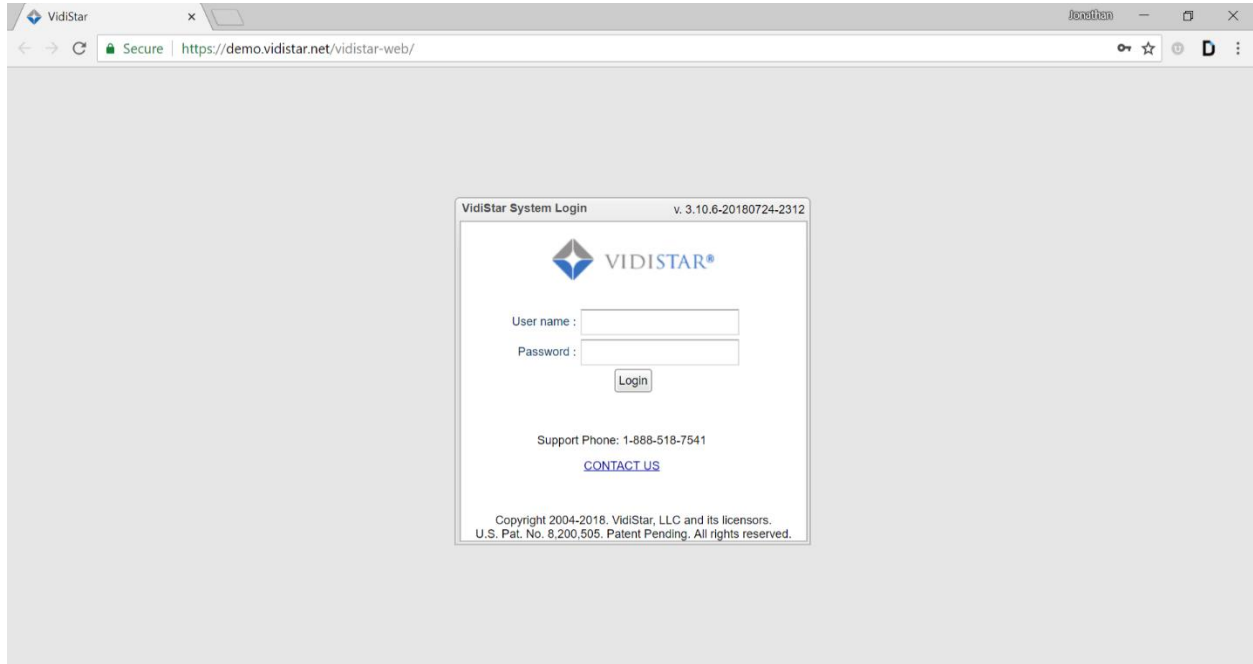


Step By Step Vascular Guide

This guide is to help with a step-by-step illustration on how to use Vidistar for Vascular Studies.

First thing to do is log into Vidistar. Double click the icon that should already be on your desktop. It will bring your default web browser to this screen.

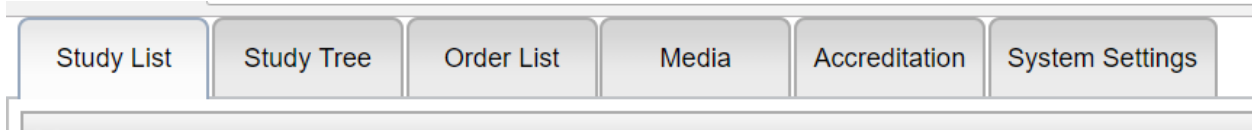


Once logged in you will see a study list that will display the individual studies for patients. If a patient has more than one study the patient will be listed more than once. The studies displayed will depend on which search filter is being used at the time. In the case of physicians this is normally a “To Be Read” filter so the physician will know what studies need to be read and will not need to actively look for them on the list. Here is an example of a study list.

| Fax | STAT | Patient Name | Patient ID | Study Date/Time | Description | Worksheet | Final Report | Assigned Users | Assigned Groups |
|-----|------|------------------------|--------------|------------------|-------------------------|-----------|--------------|-------------------------------|--|
| | ▲ | SIEMENS^AVG^*** | S1000 AVG | 05/03/2043 15:34 | VASCULAR HEMODIALYSI... | COMPLETED | COMPLETED | | StreamlineMD |
| | ▲ | HITACHI^CAROTID^*** | LISENDO ... | 01/31/2018 08:52 | CAROTID | COMPLETED | SCHEDULED | | Anonymize DEMO HHA |
| | ▲ | HITACHI^IMT^*** | LISENDO ... | 01/30/2018 13:53 | IMT | COMPLETED | SCHEDULED | 53636363839490 | |
| | ▲ | TRENDING PEDS ECHO^*** | ASE 2018 5 | 09/19/2017 09:40 | PEDS ECHO FOR TRENDI... | COMPLETED | COMPLETED | testrefphy1 | DEMO demo sample patients |
| | ▲ | PHILIPS ECHO^*** | IE33 ECH... | 06/13/2014 09:32 | ADULT ECHO | COMPLETED | COMPLETED | asalah csable lheckman | Anonymize DEMO demo sample patients |
| | ▲ | BT06^DEMO STUDY^*** | 74584NT | 06/25/2013 20:16 | | COMPLETED | COMPLETED | asalah csable cwalker sfranks | DEMO Meadows |
| | ▲ | HILLIE^NUCLEAR^*** | 12053480... | 05/05/2012 06:48 | MYOCARDIAL PERFUSIO... | COMPLETED | COMPLETED | | Anonymize DEMO Meadows demo sample patients good |
| | | GE^CAROTID^*** | LE9 XDcle... | | CAROTID | COMPLETED | COMPLETED | bhorton | |
| | | PHILIPS^LEV^*** | EPIQ 7G L... | 05/04/2043 10:24 | VASCULAR ULTRASOUND... | COMPLETED | COMPLETED | | StreamlineMD |

Step By Step Vascular Guide

The tabs across the top allow you to use a few different functions of Vidistar. Study list is where patients would be selected from to be displayed, study tree is where items can be merged and deleted, media is where “burned” studies .iso files can be downloaded, and system settings is where the user’s information is and where the password can be changed. The others shown are beyond the scope of this guide.

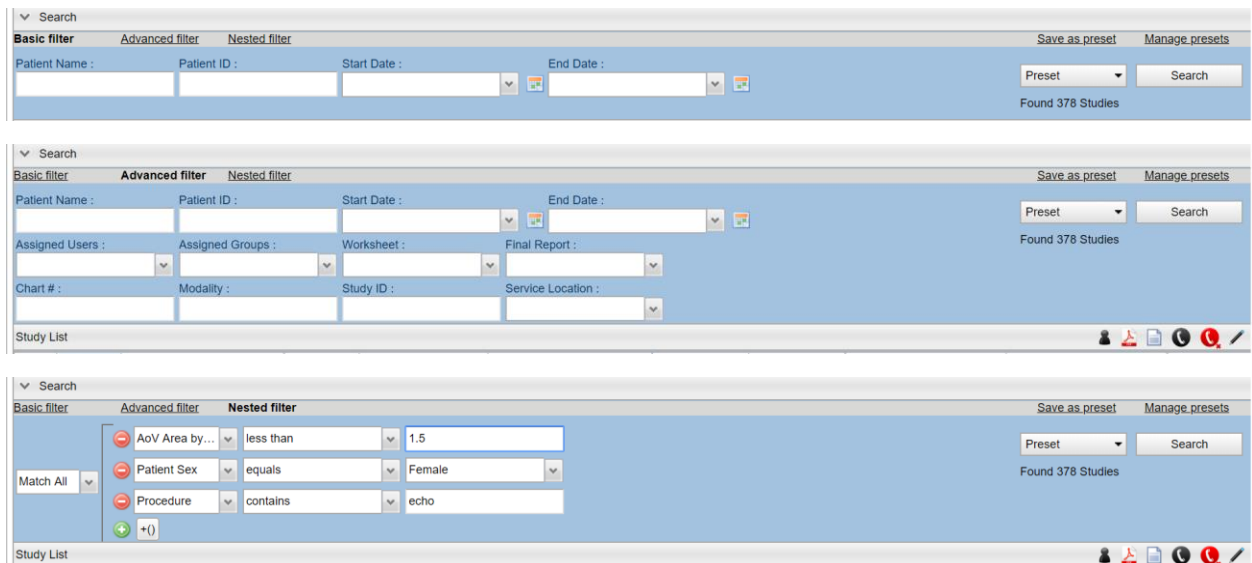


Directly below these tabs is the filter options, basic, advanced, and nested filter.

The basic filter is exactly how it sounds with options for name, ID, and a date range.

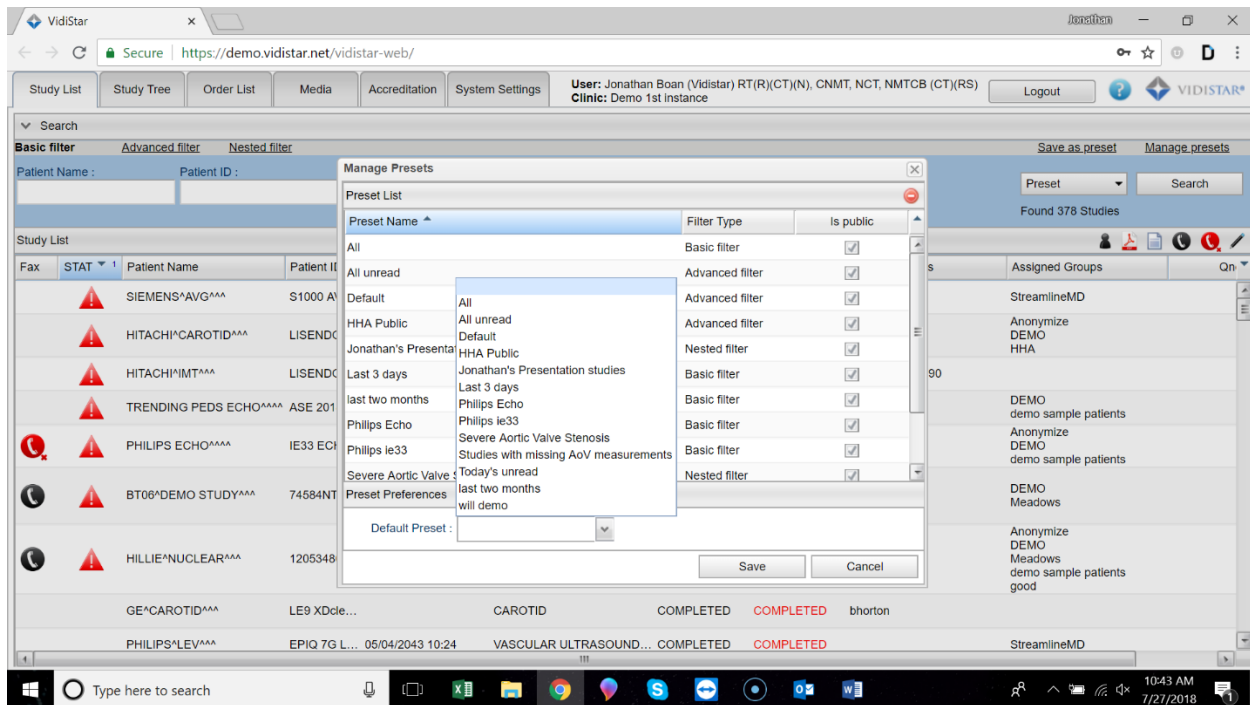
The Advanced filter is where most preset filters are created. There are multiple options, but the filter set to make a list of to be read options that the read patients fall off the list is, assigned user set to the reading physician and then final report is set to “scheduled”.

Nested filter is where multiple fields are able to be searched at one time. There are also options for searching the patient list for certain instances or specific items, such as all patients with an Aortic Valve Area <1.5.



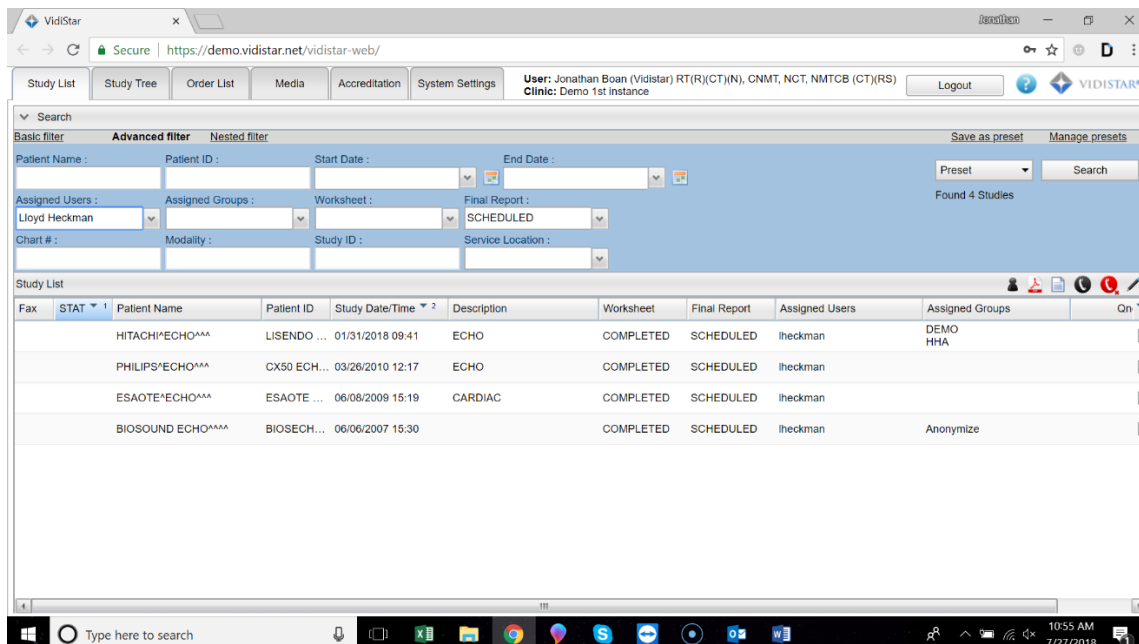
To save a filter the user is able to click save as preset in the top right corner. The default preset can be saved as saved as the preset that opens when Vidistar is started. This is done with the manage presets option beside save as preset.

Step By Step Vascular Guide



Undesired presets can also be deleted from here as well by highlighting the preset and clicking the red minus sign in the top right of the manage presets window.

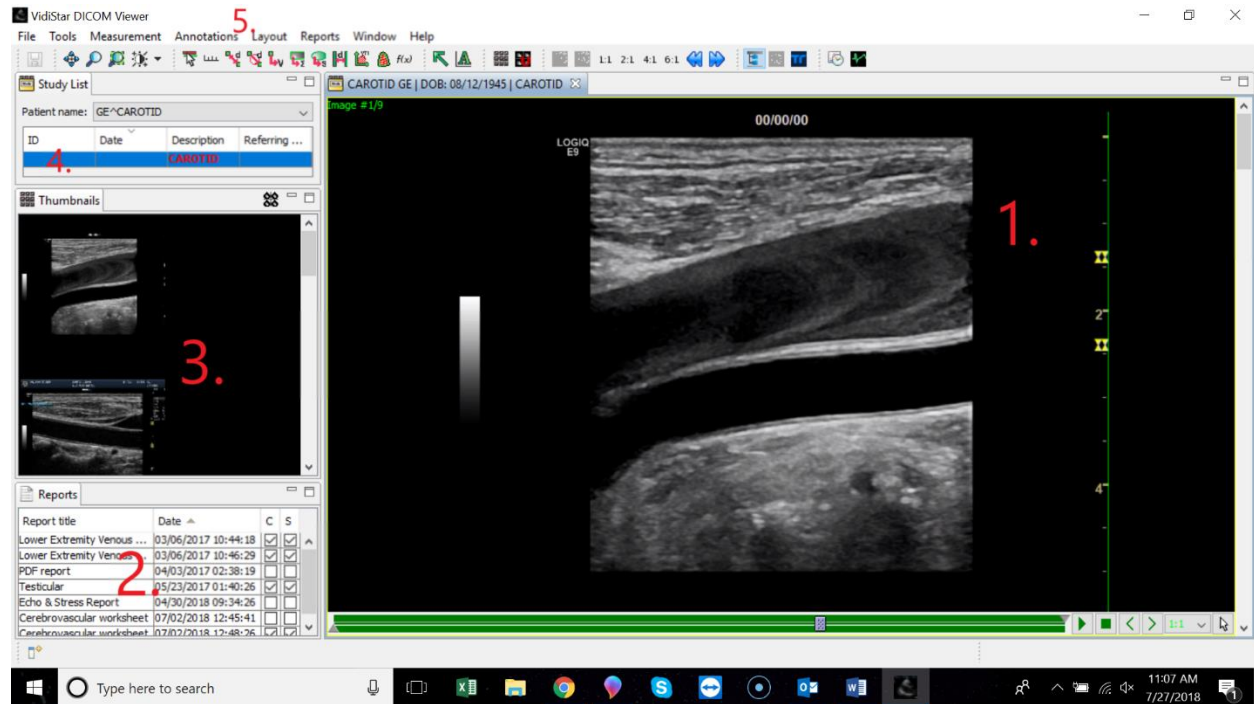
Below is an example of how a physician's list may look with a "To Be Read" filter set up. If a physician needs to view a patient that has been read they can click the preset drop down, then the All option, and then proceed to search for the patient.



Step By Step Vascular Guide

To open a study simply click on the patient in the list once. There is no need to double click, and doing so may open two browsers causing a delay in the study opening.




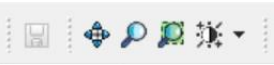
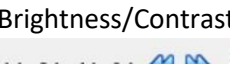
Once the viewer is open a normal setting for physicians is to have the report editor to automatically open with the patient, choosing the correct final report type and prelim data based on the information entered by the technologist. Below is an example of the viewer. We also have a setting for a single monitor for report editor and image viewer viewing. There will be an example of this below the individual viewer.



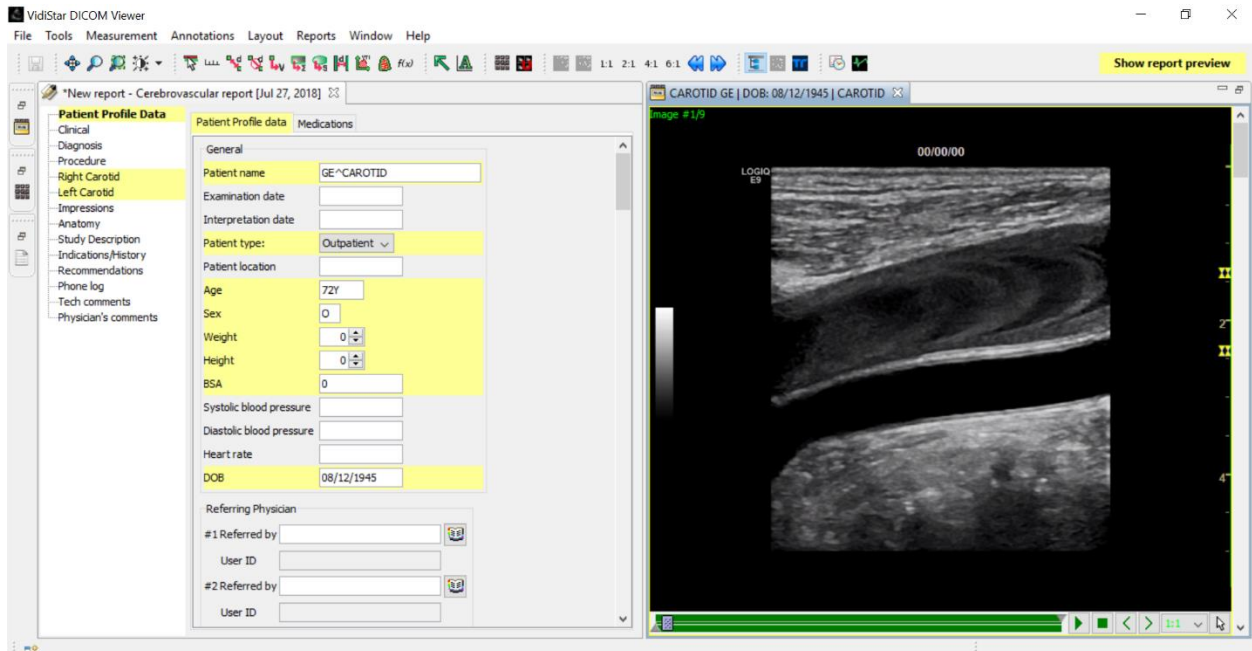
1. This is where the image, cine or static, will be displayed. Below the cine loop can be stopped and moved frame by frame using the stop icon and the left and right arrows beside it.
2. This is where the reports for this study are located. If an amendment is needed on a final click on the intended report to highlight it and then right click, this will bring up a menu, select "Amend". A report editor will be opened with the same information as the selected final report. Changes can be made, then sign the report again. There will be an instance of both reports for record keeping. This is seen in the example.
3. Thumbnails is a quick and easy way to find specific images in the study. Find the image and click, the viewer will move straight to that image.
4. This area will display the other studies the patient has within Vidistar. There will be more on this later about side by side comparisons.
5. This area will be where annotations and measurements are selected.

-  Annotation

Step By Step Vascular Guide

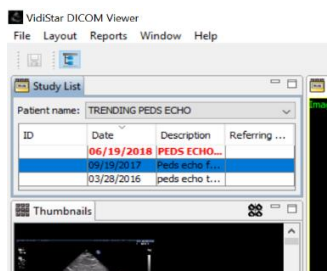
-  Arrow
-  Distance Measurement Tool for 2D images
-  Point Tool for measuring peaks on Doppler Images
-  Magnification and Editing Tools: Pan, Zoom, Loupe, and Brightness/Contrast
-  Display Tools: The Ratios change how many panes are displayed in the window, and the blue arrows will scroll through images individually

Example of viewer and report editor together:



When this feature is used the user can click the “Show report preview” button in yellow at the top right to alternate between the images and the report preview. All functions of the viewer and report editor are available. To access the thumbnail, priors, or reports windows click the icons on the side bar on the far left.

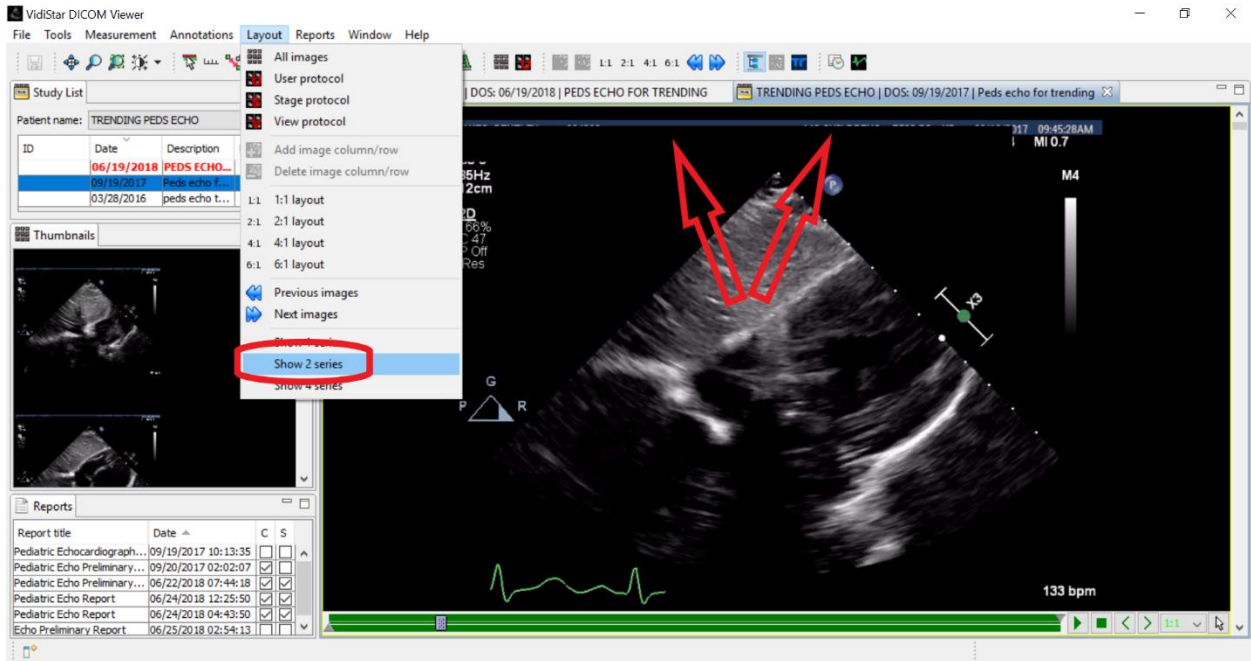
To bring up a side by side comparison of a previous study we need the priors tab open.



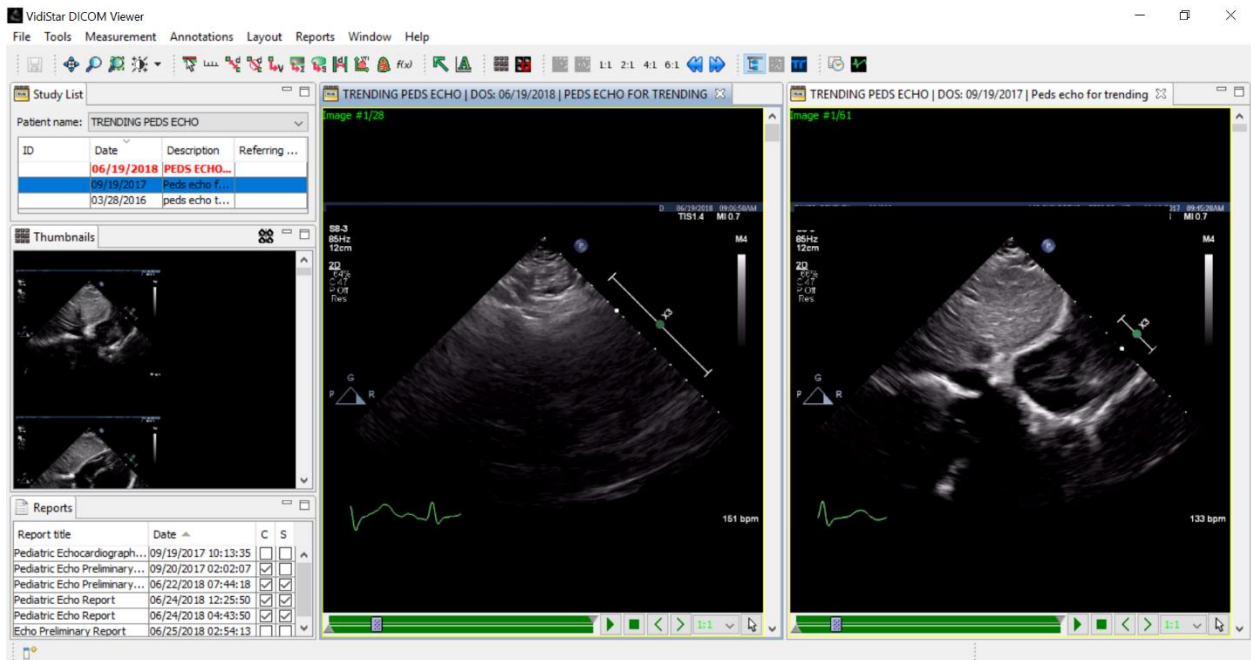
The study in red text is the current study open and the one to be edited.

Step By Step Vascular Guide

Double Click on the desired study for comparison.



Notice that there are now two tabs indicated by the red arrows. These tabs are the individual studies. Also note that if a PDF report is opened from within the reports section this same thing will happen. To see the studies side by side click "Layout", and then "Show 2 Series" and the studies will be displayed side by side.



Step By Step Vascular Guide

The Report Editor

Patient Profile Data

General

Patient name: PHILIPS^CAROTID

Examination date: 07/07/2014

Interpretation date:

Patient type: Outpatient

Patient location:

Age:

Sex:

Weight: 0

Height: 0

BSA: 0

Systolic blood pressure:

Diastolic blood pressure:

Heart rate:

DOB:

Referring Physician:

#1 Referred by:

User ID:

#2 Referred by:

User ID:

Report Dynamic Preview

VidiStar, LLC
P.O. Box 8539
Greenville, SC 29604-8539

CLINIC LOGO

Cerebrovascular Duplex Exam Report

Patient name: PHILIPS, CAROTID Patient ID: AFFINITH 70G

DOB: Exam: Referred by:

Age: Equipment: Affin® 70G Sonographer: Craig Walker M.D. F.A.C.C.

Sex: Location: Dist CCA: 81.00 cm/s 81.00 cm/s Interpreting physician: Jonathan Boan (Vidistar) RT(R)(CT)(N)

ID: Outpatient Exam. date: 07/07/2014

| Right Carotid | | Left Carotid | |
|---------------|------------------------|---------------------|-------------------------|
| PSV | EDV | PSV | EDV |
| 80.00 cm/s | 80.00 cm/s | Prox CCA | 79.00 cm/s 79.00 cm/s |
| 80.00 cm/s | 80.00 cm/s | Mid CCA | 81.00 cm/s 81.00 cm/s |
| 81.00 cm/s | 81.00 cm/s | Dist CCA | 81.00 cm/s 81.00 cm/s |
| 81.00 cm/s | 79.00 cm/s | CCA | 80.00 cm/s 81.00 cm/s |
| 102.00 cm/s | 101.00 cm/s | Carotid Bifurcation | 99.00 cm/s 100.00 cm/s |
| 101.00 cm/s | 100.00 cm/s | Carotid Bulb | 99.00 cm/s 102.00 cm/s |
| 101.00 cm/s | 102.00 cm/s | Prox ICA | 99.00 cm/s 99.00 cm/s |
| 100.00 cm/s | 101.00 cm/s | Mid ICA | 100.00 cm/s 101.00 cm/s |
| 101.00 cm/s | 100.00 cm/s | Dist ICA | 100.00 cm/s 100.00 cm/s |
| | | ICA | 100.00 cm/s |
| 1.25 | ICA/CCA velocity ratio | 1.23 | |
| 1.26 | ICA/CCA EDV ratio | 1.25 | |

Findings

Right Carotid Normal carotid artery examination. Common carotid artery, internal carotid artery and external carotid artery appear within normal limits without evidence of significant plaque or hemodynamically significant flow disturbance bilaterally. No plaque was identified in right common carotid artery. Right common carotid is normal. No plaque was identified in right carotid bulb.

Left Carotid Normal carotid artery examination. Common carotid artery, internal carotid artery and external carotid artery appear within normal limits without evidence of significant plaque or hemodynamically significant flow disturbance bilaterally. No plaque was identified in left common carotid artery. There is a mild smooth plaque in the left common carotid artery, origin of the common carotid artery. Left common carotid is normal.

Page 1 of 1

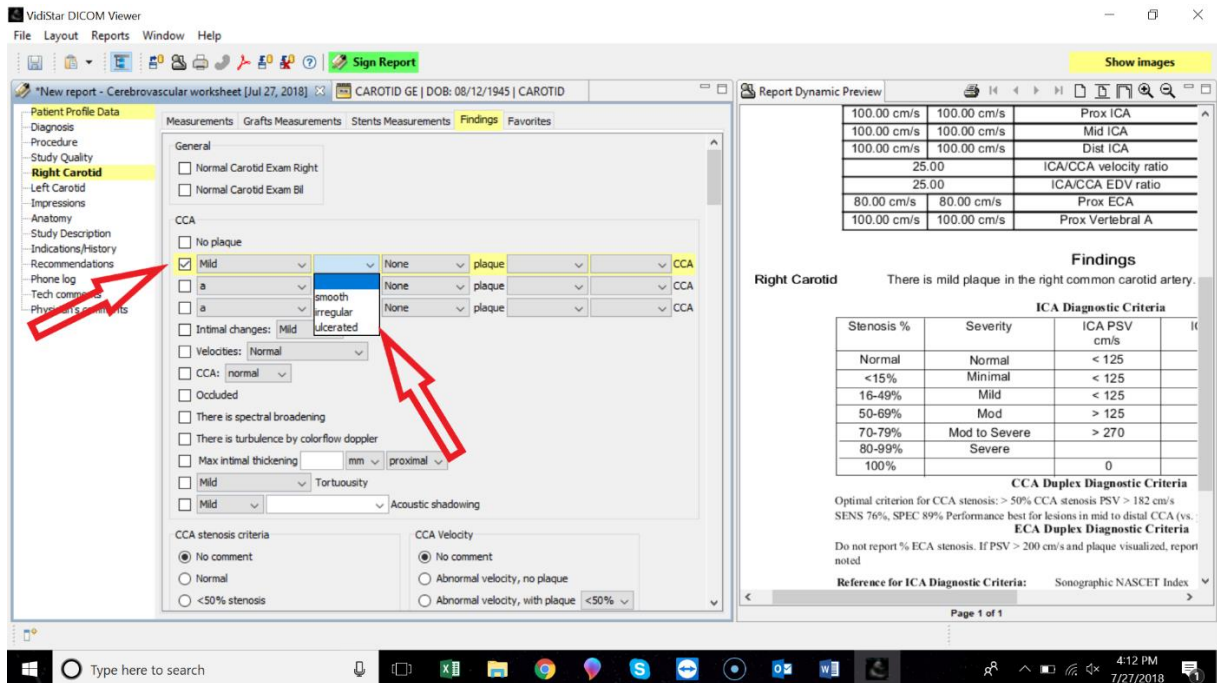
The workflow of the report editor is to work from top to bottom, and then work across the top with the tabs that need editing. As a physician unless things need changing you can mostly skip the profile, diagnosis, indications/history, and procedure tabs on the side.

The side tabs correlate to sections on the report. Please note in the example that the right and left carotid side tabs are yellow, this indicates there is information in the report that can be found within those side tabs. If a tab at the top is yellow this indicates there is information there as well.

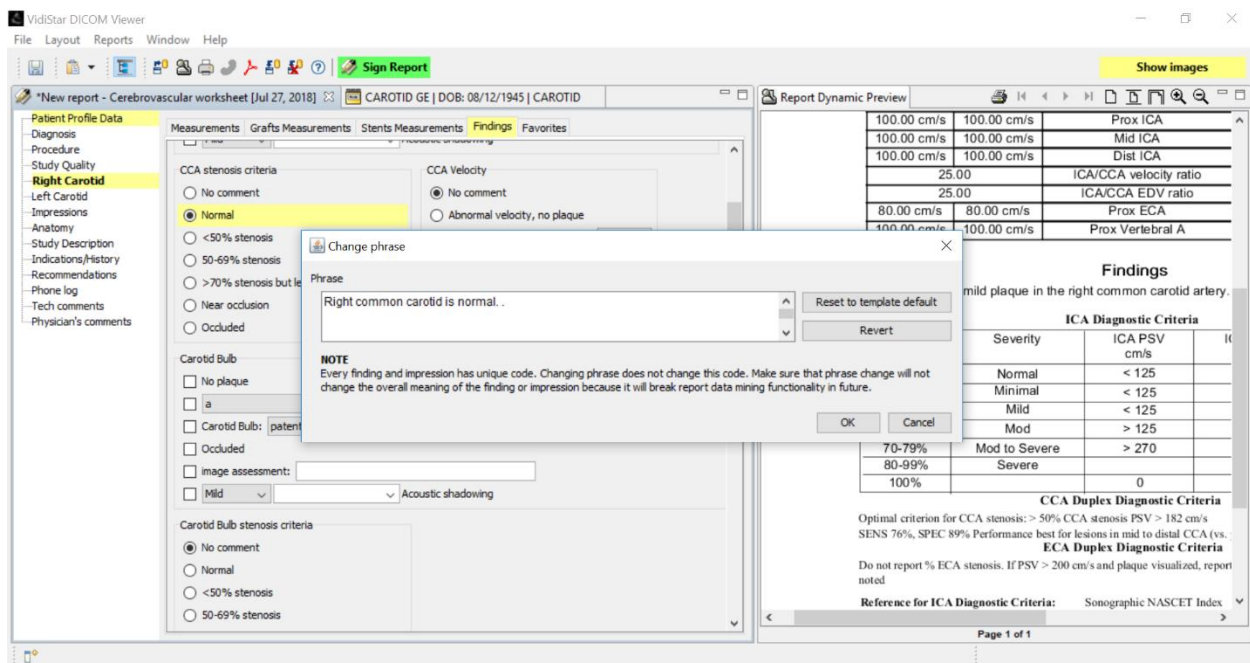
The Specific areas within the findings (body) of the report will be laid out as “Right Carotid”, “Right Leg”, etc.

The report will be created using check boxes to place those phrases in the report preview. If there are drop down boxes those can be clicked to make another selection to edit the phrase displayed. For phrases like the one in the below example clicking the box will enter a simple phrase and the more that is added with the blank drop down boxes the more will be added to the phrase.

Step By Step Vascular Guide



In the instance of a final report the physician will see how the technologist created and signed the preliminary report (worksheet) before assigning it to them. Any changes made will be reflected on the final report and this is the report that will be sent by the fax server or integrated into the EMR.



If it is desired to change the phrasing of the statement for just this report, the user can hold the CTRL key and click on the text of the phrase in the report editor on the left side. This will NOT work on the right side of the screen. The ONLY way to make changes to the right side is through editing the left side. Once the user is finished editing the phrase click OK and the report preview will display the changes.

Step By Step Vascular Guide

The screenshot shows the Vidistar DICOM Viewer interface. The main window displays a report for 'Right Carotid' with the following sections:

- Measurements:** CCA stenosis criteria (Normal selected), CCA Velocity (No comment selected), Carotid Bulb (No plaque selected), and Carotid Bulb stenosis criteria (No comment selected).
- Findings:** Right Carotid. There is mild plaque in the right common carotid artery.
- Impressions:** Right common carotid is normal.
- ICA Diagnostic Criteria Table:**

| Stenosis % | Severity | ICA PSV cm/s |
|------------|---------------|--------------|
| Normal | Normal | < 125 |
| <15% | Minimal | < 125 |
| 16-49% | Mild | < 125 |
| 50-69% | Mod | > 125 |
| 70-79% | Mod to Severe | > 270 |
| 80-99% | Severe | |
| 100% | | 0 |
- CCA Duplex Diagnostic Criteria:** Optimal criterion for CCA stenosis: > 50% CCA stenosis PSV > 182 cm/s. SENS 76%, SPEC 89% Performance best for lesions in mid to distal CCA (vs. ICA Duplex Diagnostic Criteria).

A quick option for adding phrases to the impressions area is to right click on the text, just like the CTRL click option, the phrase will turn purple and will be in the findings and impressions area. If the user wants to change it back to only being in findings simply right click on it again and it will turn yellow again and be found only in findings.

Please note if Tech Comments is in yellow the tech is trying to communicate information that is not desired on the report to the physician.

Once the report is completed and satisfactory click the green "Sign Report" button at the top of the window. It is normal that the system is set up to close the patient once this is clicked.

If the advanced filter is set to show only patients that need to be read the patient should be removed automatically from the study list. Now the user can choose a new study to read.