



Optos*Advance*TM Image Review Instructions



Purpose

This is a quick start reference document that summarizes interaction with Optos*Advance*.

NOTE: Full operating instructions and device warning and cautionary messaging are provided in Help section of Optos*Advance*. Once logged into the software, select the **Help** icon from the toolbar to search or browse guidance topics.



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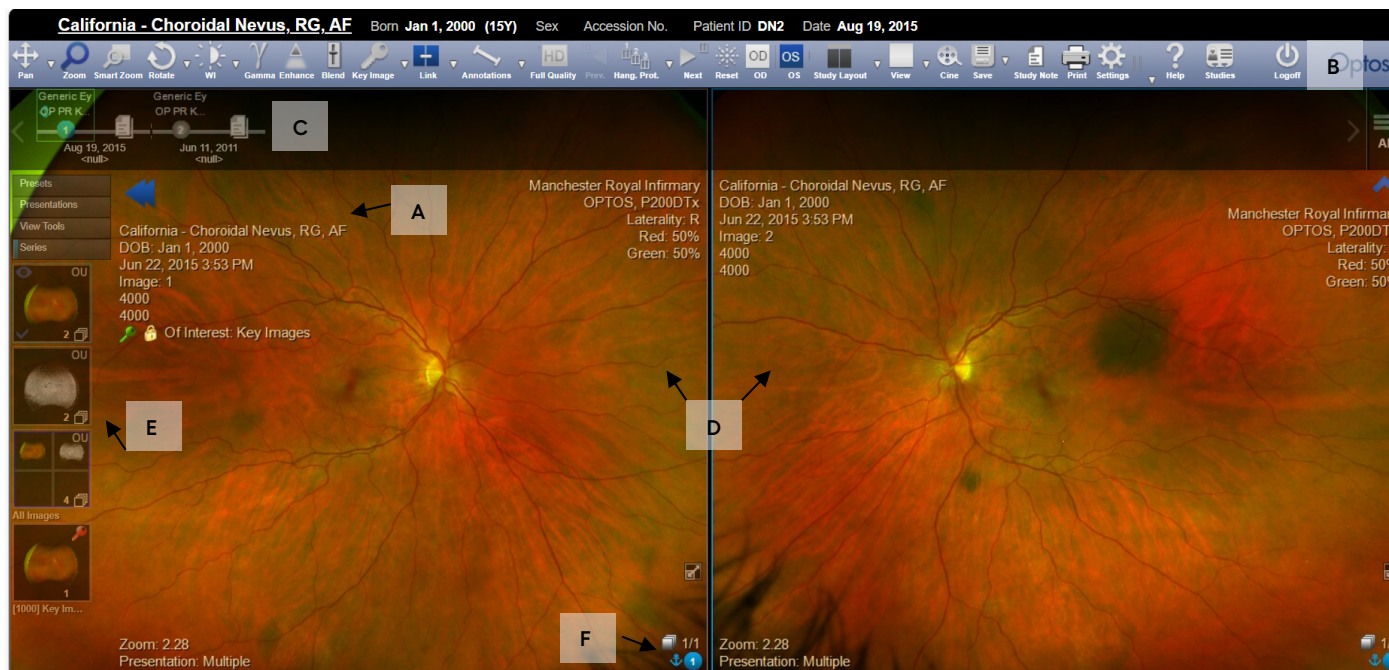


Logging into Optos *Advance*

- 1 | Double-click the icon on the desktop for Optos *Advance* to take you to the login screen.

Searching for Patient Studies

- 1 | Navigate to Patient Search on the left-hand menu.
- 2 | Set your Data Sources and Time Range
- 3 | Type Patient ID or Patient Last Name
- 4 | Click on **Query** to display patient studies and choose the study you want to review,
 - a. In most cases, images are presented with a 1x2 Study Layout with right eye images in the left viewport and left eye images in the right viewport (below, *Screenshot* ↗).



Above: Screenshot 1

A	Patient Information
B	Toolbar
C	Timeline
D	OD/OS Viewports
E	Series' of images captured during the session
F	Number of images available for review



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Mouse Functions

Image review in Optos*Advance* is made easier by use of your computer's mouse. Review the functions below to aide with performing the Zoom, Pan, R/G Blend, Enhance functions, and more.

1	Zoom: Hold the left mouse button and push your mouse towards the screen. The images are linked by default, so all viewports are zoomed into the same magnification with the zoom amount displayed at the lower left.
2	Pan: Hold the right mouse button while moving the mouse.
3	Blend: Hold the left mouse button while holding down the Shift key.
4	Enhance: Hold the right mouse button while holding down the Shift key. Push your mouse towards the screen to sharpen an image.
5	Scroll: Scroll the mouse wheel to cycle through multiple images taken.
6	Smartzoom: Click the scroll wheel once to activate Smartzoom overlay on an image. Move the cursor outside the overlay and click the scroll wheel once to remove.
7	Gamma: Press the scroll wheel and move your mouse towards the screen to increase gamma and away from the screen to decrease.
8	Contrast: Hold the scroll wheel and your Shift key and move your mouse towards the screen to increase contrast and away to decrease.
9	To view a single, full-screen viewport, double-click an image. To go back to the original, 1x2 view, double-click the image again.





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Views and 3D Wrap

Updating Views

The **View** drop-down menu on the **Toolbar** allows for you to change the current view of a selected image. Below is a description of each view:

- 1 | **Three Split** will show your current image as well as the red and green channels.
- 2 | **Red** will show the choroidal view of the current image.
- 3 | **Green** will show the sensory retina view of the current image.
- 4 | **3D Wrap** is a useful patient education tool (*screen shot 3*) and is activated by clicking the 3D Wrap icon. It is also found in the Hanging Protocols menu views.

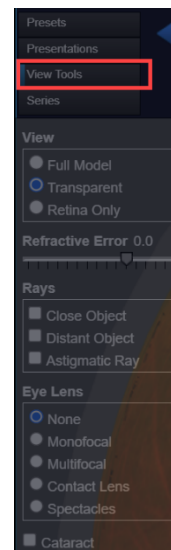


3D Wrap

- 1 | 3D Wrap will open in an automatic Cine play. To stop the animation, press the space bar on your keyboard.
- 2 | Use your left and right mouse button functions to manipulate the zoom and rotation of the 3D Wrap.

When viewing an image in 3D you may click the **View Tools** menu option located on the left side panel to access different views and conditions that can be applied to the image.

- 1 | Click on **View Tools** on the left side menu to open the tools included with 3D Wrap.
- 2 | Different views and conditions can be applied to the image:
 - View
 - Refractive Error
 - Rays
 - Eye Lens
 - Cataract

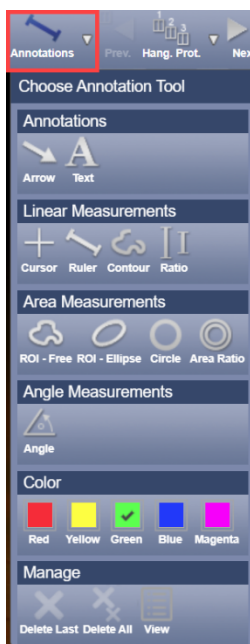




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Annotations

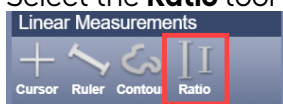


There are many annotation and measurement tools that can be selected from the drop-down menu under the **Annotations** icon on the **Toolbar**. Select the arrow beside the icon to expand your options.

We will expand the most used annotations in the sections below.

Cup to Disc Ratio

- 1 | Zoom into the image ONH
- 2 | Select the **Ratio** tool from the **Annotations** icon options

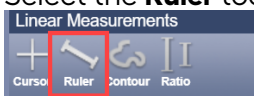


- 3 | Place your cursor at the top of the cup, click and drag down to the bottom of the cup and release.
- 4 | Place your cursor at the top of the disc, click and drag down to the bottom of the disc and release.

The ratio will be displayed beside the annotations

Linear Measurement

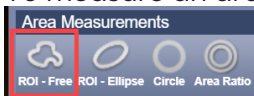
- 1 | Select the **Ruler** tool from the **Annotations** icon options



- 2 | Place your cursor where you want your measurement to begin, click with your left mouse button, drag, and release for a measurement in mm.

Area Measurement

- 1 | To measure an area, use the **ROI-Free** from the **Annotations** icon options



- 2 | Using the left mouse button, draw an outline around the area of interest. A measurement will be displayed beside your annotation.

Smart Zoom

Another useful feature is **Smart Zoom**, which can be used to overlay images of different modalities, or different study dates, for ease of comparison.

- 1 | Click the middle scroll wheel while the cursor is over an image or select the icon on the **Toolbar**. An overlay window will be applied onto the center of the image.



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- Resize the Smartzoom box by dragging its corners outward.
 - Drag the sides of the box to move to any area on the image, including, to another viewport if desired.
- 2 | Different images of the same eye or different series of the same eye (ex. *af*, *fa* or *icg*) may be brought into the overlay by pressing the left mouse button and dragging it into the Smartzoom window and releasing the left mouse button to drop the image(s) in.
 - The green dot at the bottom left of the overlay indicates that the vessels have been registered correctly.
 - 3 | Blend through the overlaid image by holding down the scroll button and moving the mouse towards you and away from you to change the transparency of the image.
 - 4 | Prior imaging sessions can be dragged into the **Smart Zoom** overlay as well for comparison. Once a prior visit is dragged in, the series thumbnails on the left sidebar would reflect the prior visit.
 - 5 | To turn off **Smart Zoom**, simply tap the middle scroll wheel outside the smart zoom window or click on the **Smart Zoom** icon on the **Toolbar**

Toolbar

It is suggested that you use the mouse controls to navigate through the functionality of Optos *Advance*; however, the same functions can be utilized from the **Toolbar**. To use the items on the **Toolbar**, use the left mouse button; however, to deactivate you need to click back to the **Zoom** tool on the **Toolbar**.



Pan	Moves the image up, down, left, or right.
Zoom	Zooms image in and out.
Smart Zoom	Enables Smart Zoom function to overlay images of different modalities or dates of service.
Gamma	Adjusts the brightness of an image.
Enhance	Allows you to adjust the clarity of an image.
Blend	Allows you to blend through the image to see the choroid or sensory retina views.
Key Image	A feature to be used to mark your favorite images. The keyed images are placed into a new series in the Patient Study on the left-hand side menu.
Link	Links together the Zoom and Pan functions on your viewports.
Annotations	Presents a set of tools to measure and notate on the images.
Prev.	If the Prev. button is available, click on it to display the previous stage of Hanging Protocols. Depending on the configuration and device, it will show you <i>color rg</i> , <i>color rgb</i> , <i>green af</i> , <i>blue af</i> , <i>OCT</i> , reports, or a comparison of today and prior images. See also Hang. Prot. on toolbar for menu of stages.
Hang. Prot.	Hanging Protocols are set stages of viewing images captured. They are device specific. Clicking on Hang Prot will display a menu of viewing options to choose from. Clicking the Next and Prev. button on the toolbar will allow you to move through each stage



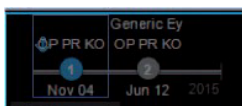
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	individually. Stages marked by an asterisk indicates Prior image side-by-side view is available.
Next	If the next button is available, click on it to go to the next stage of Hanging Protocols. Depending on the configuration and device, it will show you <i>color rg</i> , <i>color rgb</i> , <i>green af</i> , <i>blue af</i> , <i>OCT</i> , reports, or a comparison of today and prior images. See also Hang. Prot. on toolbar for menu of stages.
Reset	Returns image to original form. Helpful to quickly remove manipulations or annotations.
Study Layout	Used to customize the image viewing area by allowing you to add additional viewports on the screen. You can drag a different image set or date into each viewport allowing you to view multiple modalities simultaneously.
View	Changes how many images display in a Study Layout viewport. Other optomap Views or OCT Views available here. See Views and 3D Wrap section.
Titles	Allows you to hide/unhide the image titles.
Save	Allows you to export images in jpg format. Select Save, then Export. You can choose which images to save and which titles to include: None, All, Minimal, or Light.
Settings	Used to create new users. Only an Admin User can add other users to the system. Go to Settings and under User Management , select Accounts . At the bottom on the screen click on Add. Add required fields and click Save .
Help	Opens a help menu in a new window in your browser. The help page has a table of contents on the left side. You may also search for information related to a key word. To close the help tab, simply select the “x” on the browser window when done.
Directory	If you are finished reviewing the patient’s images, select the Directory icon to go back to the Patient Search Screen .
Logoff	When you have finished using the review software you can exit by clicking the log off button. Do not “x” out of the browser window until after you have logged out of the application.

Prior Dates of Service

- 1 | If the patient has had prior imaging sessions, these will display in a timeline underneath the Toolbar.



- 2 | You may need to expand the timeline to view prior dates of service by clicking on the **blue arrow** at the top right of the viewport underneath the toolbar.



When opening a patient study that has a prior imaging session, the images of the study you opened will display as 1x2 (*see image below*). This is your Anchor study.

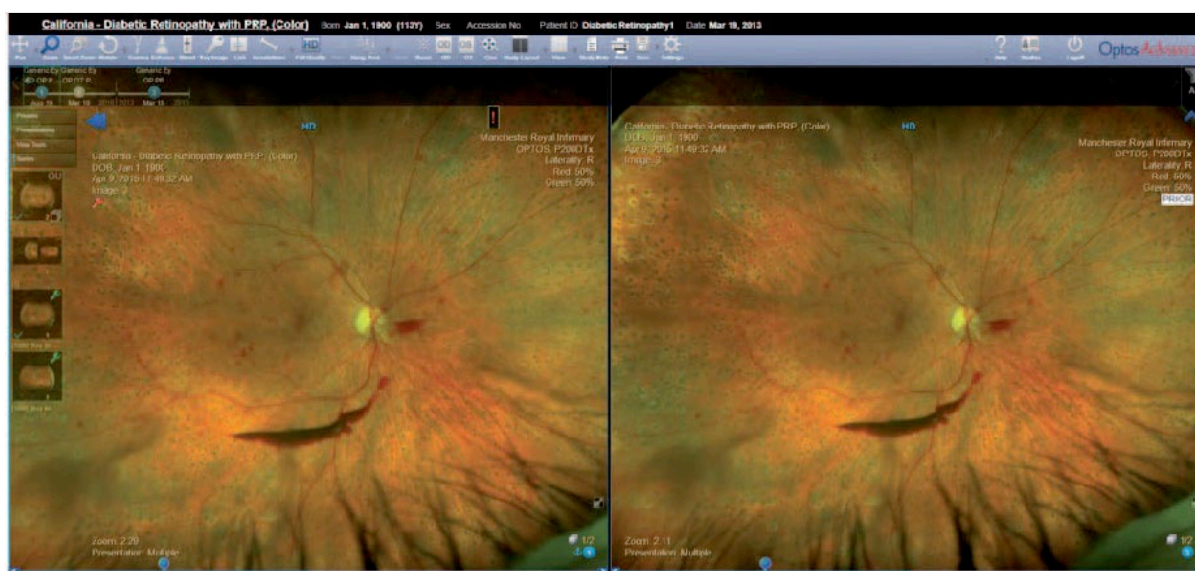
- Click the **Next** button on the toolbar (or Hang. Prot. to see all stages available) to



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- see a comparison of today's images and most recent prior visit images.
- Prior side-by-side images are indicated by an asterisk in the Hang. Prot. menu. If you want to view images from older sessions, drag and drop from the timeline into the viewport or click on the ALL button in upper right corner to show thumbnails of all images and dates available.
- Drag and drop images into viewport to display side-by-side.

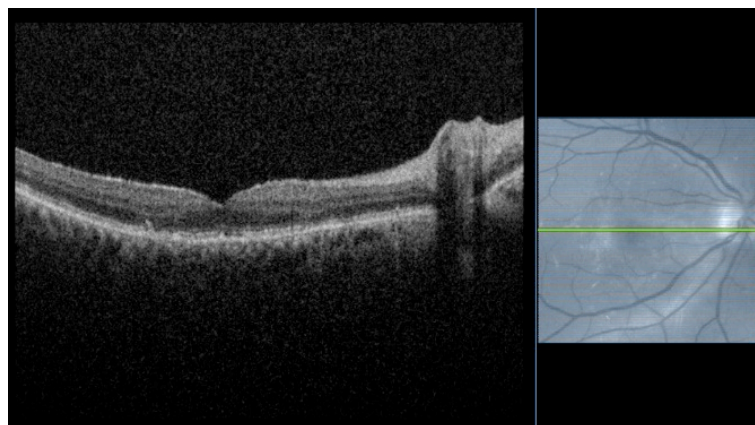


OCT Review

When viewing an *OCT*, you will be presented with a cross-sectional image of the retina, as well as the corresponding reference line on the cSLO image.

Hover your mouse over the *OCT* and use the **Scroll Wheel** to scroll through the different sections of the captured *OCT* if a volume scan was captured. The reference line on the image will also move to the corresponding area.

There are various **Views** available when reviewing an *OCT*.





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MPR Views are available for the Retina and ONH *OCT*. When the Enface MPR option is selected, an MPR image with a coronal view of the *OCT* slice stack is shown in the main (top-left) viewport. If the reference lines in either of the cross-sectional viewports are modified, the MPR image in the main viewport will be updated accordingly.

The **cSLO Reference** view displays an *OCT* image stack in the left viewport and a corresponding cSLO image in the right viewport.

In the **3D View**, the tissue above the top layer and below the bottom layer has been removed, allowing you to view the depths between the layers more easily.

Radial is available on volume scans. It is auto extracted.

Explorer View will allow you to quickly see and select available *OCT* scans that were taken on the same day on the same eye. (See Hanging Protocol menu also for Explorer Views)

Reports can be found in the Hanging Protocol menu.

Other views may be available depending on your region.

Training Videos

Training Videos can be found on our website: www.optos.com (select the Customer section). You may be prompted to register for a new account or log in to an existing account. The videos and additional help documents are in the Training section.

