worksheets can be configured to include or exclude certain items, such as vessels, observations, and measurements. Ideally, your facility will already have default configurations in place for each study type. If it does not, or if you want to change your default configurations, contact Studycast support to submit Worksheet Preference forms.

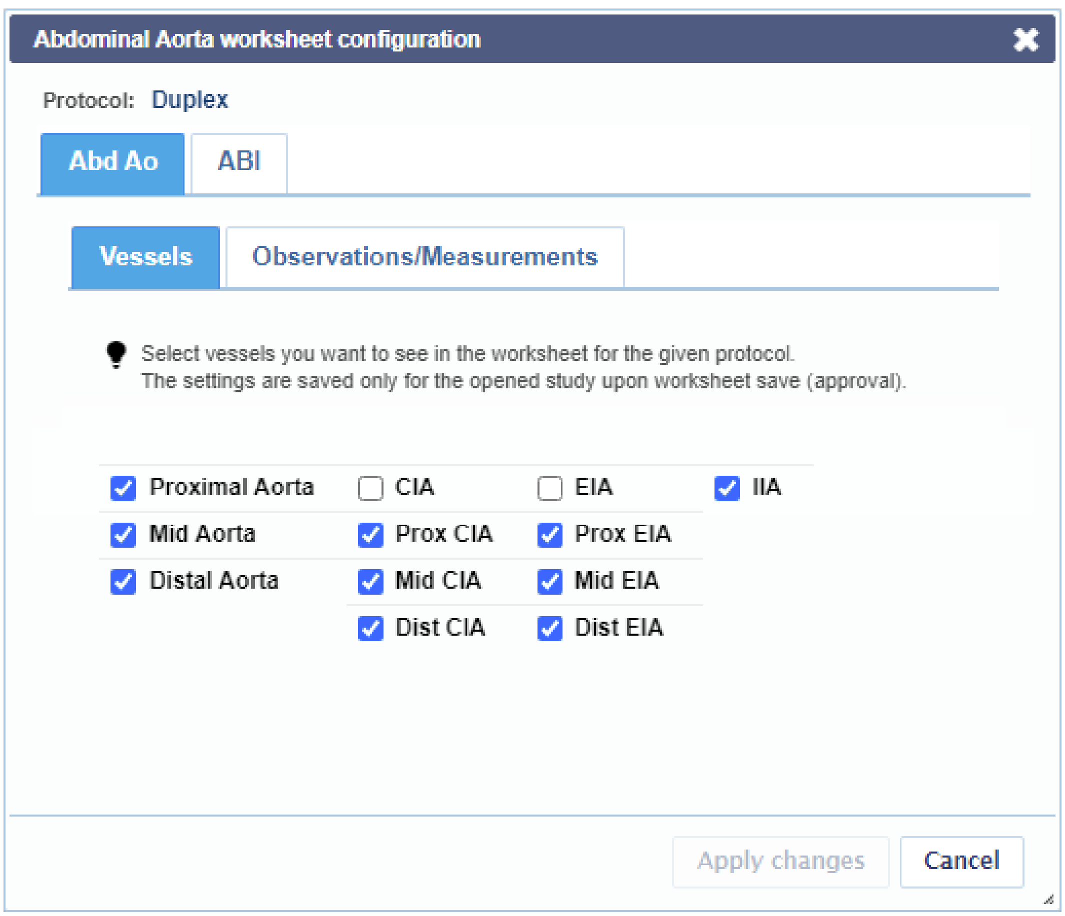
For worksheets that are configurable, you can override the configuration for an individual study.

To configure the worksheet:

1. Open the **Tools** menu in the bottom left of the worksheet and select **Configuration**.



The **Worksheet Configuration** window for that study type and protocol appears.



2. Items with a check are displayed on the worksheet. To hide an item, click the box to uncheck it. To include an item not currently displayed, click the unchecked box.
3. For some study types, the **Worksheet Configuration** window has multiple tabs. Click each tab to configure the items on that tab.
4. When you are finished changing the configuration, click **Apply changes**. The **Worksheet Configuration** window closes and the worksheet now displays your new configuration.

Note: When you change the worksheet configuration, your changes apply only to the study you are currently viewing. Your changes are not applied to other studies. To set a new configuration that is applied to all studies of the same type and protocol, contact Studycast support.

Manage Worksheet Presets

Preset Favorites

Users can create templates of frequently used worksheet entries with preset favorites. For example, a user can create a preset to enter the observations, findings, and conclusions text for a "normal" exam and repeatedly apply this preset to different studies.

A preset favorite can use the following elements:

- Observations
- Findings
- Conclusions
- Study Description
- Indications
- Sonographer/Technologist Comments
- Study Quality, Protocol, and Procedure dropdowns
- Recommendations

Presets can be available to all protocols or limited to a specific protocol (when applicable to the study type).

Note: Access to Preset Favorites is controlled at the reading group level. This means that when a user is in a worksheet, the Preset Favorites available are based on the reading group currently assigned to the exam.

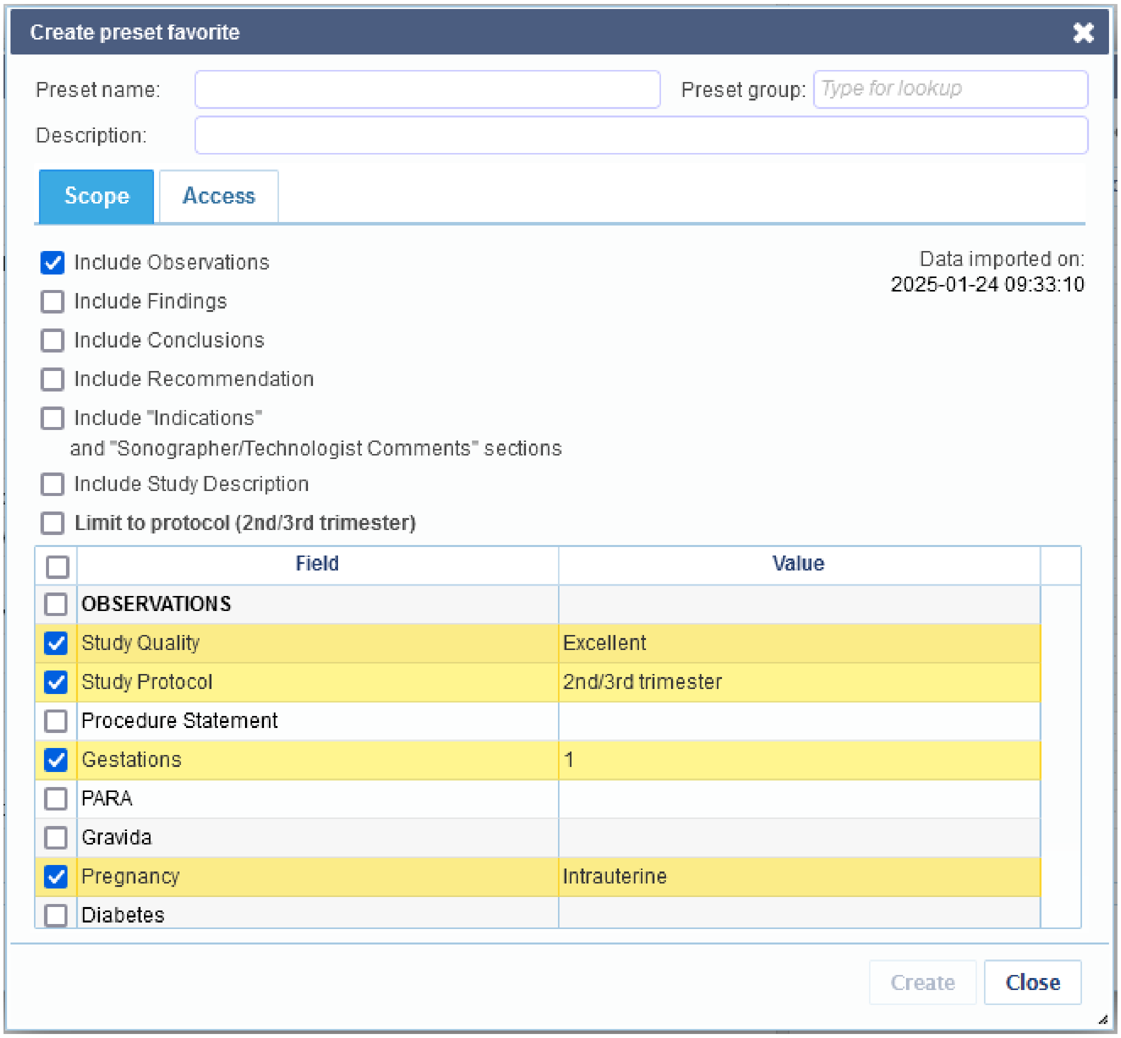
Create a New Preset

Users with **Preset Favorites: Manage** and **Preset Favorites: Create** permissions can create a Preset Favorite. If a user does not have this permission, contact the admin.

To create a new preset favorite:

1. In the worksheet, enter the comments and observations to include in the preset.
2. Select Favorites (★) in the lower left corner of the worksheet. The **Manage Preset Favorites** window opens.
3. Select **+ Add new preset...** in the upper right corner. The **Create preset** window opens.
4. Enter a name and description for the preset. Optionally, users can assign presets to a **Preset Group**, which groups Preset Favorites in the **Select Preset Favorite** list.
5. In the **Scope** tab, check the box next to each worksheet item to include in the preset.

- By default, the fields in the worksheet with values in them are included in the preset. Select the checkboxes next to each field to include additional fields, or select the top-level checkbox to include all fields. Including a field with no value in it results in the preset overwriting the existing information in that field.



- The grid at the bottom of the **Create Preset** Favorite window displays detailed information about the fields and values included.

When the arrow is selected, included statements will replace the existing statements in the worksheet.

When the plus sign is selected, included statements will append the existing statements in the worksheet. This offers additional flexibility so that presets can be used to supplement existing generated statements.

Note: Statements included in a preset will replace existing items by default, unless a different behavior is specified.

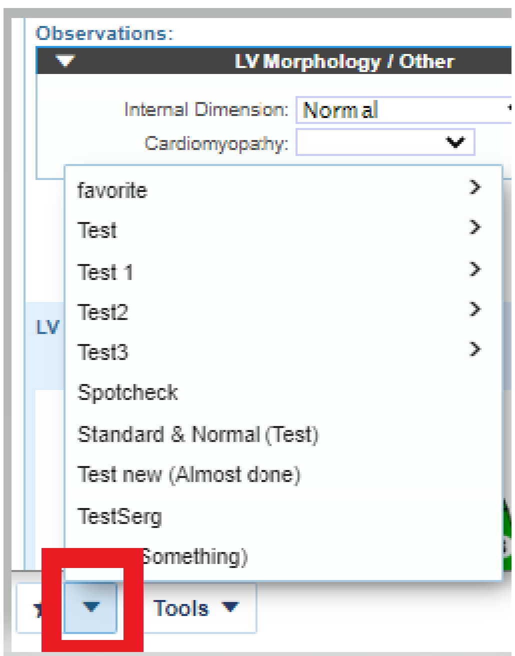
6. In the **Access** tab, indicate any additional reading groups to have access to the preset. By default, access will only be applied to the reading group assigned to the current study.
7. Select **Save** to create the preset.

Apply a Preset Favorite

All users with appropriate reading group access can apply new presets.

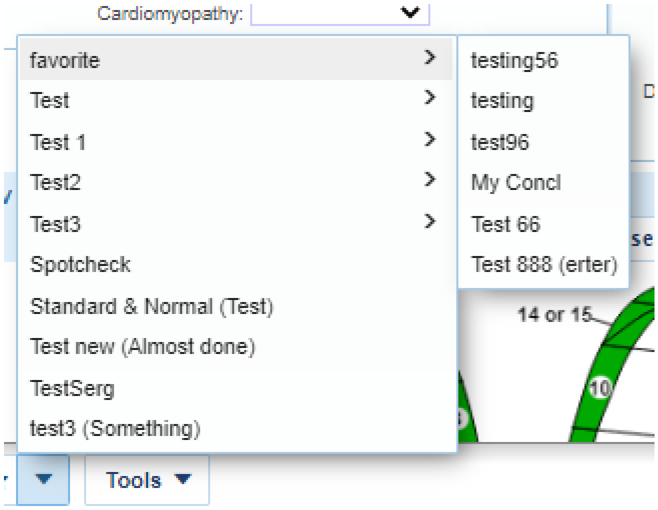
To apply a Preset Favorite to a worksheet:

1. Select the Preset Favorites arrow (▼).



2. Choose a preset from the list.

Note: If Preset Favorite is part of a Preset Group, it appears at the top of the list under the name of the Preset Group.



3. The **Apply preset favorite** window appears. This window lists the worksheet sections included in the preset, shows conflicts with information already entered into the worksheet, and shows a warning if a value in the preset is not available in the worksheet.
4. To apply the preset, select **Apply**.
5. If any preset is value unavailable in the worksheet, a warning window opens showing the fields and unavailable values. Users can select **Cancel** to cancel applying the preset and return to the **Apply Preset** window or select **Apply** to set the field with the unavailable value to the first item in the dropdown menu.

Manage Existing Preset Favorites

Users with **Preset Favorites: Manage** and **Preset Favorites: Create** permissions can manage Preset Favorites. Users with the **Preset Favorites: Create** permission are limited to managing presets that they own/created. If a user does not have this permission, contact the admin.

To manage an existing preset:

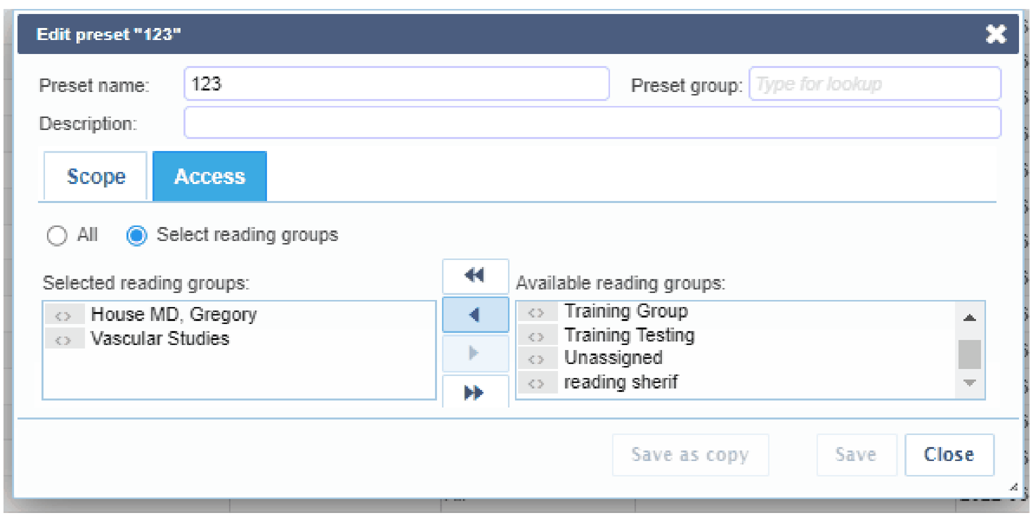
1. Select Favorites (★) in the lower left corner. The **Manage Preset Favorites** window opens.
2. Select the name of the preset to edit. The **Edit Preset** window opens.
3. Users with appropriate permission level can edit:
   - Preset name
   - Preset group
   - Description

   a. In the **Scope** tab, Users can:
      - Modify the scope of sections from the worksheet to include in the preset.

- Select **Apply current worksheet values** to re-import worksheet data to the preset. This functionality is useful in cases where users want to make changes to an existing preset while maintaining the current Preset name, Preset group, and other attributes.
- The grid at the bottom of the **Scope** tab provides details about the fields and values from the worksheet that are included in the preset.

b. In the **Access** tab, modify which reading groups have access to edit the Preset Favorite. Using the arrow keys, users may add and remove Preset Favorites from the selected reading groups to share or remove access. Please note the following:

- Multi-select functionality is available by holding the CTRL + left click.
- The **All** radio button can be used to grant access to the preset to all available reading groups.



4. Select **Save** to save the changes. Alternatively, the **Save as** button can be used to save a duplicate copy of the preset with a different name.

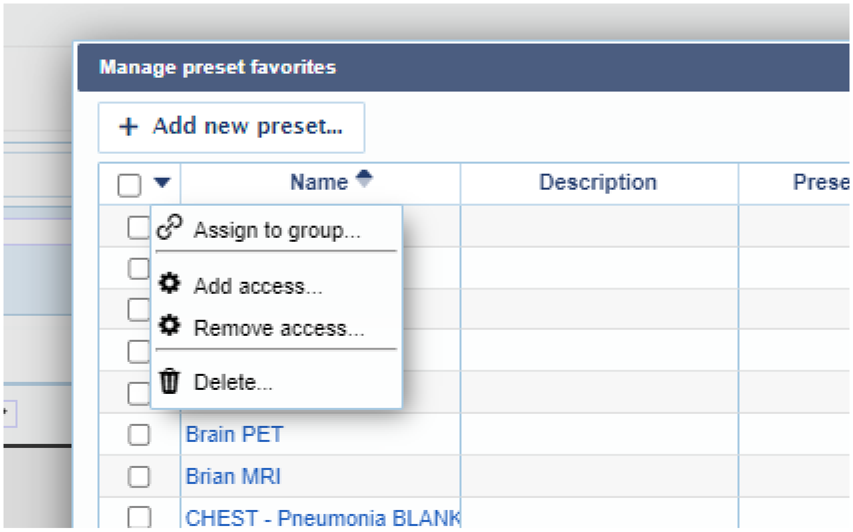
Note: Duplicate names are not allowed for Preset Favorites.

Batch Action Management of Existing Presets

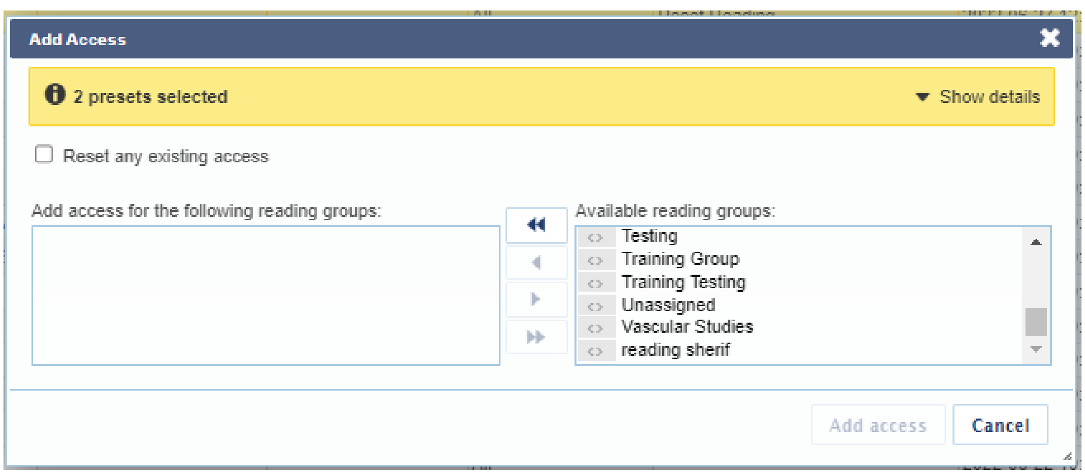
To manage multiple existing Preset Favorites:

1. Select **Favorites** (★) in the lower left corner. The **Manage Preset Favorites** window opens.

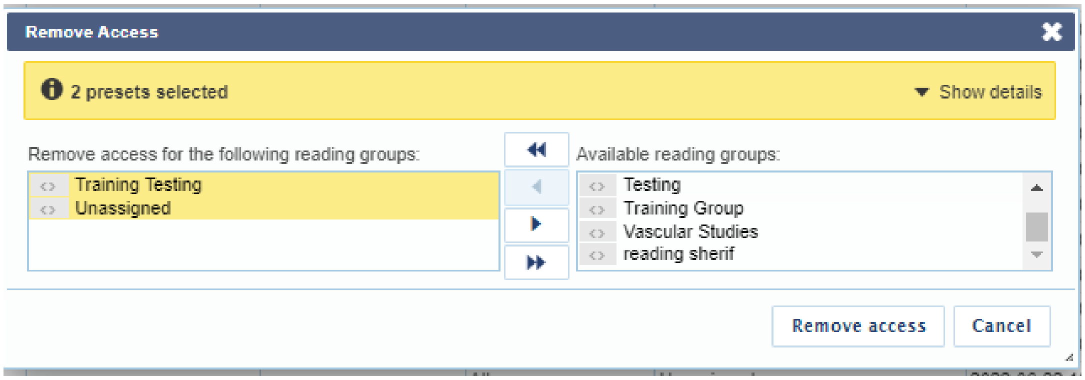
2. Select the checkboxes of the Preset Favorites to manage.
3. Select the batch action menu (?) at the top of the first column.



4. From the batch action menu, users can:
   a. **Add access**
      - Grants reading group access to the selected Preset Favorites.
      - The **Reset any existing access** check box provides a way to clear any current reading group access for the selected Preset Favorites.



   b. **Remove access**
      - Removes reading group access for the selected Preset Favorites.



a. **Delete**

- Deletes the selected Preset Favorites.

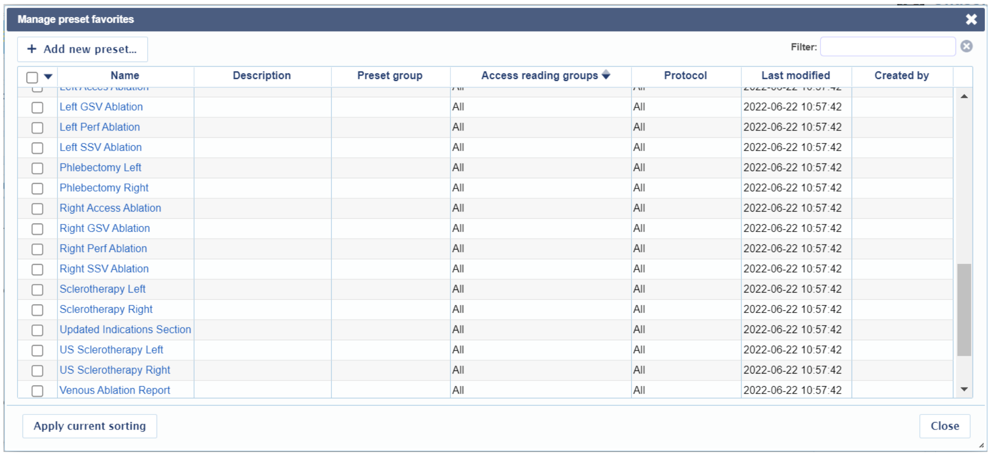
a. **Assign to group**

- Assigns the selected Preset Favorites to a new **Preset Group**. Assigning groups of presets to Preset Groups can help make worksheets with many presets more manageable.

Manage Preset Favorites Window

The **Manage Presets Favorites** window displays the following columns with useful information:

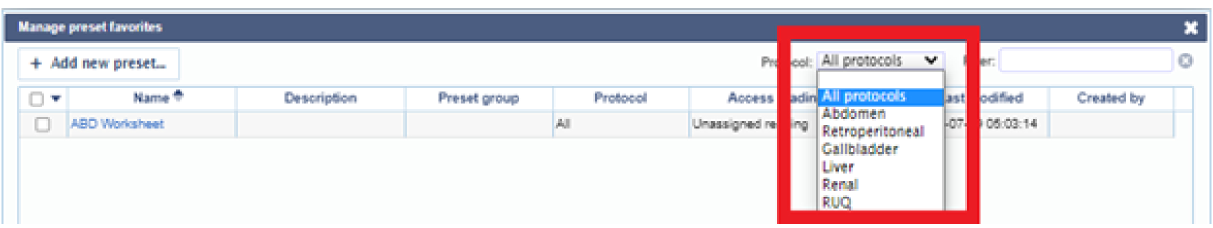
- Name
- Description
- Preset group
- Access reading groups
- Protocol
- Last modified
- Created by



In the **Manage presets favorites** window, users can reorder and sort columns and use the Filter to locate Preset Favorites.

The **Apply current sorting** button in the lower left applies the current list order to the Preset Favorites list in the worksheet.

The **Protocol** dropdown provides a quick way to filter to Preset Favorites assigned to a specific protocol type.



Note: The **All protocols** option filters the list to show only the preset favorites which are assigned to **All**. This is because All is a protocol designation. To see the entire unfiltered list of Preset Favorites, select **blank** in the Protocol dropdown.

Frequently asked questions

Q: Why don't I see some Preset Favorites in the **Select preset favorites** list, even though they are listed in **Manage Preset Favorites** window?

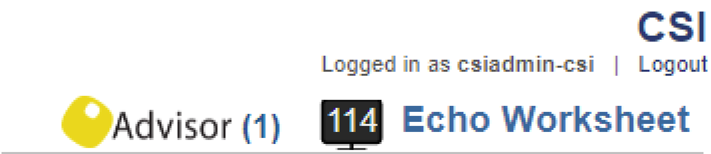
A: Preset favorites appear based on the Reading Group. Access to the preset favorite needs to be granted to the current Reading Group. Edit the desired preset favorite to grant access to the desired reading group.

Q: Why can't I create Preset Favorites?

A: The ability to create Preset Favorites is a permission granted by the administrator. Please contact the administrator to request the appropriate permission.

Studycast Advisor

In some worksheets in the Studycast system, you will see a yellow Advisor logo, located in the top right corner of the screen.



The Studycast Advisor provides helpful recommendations that can be applied with a single click.

Types of Recommendations

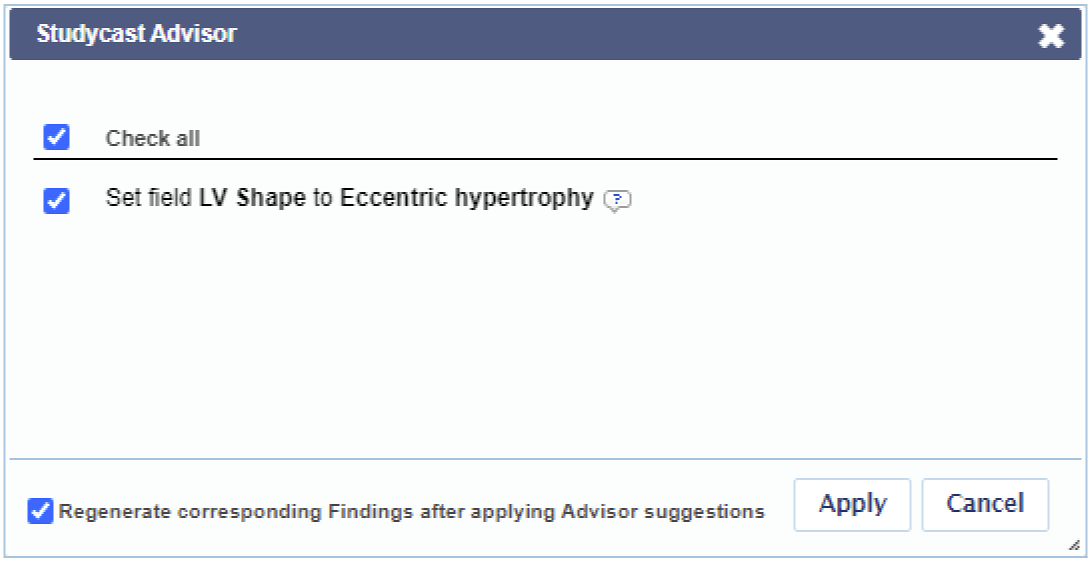
In the Echo worksheet, the Advisor can set observations when key measurements fall outside the acceptable ranges, as defined by published criteria. In the Obstetric, Fetal Echo, and Fetal Non-Stress Test worksheets, the Advisor can group studies from the same pregnancy into a case.

- To learn more about the Studycast Advisor in the Echo worksheet, see Studycast Advisor for Echo.
- To learn more about the Studycast Advisor in the Obstetric, Fetal Echo, and Fetal Non-Stress Test worksheets, see Studycast Advisor for Obstetric.

Applying Recommendations

When the Advisor has recommendations, the indicator in the top right corner is illuminated and the number of recommendations is displayed.

To view the recommendations, click the **Advisor** indicator.



In the **Studycast Advisor** window, all recommendations will be listed. Use the check boxes to select the recommendation(s) you wish to apply. When you click Apply, the Advisor will perform the specified actions.

For information about the published guidelines used for a recommendation, roll the cursor over the question mark icon.

Note: The Advisor can be disabled for one or all divisions for your facility. To disable the Advisor, contact Studycast Support.

Approve Study

Note: Only users with the **Approve study** permission can approve a study. By default, only reading physicians have this permission.

To approve a study, open the worksheet and click either **Approve** or **Approve & Next** in the bottom right.

- **Approve:** Changes the study status to Final (or Reviewed if that status is part of your workflow) and closes the worksheet, returning you to the Studies page.
- **Approve & Next:** Changes the study status to Final (or Reviewed if that status is part of your workflow), closes the worksheet, and opens the next study assigned to you for review and approval.

If a study is incomplete and not ready for approval, you can return it to the technologist. To return it:

1. Click **Change status & Next**.
2. In the window that appears, change the study status to New.
3. Click **Change**.

The study is now available for the technologist to update. The next study assigned to you for review and approval is opened.

Verify Study

The Verifying Physician functionality allows two physicians to review and approve a study before it is made final. With this functionality, the workflow for approving studies follows this process:

1. When the reading physician clicks the **Approve** button on the worksheet, the study is assigned to the verifying physician. The study's status becomes **Reviewed**, and the worksheet is still editable.
2. When the verifying physician clicks **Verify** on the worksheet, the study's status changes to **Final** and the worksheet is no longer editable.

The study report includes a signature line for both the reading and the verifying physician.

Note: If the **Verifying Physician** field is blank, the reading physician can save the worksheet but cannot approve the study.

Assigning a Study to a Verifying Physician

Admins and sonographers have permission to change the Verifying Physician by default. Admins can give this permission to other users. For more information, see User Types and Permissions and Manage Users.

If the verifying physician is not assigned or assign the study to a different verifying physician, make that change on the worksheet or in the **Study Properties** window.

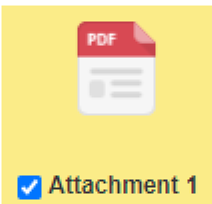
The worksheet lists the Verifying Physician in the Patient Information section.

- To add a verifying physician, click the dots and begin typing.
- To change the verifying physician, select the name of the verifying physician group and begin typing.

View Report Attachments

If a study has an attachment, they will appear in the **Report Attachments** tab. If the study has multiple attachments, the first attachment will be displayed by default. To view a different attachment, select from the list on the left.

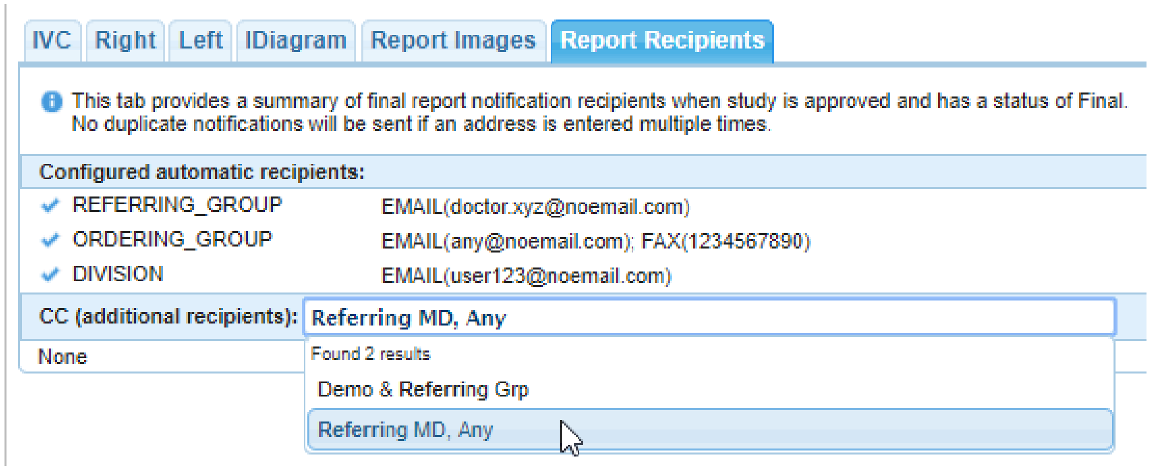
To include an attachment with the study report, check the box under the attachment you want to include. If you choose to include multiple attachments with the report, they will appear in the order in which you select them.



For more information, see Attach Files to a Study.

Manage Report Recipients

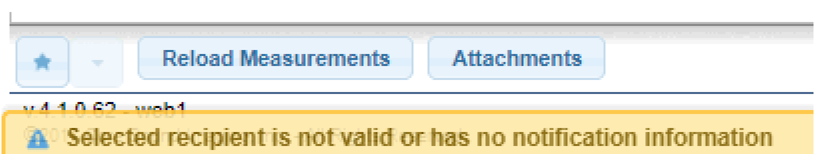
Many worksheets include a tab that lists the notifications that will be sent when the study is approved or when an addendum is added.



The **Configured automatic recipients list** includes the users who will automatically receive a notification when the study is approved or an addendum is added.

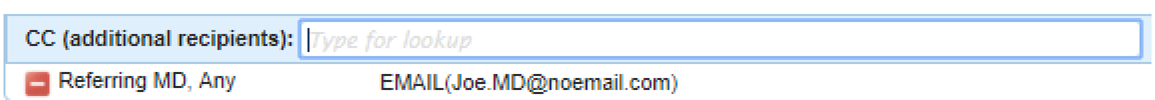
To add another recipient to the list, click in the box labeled **CC (additional recipients)** and begin typing. The list of matching users appears and narrows as you type. To appear in this list, a user must be part of the referring group for this study. Select a name to add it to the list. To see the entire list of possible recipients, click in the box and press the space bar twice.

If a recipient does not have any notifications set up, you will see an error message at the bottom of the screen.



To request that notifications be set up for the recipient, contact your admin.

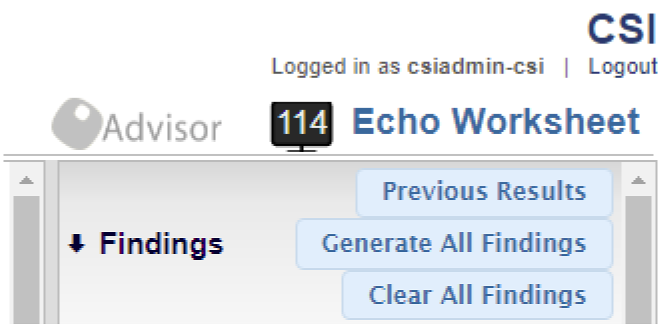
To delete a recipient, click the red minus symbol next to the recipient's name.



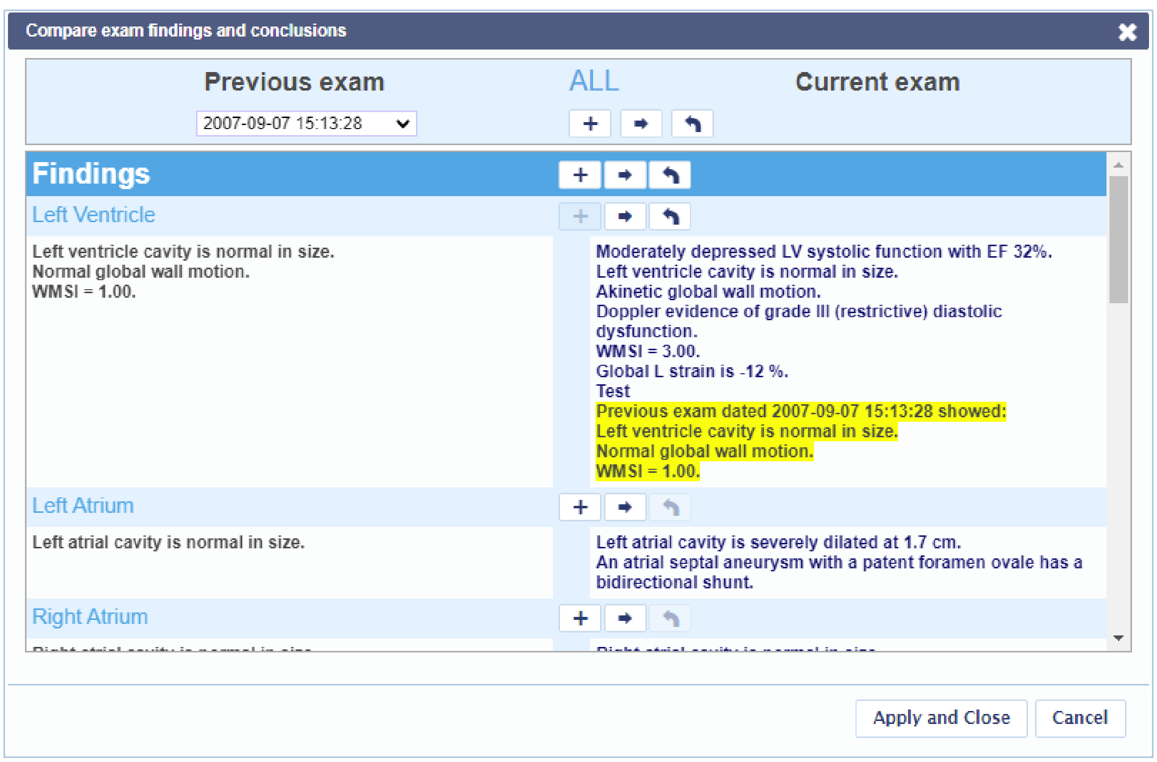
Compare to Patient's Previous Results

When a follow-up exam is performed, it can be helpful to view the patient's previous findings and conclusions and either append or overwrite the current statements with the findings/conclusions from the previous exam.

If a patient has a previous finalized study of the same type and protocol in the system, the **Previous Results** button at the top right of the worksheet will be active. Previous results are only available from studies that have been approved.



To view the results of a previous finalized study, click the **Previous Results** button. In the window that opens, the previous exam results appear on the left side. The date and time of the previous exam are listed at the top. To view a different previous exam (if available), click the down arrow to open the list and select a different exam.



Each set of findings and conclusions has three buttons.

+	**Append**	Click to add findings or conclusions from the previous exam to the current exam.
→	**Replace**	Click to replace the current exam's findings or conclusions with the findings or conclusions from the previous exam.
↰	**Undo**	Click to remove the previous exam's findings or conclusions from the current exam.

- If you click the **Append** or **Replace** button for an individual findings or conclusions section, only that section is appended/replaced.
- If you click a button in the **Findings** or **Conclusions** heading, the action is applied to all findings or conclusions.
- To append or replace all findings and conclusions statements, click the button at the top under **ALL**.

Note: If a Findings section is available in the previous exam, but is not available in the current exam, its previous results will be displayed but will not transfer to the current exam. If you wish to transfer these previous results to the current exam, open the Tools menu in the lower left of the worksheet and choose Configuration. In the Worksheet Configuration window that appears, change the configuration to include the relevant section.

Concurrent Access

It is possible for more than one user to have the same worksheet open at the same time.
When that happens, the following notifications will appear:

- When a worksheet is already open, each additional user who opens the same worksheet will see the concurrent access notification as soon as they open the worksheet.
- The software checks for concurrent access every five minutes. If this check discovers that another user has opened the worksheet, the user who opened the worksheet first will see the concurrent access notification at that time.
- When multiple users have the same worksheet open and any of those users tries to save the worksheet, the concurrent access notification will appear.

Known Issues

There are several known issues with the concurrent user notifications.

1. In the Mobile Safari browser (Apple iOS), the user visit is not unregistered upon browser tab close, browser close, or upon navigating away from the worksheet.
2. In the FireFox browser, the user visit is not unregistered upon browser close. It is recommended that you navigate away from the worksheet or close the tab before closing the browser.

Quality Assurance

Performing Quality Assurance (QA)

In the Studycast system, QA functionality lets physicians attest to a subset of QA questions after reading a study. If a Studycast account uses this functionality, the workflow for approving studies follows this process:

Performing QA

1. Approve the study. The study's status changes to **Final**. The worksheet can no longer be edited.
2. Navigate to the **QA** tab and attest to the QA questions shown.

> Note: The QA group field stays active when a study has been finalized. It deactivates when the QA questions have been attested to.

If a study requires a second signature

1. Approve and verify the study, following the steps outlined on the Verify Study page. The study’s status changes to **Final**. The worksheet can no longer be edited.
2. Navigate to the **QA** tab and attest to the QA questions shown.

> Note: Physicians belonging to the QA group assigned to the study can view the QA worksheet tab. If you do not see the tab in the worksheet, contact the Administrator of your Studycast account to ensure that the study is assigned to the correct QA group.

Assigning a Study to a QA Group

If the QA group has not been assigned, or you’d like to assign the study to a different verifying physician group, you can make that change in the worksheet or the **Study Properties** window.

In the worksheet, navigate to the **Patient Information** section, and find the **QA group** field.

- To add a QA group, click the dots and begin typing.
- To change the QA group, select the name of the QA group and begin typing.

Admins, reading physicians, and sonographers have the **Change QA group** permission by default. Admins can grant this permission to other user types.

For more information about permissions, see the User Types and Permissions page.
For more information about managing user permissions, see the Manage Users page.

QA Dashboard

Users with the QA Admin permission can access the QA Dashboard. This dashboard shows a list of studies with columns showing QA questions and responses. This gives QA Admins a single place to see all QA information for a specific user or set of users.

Users can customize the columns they see the same as the Studies page using the Grid Settings button, including custom QA questions and answers.

Study-Specific Information

Part 7

Study-Specific Information

Abdomen

Abdomen Calculated Fields

In the Abdomen worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
Resistivity Index	Hepatic Artery PSV, Hepatic Artery EDV	(PSV - EDV) ÷ PSV
R/A Ratio	RA PSV, Aorta PSV	Renal Artery PSV ÷ Aorta PSV

Abdomen Criteria

The criteria listed below are set by default for the Abdomen worksheet. However, you can choose to use a different set of criteria, or you can define custom criteria.
To change the criteria in your worksheets, contact Studycast Support.

Significant PVR Conclusion Threshold

The default "normal" threshold is 100 cc. Values greater than or equal to 100 cc will generate a "significant post void residual" Conclusions statement.

Abdomenal Doppler Criteria

Liver: Portal Vein PV

Decreased: < 16 cm/s
Normal: 16 - 40 cm/s
Increased: > 40 cm/s

Liver: Hepatic Artery RI

Decreased: < 0.55
Normal: 0.55 - 0.7
Elevated: > 0.7

Kidneys: R/A Ratio

Normal: < 3.5 cm/s

Kidneys: Renal Artery PSV

Normal: < 180 cm/s
Increased: >= 180 cm/s

Aorta: Abdominal Aorta PSV

Normal: 0 - 150 cm/s
Mildly Increased: 151 - 200 cm/s
Moderately Increased: 201 - 300 cm/s
Severely Increased: > 300 cm/s

ABI

ABI Calculated Fields

ABI Calculated Fields

In the ABI worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
ABI	Right and left brachial pressures, Posterior Tib pressure and Dors Pedis pressure	MAX Ankle Pressure ÷ MAX Brachial Pressure **Note:** MAX ankle pressure will use the higher pressure of the Posterior Tibial artery and Dorsalis Pedis artery. The higher of the two brachial pressures will be used.
Rest TBI	Right and left rest brachial pressure, Toe pressure	Toe Pressure ÷ Brachial Pressure **Note:** If acquiring pressures for Great toe, 2nd toe, etc, TBIs will calculate individually for each toe using pressure acquired in that toe. The higher of the two brachial pressures will be used.

Arterial LE

Arterial LE Calculated Fields

In the Arterial LE worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

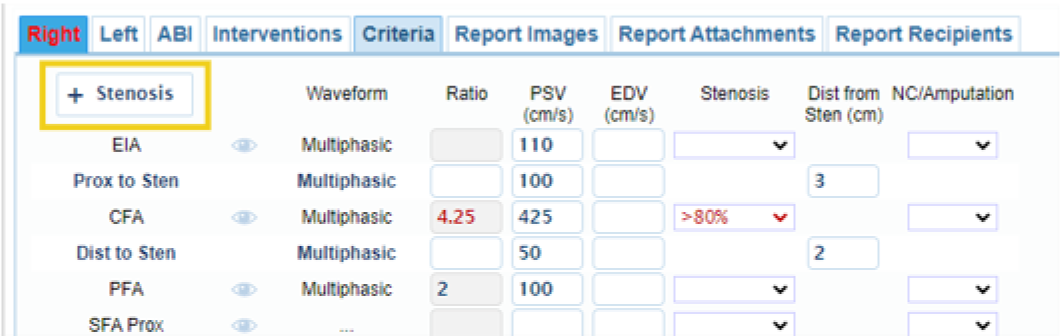
Field	Source Values	Calculation Logic
Arterial Ratio	Arterial PSV values	PSV ÷ PSV of Proximal segment
Graft Ratio	Graft PSV Values within same graft	PSV ÷ PSV of Proximal segment
Stent Ratio	Stent PSV Values within same stent	PSV ÷ PSV of Proximal segment
Atherectomy Ratio	Atherectomy PSV Values within same Atherectomy	PSV ÷ PSV of Proximal segment
Balloon Angioplasty Ratio	Balloon Angioplasty PSV Values within same Balloon Angioplasty	PSV ÷ PSV of Proximal segment

Add Stenosis

The Arterial LE and Abdominal Aorta worksheets in Studycast enable users to quickly document velocities proximal and distal to stenosis with the click of a button.

Adding Pre and Post Stenosis Velocities

The study types with support for this feature each have a **+ Stenosis** button, located in the top left of the measurements and observations section of the worksheet.



To document pre and post stenosis velocities:

1. Click the **+ Stenosis** button.

2. Once clicked, you will be prompted to select the vessel or vessels in which the stenosis occurs. Select the appropriate vessel(s) and click **Submit**.

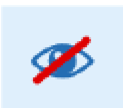
3. You will now see proximal and distal fields (**Prox to Sten** and **Dist to Sten**) above and below the vessel(s) which contain the stenosis. Use these fields to document the velocities and distance from stenosis, as well as the ratio, if desired.

Not Visualized Vessels

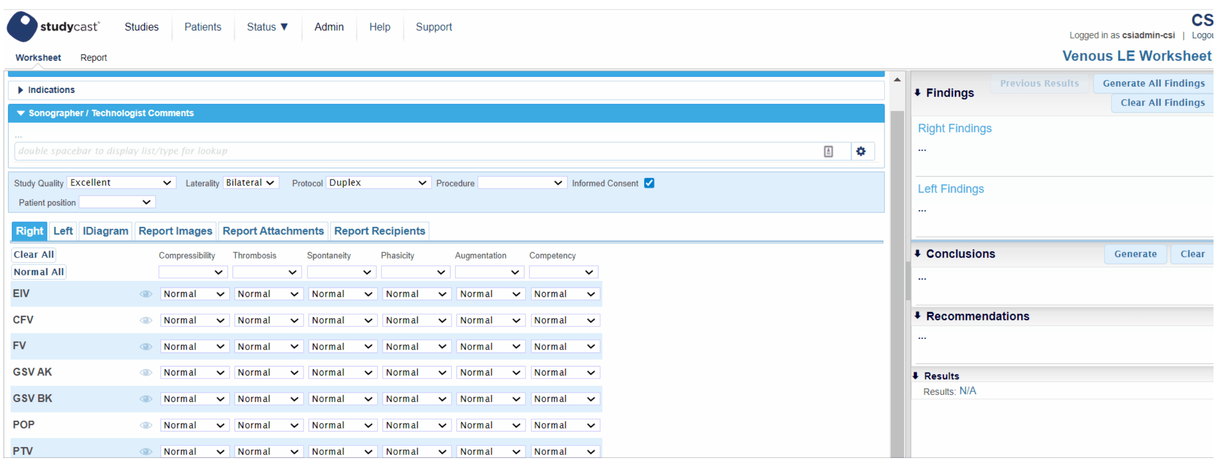
The Venous LE, Arterial LE, and Abdominal Aorta worksheets provide users with an easy method to mark vessels as “not visualized”. This functionality can be used to indicate that a vessel was looked for but was not visualized.

Note: “Not visualized” should not be used in the same capacity as an “inconclusive” result. Please use the observations dropdown fields to mark vessels “inconclusive”.

To use this feature, navigate to any of the supported worksheets and find the eye icon, which is located to the right of the vessel label.
This icon toggles between two states, which are shown in the table below.

Icon	State	Description
	inactive	When the icon is inactive, it has no impact whatsoever on your worksheet or report. This is the state you will see by default in the worksheet.
	active	When the icon is active, it indicates that the vessel was looked for, but was not visualized. It will lock the row of observations for the designated vessel, and will be reflected in the Findings statements, as well as the study report.

The eye icon will default to an inactive state.



Marking a vessel as “not visualized”:

Click on the inactive eye icon (). The icon will now be in an active state (). This will clear and lock the entire row of observations (dropdowns) for the vessel.

To see this reflected in your **Findings** statements, click **Generate All Findings**. The statements will now reflect that the vessel was not visualized.

In the study report, vessels marked “not visualized” will now appear in the observations and measurements table as **N.V.** or **Not visualized**.

LEFT

	Compressibility	Thrombosis	Spontaneity	Phasicity	Augmentation	Competency	Reflux Time (s)	AP (mm)	PV (cm/s)
CIV	Not visualized	Not visualized	Not visualized	Not visualized	Not visualized	Not visualized	N.V.	N.V.	N.V.
IIV						Absent	777	555	111

To remove a vessel's status of "not visualized":

Click on the active eye icon ( ). It will now be in an inactive state ( ), and the row of observations will no longer be locked.

To see this reflected in your **Findings** statements, click **Generate All Findings**. The statements will no longer reflect that the vessel was marked "not visualized".

Arterial UE

Arterial UE Calculated Fields

In the Arterial UE worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
WBI	Right and left brachial pressures, Radial and ulnar Pressure	MAX Wrist Pressure ÷ MAX Brachial Pressure
DBI	Right and left rest brachial pressure, Toe pressure	Digit Pressure ÷ MAX Brachial Pressure **Note:** If acquiring pressures for 1st digit, 2nd digit, etc, DBIs will calculate individually for each digit using pressure acquired in that digit. The higher of the two brachial pressures will be used.

Arterial UE Criteria

The criteria listed below are set by default for the Arterial UE worksheet. However, you can choose to use a different set of criteria, or you can define custom criteria.
To change the criteria in your worksheets, contact Studycast Support.

WBI

Normal: ≥ 1.0
Mild: 0.8 - 0.9999
Moderate: 0.5 - 0.7999
Severe: 0.3 - 0.4999
Critical: < 0.3

DBI

Normal DBI value: ≥ 0.8
Abnormal DBI value: < 0.8

Cardiac Rhythm Abbreviations

Across worksheets, cardiac rhythm is documented with a drop-down list. The abbreviations in these lists can be interpreted as follows:

Abbreviation	Meaning
NSR	Normal sinus rhythm
SB	Sinus bradycardia
ST	Sinus tachycardia
SA	Sinus arrhythmia
AT	Atrial tachycardia
MAT	Multifocal atrial tachycardia
AF	Atrial fibrillation
AFL	Atrial flutter
AFRR	Atrial fibrillation with rapid ventricular response
AFLRR	Atrial flutter with rapid ventricular response
JR	Junctional rhythm
AJR	Accelerated junctional rhythm
IVR	Idioventricular rhythm
VT	Ventricular tachycardia
VBIG	Ventricular bigeminy
VTRI	Ventricular trigeminy
SRSV	Sinus rhythm with single PVCS
SRSA	Sinus rhythm with single PACS
RRO	Regular rhythm, undetermined origin
SVT	Supraventricular tachycardia

SSS	Sick sinus syndrome
PVC	Premature ventricular complex
NPACE	Normal pacemaker rhythm
PACEFC	Pacemaker failure to capture
PACEFP	Pacemaker failure to pace
NR	Not readable

Carotid

[Carotid Calculated Fields](#)
[Carotid Criteria](#)

Carotid Calculated Fields

In the Carotid worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
ICA/CCA PSV Ratio	One ICA PSV and one CCA PSV per laterality. Select list indicates which value.	ICA PSV ÷ CCA PSV **Note:** Studycast uses ICA PSV and CCA PSV by default, but you can specify a different segment in to be used in your worksheet preferences.
ICA/CCA EDV Ratio	One ICA EDV and one CCA EDV per laterality. Select list indicates which value.	ICA EDV ÷ CCA EDV **Note:** Studycast uses ICA EDV and CCA EDV by default, but you can specify a different segment in to be used in your worksheet preferences.
Stent Ratio	Stent PSV values within same stent	PSV ÷ PSV of proximal segment
Endarterectomy Ratio	Endarterectomy PSV values within same Endarterectomy	PSV ÷ PSV of proximal segment

Carotid Criteria

By default, the Carotid worksheet uses the Mayo Clinic criteria. However, you can choose to use a different set of criteria, such as those listed below, or you can define custom criteria.

To change the criteria in your worksheets, [contact Studycast Support](#).

Mayo Clinic (Default Criteria)

Grant et al, RSNA, 2003. Gocke, MIIT, 2004

	Primary Parameters		Additional Parameters	
Degree of Stenosis (%)	PSV (cm/s)	Visual Plaque Estimate (w/Doppler) (%)	ICA/CCA PSV Ratio	EDV (cm/s)
Normal		Normal IMT, No plaque		
Minimal		Increased IMT>0.10 cm		<40
1-15%	<125	Mild	<1.6	<40
16-49%	<125	Moderate	<1.8	<40
50-69%	125-230	>=50%	2.0-4.0	40-99
>=70%	>=230	>50%	>4.0	100-140
80-99%	>=230	Marked lumen narrowing		>140
Near Occlusion	Low, undetectable	Marked lumen narrowing		
Total Occlusion	Undetectable	No lumen, no flow		

Radiology Consensus

Consensus of Society of Radiologists in Ultrasound, 2003

	Primary Parameters		Additional Parameters	
Degree of Stenosis (%)	**PSV (cm/s)**	**Visual Plaque Estimate (w/Doppler) (%)**	**ICA/CCA PSV Ratio**	**EDV (cm/s)**
Normal	<125	No plaque	<2.0	<40
<50%	<125	<50	<2.0	<40
50-69%	125-230	>=50	2.0-4.0	40-100
>=70%	>230	>=50	>4.0	>100
Near Occlusion	High, low, or undetectable	Visible	Variable	Variable
Total Occlusion	Undetectable	Visible plaque, no detectable lumen	NA	NA

Washington

University of Washington, 1987

	Primary Parameters		Additional Parameters
Degree of Stenosis (%)	**PSV (cm/s)**	**Visual Plaque Estimate (w/Doppler) (%)**	**ICA/CCA PSV Ratio**
Normal		Normal IMT, No plaque	<1.6
1-15%	<125	Increased IMT, mild plaque	<1.6
16-49%	<125	Moderate plaque	1.8-2.0
50-79%	125-135	>=50% lumen narrowing	2.0-4.0
80-99%	>=135	Marked lumen narrowing	>4.0
Near Occlusion	Low, detectable	String sign	
Total Occlusion	Undetectable	No lumen, no flow	

Cardiac MRI

Cardiac MRI Calculated Fields

Cardiac MRI Calculated Fields

In the Cardiac MRI worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
Max APHR	Age	(220 – Age)
90% of Max APHR (Target)	Max APHR	(Max APHR * 0.9)
% of Max	Max APHR Max Achieved	(Max Achieved ÷ Max APHR) * 100
% of Target APHR	90% of Max APHR Max Achieved	(Max Achieved ÷ 90% of Max APHR) * 100
Duke Treadmill Score	Duration (min:sec) from Exercise section Max ST Deviation Angina Scale (0, 1, or 2)	Duration – (5 * Max St Deviation) – (4 * Angina Scale)
METs	Last grade and speed with a BP or HR entry	(HC + VC + 3.5) ÷ 3.5 HC = (Speed * 26.8 * 0.1) VC = [Speed * 26.8 * 1.8 * (Grade ÷ 100)] **Note**: METs will only be calculated for the following

Field	Source Values	Calculation Logic
		test types: Exercise Treadmill, Adenosine with Treadmill, or Regadenoson with Treadmill. The calculation will use the HR and BP from the last stage in which all values are documented.
Double Product	Heart Rate (HR) Systolic Blood Pressure (SBP) from last stage with both entered (not Rest)	HR * SBP

CIMT

[Calculating Vascular Age](#)

Calculating Vascular Age

The CIMT worksheet automatically calculates the patient's vascular age based on "Use of Carotid Ultrasound to Identify Subclinical Vascular Disease and Evaluate Cardiovascular Disease Risk: A Consensus Statement from the American Society of Echocardiography Carotid Intima-Media Thickness Task Force, Endorsed by the Society for Vascular Medicine." (James H. Stein, MD, FASE, et al, 2008)

For the vascular age to be calculated, the following fields must be populated:

- Patient's age
- Patient's gender
- Patient's race
- Mean or Max CIMT for the left distal CCA (dependent on applicable study data set)
- Mean or Max CIMT for the right distal CCA (dependent on applicable study data set)

If the patient's demographics fall within the ranges for any of the studies listed below, and the patient's relevant CIMT falls within the study's data set, the vascular age is calculated.

Race	Age	Study Data Set Used to Calculate Vascular Age
Black White	>=25 and <=40	Bogalusa
	>40 and <45	AXA
	>=45 and <=65	ARIC
	>65 and <=84	MEDA
	>84 and <=110	CHS
Asian Hispanic or Latino	>=45 and <=84	MESA
Independent of race, if none of the above conditions is met	>=30 and <=65	AXA
	>65 and <=110	CHS

If the patient does not meet any of these criteria, the vascular age is not calculated.

If a patient meets the criteria for more than one study, the more reliable study is used. For example, for a 45-year-old white male, both the ARIC study and AXA study could be used. However, the ARIC study was found to be more reliable. Therefore, in this case, the ARIC study is used to calculate the patient's vascular age.

Vascular age is calculated based on the higher of the left and right distal CCA percentile. When ARIC, MESA, and AXA are used, the vascular age is based on the **mean** CCA distal value. When Bogalusa and CHS are used, the vascular age is based on the **max** CCA distal value. The average of the mean or max CCA distal right and left values is never used because it could inaccurately indicate a lower risk.

Some study data sets provide values only for specific ages. When these studies are used, if the patient's relevant CIMT value falls between the 50^{th} percentile values for two adjacent ages, the vascular age is calculated based on where it falls in the range between the two 50^{th} percentile values.

For cases in which the study data set provides values for age ranges, if the relevant CIMT value falls on the 50^{th} percentile for an age range, the mean age for that range is selected as the vascular age. If the relevant CIMT falls between the 50^{th} percentile values for two adjacent age ranges, the vascular age will be either the upper bound of the lower age range or the lower bound of the higher age range, depending on which is closer to the mean CIMT value.

Echo

[Echo Calculated Fields](#)
[Studycast Advisor for Echo](#)
[Pediatric Z-Scores](#)

Echo Calculated Fields

In the Echo worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed. For values that can be calculated using multiple methods, the Priority column indicates the order in which those methods are applied.

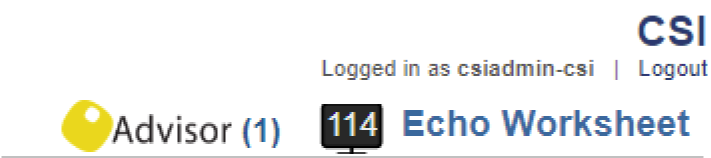
Field	Source Values	Priority	Calculation Logic
AV Index	LOVT Pk Vel AV Pk Vel		LVOT Pk Vel ÷ AV Pk Vel
AVA (Vmax)	LVOT Diam LOVT Pk Vel AV Pk Vel		[Pi × (LVOT Diam ÷ 2)^2 × LOVT Pk Vel] ÷ AV Pk Vel
AVA (VTI)	LVOT Diam LVOT VTI AV VTI		[Pi × (LVOT Diam ÷ 2)^2 × LVOT VTI] ÷ AV VTI **Note:** All units measured in cm.
EF	EDV ESV	LVEDV (BIPLANE) & LVESV (BIPLANE) LVEDV & LVESV LVIDd & LVIDs LVIDd (Mm) & LVIDs (Mm)	[(EDV-ESV) ÷ EDV] × 100 **Note:** For the last two priority sets, dimensions are converted to volume, as follows: EDV = [7 ÷ (2.4 + LVIDd)] × LVIDd^3 ESV = [7 ÷ (2.4 + LVIDs)] × LVIDs
LA / Ao	LA AoD	2D M-mode	LA ÷ AoD
Lateral E/e'	MV Pk E Vel Lateral e'		MV Pk E Vel ÷ Lateral e'
LV FS (mid-wall)	LVIDd LVIDs	2D M-mode	[(LVIDd - LVIDs) ÷ LVIDd] × 100
LV Mass	LVIDd LVPWd	M-mode 2D	[0.8 × (1.04 × [(LVIDd + LVPWd + IVSd)^3 - LVIDd^3])] + 0.6

Field	Source Values	Priority	Calculation Logic
	IVSd		
LV Mass (AL)	LV Area Endo D LV Area Epi D LV Length D		1.05 × [5/6(LV Area Epi D × LengthEpi) - (LV Area Endo D × LV Length D)] LengthEpi = LV Area Epi D × [LV Length D + √(LV Area Epi D ÷ Pi) - √(LV Area Endo D ÷ Pi)]
LVCI	LVCO BSA		LVCO ÷ BSA
LVCO	Heart rate LVSV		(LVSV × Heart rate) ÷ 1000
LVOT CO	LVOT SV Heart rate		(LVOT SV × Heart rate) ÷ 1000
LVOT SV	LVOT VTI LVOT Diam		Pi × (LVOT Diam ÷ 2)^2 × (LVOT VTI)
LVRWT	LVPWd LVIDd	2D M-mode	(2 × LVPWd) ÷ LVIDd
LVSV	LVEDV LVESV	2D M-mode	LVEDV (BIPLANE) - LVESV (BIPLANE) OR LVEDV - LVESV
MV E/A Ratio	MV Pk A Vel MV Pk E Vel		MV Pk E Vel ÷ MV Pk A Vel
MV E/e'	MV Pk E Vel Lateral e' Septal e'		(2 × MV Pk E Vel) ÷ (Septal e' + Lateral e')
MVA	MV PHT		220 ÷ MV PHT
RV FAC	RV Area ED RV Area ES		100 × (RV Area ED - RV Area ES) ÷ RV Area ED
RVSP	TR Pk Vel RAP		4(V)^2 + RAP V= TR Pk Vel in units m/s
Septal E/e'	MV Pk E Vel Septal e'		(MV Pk E Vel) ÷ Septal e'

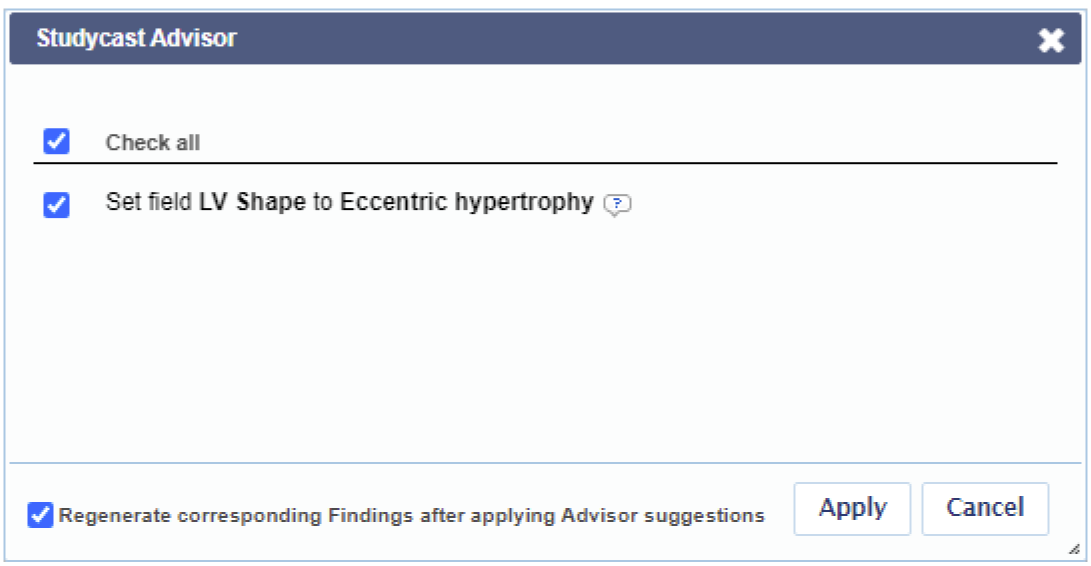
Studycast Advisor | Echo

In the Echo worksheet, the Studycast Advisor provides helpful recommendations for setting observations when key measurements fall outside the acceptable ranges defined by published criteria.

When the Advisor has recommendations, the indicator in the top right corner is illuminated and the number of recommendations is displayed.



To view the recommendations, click the **Advisor** indicator.

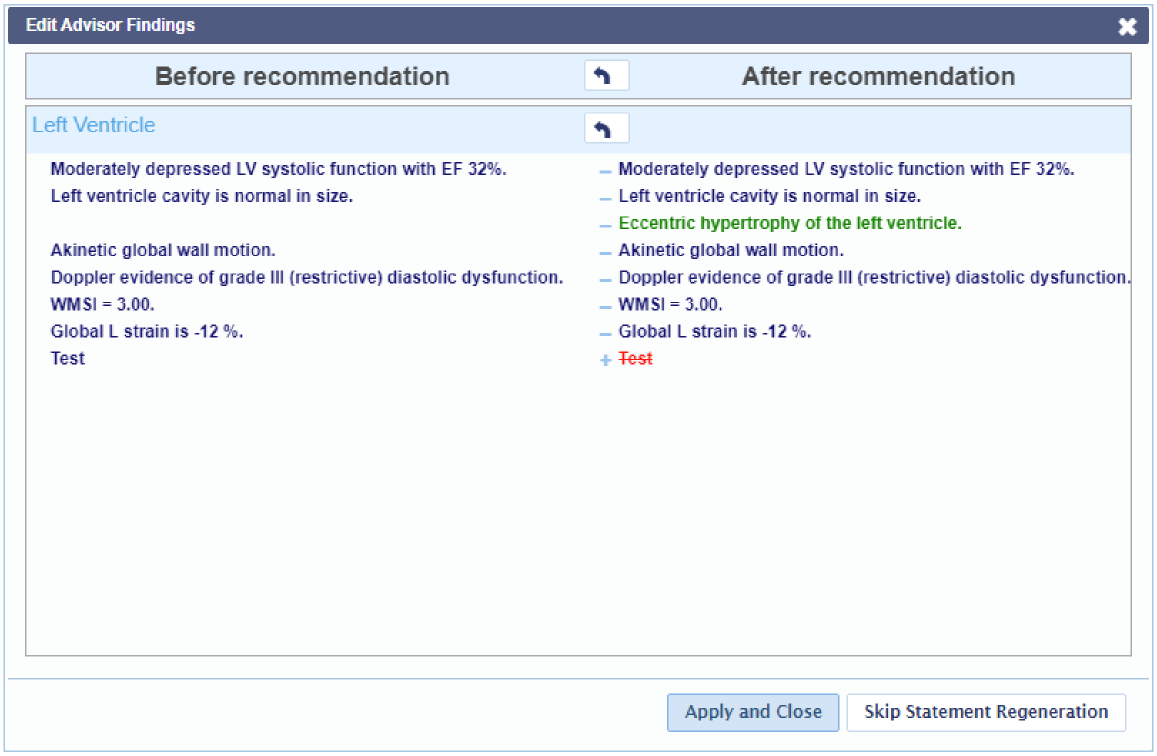


In the **Studycast Advisor** window, all recommendations are selected by default. Uncheck the box for any recommendation you do not want to apply.

For information about the published guidelines used for a recommendation, roll the cursor over the question mark icon.

When you click **Apply**, the relevant worksheet observations are updated based on the selected recommendations.

If, prior to opening Studycast Advisor, free text findings have been added in the relevant findings section, the **Edit Advisor Findings** window will open. This window allows you to edit individual findings statements impacted by the Advisor recommendations.



The **After recommendation** column shows how findings will appear if you choose to apply the recommendations.

- Statements that appear in **red** will be removed if the recommendations are applied.
- Statements appearing in **blue** will not be impacted by the recommendations, and will remain the same after the recommendations are applied.
- Statements appearing in **green** will be the new statements added based on the recommendations, if you choose to apply them.

To prevent an individual findings statement from being replaced, click the plus sign (**+**) next to the statement. The statement changes from red to blue.

If you click the plus (**+**) and wish to revert back to the original recommended state, click the **undo** button.

To regenerate all findings based on the Advisor recommendations, click **Apply and Close**.

If you do not want the findings to be regenerated based on the Advisor recommendations, click **Skip Statement Regeneration**.

Note: The Advisor can be disabled for one or all divisions for your facility. To disable the Advisor, contact Studycast Support.

Pediatric Z-Scores

In the Echo worksheet, the Pediatric protocol includes z-scores, which are calculated automatically. These values update automatically when the source values are changed.

Note: Some of the fields in the table below can be configured to use an alternate source. If you would like to personalize your worksheet configuration, contact Studycast support.

Field	Tab	Default Source	Other Source Available
LA (Mm) Z-Score	Atria	M-mode Z-Scores (C Kampmann, C Wiethoff, A Wenzel, et. al.)	None
LAs (A4C) Z-Score	Atria	Boston **Group:** Left Atrium **Regression:** 2D LA Apical 4ch Long Axis Dimension vs BSA	Boston **Group:** Left Atrium **Regression:** 2D LA Apical 4ch Transverse Dimension vs BSA
LAs (A2C) Z-Score	Atria	Boston **Group:** Left Atrium **Regression:** 2D LA Apical 2ch Long Axis Dimension vs BSA	Boston **Group:** Left Atrium **Regression:** 2D LA Apical 2ch Anterior Posterior Dimension vs BSA
LV Mass (Mm) Z-Score	Vents	Boston **Group:** M-mode LV dimensions **Regression:** MM LV Mass (Devereux) vs BSA	None
IVSd Z-Score	Vents	Boston **Group:** 2D LV dimensions **Regression:** 2D LV End-diastolic Septal Thickness vs BSA	None

Field	Tab	Default Source	Other Source Available
IVSd (Mm) Z-Score	Vents	Boston **Group:** M-mode LV dimensions **Regression:** MM LV End-diastolic Septal Thickness vs BSA	M-mode Z-Scores (C Kampmann, C Wiethoff, A Wenzel, et. al.)
LVPWd Z-Score	Vents	Boston **Group:** 2D LV dimensions **Regression:** 2D LV End-diastolic Free Wall Thickness vs BSA	None
LVPWd (Mm) Z-Score	Vents	Boston **Group:** M-mode LV dimensions **Regression:** MM LV End-diastolic Free Wall Thickness vs BSA	M-mode Z-Scores (C Kampmann, C Wiethoff, A Wenzel, et. al.)
LVIDd Z-Score	Vents	Boston **Group:** 2D LV dimensions **Regression:** 2D LV End-diastolic Dimension vs BSA	None
LVIDd (Mm) Z-Score	Vents	Boston **Group:** M-mode LV dimensions **Regression:** MM LV End-diastolic Dimension vs BSA	M-mode Z-Scores (C Kampmann, C Wiethoff, A Wenzel, et. al.)
LVIDs Z-Score	Vents	Boston **Group:** 2D LV dimensions **Regression:** 2D LV End-systolic Dimension vs BSA	None
LVIDs (Mm) Z-Score	Vents	Boston **Group:** M-mode LV dimensions **Regression:** MM LV End-systolic Dimension vs BSA	M-mode Z-Scores (C Kampmann, C Wiethoff, A Wenzel, et. al.)
RVIDd (Mm) Z-Score	Vents	M-mode Z-Scores (C Kampmann, C Wiethoff, A Wenzel, et. al.)	None
AoD Annulus Z-Score	Grt Ves	Boston **Group:** Aorta **Regression:** Aortic annulus diameter vs BSA	Aortic Root Z-Scores (Colan SD, McElhinney DB, Crawford EC, et. al.)

Field	Tab	Default Source	Other Source Available
AoD SOV Z-Score	Grt Ves	Aortic Root Z-Scores (Colan SD, McElhinney DB, Crawford EC, et. al.)	None
AoD ST Junction Z-Score	Grt Ves	Boston **Group:** Aorta **Regression:** Aortic sinotubular junction vs BSA	None
AoD Ascending (Prox) Z-Score	Grt Ves	Boston **Group:** Aorta **Regression:** Ascending aorta diameter vs BSA	None
AoD Descending Z-Score	Grt Ves	Cardiac Structure Z-Scores (M Pettersen, W Du, M Skeens, et. al.)	None
Dist AoD Arch Z-Score	Grt Ves	Boston **Group:** Aorta **Regression:** Distal transverse aortic arch diameter vs BSA	None
PA Diameter Z-Score	Grt Ves	Boston **Group:** Pulmonary valve and arteries **Regression:** Main pulmonary artery diameter vs BSA	None
RPA Diameter Z-Score	Grt Ves	Boston **Group:** Pulmonary valve and arteries **Regression:** Right pulmonary artery diameter vs BSA	None
LPA Diameter Z-Score	Grt Ves	Boston **Group:** Pulmonary valve and arteries **Regression:** Left pulmonary artery diameter vs BSA	None
AoD Isthmus Z-Score	Grt Ves	Boston **Group:** Aorta	None

Field	Tab	Default Source	Other Source Available
		Regression: Aortic Isthmus Diameter vs BSA	
LMCA Z-Score	Cor Art	Boston **Group:** Coronary Artery **Regression:** Left main coronary diameter vs BSA	None
LAD Z-Score	Cor Art	Boston **Group:** Coronary Artery **Regression:** Proximal left anterior descending diameter vs BSA	None
RCA Z-Score	Cor Art	Boston **Group:** Coronary Artery **Regression:** Proximal right coronary diameter vs BSA	None
Cx Z-Score	Cor Art	Coronary Artery Z-Scores (Dallaire F, Dahdah N.)	None
TV Annulus Z-Score	AV Valve	Boston **Group:** Tricuspid Valve **Regression:** Tricuspid annulus diameter (4 chamber) vs BSA	Boston **Group:** Tricuspid Valve **Regression:** Tricuspid annulus diameter (2 chamber) vs BSA
MV Annulus Z-Score	AV Valve	Boston **Group:** Mitral Valve **Regression:** Mitral annulus diameter (4 chamber) vs BSA	Boston **Group:** Mitral Valve **Regression:** Mitral annulus diameter (2 chamber) vs BSA
PV Annulus Z-Score	SL Valves	Boston **Group:** Pulmonary Valve and Arteries **Regression:** Pulmonary annulus diameter vs BSA	None

Echo Vet

Echo Vet Calculated Fields

Echo Vet Calculated Fields

In the Echo Vet worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
LA / AO Sov	LA D (SAX Ao SOV	LA D (SAX) / Ao SOV
LA P-wave / AO SoV	LA P-Wave Ao SOV	LA P-Wave / Ao SOV
LAD / AVD	LA Diam S (LAX) AV Leaf Diam S	LA Diam S (LAX) / AV Leaf Diam S
LAD / AAD	LA Diam S (LAX) Ao Ann Diam D (LAX)	LA Diam S (LAX) / Ao Ann Diam D (LAX)
LA Sys Dim / AO	LA Sys Dim (Mm) Aorta (diastole)	LA Sys Dim (Mm) / Aorta (diastole)
LVPWd / LVIDd (LAX)	LVPWd (LAX) LVIDd (LAX)	LVPWd (LAX) / LVIDd (LAX)
LVPWd / LVIDd (SAX)	LVPWd (SAX) LVIDd (SAX)	LVPWd (SAX) / LVIDd (SAX)
LVPWd / LVIDd (Mm)	LVPWd (Mm) LVIDd (Mm)	LVPWd (Mm) / LVIDd (Mm)
LV D / AO	LVIDd (LAX) LVOT S Diam	LVIDd (LAX) / LVOT S Diam
MV Tei IMP	MV End-A to E LVET (Doppler)	(MV End-A to E - LVET (Doppler)) / LVET (Doppler)
TV Tei IMP	TV End-A to E RVET (Doppler)	(TV End-A to E - RVET (Doppler)) / RVET (Doppler)

Field	Source Values	Calculation Logic
RVW e'/a'	RVW e' RVW a’	RVW e' / RVW a'
PEP / LVET	AV Pre-eject Period LVET (Doppler)	AV Pre-eject Period / LVET (Doppler)
LA / AO SoV (SAX)	LA D (SAX) Ao SOV	LA D (SAX) / Ao SOV
LA / AO SoV (LAX)	LA Diam D (LAX) Ao SOV	LA Diam D (LAX) / Ao SOV
RA Diam / AV Diam S	RA Diam S (LAX) AV Leaf Diam S	RA Diam S (LAX) / AV Leaf Diam S
RA Minor S / SoV	RA Minor Dim S A4C Ao SOV	RA Minor Dim S A4C / Ao SOV
PA Ann / AO Ann D	PA Annulus D Aortic annulus D	PA Annulus D / Aortic annulus D
PEP / RVET	PV Pre-eject Period RVET (Doppler)	PV Pre-eject Period / RVET (Doppler)
PAAT / RVET	PAAT RVET (Doppler)	PAAT / RVET (Doppler)

ETT

ETT Calculated Fields

ETT Calculated Fields

In the ETT worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
Max APHR	Patient Age	220 - Patient Age
90% of Max APHR (Target) (or custom value instead of 90)	Max APHR	Max APHR × 0.9 **Note:** This calculation can be configured to use a custom value instead of 0.9.
% of Max APHR	Max APHR Max Achieved	(Max Achieved ÷ Max APHR) × 100
Duke Treadmill Score	Duration (min:sec) from Exercise section, Max ST Deviation, Angina Scale (0, 1, or 2)	Duration - (5 × Max ST Deviation) - (4 × Angina Scale)
METs	last Grade and Speed with a BP or HR entry	(hc + vc + 3.5) ÷ 3.5 hc = (speed × 26.8 × 0.1) vc = [speed × 26.8 × 1.8 × (grade ÷ 100)] **Note:** The calculation will use the HR and BP from the last stage in which all values are documented.
Double Product	Heart Rate (HR), Systolic Blood Pressure (SBP) from last stage with both entered (not Rest)	(HR) × (SBP)

Nuclear Cardiac

Nuclear Cardiac Calculated Fields

In the Nuclear Cardiac worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
Max APHR	Patient Age	220 - Patient Age
90% of Max APHR (Target) (or custom value instead of 90)	Max APHR	Max APHR × 0.9 **Note:** This calculation can be configured to use a custom value instead of 0.9.
% of Max APHR	Max APHR Max Achieved	(Max Achieved ÷ Max APHR) × 100
Duke Treadmill Score	Duration (min:sec) from Exercise section, Max ST Deviation, Angina Scale (0, 1, or 2)	Duration - (5 × Max ST Deviation) - (4 × Angina Scale)
METs	last Grade and Speed with a BP or HR entry	(hc + vc + 3.5) ÷ 3.5 hc = (speed × 26.8 × 0.1) vc = [speed × 26.8 × 1.8 × (grade ÷ 100)] **Note:** METs will only be calculated for the following test types: Exercise Treadmill, Adenosine with Treadmill, or Regadenoson with Treadmill. The calculation will use the HR and BP from the last stage in which all values are documented.

Field	Source Values	Calculation Logic
Double Product	Heart Rate (HR), Systolic Blood Pressure (SBP) from last stage with both entered (not Rest)	(HR) × (SBP)

Import Measurements

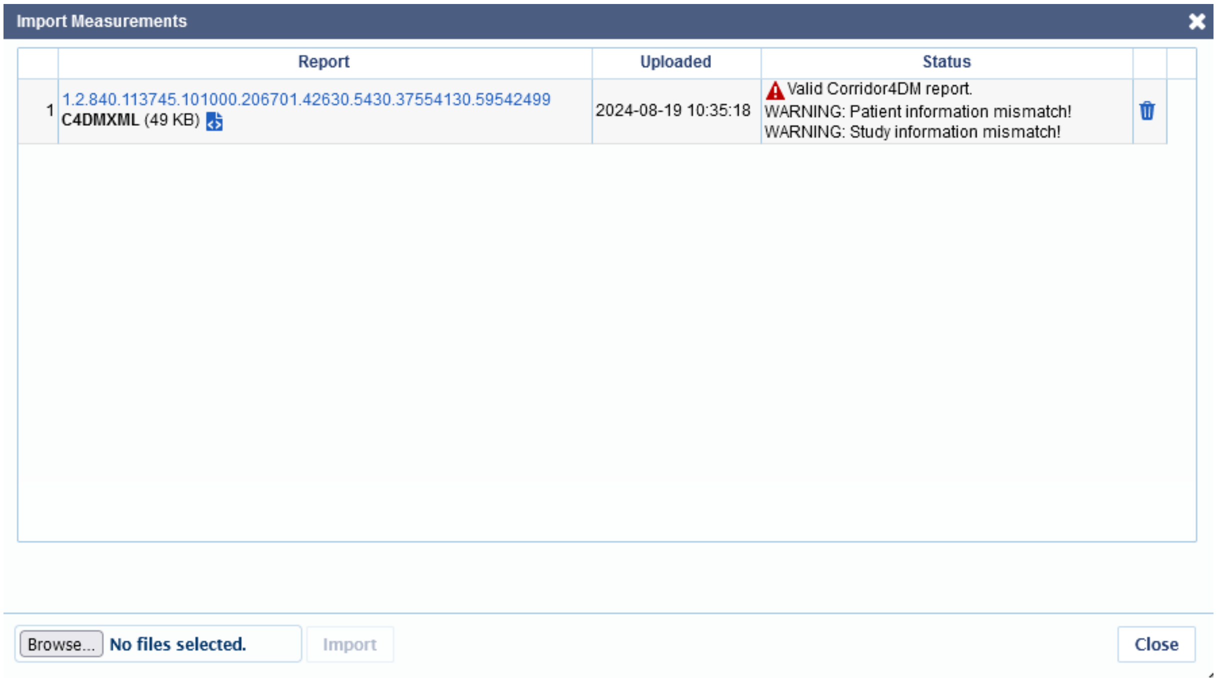
Some diagnostic testing equipment and medical imaging devices output measurement and study data in XML format. With the **Import Measurements** option, values from these files can be transferred to study fields in a Studycast worksheet.

From the worksheet, to populate measurements from a file:

1. Open the **Tools** menu in the bottom left of the worksheet and select **Import Measurements**. The **Import Measurements** window opens.
2. Click the **Browse** button in the bottom left of the **Import Measurements** window. The **File Upload** window opens.
3. Locate and select the XML file containing the measurements and click **Open**.
4. In the **Import Measurements** window, click **Import** to upload the file. The **Apply Measurements** window opens.
5. By default, Studycast checks the values received from the file and if more than one value for the same field exists, the last value received is used by default. Check the correct values for the worksheet.
6. The **Re-generate findings statements** box is checked by default. If this box is left checked, the **Edit Findings** window opens, letting users edit individual findings statements impacted by the selected measurements.
7. Click **OK** and the selected values populate the worksheet.
8. Click **Close.**

Import Measurements Window

The **Import Measurements** window has information on the measurements file.



- **Report:** The file that has the measurements. Click the file icon to open the file and view the raw data.
- **Uploaded:** The timestamp (date and time) of when the user uploaded the file.
- **Status:** Displays any warnings or data mismatch between the file and the worksheet.
- **Delete:** Click the trash can icon to open the **Confirm** window. Click **OK** to remove the file from the study. The worksheet is still populated with the measurements.

Supported Measurements by Import Type

Studycast supports importing measurements to nuclear cardiac studies using XML files from nuclear post-processing software. Not all files have the same information. The table below shows which measurements each nuclear post-processing software share.

Measurement	4DM	Cedars-SInai
LCM Calcium Score	**X**	
RCA Calcium Score	**X**	
LAD Calcium Score	**X**	

Measurement	4DM	Cedars-SInai
LCX Calcium Score	X	
LV EF Rest Meas	X	X
LV EF Stress Meas	X	X
LV Rest Volume	X	X
LV Stress Volume	X	X
Rest MBF Values	X	
Stress MBF Values	X	
Patient Position	X	X
Rest Dose	X	
Stress Dose	X	
Rest Radiopharmaceutical	X	X
Stress Radiopharmaceutical	X	X
Rest Injection Date/Time	X	
Rest Image Acquisition Date/Time	X	
Stress Injection Date/Time	X	
Stress Image Acquisition Date/Time	X	
DLP		X
CTDI		X
iDiagram – Stress Perfusion Diagram (17 segments)	X	

Measurement	4DM	Cedars-SInai
iDiagram – Rest Perfusion Diagram (17 segments)	X	

Obstetric

EDD Calculations

Obstetric Worksheet GA Tab

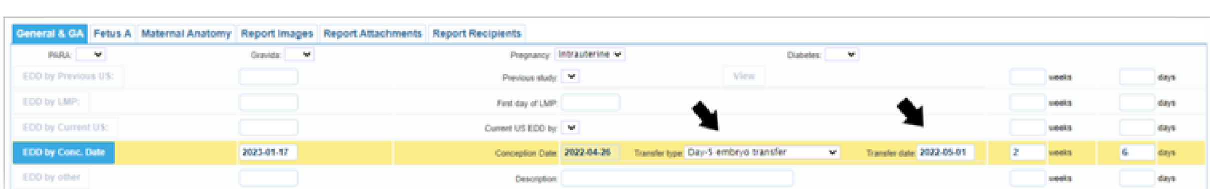
The Obstetric worksheet GA tab contains dates of previous ultrasound, last menstrual period (LMP), current ultrasound, and conception date. Estimated date of delivery (EDD) is calculated based on these values.

The highlighted EDD is considered the 'best assessment' by the user to calculate the EDD and fetal age most accurately. The EDD best assessment defaults is "EDD by LMP" but users can select a different EDD by clicking on the preferred EDD. Selection of a different EDD impacts the fetal biometry percentile calculations. Percentile calculations are based on the GA indicated by the Best Assessment.

EDD by Transfer type:

Studycast provides users with ability to document and auto-calculate Conception Date and EDD by Conception Date based on IVF and FET pregnancies.

Select from the transfer type dropdown the appropriate transfer type and enter transfer date using the pop-up calendar. Studycast automatically populates the Conception Date and EDD by Conception Date based upon the entries.



To reset the transfer type simply select "BLANK" in the transfer type dropdown. Note: User must enter both transfer type and transfer date for calculations to be performed.

EDD Transfer calculations:

- IVF with own eggs "EDD by Conception date" = Transfer date + 266 days (or 38 weeks)
- IVF with fresh donor eggs cycle "EDD by Conception date" = Transfer date + 266 days (or 38 weeks)
- Day-3 embryo transfer "EDD by Conception date" = Transfer date + 266 days (or 38 weeks) – 3 days
- Day-5 embryo transfer "EDD by Conception date" = Transfer date + 266 days (or 38 weeks) – 5 days
- Fresh donor embryos cycle "EDD by Conception date" = Transfer date + 266 days (or 38 weeks)

Obstetric References

In the Studycast system, Obstetric and Fetal Echo studies include references, which can be used to calculate values based on a selection of reference criteria.

Types of References

Each Obstetric reference in Studycast falls into one of the following categories:

- GA models
- Percentile models
- EFW models

GA Models

GA models are used to determine the estimated gestational age of the fetus and can be found in the **General & GA** and **Fetus** tabs of the worksheet.

Percentile Models

Percentile models are used to estimate the percentile of a measurement based on the gestational age.

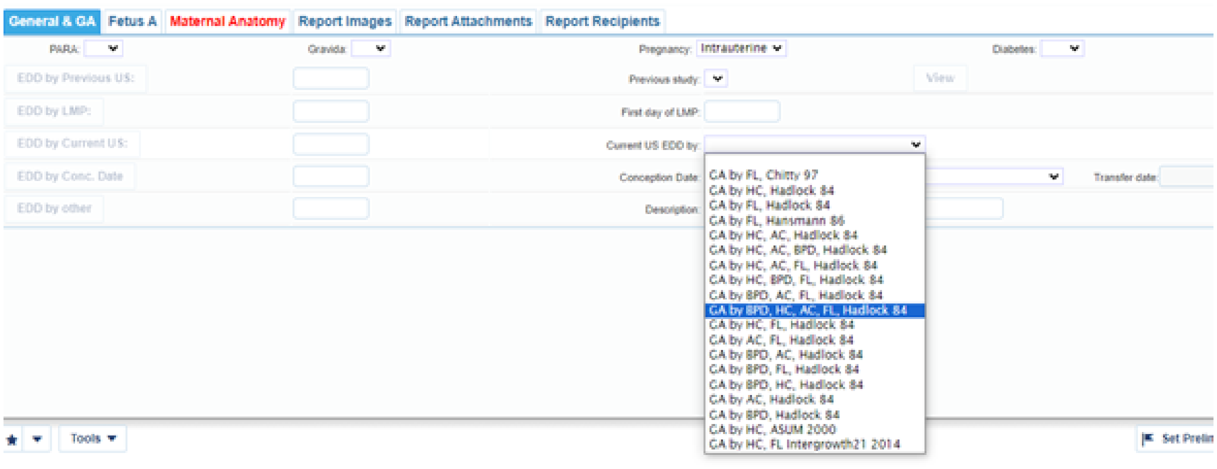
EFW Models

EFW models are used to estimate fetal weight based on a combination of biometry measurements.

Applying References

References appear in select lists within the worksheet when the criteria they depend on is present.

For example, the GA by BPD, HC, AC, FL Hadlock 84 reference is available when the BPD, HC, AC, and FL contain values within the ranges defined by that model. If values are entered within these ranges, the reference will be available to calculate the gestational age and assign an EDD based on that gestational age:



If the measurements are modified to be outside of that range (for example, changing the FL to 8), the reference will no longer be available in the select list.

Studycast Advisor | Obstetric

In the Obstetric, Fetal Echo, and Fetal Non-Stress Test worksheets, the Studycast Advisor provides helpful recommendations if the study that you are working on should be added to a case, or used to create a new case. In Studycast, using a case allows you to group studies when the belong to a single pregnancy.

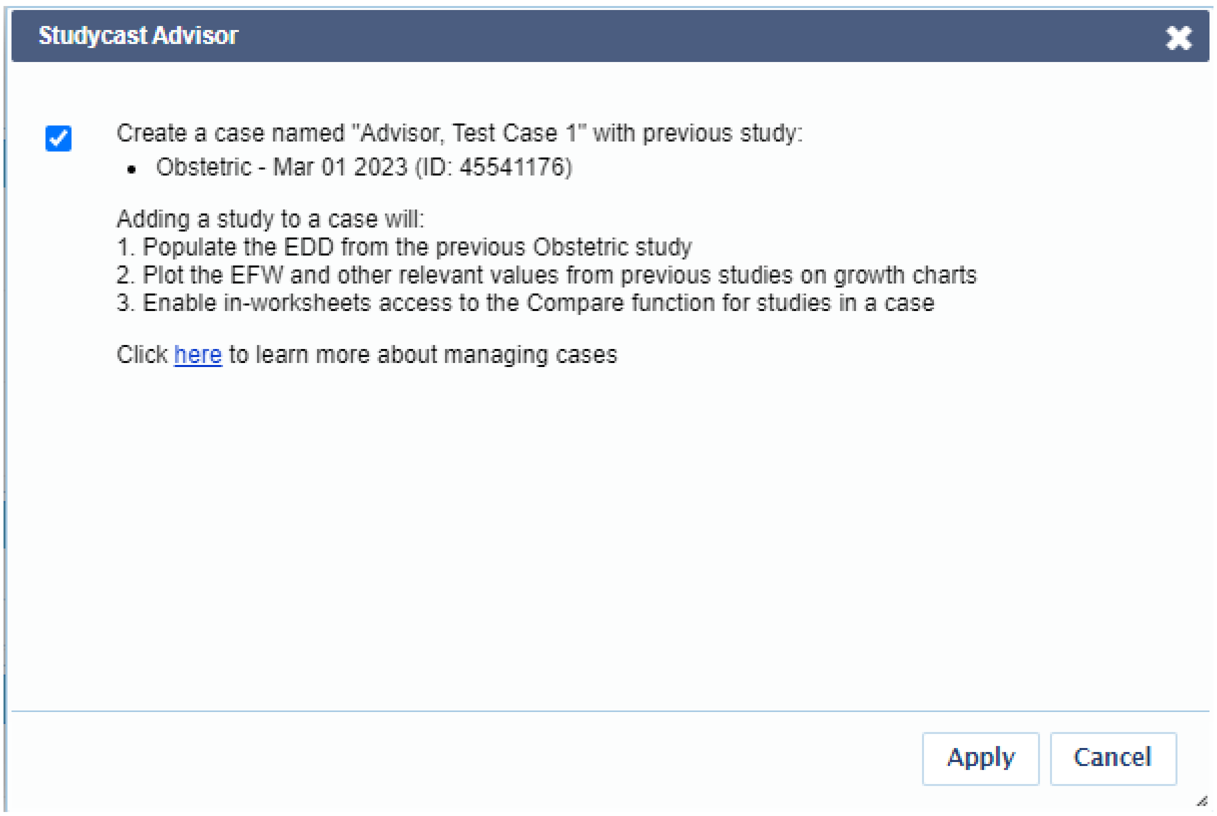
There are several benefits to creating cases. Creating a case will:

1. populate the EDD from the previous Obstetric study in the pregnancy
2. Plot the EFW and other relevant values from previous studies in a case
3. Enable in-worksheet access to the Compare function for studies in a case

When the Advisor has a recommendation, the indicator in the top right corner is illuminated and the number of recommendations is displayed.

To view the recommendations, click the **Advisor** indicator.

A **Studycast Advisor** window opens.



To accept the recommendation and add the study to a case or create a new case, select the appropriate recommendation, and click **Apply**.

If you do not want to add the study to a case or create a new case, select **Cancel**. The study will not be added.

Note: The Advisor can be disabled for one or all divisions for your facility. To disable the Advisor, contact Studycast support.

Renal Artery

[Renal Artery Calculated Fields](#)

Renal Artery Calculated Fields

In the Renal Artery worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
Resistivity Index	Cortex PSV Mean, Cortex EDV Mean	(PSV - EDV) ÷ PSV
R/A Ratio	RA PSV or Prox, Mid, Dist, Ostium RA PSV, Abd Ao PSV or Prox, Mid, Dist AbdAo PSV	MAX Renal Artery PSV ÷ MAX Aorta PSV **Note:** If using Ostium, Prox, Mid, or Dist segments in vessels, the segment with the highest PSV will be used in the calculation.

Stress Echo

Stress Echo Calculated Fields

Stress Echo Calculated Fields

In the Stress Echo worksheet, the following fields are calculated automatically. These calculated values automatically update when any of the source values are changed.

Field	Source Values	Calculation Logic
Max APHR	Patient Age	220 - Patient Age
90% of Max APHR (Target) (or custom value instead of 90)	Max APHR	Max APHR × 0.9 **Note:** This calculation can be configured to use a custom value instead of 0.9.
% of Max APHR	Max APHR Max Achieved	(Max Achieved ÷ Max APHR) × 100
Duke Treadmill Score	Duration (min:sec) from Exercise section, Max ST Deviation, Angina Scale (0, 1, or 2)	Duration - (5 × Max ST Deviation) - (4 × Angina Scale)
METs	last Grade and Speed with a BP or HR entry	(hc + vc + 3.5) ÷ 3.5 hc = (speed × 26.8 × 0.1) vc = [speed × 26.8 × 1.8 × (grade ÷ 100)] **Note:** The calculation will use the HR and BP from the last stage in which all values are documented.
Double Product	Heart Rate (HR), Systolic Blood Pressure (SBP) from last stage with both entered (not Rest)	(HR) × (SBP)

Venous LE

Venous LE Worksheet: IVC, Right and Left Tabs

Venous LE worksheet IVC, Right and Left tabs provide users with the ability to auto-select vessel observation dropdowns to "Clear" and "Normal." Users are provided with functionality to select "Clear" or "Normal" for all or a specified group of vessel observations.

Note: Applying "Clear All/ Clear Selected" or "Normal All/Normal Selected" will overwrite current vessel observation drop-down selections. Applying "Clear All/ Clear Selected" only clears observation drop-down input, vessel measurement data remains as entered. This functionality is currently not available on touch screen devices.

User functionality for Venous LE *"Clear All/ Clear Selected" and "Normal/Normal" include:*

- **Clear All Button:** Clears all observation drop-downs to BLANK
- **Clear Selected Button:** Clears the highlighted vessel observation drop-downs to BLANK
- **Normal All Button:** Selects the "Normal" observation drop-down option for all drop-downs
- **Normal Selected Button:** Selects "Normal" observation drop-down option for the highlighted vessels
- **Select rows:** To select a consecutive list of vessels left click (or regular click for Mac) and drag the cursor over the desired vessels, the selected rows will highlight in yellow. To select a non-consecutive list of vessels, hold "Ctrl" and left click to highlight the vessels; then choose "Clear Selected" or "Normal Selected" to update the Observation drop-down selection.

Venous LE Worksheet: Competency Observation set based on Reflux Time

In the Venous LE worksheet, Studycast users have the option to set competency observations, automatically, based on corresponding vessel reflux time entries. Through a Studycast configuration option, users can define normal reflux time ranges to four different vessel groups. Based on reflux time values, the competency observation is set when a vessels reflux time is entered.

Note: The user always has the option to modify the observation drop-down selections after it is set by the reflux time.

The Studycast system does include an out of the box default normal range per vessel group. These are not recommended but rather included as the default setting, based on published references.

Please have a clinical expert confirm the normal reflux time ranges and vessels groups you wish to use to ensure it is in line with facility best practices.

References used for default settings are:

- Labropoulos N, Tiongson J, Pryor L, Tassiopoulos AK, Kang SS, Ashraf Mansour M, Baker WH. Definition of venous reflux in lower-extremity veins. J Vasc Surg. 2003 Oct;38(4):793-8. doi: 10.1016/s0741-5214(03)00424-5. PMID: 14560232.
- UT Southwestern Department of Radiology – Ultrasound – Lowe Extremity Venous Insufficiency Protocol https://www.utsouthwestern.edu/education/medical-school/departments/radiology/protocols/assets/US%20Venous%20Insufficiency,%20Lower%20Extremity.pdf

Normal Reflux References - defaults:

- Group 1 (superficial veins): *Normal reflux time range 0-499 ms*
    - IVC, CIV, EIV, SFJ, GSV AK, GSV BK, AASV, PASV, SSV, ATV, PTV, PER, SPJ, Vein of Giacomini, GASTROC, SOLEAL, and Sup. Varicos
- Group 2 (deep veins): *Normal reflux time range 0-999 ms*
    - CFV, FV, PFV, and POP
- Group 3 (perforators): *Normal reflux time range 0-349 ms*
    - Perforators
- Group 4: *No default normal range provided. User must provide values to enable.*
    - Tributaries

Note: Sub-vessels inherit the parent vessel's normal range e.g., POP, POP AK, POP Fossa, and POP BK will all have the same "normal" reflux time range (example 0-999 ms). Users may customize 4 different "normal' reflux time ranges and assigned vessels to these groups.

Please contact Studycast support to enable this functionality on Venous LE.

Duplicate Vessels

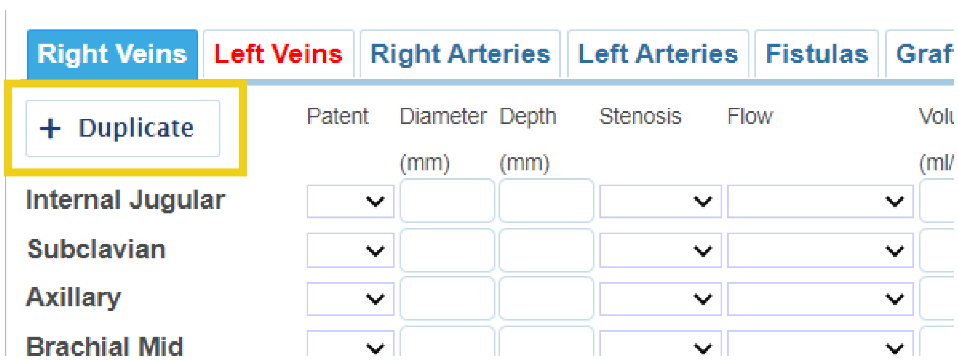
The A-V Fistula , Venous LE, Vein Mapping LE, and Vein Mapping UE worksheets provide functionality to quickly add duplicate veins and arteries for your peripheral vascular exams.

Creating Duplicate Vessels

Adding a duplicate vessel to a Studycast worksheet provides the ability to document the vessel as you would document the original, native vessel. The measurements and observations appearance on the report will mirror that of the native vessel.

To add duplicate vessels:

1. Click the **+ Duplicate** button, located at the top left of the Veins and Arteries tabs in the worksheet.



2. In the window that opens, select each vessel which requires a duplicate, and click **Submit**.

3. You will now see the newly created duplicate vessel located directly below its counterpart, with **Dup** added before the vessel label.

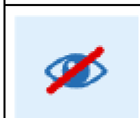
Note: If you prefer a different label than **Dup** for these vessels, or if you would like to move the position to the end of the vessel label (**Subclavian Dup**, rather than **Dup Subclavian**), [contact Studycast Support].

Not Visualized Vessels

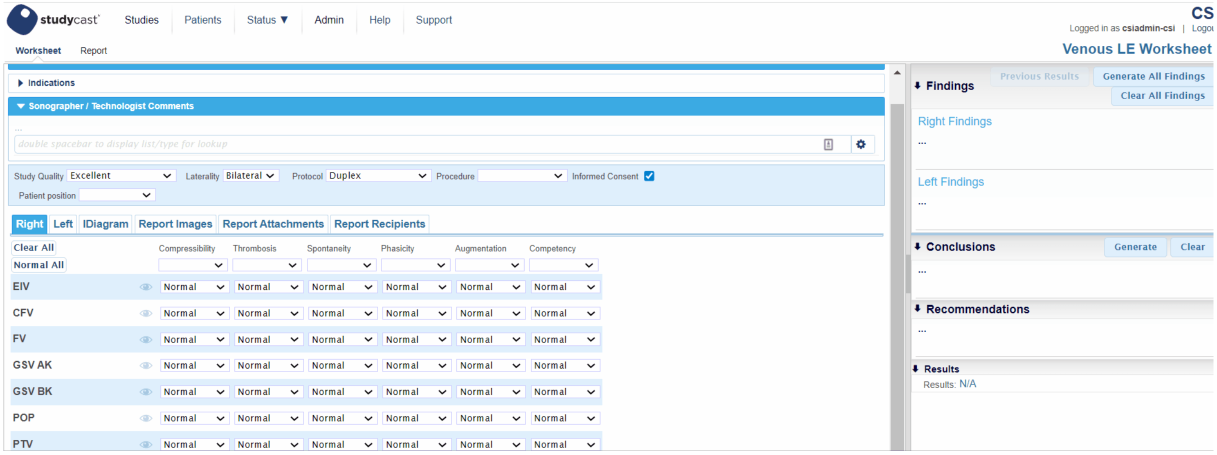
The Venous LE, Arterial LE, and Abdominal Aorta worksheets provide users with an easy method to mark vessels as “not visualized”. This functionality can be used to indicate that a vessel was looked for but was not visualized.

Note: “Not visualized” should not be used in the same capacity as an “inconclusive” result. Please use the observations drop-down fields to mark vessels “inconclusive”.

To use this feature, navigate to any of the supported worksheets and find the eye icon, which is located to the right of the vessel label.
This icon toggles between two states, which are shown in the table below.

Icon	State	Description
	inactive	When the icon is inactive, it has no impact whatsoever on your worksheet or report. This is the state you will see by default in the worksheet.
	active	When the icon is active, it indicates that the vessel was looked for, but was not visualized. It will lock the row of observations for the designated vessel, and will be reflected in the Findings statements, as well as the study report.

The eye icon will default to an inactive state.



Marking a vessel as “not visualized”:

Click on the inactive eye icon (). The icon will now be in an active state (). This will clear and lock the entire row of observations (drop-downs) for the vessel.

To see this reflected in your Findings statements, click **Generate All Findings**. The statements will now reflect that the vessel was not visualized.

In the study report, vessels marked “not visualized” will now appear in the observations and measurements table as **N.V.** or **Not visualized**.

LEFT

	Compressibility	Thrombosis	Spontaneity	Phasicity	Augmentation	Competency	Reflux Time (s)	AP (mm)	PV (cm/s)
CIV	Not visualized	Not visualized	Not visualized	Not visualized	Not visualized	Not visualized	N.V.	N.V.	N.V.
IIV						Absent	777	555	111

To remove a vessel’s status of “not visualized”:

Click on the active eye icon (). It will now be in an inactive state (), and the row of observations will no longer be locked.

To see this reflected in your Findings statements, click **Generate All Findings**. The statements will no longer reflect that the vessel was marked “not visualized”.

Manage Patient Information

Part 8

Manage Patient Information

Patients Page

The Patients page lists patients' names and demographics, as well as studies associated with each patient. Only users with the List Patients permission can view this page.

To view or modify a patient's properties, click the patient's name. For more information, see Change Patient Properties.

Search for a Patient

Using the search bar at the top of the page, you can search for patients who meet the criteria you select.

1. On the left side of the search bar, click **Select Criteria** and select an item from the list. All columns on the Patients page are available as search criteria.
2. Enter the requested information for the item you selected.
3. Select additional search criteria if needed.
4. When you are finished selecting criteria, click the **Search** button. The Patients page now lists only the patients who meet your search criteria.

Clearing Search Criteria

To remove any item from your search criteria, click the **X** next to that item.

To clear all search criteria and return to the complete list of patients, open the drop-down menu on the **Search** button and select **Reset**.

Note: If you do not reset your search, the system continues to apply the selected search criteria each time you view the Patients page. The next time you log in, the Patients page will display only those patients who meet the search criteria.

Add a New Patient Without a Study

Only admins and designated users can add new patients without a study to the Studycast system. If you do not have permission to add patients, contact your admin.

If you do have this permission, you can add a patient from the Patients page.

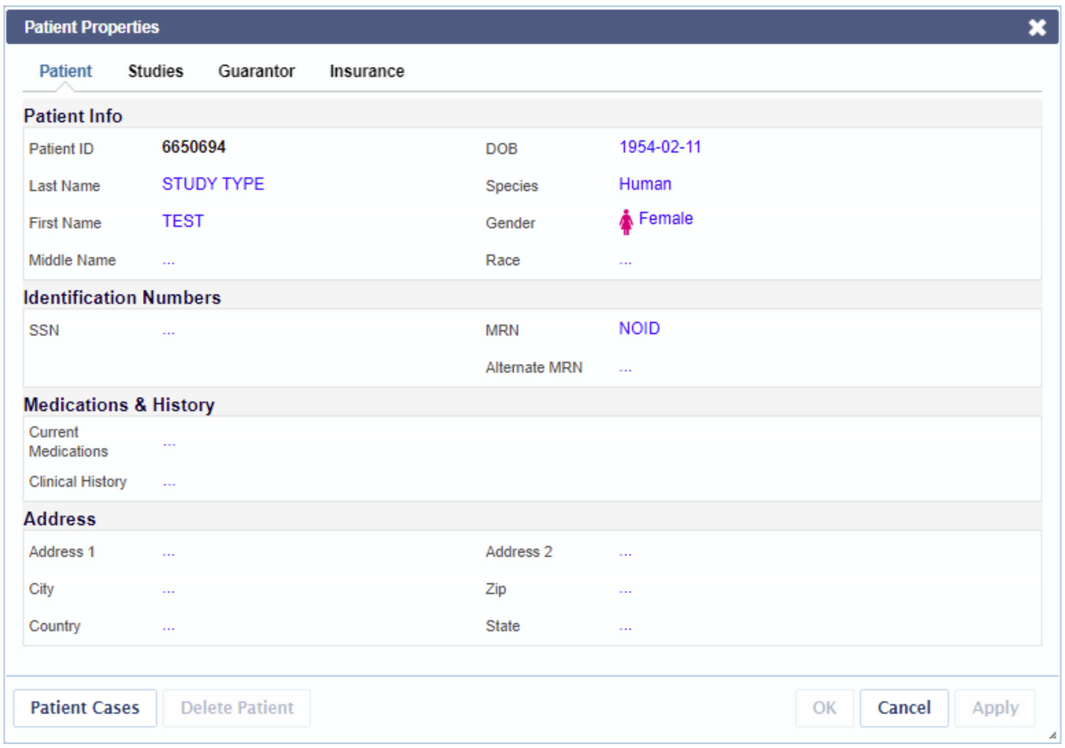
1. Click on **Patients** in the main menu at the top of the page.
2. In the bottom left corner, click on the **New Patient** button. The **Create New Patient** window opens.
3. In this window, Patient Last Name and First Name are required fields. Depending on your facility's implementation decisions, either Date of Birth (DOB) or MRN is also required. You may complete as many of the other fields as you choose.
4. When your entries are complete, click on the **OK** button. The new patient has been added.

Change Patient Properties

Only admins and designated users can change a patient's demographics or other information. To change a patient's information:

On the Studies page, Patients page, or worksheet:

1. Click the patient's name. The **Patient Properties** window opens. This window contains four tabs: Patient, Studies, Guarantor, and Insurance.



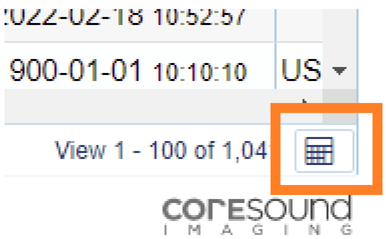
2. Some text can be edited. To edit, click the text. Empty fields display dots (**...**). Click the dots to enter text.
3. To save your changes and close the **Patient Properties** window, click **OK**.

Configure the Patients Grid

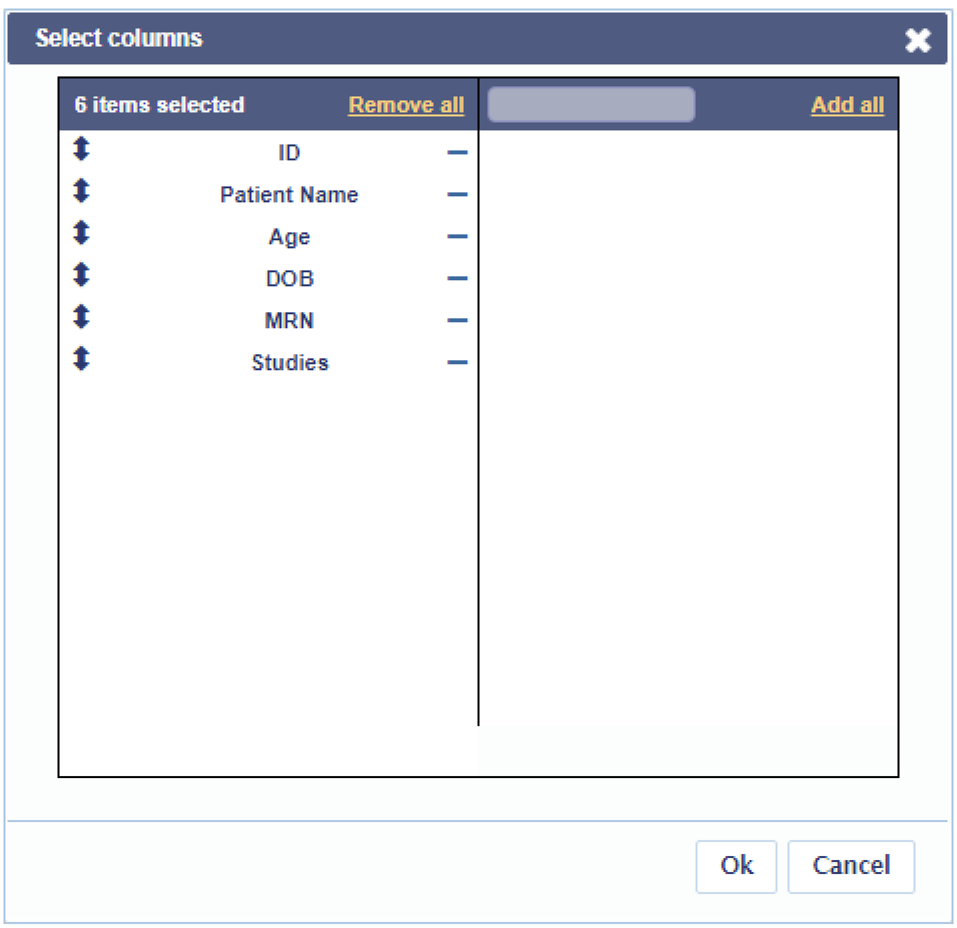
The Patients page can be configured to display only the columns that are relevant to you in whatever order you choose. Your configurations are specific to your username and do not affect other users.

To configure the Patients page:

1. Click the **Grid Setup** button in the lower right corner of the Patients page.



The **Select columns** window appears.



The left side of the window lists columns that are currently displayed in the Patients page. The right side lists columns that are not currently displayed.

- To **reorder the columns** on the Patients page, click and drag each column you would like to move to a different spot in the list.
- To **remove a column** so that it does not appear on the Patients page, click the minus sign next to that column's name in the left side of the window. Removing a column from your Patients page view does not affect the data. You can restore the column to your Patients page at any time.
- To **add a column** to your Patients page that is not currently displayed, click the plus sign next to the column name in the right side of the window. The added column appears at the bottom of the list on the left side of the window. Click and drag it to move the column to a different spot in the list.

2. Click **OK** to apply your changes and close the **Select columns** window.

Correct Name Unknown Patient

To identify a patient in uploaded study data, the Studycast system must have both the patient's name and date of birth. If the date of birth is missing, the patient's name will appear as "unknown."

To correct the name, start from the Studies page.

1. Click the study ID for the patient's study. The **Study Properties** window appears.
2. In the **Patient Info** section:
    - If the patient is not already in the system, click the **Create Patient** button to create a new patient record.
    - If the patient is in the system, click the dots (**...**) next to **Lookup Patient** and begin typing the patient's name. Matching names appear, and the list narrows as you type. Select the patient from this list.
3. Click **OK** to save the change.

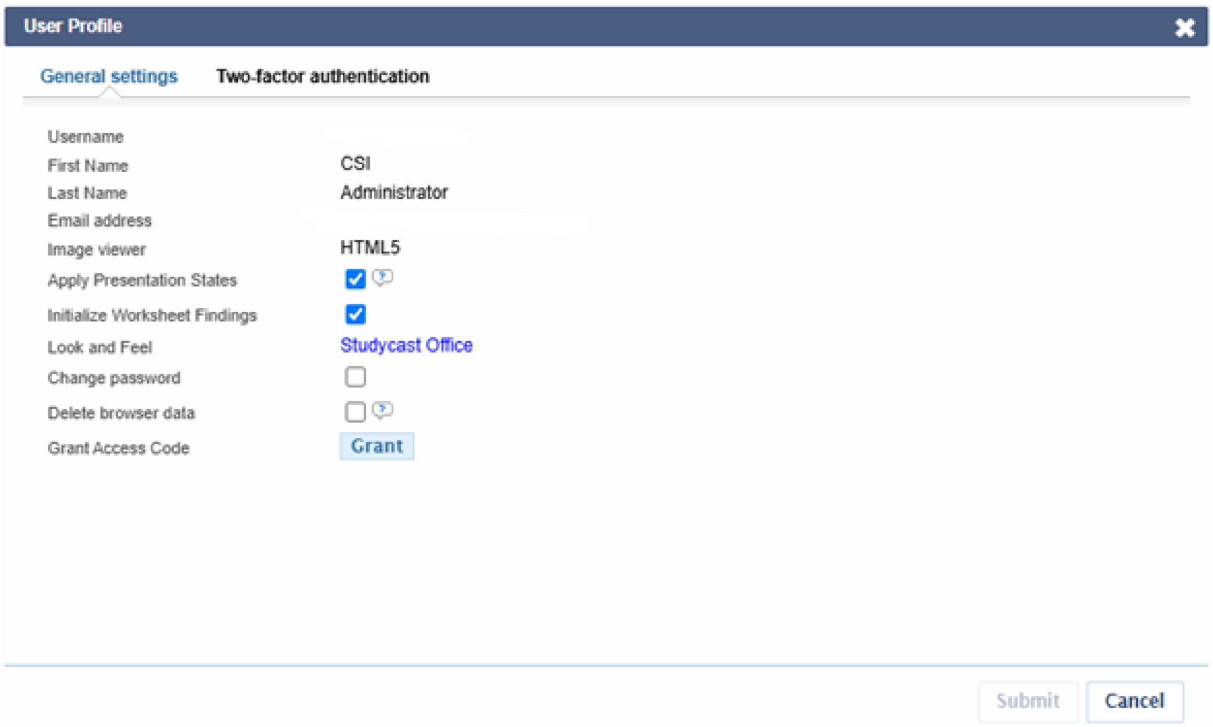
Manage Your Username and Profile

Part 9

Manage Your Username and Profile

Update Your User Profile

To update your user profile, click **Profile** in the top right of the Studies page. The **User Profile** window opens, and the **General settings** tab is selected by default.



Email address

To change the email address associated with your user profile, click the address and begin typing. Then click **Submit**.

Image viewer

The HTML5 is the default version of the viewer and provides better performance and greater compatibility across devices and operating systems.

Initialize Worksheet Findings

Uncheck this option to disable the automatic generation of Findings statements when a worksheet is first opened.

Look and Feel

Click to choose a different theme.

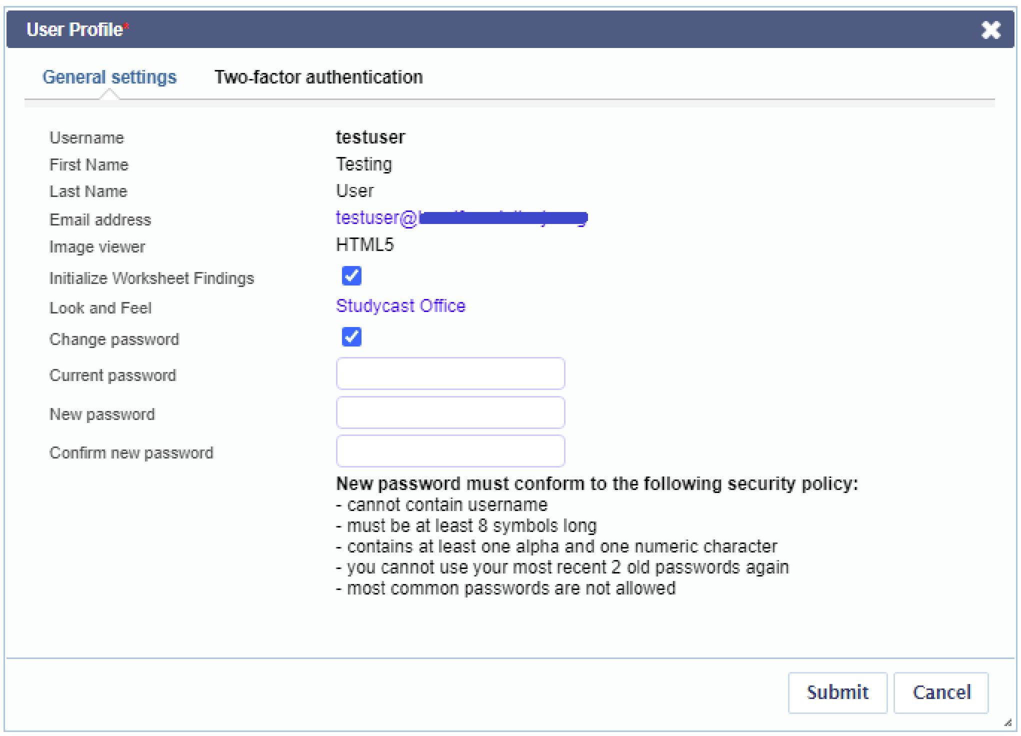
- **Office:** Designed for viewing in a typical, well lighted office setting
- **Viewing Station (dark):** Studycast dark mode / dark theme was designed for viewing in a traditional viewing station or other low-light environment

Change Password

Note: The system will not allow you to use a password that is on the list of Prohibited Passwords.

To change your password:

1. On the Studies page, click **Profile** in the top right corner.
2. In the **General settings** tab, check the **Change password** box.



3. Enter your old password. This is the password you used to log into the Studycast system today.
4. Enter a new password that conforms to the security policy listed at the bottom of the window.
5. Enter the new password a second time to confirm.
6. Click **Submit**.

Your password has been changed. Use the new password the next time you log into the Studycast system.

Delete Browser Data

When checked, Studycast platform data (including cookies, cached images and files, and settings) will be deleted upon user logout.

Two-Factor Authentication

In this tab, you can enable and set up Two-Factor Authentication (2FA), which provides additional security for your Studycast account by requiring users to enter an access code at login in addition to the username and password. For more information, see Two-Factor Authentication.

Apply Presentation States

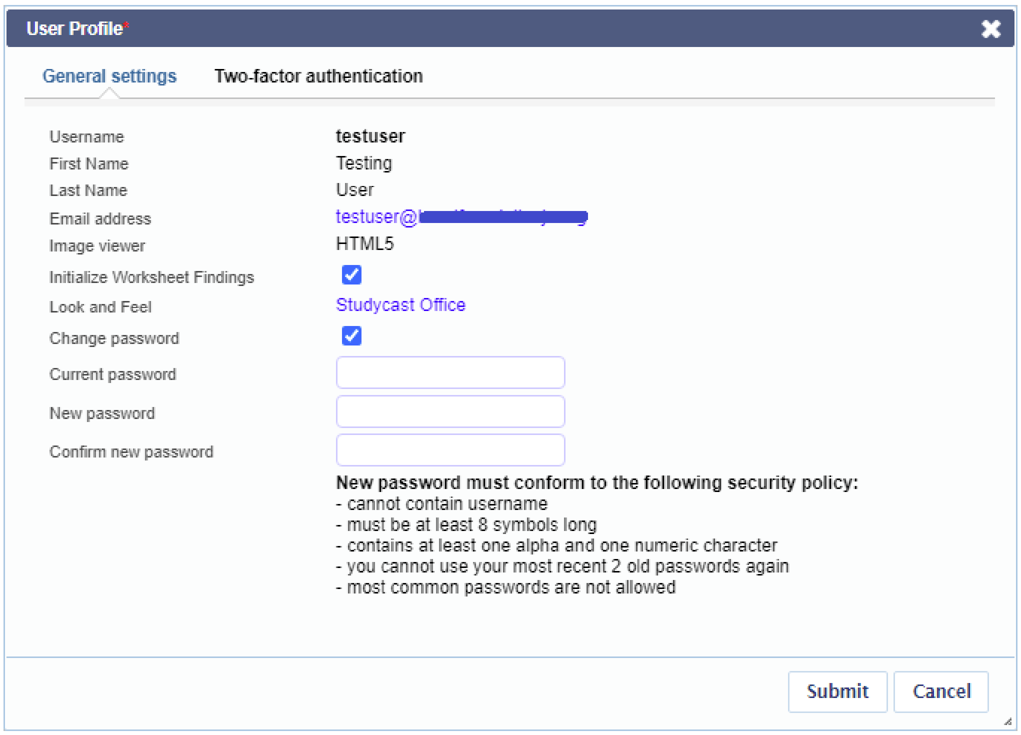
By default, presentation states display in the Viewer. Uncheck **Apply Presentation States** in a user's profile to disable displaying presentation states by default.

Change Your Password

Note: The system will not allow you to use a password that is on the list of Prohibited Passwords.

To change your password:

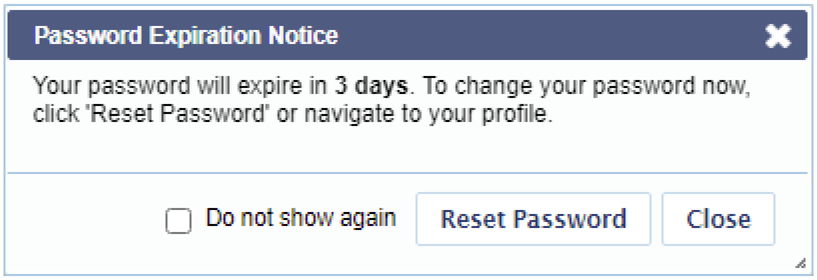
1. On the Studies page, click **Profile** in the top right corner.
2. In the **General settings** tab, check the **Change password** box.



3. Enter your old password. This is the password you used to log into the Studycast system today.
4. Enter a new password that conforms to the security policy listed at the bottom of the window.
5. Enter the new password a second time to confirm.
6. Click **Submit**.

Your password has been changed. Use the new password the next time you log into the Studycast system.

The Studycast system will remind you your password is about to expire beginning 5 days prior to your password expiration date.



To change your password immediately click **Reset Password** in the dialog or click **Close** to change at a later time.

Prohibited Passwords

For security reasons, the following common passwords are prohibited. The system will not allow you to use any of the passwords on this list.

!@#$%^&*

000000

111111

1111111

123

123123

123321

1234

12345

123456

1234567

12345678

123456789

1234567890

123456790

123qwe

18atcskd2w

1q2w3e

1q2w3e4r

1q2w3e4r5t

3rjs1la7qe

555555

654321

666666

7777777

987654321

abc123

admin

charlie

donald

dragon

football

freedom

google

hello
iloveyou
login
master
monkey
mynoob
passw0rd
password
password1
password123
princess
qazwsx
qwerty
qwerty123
qwertyuiop
starwars
sunshine
welcome
whatever
zxcvbnm

Two-Factor Authentication

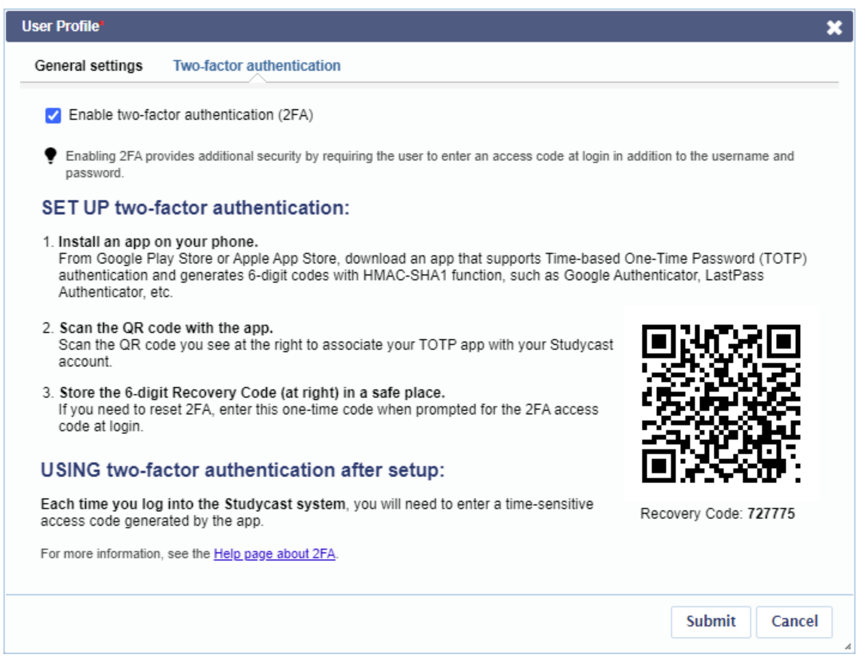
Two-Factor Authentication (2FA) provides additional security for your Studycast account by requiring users to enter an access code at login in addition to the username and password. Your Studycast admin controls the 2FA policy for your account and can choose to require it, offer each user the choice of whether to use it, or disable it for all users.

Enable and Set Up Two-Factor Authentication

If 2FA is required, or if it is allowed and you choose to use it, you will need to set it up before you can use it.

To set up 2FA:

1. Install an app on your phone or other mobile device that supports Time-based One-Time Password (TOTP) authentication and generates 6-digit access codes with HMAC-SHA1 function, such as Google Authenticator, LastPass Authenticator, etc. Keep in mind that you will use this device to generate an access code each time you log into the Studycast system.
2. Log into the Studycast system. On the **Studies** page, click **Profile** in the top right. The **User Profile** window opens.



3. In the **User Profile** window, select the **Two-factor authentication** tab.
4. Check the **Enable two-factor authentication (2FA)** box (if not already checked).

5. Scan the QR code using the app on your mobile device. Scanning the code will associate your Time-based One-Time Password (TOTP) app with your Studycast account.
6. Click the **Submit** button.
7. In the **Verify Two-factor authentication setup** window, enter the access code currently displayed in the app on your mobile device.
8. Click the **Verify** button.

Two-factor authentication is now enabled and set up. The next time you log into the Studycast system, you will need to enter the access code displayed in the app on your mobile device. The access code is time sensitive, and the app will generate a new one every 30 seconds.

Use the Recovery Code to Log In

A recovery code is displayed on the **Two-factor authentication** tab of the **User Profile** window. **Store this recovery code in a safe place.**

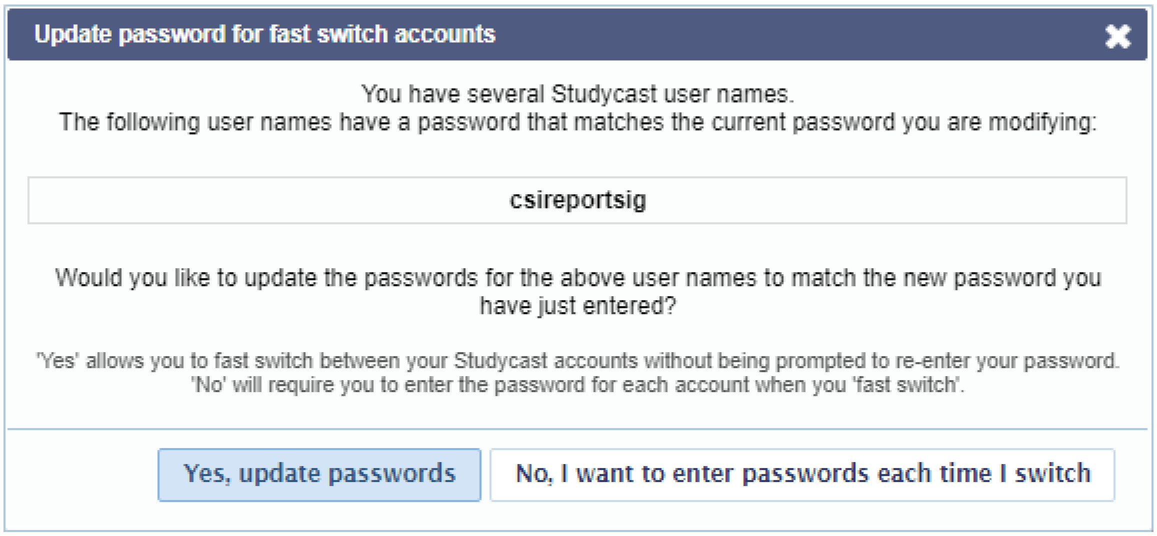
If you need to log in without the mobile device that has the authenticator app, you can use the recovery code to log in. Note that this recovery code can only be used one time. When you use it, a new QR code will be displayed in the **User Profile** window. You will need to scan this new code and follow the steps above to set up 2FA again.

After you use the recovery code, a new recovery code will also be displayed in the **User Profile** window. Be sure to store this new recovery code in a safe place.

Fast Switch

If you have multiple Studycast usernames, you can request a fast switch, which allows you to switch between your usernames without logging in again. To request a fast switch, contact Studycast support.

Your fast switch will be added to your usernames, and you will be sent a new temporary password that you can use to log in to any of your usernames. On your first login after the fast switch is created, you will be required to change the temporary password. When you change it, the **Update password for fast switch accounts** window is displayed.

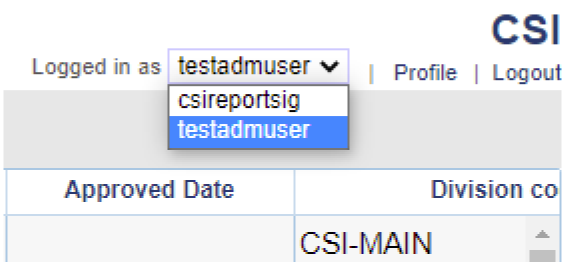


This window lists all of your usernames that are available with the fast switch and asks if you want to update the passwords for all of them. Click **Yes, update passwords**.

Note: To use your fast switch to access all of your usernames without entering a password each time you switch, you must sync the passwords for your usernames. In other words, the passwords for all of your usernames must be the same.

Using Your Fast Switch

When you log into any username with a fast switch, a drop-down list of your usernames is displayed at the top right of the Studies page. To access a different username, select from this list. There is no need to log in again.



Managing Your Fast Switch Password

For your fast switch to work, you must keep the passwords for all of your usernames in sync. The passwords for different usernames will likely expire at different times. To keep your passwords in sync, you must change them before they expire.

To change your passwords:

1. On the Studies page, click **Profile** in the top right corner.
2. In the **User Profile** window, check the **Change password** box.
3. Enter your old password. This is the password you used to log into the Studycast system today.
4. Enter a new password that conforms to the security policy listed at the bottom of the window.
5. Enter the new password a second time to confirm.
6. Click **Submit**.
7. In the **Update password for fast switch accounts** window, click **Yes, update passwords**.

If the password on one of your usernames expires, contact Studycast support to have your passwords reset.

Studycast
Integration
Program

Part 10

Studycast Integration Program

With the Studycast system, you can access a seamless integration out-of-the-box with your vendor of choice — all without a lengthy, complicated setup process. Currently, the partnerships that we support provide AI data for your studies. You can integrate with as many partners as you would like.

To view our partners, navigate to the **Integration Partners** tab under **Client Settings** in the Admin tools.

Workflow

Images acquired, uploaded to Studycast, and forwarded to vendor	→	AI vendor evaluates images and sends back new data	→	New data displayed in Studycast for review and can be accepted or rejected by user

Onboard With a Vendor

Navigate to the **Integration Partners** tab under **Client Settings** in the Admin tools. You will see all Studycast Integration Partners listed on this page. Select the vendor that you would like to integrate with. This will take you to a web page with instructions to activate your integration with this vendor.

Sending to a Vendor

Studies can be forwarded to a DICOM destination, such as a vendor or a remote archive (for example: an additional PACS or VNA at your organization). Studies can be forwarded automatically upon upload via CoreGateway TM routing rules or manually from the Studies page. For more information on DICOM forwarding, see DICOM Forward.

No additional configuration is required to manually forward studies once you have activated an integration with a vendor. If you would like your studies to forward automatically, our support team can set up rules to automatically route some, or all, of your studies to the vendor.

Worksheets and Reports

If one or more additional structured report files containing new data is received by Studycast from a vendor, you will see a notification at the bottom of the worksheet.

1. Click **Show Details** in the notification to view the measurements received from the vendor.

2. The **Apply Measurements** window opens. By default, the values received from the vendor are checked. If more than one value was received for the same measurement field, the most recently received measurement will be checked by default. Ensure that the values you would like to populate in the worksheet are checked.
3. The **Re-generate findings statements** box is checked by default. If this box is left checked, the **Edit Findings** window will open. This window allows you to edit individual findings statements impacted by the measurements that have been selected.
4. Click **OK**.
5. Selected values will populate in the worksheet.

Once the values have populated, you will see a superscript number by the value on both the worksheet and the report that corresponds with the source.

Part 11

Admin

Admins have access to a variety of tools for managing your Studycast implementation, including tools for managing individual users and groups. Admins can choose to share access to these tools with other users.

Client Settings

Edit Client Settings

General settings tab

You can edit all items on this tab except for the **Code**.

If the **Study approval** box is checked, each time a reading doctor approves a study, a confirmation window will appear if the assigned patient, reading group, or referring group has not been changed from the default.

The email address in the **Notification error contact** field will receive the Notification Error report each morning at 7:00 am if there are any notification errors, such as a fax that could not be delivered. If your Studycast account has multiple divisions and the division-level **Notification error contact** field is populated, you will need to check the **Receive for all divisions** box to receive the Notification Error report at the client level. If the box is **unchecked**, only the division contacts will receive the report.

Notifications tab

Use this tab to manage the list of users who receive notifications for administrative reports or study status changes. Notifications can be sent by email, fax, or text message (SMS). To set up notifications, you must contact Studycast Support.

Once notifications are set up, the administrator can add to the list of users who receive the notifications.

To add users:

1. In the text box, enter an email address, phone number, or SMS address, and click **Add**. To look up the correct SMS address format, see SMS Gateways.
2. When you are finished adding numbers and addresses, click **Save** at the top of the page.

To remove an item from the notifications list, click the **X** next to that item.

Client logo tab

Study reports can be customized to include a logo. A single logo can be used for all study reports, or you can use different logos for different divisions, reading groups, or referring groups.

Acceptable file formats

- .jpg/.jpeg
- .gif
- .png

To upload a custom logo for the client:

1. Click the **Select and upload new logo** button.
2. Locate and add the image file.

Security policy tab

Admins can control a number of security settings in the Studycast system. This control enables admins to align Studycast security with local policies.

Account lockout threshold: The number of consecutive failed login attempts before a user's account is locked. If set to zero, there is no limit on the number of failed login attempts. In other words, an account will not be locked regardless of the number of failed attempts.

Account lockout duration (min): The number of minutes a user's account is locked once the user reaches the failed login attempt threshold. If set to zero, a locked account will remain locked until the admin resets it.

Reset account lockout threshold: The number of minutes in which failed login attempts will trigger the account to be locked. For example, if the Account lockout threshold is 3, and Reset account lockout threshold is 30 minutes, then three failed login attempts within 30 minutes will lock the user's account. Following a failed login attempt, if the user logs in successfully or does not reach the threshold within the time set here, the lockout timer expires.

Account deactivation threshold (days): The number of days (1 to 365) without a successful login before a user's account is deactivated. The default value is 60 days.

Minimum password length: Must be at least 8.

Enforce password history: The number of most recent passwords that cannot be reused. For example, if set at 2, the user's two most recent passwords cannot be reused the next time the user changes the password.

Password strength: Select one of the three options.

Password expiration: The number of days (0 to 999) before a user's password expires and must be changed. If set to zero, passwords never expire (not recommended).

IP Address filter: To limit user access by IP address, select Enable. In the box, list the IP addresses you want to allow. Separate addresses with commas. Use these formats:

```
n.n.n.n
n.n.n.n/n
```

For example, if you enter

```
99.1.0.2, 99.15.34.2/24
```

Computers with those two addresses would be able to access the Studycast system. Other computers would not have access.

When you are finished modifying the settings, click **Save** at the top of the page.

Care Types tab

When care types are enabled, they offer users a way to categorize studies so they can be prioritized appropriately. When a care type is assigned to a study, that study will be highlighted on the Studies page after the period of time set for that care type. The counter starts as soon as the study is uploaded.

As an admin, you can create and define care types to meet physicians' and technologists' needs. For example, you might create a care type called STAT that highlights studies after 30 minutes to indicate that they should be read first.

Note: Care types are visual indicators only. They do not send email or SMS alerts to physicians or staff.

To enable and define care types:

1. Make sure the **Display Care Type column on Studies page** box is checked.
2. Enter a name, description, and alert time in hours.
3. Click **Save** at the top of the page.

Once they are enabled and defined, users can assign care types to studies on the Studies page.

Contact info tab

This tab lists contact information for your account, including your address, phone, fax, and email. The **CoreShare™ Email** field lists the email address that will appear as the contact in CoreShare messages. You can edit all fields on this tab.

Modify Security Policy

Admins can control a number of security settings in the Studycast system. This control enables admins to align Studycast security with local policies.

To modify the security settings:

1. In the main menu at the top of any page, click **Admin**. **Client settings** is selected by default.
2. Select the **Security policy** tab.

   Account lockout threshold: The number of consecutive failed login attempts before a user's account is locked. If set to zero, there is no limit on the number of failed login attempts. In other words, an account will not be locked regardless of the number of failed attempts.

   Account lockout duration (min): The number of minutes a user's account is locked once the user reaches the number of failed login attempts set for account lockout threshold. If set to zero, a locked account will remain locked until the admin resets it.

   Reset account lockout threshold: The number of minutes in which failed login attempts will trigger the account to be locked. For example, if the Account lockout threshold is 3, and Reset account lockout threshold is 30 minutes, then three failed login attempts within 30 minutes will lock the user's account. Following a failed login attempt, if the user logs in successfully or does not reach the threshold within the time set here, the lockout timer expires.

   Minimum password length: Must be at least 8.

   Enforce password history: The number of most recent passwords that cannot be reused. For example, if set at 2, the user's two most recent passwords cannot be reused the next time the user changes the password.

   Password strength: Select one of the three options.

   Password expiration: The number of days (0 to 999) before a user's password expires and must be changed. If set to zero, passwords never expire (not recommended).

   IP Address filter: To limit user access by IP address, select **Enable**. In the box, list the IP addresses you want to allow. Separate addresses with commas. Use these formats:

   ```
   n.n.n.n
   n.n.n.n/n
   ```

   For example, if you enter

   ```
   99.1.0.2, 99.15.34.2/24
   ```

   Computers with those two addresses would be able to access the Studycast system. Other computers would not have access.

   Two-Factor Authentication (2FA) Policy: Controls the client-level policy for two-factor authentication (2FA). You can choose one of these three settings.

   - **Disabled:** Users cannot use 2FA to log in
   - **Allowed:** Users have the option to turn 2FA on/off

- **Required:** Users must use 2FA to log in

For more information, see Two-Factor Authentication.

Delete Studycast platform browsing data: When checked, Studycast platform data (including cookies, cached images and files, and settings) will be deleted each time a user logs out. Check to apply to all users, and supersede the user profile setting.

When you are finished modifying the settings, click **Save** at the top of the page.

Idle Session Timeout

Users are automatically logged out if they remain inactive for 60 minutes. A warning message will appear three minutes prior to the automatic log-out so the user can save their work. To change the amount of time before user sessions time out, contact Studycast support.

Enable Care Types

When care types are enabled, they offer users a way to categorize studies so they can be prioritized appropriately. When a care type is assigned to a study, that study will be highlighted on the Studies page after the period of time set for that care type. The timer starts from the study's date of service.

As an admin, you can create and define care types to meet physicians' and technologists' needs. For example, you might create a care type called STAT that highlights studies after 30 minutes to indicate that they should be read first.

To enable and define care types:

1. Click **Admin** on any page. **Client settings** is selected by default.
2. Select the **Care Types** tab.
3. Make sure the **Display Care Type column on Studies page** box is checked.
4. Enter a name, description, and alert time in hours. The highlight color is red by default, but users can choose a different highlight color if desired.
5. Click **Save** at the top of the page.

Once they are enabled and defined, users can assign care types to studies on the Studies page.

Divisions

Manage Divisions

Divisions are an optional way to organize workflows and to define which studies admins, technologists/sonographers, and office staff can access. Divisions do not define which studies reading or referring physicians can access. Their access is based on the assignment of studies to their reading or referring group.

Two common ways of using divisions are to limit access to studies based on location or based on the technologist/sonographer.

To add or edit a division:

1. In the main menu, click **Admin**.
2. In the menu on the left, select **Divisions**.
3. **To add a division:** At the bottom of the page, click the **Add new Division** button.
   To edit a division: Find the group in the list and click the edit icon in the ID column.

You will see the same tabs and options whether you are adding or editing a division. Edits made here apply only to the selected division. Users outside the selected division are not affected.

General settings tab

In the General settings tab, **Code** and **Name** are the only required fields. The **Code** field allows a maximum of five alphanumeric characters.

All other fields are optional.

Disable reporting: If this box is checked, study reports are deactivated. Please contact Studycast Support before checking this box.

Skip New status: If checked, the study status New is not used. The Preliminary status is applied when studies are uploaded.

Skip Reviewed status: If checked, the study status Reviewed is not used. When a reading doctor approves a study, the status is changed from Preliminary to Final.

Study report logo source: Choose the logo that should be included in study reports for users in this division:

- **Division Logo Image:** Study reports will include the logo image you upload in the **Division Logo Image Tab** for this division.
- **Referring Group Logo Image:** Study reports will include the logo image you upload for each referring group in this division. For referring groups that do not have an image, study reports will include the division's logo image. For information about referring group logo images, see Manage Referring Groups.

- **Reading Group Logo Image:** Study reports will include the logo image you upload for each reading group in this division. For reading groups that do not have an image, study reports will include the division's logo image. For information about reading group logo images, see Manage Reading Groups.

Notification error contact: The email address in this field will receive the Notification Error report for the division each morning at 7:00 am if there are any notification errors, such as a fax that could not be delivered.

Notifications tab

The Studycast system can be set up to notify users automatically when studies are ready for review or are approved. Notifications can be sent by email, fax, or text message (SMS). To set up notifications, you must contact Studycast Support.

Once notifications are set up, the administrator can add to the list of users who receive the notifications.

To add a user to this list, enter an email address, phone number, or SMS address, and click **Add**. To look up the correct SMS address format, see SMS Gateways.

To remove an item from the notifications list, check the box next to that item and click **Remove Selected**.

Logo image tab

Study reports can be customized to include a logo. A single logo can be used for all study reports across all divisions, or you can use a different logo for each division, referring group, and reading group.

To upload a logo image for the division:

1. Click the **Select and upload new logo** button.
2. Locate and add the image file.

Acceptable file formats

- .jpg/.jpeg
- .gif
- .png

Users tab

On this tab you can remove users from the division.

To remove a user:

1. Uncheck the box next to that user.
2. Click **Save** at the top of the screen.

Note: To add a user to a group, you must modify the user. For instructions, see Add Users to a Group.

Users

User Types and Permissions

The Studycast system offers flexible options for creating users with different permissions.

The user types are:

- Client Admin
- Client Sonographer
- Client Staff
- Reading Doctor
- Reading Staff
- Referring Doctor
- Referring Staff

The default permissions for each user type are in the table below. However, Client Admin users can override the default settings and choose to grant or deny each permission individually for any user. This flexibility helps ensure that all users have appropriate access.

Additionally, Client Admin users can create **Permission Favorites**, which can define and save custom permission sets that Client Admins can apply to other users. To learn how to create and apply Permission Favorites, visit the Manage Users page.

Note: Grant or deny permissions individually. Users may have different permissions than the default settings listed below.

Default Permissions by User Type

Permission	Client Admin	Client Sonographer	Client Staff	Reading Doctor	Reading Staff	Referring Doctor	Referring Staff
Add attachments	X	X	X				
Admin access	X						

Amend report	X			X			
Approve study				X			
Change care type	X	X					
Change custom fields	X						
Change study status	X	X					
Change study type	X	X		X			
Change reading group	X	X					
Change referring group	X	X					
Create referring group via worksheet	X	X		X	X		
Change ordering group	X	X					
Change verifying group	X	X					
Change division	X	X					
Create study	X	X					
Define quad view	X	X		X			
Manage study	X						
Download study archive/ share study	X						
Change study date	X						
Limited access admin							
List patients	X						
List studies	X	X	X	X	X	X	X
Manage cases	X	X		X			
Modify patient	X						
Modify study worksheet	X	X		X	X		
Preset Favorites: Manage	X						
Preset Favorites: Create	X	X		X	X		

Reset study status	X						
View private attachments	X	X	X	X	X		
Delete private study attachments	X	X					
Clone study	X						
View public attachments	X	X	X	X	X	X	X
Delete public study attachments	X	X					
View study	X	X		X	X	X	
View study report	X	X	X	X	X	X	X
View upload status	X	X					
Manage notifications	X						
Create additional comments	X	X		X	X		
Forward study	X						
QA Admin							
Change QA group	X	X					

Explanation of Permissions

Permission	Definition
Add attachments	User can add attachments to a study.
Admin access	User has access to all admin functions. If this permission is included, the main menu at the top of every page contains the Admin link.
Amend report	User can add an addendum to a finalized study.
Approve study	User can approve a study. Select **Restrictions** to open the **Select study types** window. Choose which of the available study types requires a verifying

	physician's approval.
Change care type	User can assign and modify a study’s care type.
Change custom fields	User can create and modify custom fields. These fields can be listed as columns on the Studies page.
Change study status	User can change a study’s status in the Study Properties window. This is helpful when a study’s status needs to be reset back to New or Preliminary.
Change study type	User can change the study type.
Change reading group	User can assign a reading group to a study.
Change referring group	User can assign a referring group to a study. Select **Restrictions** to open the **Select referring groups** window. Choose the referring groups to make available to the user. Users can select from the chosen referring groups when changing referring groups. **Note**: Selecting referring groups disables the Create referring group via worksheet permission.
Create referring group via worksheet	User can create a referring group from within the worksheet.
Change ordering group	User can assign an ordering group to a study.
Change verifying group	User can assign a verifying physician group to a study.
Change division	User can assign a division to a study.
Create study	User can create a new study manually. If this permission is granted, the New Study button appears at the bottom of the Studies page.
Define quad view	User can label study images and create custom groups of images to be viewed four at a time.
Manage study	User can combine and split studies and manage images. User can also delete or anonymize a study. Note: Deleting a study is irreversible.

Download study archive/ share study	User can download a study archive file to save locally and can share studies with others who do not have a Studycast username.
Change study date	User can change the study date. It is possible to enter a future date.
Limited access admin	User has access to admin functions for an assigned division.
List patients	User can view the Patients page.
List studies	User can view the Studies page. If this permission is denied, the user will not be able to view any studies.
Manage cases	User can add multiple studies for a single patient to a case.
Modify patient	User can modify the patient information.
Modify study worksheet	User can enter measurements and observations and generate findings and conclusions.
Preset Favorites: Manage	Manage all worksheet permission. Full access: to create and edit existing presets.
Preset Favorites: Create	Create worksheet presets. Limited access: allows user to create and manage owned presets and provides read-only access to presets created by other users.
Reset study status	User can reset a study's status back to New or Preliminary.
View private attachments	User can view attachments that are marked private.
Delete private study attachments	User can delete attachments that are marked private.
View public attachments	User can view attachments that are marked public.
Delete public study attachments	User can delete attachments that are marked public.

Clone Study	User can create and assign study clones.
View study	User can view the images and cine loops.
View study report	User can view study reports.
View upload status	User can view list of studies that are currently uploading to the Studycast system. If this permission is granted, the main menu includes the Uploading link.
Manage notifications	User can view the Notification Status page, reprocess notifications that failed to send successfully, and send study reports from the Batch Actions menu on the Studies page.
Create additional comments	Allows users to create and manage additional comments in the worksheet. If removed, users can still use existing comments assigned to their reading group, but cannot create or edit comments.
Forward study	Allows users to forward to a DICOM destination, such as a vendor or a remote archive.
QA Admin	User can see all QA information and reset the QA attestation.
Change QA group	User can assign a QA group to a study. Users with this permission can see the list of available reading groups. Select **Restrictions** to open the **Select reading groups** window. Choose which of the reading groups to make available to the user when changing QA Group.

Manage Users

To add a new user or modify an existing user:

1. In the main menu, click **Admin**.
2. In the menu at the left, select **Users**.
3. To add a new user: At the bottom of the page, click the **Add new User** button.
   To modify an existing user: Find the user in the list and click the edit icon in the ID column.
4. Complete each tab. (For an explanation of the items on each tab, see the sections below.)
5. After you've completed each tab, you will need to save your changes. If you are creating a new user, click **Create** at the top of the page. If you are modifying an existing user, click **Save**.

Note: If a new user does not log in within 14 days, the user will be deactivated. If a user does not log in for 60 consecutive days, or the number of days specified in the **Account deactivation threshold**, the user will be deactivated. No information about the user's settings and permissions will be lost. To reactivate a deactivated user, click the edit icon next to that user on the Users page. Then, check the **Active** box on the **General Settings** tab, and click the **Save** button.

General Settings Tab

The Username, First name, and Last name fields are required. All other fields are optional.

Check the **Active** box to activate the username when you are finished. If the **Active** box is unchecked, the user cannot log in.

Code: For technologists, enter the initials or other text that they will enter for themselves at the modality.

Group Settings Tab

Select a **user type** for this user from the drop-down list.

Depending on the user type you select, boxes for assigning divisions, reading groups, or referring groups appear.

1. For each type of group (division, reading group, referring group), available groups are listed in the box on the left, and groups assigned to this user are listed in the box on the right.
2. Check the box next to each group you want to assign to this user. The selected groups appear in the box on the right.

Profile Tab

The settings on this tab can also be changed by the user at any time.

Theme: Click to choose a different theme.

- **Office:** Designed for viewing in a typical, well lighted office setting
- **Viewing Station (dark):** Studycast dark mode / dark theme was designed for viewing in a traditional viewing station or other low-light environment

Init worksheet's findings: Uncheck this option to disable the automatic generation of Findings statements when a worksheet is first opened.

Change Password: Check the box to enter a password for the user. The password you enter will be temporary. The user will be required to change it at first login.

Note: The system will not allow you to use a password that is on the list of Prohibited Passwords.

Two-Factor Authentication: Click the **Reset 2FA** button to allow the user to log in without using 2FA. When the user logs in, the **User Profile** window will be displayed with a new QR code for 2FA. If your security policy requires 2FA, the user will be required to set up 2FA again before gaining access to any studies. If your security policy allows but does not require 2FA, the user will have the option of setting up 2FA again.

Contact Info Tab

Enter the requested contact information for the user. The **Email** field is required.

The information you enter here is not used to send notifications. To set up or manage notifications, you must edit the division, reading group, or referring group. For more information, see Set Up Notifications.

Signature Tab

An image file of a reading physician's signature can be uploaded to the Studycast system and included in study reports. If no signature image file is uploaded, the study report will include the doctor's printed name and the text: *Electronically Signed on Studycast*.

Only administrators can upload signature image files.

To upload a signature image:

1. Click the **Select and upload new logo** button.
2. Locate and add the image file.

When the doctor approves a study, this image will be included in the study report.

Permissions Tab

This tab lists all the permissions for users in the Studycast system. When you first view the tab, the default permissions for the user type you selected on the **Group settings** tab are checked.

You can modify this user's permissions by checking or unchecking each permission individually, or by applying a Permission Favorite from the **Select permission favorite** menu in the bottom left corner of the screen.

To reset the user's profile to the default settings, click **Set default permissions**.

Note: For an explanation of the permissions, see User Types and Permissions.

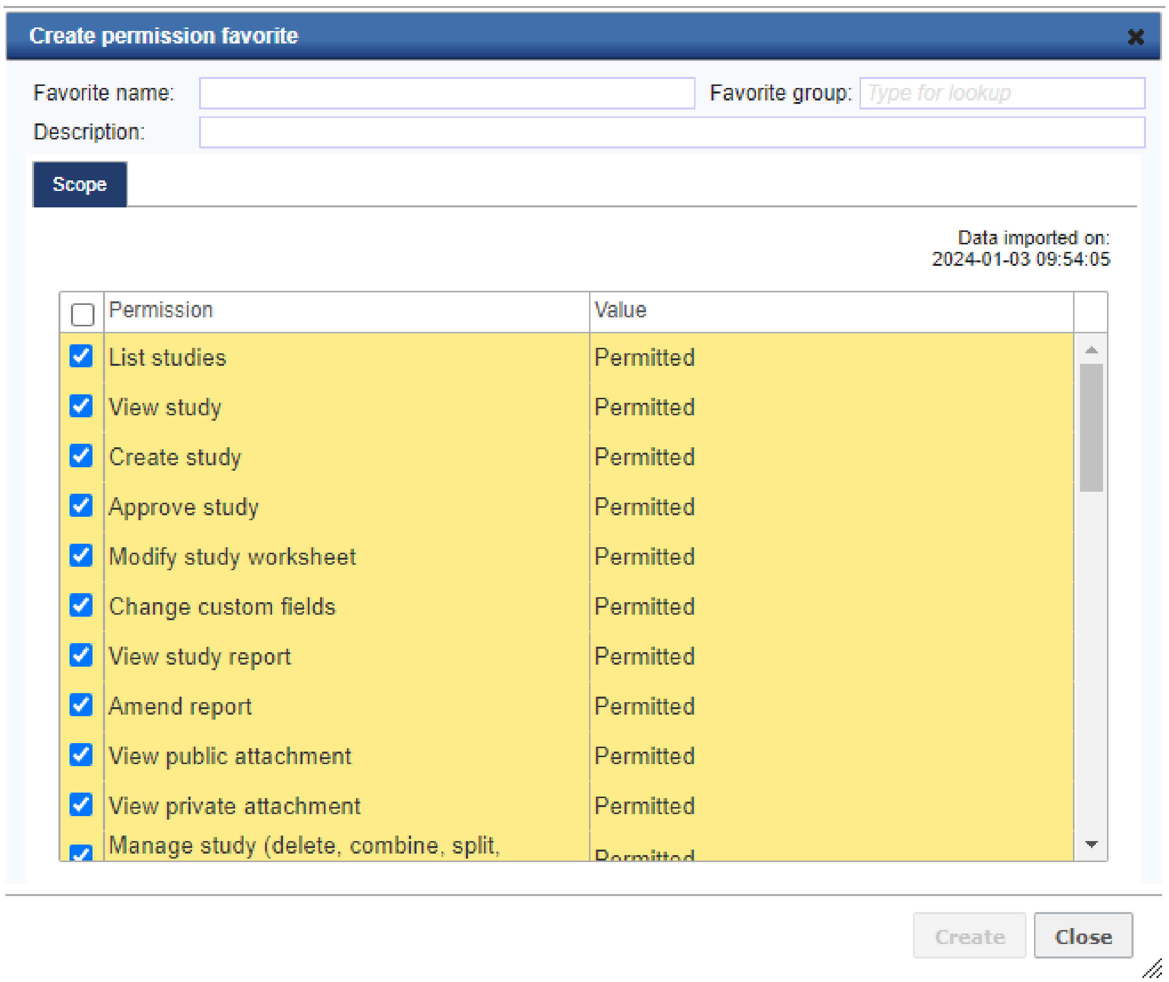
Create a New Permission Favorite

To create a new Permission Favorite:

1. Edit the permission settings for the user until the selections on the screen reflect the desired settings for the new Permission Favorite.
2. Click the Favorites (★) button in the lower left corner of the screen.

   The **Manage permission favorites** window opens.
3. Click **+ Add new favorite...**

   The **Create permission favorite** window opens.



4. Enter a **Favorite name**. You may also select a **Favorite group**, and add a **Description**, if desired.
5. The list reflects the user's current permission settings, and will add all permitted and not permitted permission settings to the new favorite by default. If you wish to remove a permission from the favorite, uncheck the box next to it to deselect it.
6. Click **Create**.

Manage Permission Favorites

To manage existing Permission Favorites:

1. Click the Permission Favorites arrow ( ) in the lower left corner of the screen.

   The **Manage permission favorites** window opens.

2. From this window, you can select multiple Permission Favorites to manage via the batch actions menu. You can also select an individual favorite to modify the settings included. To modify the settings of a favorite, click the name of the favorite in the list.

   The **Edit permission favorite** window opens.

3. You can deselect permissions in the list to remove them from the favorite. You can also use the **Apply current user values** button to replace the permission settings with those of the user whose settings you are editing.

4. Click **Save** to save your changes. Alternatively, the **Save as** button can be used to save a duplicate copy of the favorite with a different name.

Users Page

Batch Actions

Batch actions can be used to edit multiple users at once from the Users page. To apply batch actions to users from this page, click the checkboxes next to the users that you would like to edit, and select the appropriate batch actions from the menu.

Add Permissions	Can be used to add the same set of permissions from multiple users at

	once.
Remove Permissions	Can be used to remove the same set of permissions from multiple users at once.
Apply Permission Favorite	Can be used to apply an existing Permission Favorite to a subset of users. Only permissions included in the scope of the Permission Favorite will be updated.

Permission Select Criteria and Column

To identify users with a particular permission, you can use the **Permissions** column to view all permissions that a user has, or you can search for users with a particular permission by using the Permission select criteria in the search bar.

Unlock Username

If a user reaches the threshold for failed login attempts, the username will be locked. As the administrator, you can unlock a user's locked username. When unlocking a username, it is a good idea to reset the password at the same time. To reset a user's password and unlock the username,

1. Click **Admin** at the top of any page.
2. In the menu on the left side, select **Users**.
3. Find the user whose username you need to unlock and click the edit icon in the ID column.
4. In the **General settings** tab, click the **Unlock account** button.

Reset User's Password

As the administrator, you can reset a user's password. To reset a password,

1. Click **Admin** in the main menu.
2. In the menu on the left side, select **Users**.
3. Find the user whose password you need to reset and click the edit icon in the ID column.
4. In the **Profile** tab, check the box next to **Change password**.
5. In the field labeled **Enter your password**, enter the password for your administrator username (not the user's temporary password).

6. In the field labeled **Enter new password**, enter a temporary password for the user. This password must meet the requirements listed in the security policy (for more information, see Modify Security Policy). The user will be required to change this password on first login.
7. Click **Save** at the top of the page.

Add Users to a Group

To add users to a division, reading group, or referring group,

1. In the main menu, click **Admin**.
2. In the menu on the left, select **Users**.
3. Find the user you want to add to a group and click the edit icon in the ID column.
4. Select the **Group settings** tab. For each type of group (division, reading group, referring group), available groups are listed. A check box next to each group indicates which ones the user is assigned to.
5. Check the box next to each group you want to assign to this user.
6. Click **Save** at the top of the page.

Add Signature Image

An image file of a reading physician's signature can be uploaded to the Studycast system and included in study reports. If no signature image file is uploaded, the study report will include the doctor's name and this text: *Electronically Signed on Studycast*.

Only administrators can upload signature image files.

To upload a signature image,

1. Click **Admin** at the top of any page.
2. In the menu on the left, select **Users**.
3. Find the doctor's name and click the edit icon in the ID column.
4. Select the **Signature** tab.
5. Click the **Select and upload new logo** button.
6. Locate the file and upload it. (**Acceptable file formats:** .jpg/.jpeg, .gif, .png)

When the doctor approves a study, this image will be included in the study report.

Reading Groups

Manage Reading Groups

Reading groups can be helpful in managing the assignment of studies to be read. After a reading group is added, studies can be assigned to the group.

To add or edit a reading group:

1. In the main menu, click **Admin**.
2. In the menu on the left, select **Reading groups**.
3. **To add a reading group:** Below the list of groups, click the **Add new Reading Group** button. **To edit an existing reading group:** Find the group in the list and click the edit icon in the ID column.

You will see the same tabs and options whether you are adding or editing a reading group.

General settings tab

In the General settings tab, **Code**, **Name**, and **Name displayed on Final report** are required.

When you create a new group, the **Active** box is checked by default. If the **Active** box is unchecked, studies cannot be assigned to this group. If you wish to deactivate a group, click the box to deselect it and click **Save** at the top of the page. Inactive groups remain available for the Studies page search.

The **Code** field allows a maximum of five alphanumeric characters.

Disable reporting: If this box is checked, study reports are deactivated. Please contact Studycast Support before checking this box.

Notifications tab

The Studycast system can be set up to notify doctors in the group automatically when studies are ready for review or are approved. Notifications can be sent by email, fax, or text message (SMS). To set up notifications, you must contact Studycast Support.

Once notifications are set up, the administrator can add to the list of doctors who receive the notifications.

1. In the text box, enter an email address, phone number, or SMS address, and click **Add**. To look up the correct SMS address format, see SMS Gateways.
2. When you are finished adding numbers and addresses, click **Save** at the top of the page.

To remove an item from the notifications list, click the **X** next to that item.

Logo image tab

Study reports can be customized to include a logo for the reading group. For the reading group's logo to be included, you must also set the study report logo source for the division to **Reading group logo image**. For more information, see Manage Divisions.

To upload an image file for the reading group:

1. Click the **Select and upload new logo** button.
2. Locate and add the image file.

Acceptable file formats

- .jpg/.jpeg
- .gif
- .png

Users tab

On this tab you can remove users from the reading group. To remove a user:

1. Uncheck the box next to that user.
2. Click **Save** at the top of the page.

Note: To add a user to a group, you must modify the user. For instructions, see Add Users to a Group.

Referring Groups

Manage Referring Groups

To add or edit a referring group:

1. In the main menu, click **Admin**.
2. In the menu on the left, select **Referring groups**.
3. **To add a referring group:** Below the list of groups, click the click the **Add new Referring Group** button.
   To edit an existing referring group: Find the group in the list and click the edit icon in the ID column.

You will see the same tabs and options whether you are adding or editing a referring group.

General settings tab

In the General settings tab, **Code**, **Name**, and **Name displayed on Final report** are required.

When you create a new group, the **Active** box is checked by default. If the **Active** box is unchecked, studies cannot be assigned to this group. If you wish to deactivate a group, click the box to deselect it and click **Save** at the top of the page. Inactive groups remain available for the Studies page search.

The **Code** field allows a maximum of five alphanumeric characters.

Notifications tab

The Studycast system can be set up to notify doctors in the group automatically when studies are approved. Notifications can be sent by email, fax, or text message (SMS). To set up notifications, you must contact Studycast Support.

Once notifications are set up, the administrator can add to the list of doctors who receive the notifications.

1. In the text box, enter an email address, phone number, or SMS address, and click **Add**. To look up the correct SMS address format, see SMS Gateways.
2. When you are finished adding numbers and addresses, click **Save** at the top of the page.

To remove an item from the notifications list, click the **X** next to that item.

Note: By default, notifications are not sent when a clone's status is set to Final. To enable these notifications for clones, contact Studycast Support.

Logo image tab

Study reports can be customized to include a logo for the referring group. For the referring group's logo to be included, you must also set the study report logo source for the division to **Referring group logo image**. For more information, see Manage Divisions.

To upload a logo image for the referring group:

1. Click the **Select and upload new logo** button.
2. Locate and add the image file.

Acceptable file formats

- .jpg/.jpeg
- .gif
- .png

Users tab

On this tab you can remove users from the referring group. To remove a user:

1. Uncheck the box next to that user.
2. Click **Save** at the top of the page.

Note: To add a user to a group, you must modify the user. For instructions, see Add Users to a Group.

Access Log

View Access Logs

The Studycast system maintains an access log that records specific actions performed on every study. Only users with admin privileges can view the access log.

View the Access Log for a Single Study

You can view the access log for a single study in the **Study Properties** window.

1. On the Studies page, click the study ID of the study whose log you want to view.
2. In the **Study Properties** window, select the **Access Log** tab.

The log lists the actions performed on the selected study by date and time with the most recent actions at the top of the list. To reverse the order of the list, click the arrows next to the Date/Time header. To sort by a different column, click the column header.

View the Access Log for All Studies

To view the access log for all studies,

1. Click **Admin** in the menu at the top of any page.
2. In the admin menu on the left side of the page, select **Access logs**.

The log lists every action by date and time with the most recent actions at the top of the list.

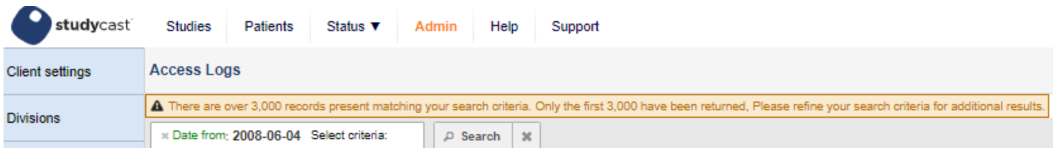
To filter the list,

1. On the left side of the search bar, click **Select Criteria** and select an item from the list.
2. Enter the requested information for the item you selected.
3. Select additional search criteria if needed.
4. When you are finished selecting criteria, click the **Search** button.

Please Note:

1) Access log searches are limited to 3,000 matching records. If your search returns more than 3,000 matches you will receive an alert message requesting, you to refine your search criteria for additional results.

2) The “Date from” search criteria will automatically be set to 30 days prior from the current date, click on the data field to change the “Date from” range.



Clearing Search Criteria

To remove any item from your search criteria, click the **X** next to that item.

To clear all search criteria and return to the complete list, click the **X** to the right of the **Search** button.

Set Up Notifications

The Studycast system can be set up to notify doctors automatically when studies are ready for review or are approved. Notifications can be sent by email, fax, or text message (SMS). To look up the correct SMS address format, see SMS Gateways.

To set up notifications, you must contact Studycast Support.

Once notifications are set up, the administrator can add to the list of doctors and other users who receive the notifications. You can manage the notifications list for reading groups and referring groups, as well as for the client as a whole. To manage a list for a reading or referring group,

Notification Lists for Reading and Referring Groups

1. Click **Admin** on any page.
2. In the menu on the left, select the type of group whose notifications list you want to manage, **Reading groups** or **Referring groups**.
3. Find the group in the list and click the edit icon in the ID column.
4. Select the **Notifications** tab.
5. In the text box, enter an email address, phone number, or SMS address, and click **Add**. To look up the correct SMS address format, see SMS Gateways.
6. When you are finished adding numbers and addresses, click **Save** at the top of the page.

To remove an item from the notifications list, click the **X** next to that item.

Notification Lists for the Client (all users)

To manage a list for the client as a whole,

1. Click **Admin** on any page.
2. Select the **Notifications** tab.
3. In the text box, enter an email address, phone number, or SMS address, and click **Add**. To look up the correct SMS address format, see SMS Gateways.
4. When you are finished adding numbers and addresses, click **Save** at the top of the page.

To remove an item from the notifications list, click the **X** next to that item.

SMS Gateways

All major wireless carriers offer an SMS gateway that allows text messages to be sent into and out of their wireless network. Notifications sent as text messages use these gateways. To send notifications as text messages, you must follow the address format provided by each wireless carrier.

For example, if you want to send text notifications to a user's Verizon mobile number, (123) 456-7890, you would send it to 1234567890@vtext.com.

Wireless Provider	SMS Address Format
AT&T	1234567890@txt.att.net
Boost Mobile	1234567890@myboostmobile.com
Cricket	1234567890@sms.mycricket.com
Project Fi	1234567890@msg.fi.google.com
Sprint	1234567890@messaging.sprintpcs.com
T-Mobile	1234567890@tmomail.net
US Cellular	1234567890@email.uscc.net
Verizon	1234567890@vtext.com
Virgin Mobile	1234567890@vmobl.com

Messages sent through an SMS gateway are limited to 160 characters. Longer messages are broken into multiple texts or are truncated.

Administrative Reports

The Studycast system can send administrative reports to the admin at regular intervals. Typically, a Status Report is sent to the admin every day, and the Studies Received Report and Fax Notifications Report are sent once a month. These reports are not available within the Studycast system.

Admins can request additional reports to be sent at any interval desired. To request additional reports, contact Studycast Support.

Status Reports

This report documents the number of studies uploaded to the Studycast system in the last 24 hours, week to date, month to date, quarter to date, year to date, and overall total.

Studies Received Report

This report lists of all studies uploaded to the Studycast system during the most recent calendar month. For each study, the report includes:

- Study ID
- Date study was created
- Patient's name
- Study type
- Date study was uploaded to the Studycast system
- Sender ID
- Number of images in the study
- Study UID

Fax Notifications Report

This report lists all fax notifications sent by the Studycast system during the most recent calendar month. For each notification, the report includes

- Study ID
- Date the fax was sent
- Username
- Reference
- Destination fax number

Studycast DICOM Mapping Information

Studycast maps the following fields to the related DICOM tags.

Studycast Field Label	DICOM
Study UID	0020,000D
Date of Service	0008,0020
Time of Service	0008,0030
Accession Number	0008,0050
Study Type	0008,1030
Name	0010,0010
MRN	0010,0020
DOB	0010,0030
Race*	0010,2160
Gender	0010,0040
Height	0010,1020
Weight	0010,1030
Referring Group	0008,0090
Reading Group	0008,1050
Reading Group	0008,1060
Institution	0008,0080
Study Indications	-
Sonographer	0008,1070
Sonographer comments	-

*Studycast Race (Ethnic Group) mappings are based upon Section 170.315 (a)(5) of HealthIT.gov Certification Companion Guide and International Fetal and Newborn Growth Consortium for the 21st Century.

Studycast Race Field	DICOM: Patient Ethnic Group
American Indian or Alaska Native	American Indian Alaska Native
Asian	Asian Asian Indian
Black or African American	Black Black or African American African American Hon-Hispanic black
Hispanic or Latino	Hispanic Latino
Native Hawaiian or other Pacific Islander	Native Hawaiian or Other Pacific Islander Native Hawaiian Other Pacific Islander

White	White Caucasian Non-Hispanic white
BLANK	Decline to Specify Not Indicated Other Race Unreported/Refused to Report Blank

Study Report Headers

Choosing a Study Report Header

Studycast provides users with the option to customize study report headers. The layout of these headers can be selected from our Custom Headers Catalog. From these layout options, you can choose to add accreditation seals, addresses, additional contact information, and more. To receive a copy of the Custom Headers Catalog, contact Studycast Support.

Automatically Populate Your Logo and Address

Studycast provides users with the option to automatically populate report headers based on the information provided in the Admin section of your account. Address information is pulled from the **Contact info** tab, and logo(s) are pulled from **Client logo** and **Logo image** tabs. The same address information and logo can be used for all study reports, or you can use different addresses and logos for different divisions, reading groups, or referring groups.

To learn more about populating addresses and logos in your study report headers, use the links below:

- Add Address
- Add Custom Logo

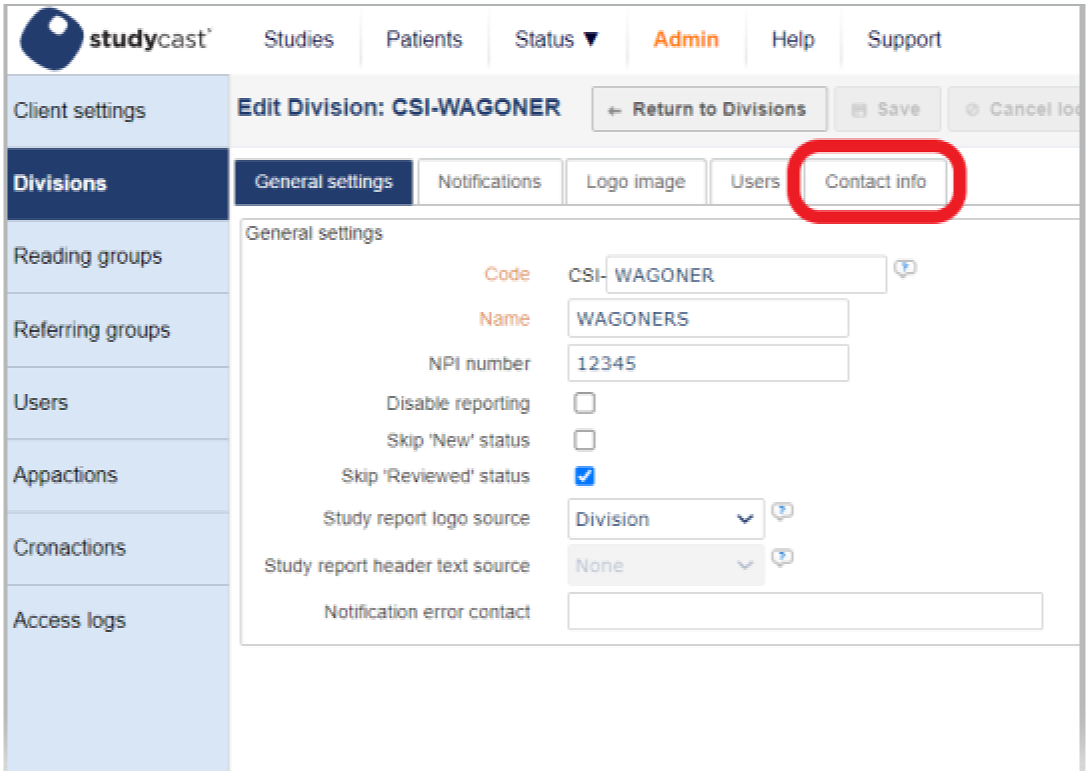
Add Address

Studycast provides users with the option to automatically populate report headers based on the address information entered in **Contact info**. The same address information can be used for all study reports, or you can use different addresses for different divisions, reading groups, or referring groups.

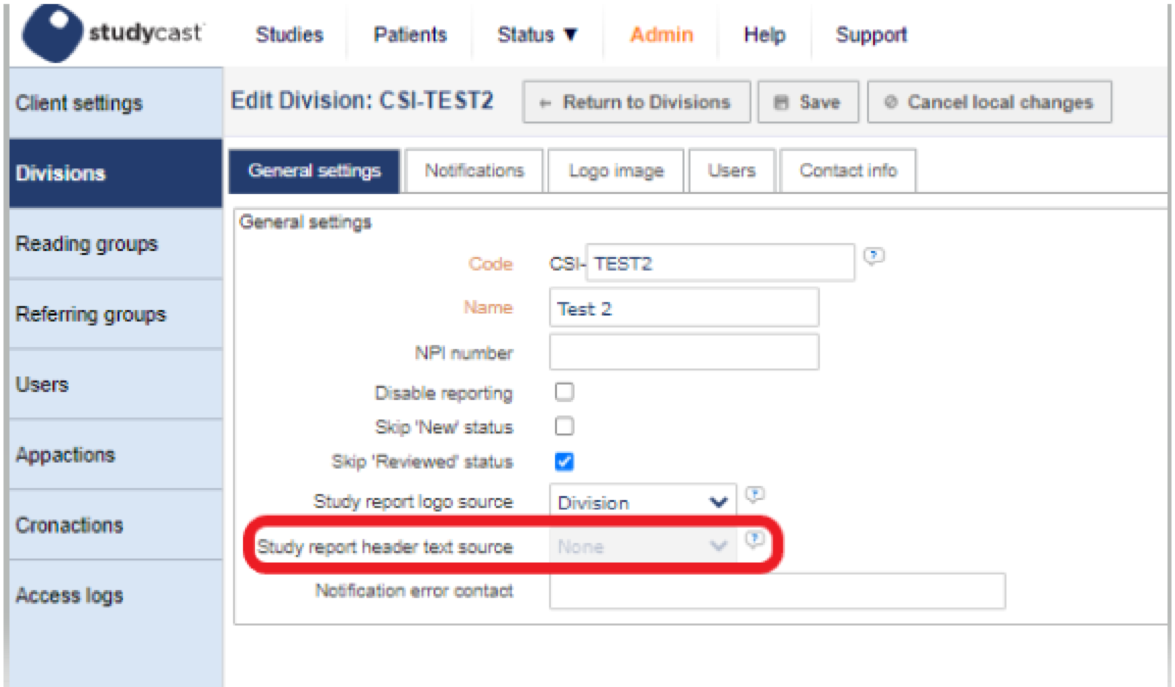
Add Address

To update address information:

1. Click **Admin** at the top of any page.
2. Select the **Division, Reading Group**, or **Referring Group's** address information you wish to use in the report header. The **Client settings** section is selected by default.
3. Select the **Contact info** tab.
4. Enter or edit the contact information as desired.
5. Save changes.



6. In the menu on the left side of the page, select **Divisions**.
7. On the **General settings** tab, select from the **Study report header text source** the address source you want to use in the report header (Client, Division, Reading Group or Referring Group). **Important Note***:* Contact Studycast Support if the **Study report header text source** field is disabled and you would like to use the auto-address header functionality.
8. Save changes.



Please Note:

1. Selecting **Reading** or **Referring Group** as the **Study report header text source** will include the address information you entered for each **Reading** and **Referring Group** in the **Division**. For more information on divisions, see Manage Divisions.
2. In **Divisions**, on the **General settings** tab, If the “None” option is selected for **Study report header text source**, an address will *not* be displayed on the report.

If any option is selected for **Study report header text source**, i.e., **Client**, **Division**, **Reading Group**, or **Referring Group**, but no address information is available for the selected source, the address information for the next available source will be used for the report going from Group => Division => Client.

Add Custom Logo

Study reports can be customized to include a logo. A single logo can be used for all study reports, or you can use different logos for different divisions, reading groups, or referring groups.

Acceptable file formats

- .jpg/.jpeg
- .gif
- .png

Client Logo

To upload a custom logo for the client:

1. Click **Admin** at the top of any page. The **Client settings** section is selected by default.
2. Select the **Client logo** tab.
3. Click the **Select and upload new logo** button.
4. Locate and add the image file.

Division Logo

To specify a custom logo for a division:

1. Click **Admin** at the top of any page.
2. In the menu on the left side of the page, select **Divisions**.
3. Find the division whose logo you want to add and click the edit icon in the ID column.
4. On the **General settings** tab, select the **Study report logo source**. For more information, see Manage Divisions.
5. If you need to upload an image for the division, select the **Logo image** tab.
6. Click the **Select and upload new logo** button.
7. Locate and add the image file.

Reading Group Logo

To upload a custom logo for a reading group:

1. Click **Admin** at the top of any page.
2. In the menu on the left side of the page, select **Reading groups**.
3. Find the reading group whose logo you want to add and click the edit icon in the ID column.
4. Select the **Logo image** tab.
5. Click the **Select and upload new logo** button.
6. Locate and add the image file.

For a reading group's logo to be included in study reports, you must also set the study report logo source for the division to **Reading group logo image**. For more information, see Manage Divisions.

Referring Group Logo

To upload a custom logo for a referring group:

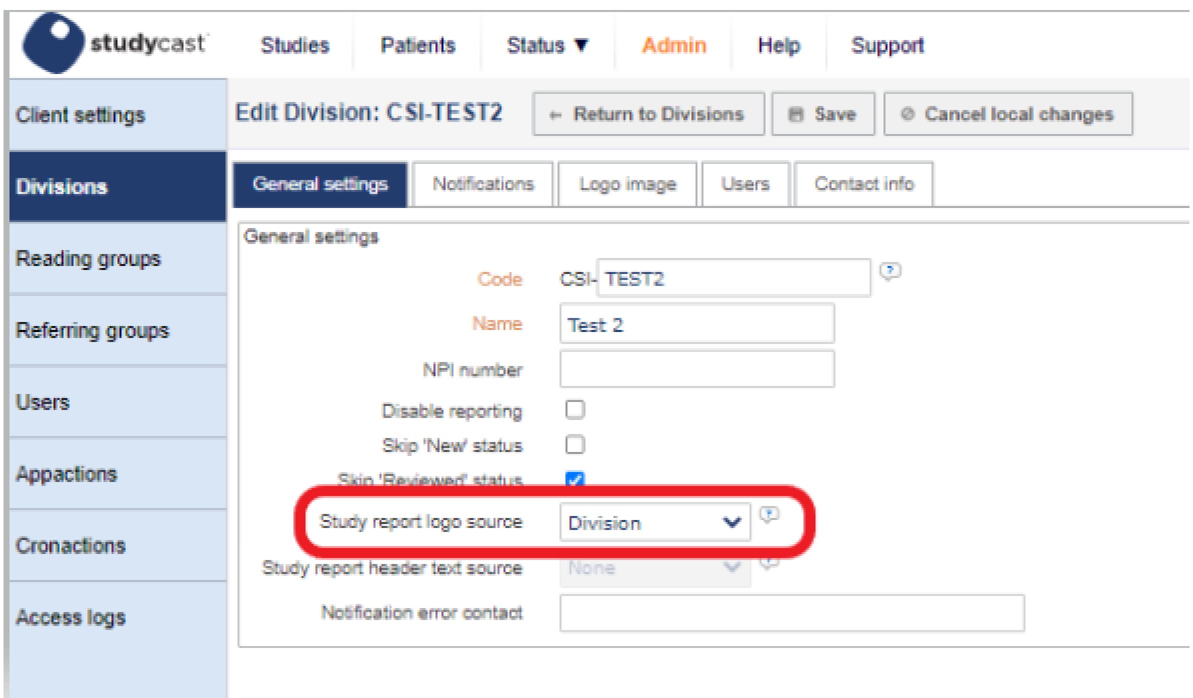
1. Click **Admin** at the top of any page.
2. In the menu on the left side of the page, select **Referring groups**.

3. Find the referring group whose logo you want to add and click the edit icon in the ID column.
4. Select the **Logo image** tab.
5. Click the **Select and upload new logo** button.
6. Locate and add the image file.

For a referring group's logo to be included in study reports, you must also set the study report logo source for the division to **Referring group logo image**. For more information, see [Manage Divisions](#).

Please Note:

1. In **Divisions**, on the **General settings** tab, If the “None” option is selected for **Study report logo source**, a logo will *not* be displayed.
2. If any option is selected for **Study report logo source**, i.e., Client, Division, Reading Group, or Referring Group, but no logo is available for the selected source, the logo for the next available source will be used for the report going from Group => Division => Client.



Manage Additional Comments

In addition to the comments list editor within the worksheet, admin users can create and manage personalized statements, or comments, in the **Additional comments** section of the Admin Tools. Using this page, you can quickly share or remove access to comment lists across reading groups, group comments under searchable headers, and reorder or update comment lists.

Create and Manage Additional Comments

Admins can create and edit Additional Comments for each of the worksheets' Additional Comment fields. Access to comments is granted at the reading group level. To create or manage Additional Comments in the Admin Tools, select a **Study type** and **Reading group** to filter for the desired list(s). You can add additional filters by selecting a **Protocol** or **Comment type**. If comments exist for the selected filters, you will now see them listed.

To edit an existing comment:

1. Click on the desired comment to select it, and begin typing.
2. When you are finished editing, click **Save** at the top of the screen.

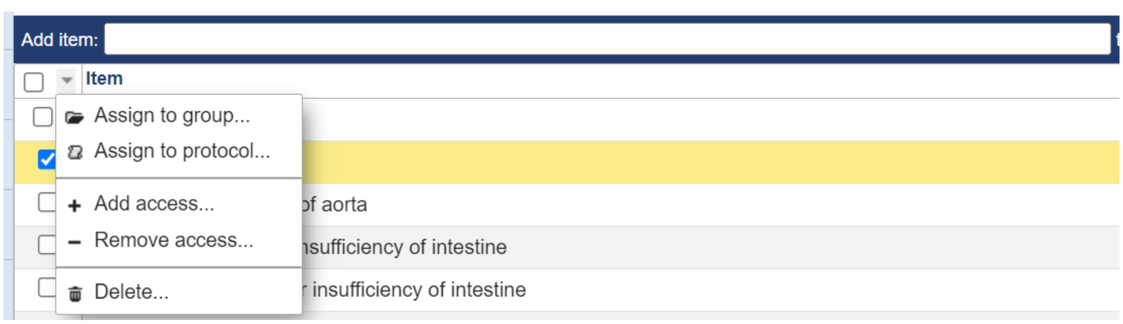
To create a new comment:

1. Enter the comment text in the field and click **Add**. The comment appears in the list.
2. When you are finished editing, click **Save** at the top of the page.

Once created, this comment will only be available for studies assigned to this reading group. If you would like to give other reading groups access to existing comments, you can use batch actions to **Add access**.

To add access to comments for a reading group:

1. Select the desired comment, or group of comments, and click **Add access** in the batch actions menu (shown below).



An **Add access** window opens.

2. In the window, drag-and-drop the desired reading group(s) between the **Add access for the following reading groups** and **Available reading groups** lists. You can also select reading groups and use the arrows to move them between the two lists.
3. When you are finished editing, click the **Add access** button. The window closes.
4. When you are finished editing, click **Save** at the top of the page.

To remove access to comments for a reading group:

1. Select the desired comment, or group of comments, and click **Remove access** in the batch actions menu.

   A **Remove access** window opens.
2. In the window, drag-and-drop the desired reading group(s) between the **Remove access for the following reading groups** and **Available reading groups** lists. You can also select reading groups and use the arrows to move them between the two lists.
3. When you are finished editing, click the **Remove access** button. The window closes.
4. When you are finished editing, click **Save** at the top of the page.

To delete comments:

1. Select the desired comment(s), and select **Delete** in the batch actions menu. A window opens.
2. In the **Confirm items deletion** window, select **OK**.
3. When you are finished editing, click **Save** at the top of the page.

Note: Deleting a comment in the Admin Tools will also remove it from all other reading groups with access to it. If you would like to remove a comment for some (but not all) reading groups, see **Remove access** in the section above.

Manage User Permissions

If desired, admins can also choose to revoke the **Create additional comments** permission for non-admin users in their account. This permission can be managed in the Admin Tools. To learn more about user permissions, see User Types and Permissions.

Devices

To view, activate, or deactivate devices, navigate to the **Devices** page.

To access this page:

1. In the main menu, click **Admin**.
2. In the menu at the left, select **Devices**.

Devices listed on this page will have one of the following statuses:

- **Inactive** devices cannot upload studies to your Studycast account. All new devices will initially be inactive until they are activated as part of the software installation process.
- **Active** devices can upload studies to your Studycast account.
- **Disabled** devices are managed by the Studycast Support team. Please contact Support if a device needs to be enabled.

To activate a device:

1. Click the edit icon in the ID column.
2. Check the **Active** checkbox to activate the device.
3. Optionally, add a name to easily identify this device. This might be a hostname assigned by your IT department, or an identifier such as "Room 6" or "Sally's Laptop."

To deactivate a device:

1. Click the edit icon in the ID column.
2. Uncheck the **Active** checkbox to deactivate the device.

Note: If you would like a device to be permanently blocked from your account, contact Studycast support for assistance. Devices should only be blocked when you are certain you will never want to activate them in the future.

Part 12

Status Pages

Uploads

The Uploads page provides information about the upload progress for study currently uploading to the Studycast system. This page is only relevant if studies are being uploaded with the CoreConnect™ uploader. To see status updates, refresh the page. Once all images for a study have been uploaded, the study no longer appears on this page.

My studies won't upload to my Studycast account. What should I do?

If you're having trouble transferring your studies to your Studycast account, try the simple troubleshooting tips in this video. If you've followed these steps and your videos still won't transfer, contact Studycast Support for help.

Watch the video

Downloads

The Downloads page indicates the status of each archive request.

Status	Description
Queued	An archive request was submitted. The job is currently waiting to start.
Processing	The study is currently being archived.
Completed	The study has been archived and is available for download.
Canceling	The archive request is currently being canceled.
Canceled	The archive request has been canceled.
Error	An error occurred. You will need to submit the archive request again.

When the study has been archived, the status will be **Completed**, and a link will be provided for you to download the study.

Archived studies are available on the Downloads page for 2 days. The date that each study will be removed from the Downloads page is listed in the **Expiration Date** column.

For more information, see Archive Studies.

Notifications

The Notifications page lists all notifications of a study's Final status that have been sent by fax as well as SMS messages sent through CoreShare. By default, administrative users have access to this page. If you are not an administrative user and need access to this page, ask your admin to add the Manage Notifications permission for you.

To open the Notifications page, click on the **Status** drop-down list in the Main menu and choose **Notifications**.

The grid lists each notification in a separate row. You can choose which columns appear in the grid and in what order, using the Grid Setup, which functions the same way it does on the Studies page. For information about configuring the columns, see Configure the Studies Grid.

Column	Description
Notification ID	Unique numerical identifier the Studycast system assigns to a notification.
Type	Displays the type of notification (currently, fax and CoreShare SMS notifications are available on this page).
Status	Displays the current status of the notification. • **Completed:** The notification was delivered successfully. • **Error:** The notification delivery failed. This status appears after 10 unsuccessful attempts were made to deliver the notification. • **In Progress:** A user has reprocessed the notification, and it is being sent. If the initial delivery fails, additional attempts will be made with a 28-minute delay between attempts. This status is displayed until either the notification is sent successfully, or 10 unsuccessful attempts have been made. • **Canceled:** A user has canceled the notification.
Study ID	Unique numerical identifier the Studycast system assigns to a study when it is uploaded.
Destination	Displays the fax number to which the notification was sent.
Context	Displays the entity with which the fax number is associated (client, division, reading group, or referring group).
Date Submitted	Displays the date and time that the fax was originally sent.

Column	Description
Date Updated	Displays the date and time that the item's status was most recently updated.
Retries	Displays the number of times you have reprocessed (retried) the delivery.

Sort the List

To sort the list by any column, click the column header. An arrow appears to the right of the header indicating whether the items are sorted in ascending or descending order. To switch that order, click the header again.

Search the List

Using the search bar at the top of the page, you can search for notifications that meet the criteria you select. To search the list,

1. On the left side of the search bar, click **Select Criteria** and select an item from the list. All columns on the page are available as search criteria.
2. Enter the requested information for the item you selected.
3. Select additional search criteria if needed.
4. When you are finished selecting criteria, click the **Search** button. The page now lists only the notifications that meet your search criteria.

Clear Search Criteria

To remove any item from your search criteria, click the **X** next to that item.

To clear all search criteria and return to the complete list of notifications, open the drop-down menu on the **Search** button and select **Reset**.

> **Note:** If you do not reset your search, the system continues to apply the selected search criteria each time you view the Manage Notifications page. The next time you log in, the page will display only those notifications that meet the search criteria.

Create Filters

If there are searches you perform often, it can be helpful to save them as reusable filters.

To save your search:

1. Select your search criteria and click the **Search** button.
2. Click the **Favorites (star)** button. The **Manage filter favorites** window opens.
3. Enter a name for your search and click **Save**.
4. Click the **OK** button.

Apply the saved filter later

To apply a filter you've already saved, click the down arrow next to the **Favorites** button to open the list of saved filters. Select the filter you want to apply. This filter will remain in place until you remove it. To remove the filter, click the **X** next to it in the search bar, or click the down arrow to the right of the **Search** button and select **Reset**.

Reprocess Fax Notifications

If notifications fail to send successfully because the receiving fax machine was not available, you should reprocess them within 14 days.

To reprocess:

1. Click the check box next to each notification you want to reprocess.
2. Select the batch action menu (⮟) at the top of the check box column.
3. In the menu that opens, select **Reprocess**.
4. Click **OK** to confirm.

Note: If the notification failed to send successfully because the fax number is wrong, you will need to update the recipient's fax number and then resend the report from the Batch Actions menu on the Studies page. For more information, see Resolve Failed Fax and Send Study Report.

Reprocess CoreShare SMS Notifications

If a CoreShare fails to send but the phone number listed is correct, you should reprocess it.

To reprocess:

5. Click the check box next to each notification you want to reprocess.
6. Select the batch action menu (⮟) at the top of the check box column.
7. In the menu that opens, select **Reprocess**.

8. Click **OK** to confirm.

Note: If the notification failed to send successfully because the phone number is wrong, you will need to reshare the study. For more information, see Share Studies.

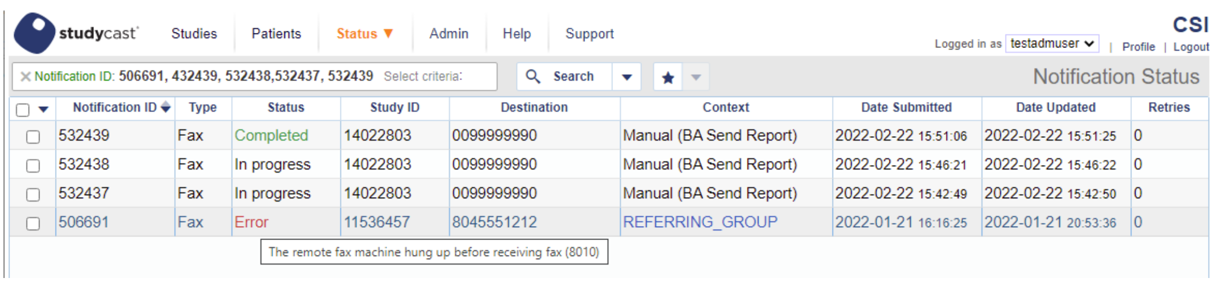
Resolve Failed Fax

Delivery of the final study report is an important part of your imaging workflow. If your Studycast account is set up to deliver reports by fax, you might have instances in which the fax delivery fails. When that happens, you'll automatically receive a Notification Error report at 7:00 am.

You'll want to follow these simple steps to resolve the issue and ensure that the report is delivered successfully.

Why Did the Fax Fail?

On the Notifications Status page, roll over **Error** in the Status column to see more information about why the fax failed.



Fax Machine Unavailable

If the fax number is correct and the Status column rollover suggests the fax machine was simply unavailable, you can try sending the fax again.

1. Check the box next to the failed fax.
2. Choose **Reprocess** from the Batch Actions menu.

Fax Number Incorrect

If a fax has failed because the fax number is incorrect, follow this 3-step process to change the number and resend the fax.

1. Update the fax number so future faxes will be delivered successfully.

   a. Click the link in the **Context** column.
   b. Update the fax number - Don't forget to click **Save**!
2. Clear the error so it no longer shows up in your Notification Errors report .
   a. Check the box next to the failed fax you want to clear.
   b. Choose **Cancel** from the Batch Actions menu.
3. Resend the report to the correct fax number.
   a. From the Studies page, check the box next to the study, open the Batch Actions menu, and choose **Send Report**.
   b. Enter the fax number, click the green plus button, and then click **Send**.

Forwards

The Forwards page indicates the status of each DICOM forward.

Status	Description
Queued	A forward request was submitted. The job is currently waiting to start.
Processing	The study is currently being forwarded.
Completed	The study has been forwarded.
Canceling	The forward request is currently being canceled.
Canceled	The forward request has been canceled.
Error	An error occurred. You will need to submit the forward request again.

When the study has been forwarded, the status will be **Completed**. For more information on how to forward a study, see DICOM Forward.

Note: If you are using a piece of equipment that does not support exporting images in DICOM format, we will not be able to forward the study. This includes MyLab, Sonosite, and Cypress ultrasound equipment.

Part 13

Interfaces

Troubleshooting

Athena API Interface

Using an Athena API Interface with Studycast

Studycast clients with an Athena API interface are able to file Studycast conclusions statements to the surgical history section in their EMR.
There are two levels in which the contents of the Conclusions can file in the surgical history in Athena. The first is the more global level that contains section notes and the second is the more specific level, which associates the Conclusion with the specific procedure that was performed.

- If the procedure code is entered correctly in Studycast, the API will file the Conclusions at the procedure level within surgical history.
- If the procedure code contains errors or does not match an expected value in your EMR, and a Conclusion fails to file at the procedure level, it will be automatically resubmitted at the global level of the surgical history as a section note.

If you are using a modality worklist, this typically will not be an issue for you as Studycast is getting the procedure code from the information that we receive from the EMR. However, if you are not using a modality worklist (ex: if you have a nuclear camera that does not support a modality worklist), you will need to take care to ensure that procedure codes selected in Studycast are formatted correctly.

If you would like the conclusion information to be associated with the procedure when filing, please ensure that you follow the process outlined below.

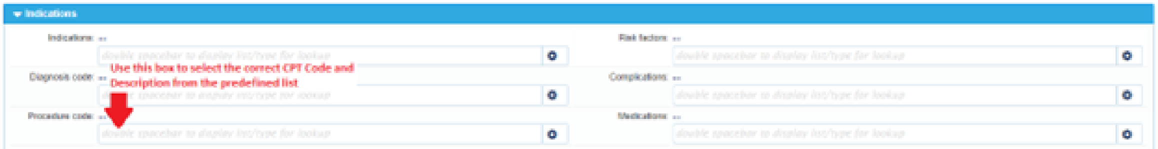
Preventing Surgical History Note Errors

To avoid errors, Technologists should use the Additional Comments dropdown selection for **Procedure Codes** for each exam. We recommend that you do not free type in this field. Free typing procedure codes can lead to errors caused by typos and inconsistencies in formatting.

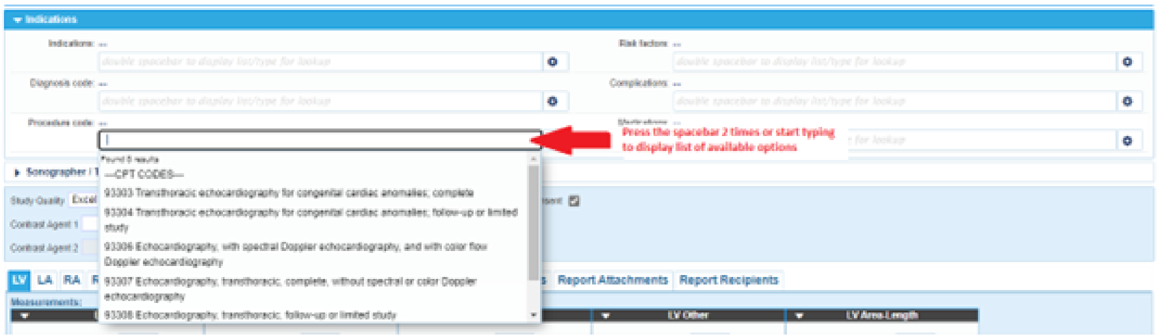
It is important to ensure that the Additional Comments list contains only values which match the procedure codes in your EMR. The Procedure Code entered in Studycast must match an expected value in your EMR for the Surgical History Note to transfer successfully at the procedure level. The correct format for Procedure Code is always CPT Code followed by the Description (ex: 93306 Echocardiography, with spectral Doppler echocardiography, and with color flow Doppler echocardiography).

If you are not familiar with the Additional Comments section for Procedure Codes, please see the information below:

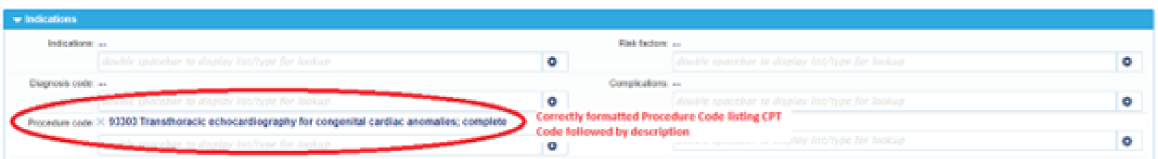
1. In the Studycast worksheet, expand the **Indications** section.



2. Press the Spacebar twice to display the full list of options, or begin typing the CPT Code you are looking for to filter the selection list.



3. Click the option you would like, and the CPT Code with Description will be added to the Procedure Code section of the worksheet.



Part 14

FAQs

Measurements Not Populating

My measurements aren’t populating the worksheet. What do I do?

Was the calculation package used?

First, make sure the measurements were captured using your equipment’s calculation package. Keep in mind that some machines only have calculation packages for certain study types.

If you’re not sure whether a calculation package was used, look at the study images. Measurements that were captured with a calculation package are identified with meaningful labels that tell the Studycast system where the values belong on the worksheet. Measurements captured without a calculation package do not have these specific labels.

With Calculation Package

Without Calculation Package

A calculation package was used, and no measurements are populating

If you’re using the calculation package, and none of your measurements for a given study are populating, there are several reasons why this might occur, including:

- Your equipment cannot export calc measurements as Structured Report (SR) data
- The SR option is not currently enabled on your equipment
- Your equipment is sending the calc measurements with labels the Studycast system does not recognize

A calculation package was used, and a few measurements are not populating

If you’re using the calculation package and just a few measurements did not populate, follow these simple steps:

1. Open the Studycast worksheet with missing measurements and click the Support tab at the top of the page. A pop-up window with Support information will appear.
2. Complete the Support Request Form section noting the measurements that didn't populate (ex. Right SFA Prox 3.6 cm did not populate the worksheet). On submission the

form will automatically include your Studycast username and the Study ID of the worksheet you're viewing.

3. Press the Send button to submit the form to Studycast Support. You will be notified within 3 business days after Studycast has reviewed and made updates to begin populating the missing data.

Contact Us

If you’re capturing measurements using a calculation package, and they are not populating your worksheets, contact Studycast support. We’ll work with you to resolve the issue.

Studies Won't Send

My studies won't upload to my Studycast account. What should I do?

If you're having trouble transferring your studies to your Studycast account, try the simple troubleshooting tips in this video. If you've followed these steps and your videos still won't transfer, contact Studycast Support for help.

Watch the video

New Imaging Device

How do we set up a new imaging device to upload to the Studycast system?

You can add new equipment to your Studycast account at any time with no additional cost. Our support team will walk you through the process of configuring the new equipment to upload.

To schedule an appointment, **call Studycast Support at 866-209-3393 x3**.

Scheduling ensures you have a dedicated Studycast Support Representative available for your appointment.

When scheduling your appointment, you’ll need to provide the following:

- Name of the Studycast client
- Your contact information (name, phone, email)
- Authorization from a Studycast Administrator at your facility (email or phone)
- Make and model of the imaging equipment
- Type of exams you’ll be uploading (cardiac, vascular, OB/GYN, etc.)
- Studycast client division studies should upload to (if you have more than one division)

New Study Type

We've recently started performing a new study type.

How do we get the measurements to auto-populate the worksheet?

To ensure that measurements and study data populate the worksheets correctly, we'll need to verify a sample study for each new study type.

We can use an actual exam, or you can create a sample specifically for this purpose. Either way, the sample you provide for verification must contain a comprehensive set of measurements taken with the calc package on your imaging equipment.

The easiest way to create samples is:

- Scan your arm or capture a blank image on the machine (study images are not important for this verification process)
- Use the calc package to take measurements for every item you want to auto-populate
- End the exam and upload to the Studycast system
- Repeat the process for all new study types

Once your samples have been uploaded, contact Studycast Support and provide the Study ID numbers for your sample studies. Our Quality team will review them and make any necessary updates to ensure that all values populate your worksheets correctly. This process typically take 2-3 business days to complete.

Use My Own Findings and Conclusions

How can I use my own Findings and Conclusions instead of the auto-generated statements?

All Findings and Conclusions text can be edited, but editing the auto-generated statements on each study would be time consuming.

The Additional Comments fields can make the workflow more efficient. With these fields, you can create and store your own statements, which can then be selected from the list any time you want to use them. To create your own statements,

1. Click the gear icon next to the text field. An edit window opens.
2. Type your statement into the field and click the **Add** button.
3. To move the statement, click and drag it to another spot in the list.
4. When you are finished, click the **Save** button.

Your new statements are now ready to use. To add one of your personalized statements, type a few letters of the statement. When the statement appears, select it to add it to the report.

You can further streamline the workflow by using Worksheet Presets in conjunction with the Additional Comments functionality. With Worksheet Presets, you can save and apply multiple changes to a worksheet at once. For example, you might create a Worksheet Preset that includes indications, observation selections, and your personalized Findings and Conclusions statements

- To save a Worksheet Preset, click the Star button in the lower left corner of the worksheet.
- To use a Worksheet Preset you've already created, click the down arrow next to the Star button and select the Preset you want.