

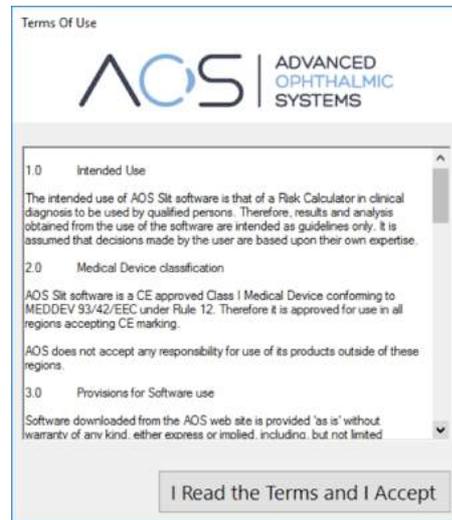
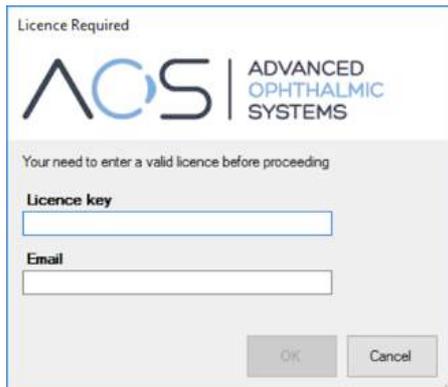


Quick Start Guide AOS Anterior Version 2.1

Basic setup after installation

Downloading the software and Setting up the License

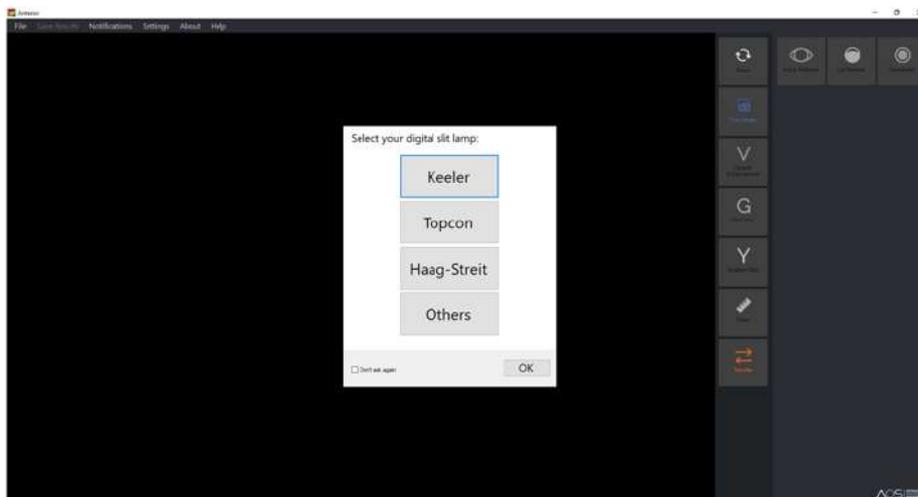
The first time the application is run, it will request the user to insert the License Key and email address. The user receives this information after purchase, via email. Enter the email address that you registered your purchase with.



Enter your Licence key and email, scroll down to read and agree the Conditions, and you can now access AOS Anterior.

Choose your Slit Lamp Manufacturer

When the AOS Anterior software starts, you will be asked to select your Slit Lamp manufacturer. Select Others if yours is not listed.



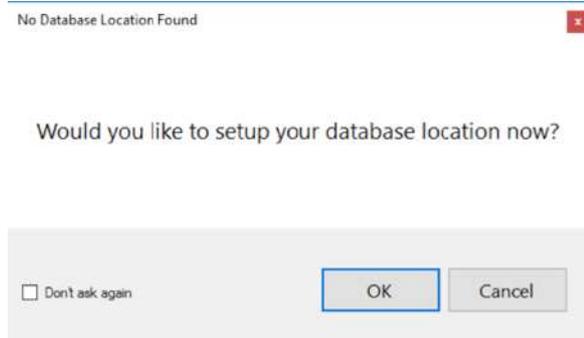
Tip:

Once you have selected your manufacturer you can also click on “Don’t ask again” so that the software will not ask again on start up.

Set up Database Location

Every manufacturer saves its digital images in a specific folder. Hence, the AOS Anterior software allows the user to set the database location within the folders to allow a quick and easy access.

Browse and select your database folder and a confirmation message confirms your set location.

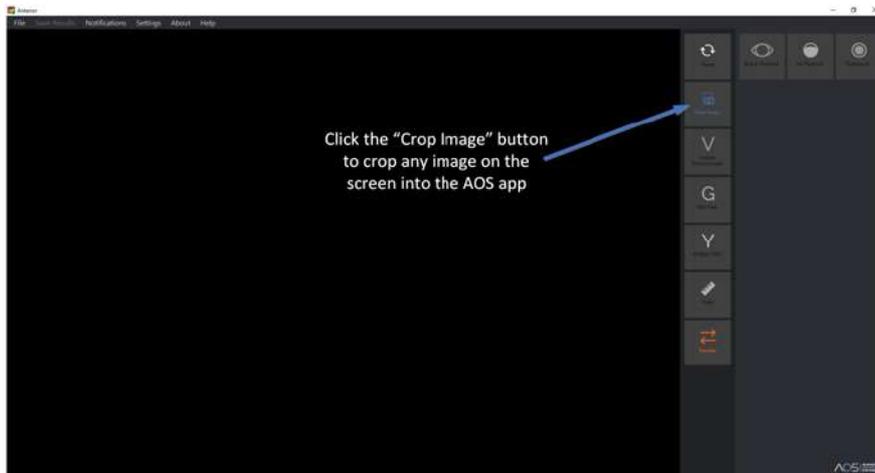


Tip: Once your database is set you can amend its location by going to the File menu and re-selecting Set Database Location.

Access your data

There are 2 ways to import your images into the AOS Anterior software:

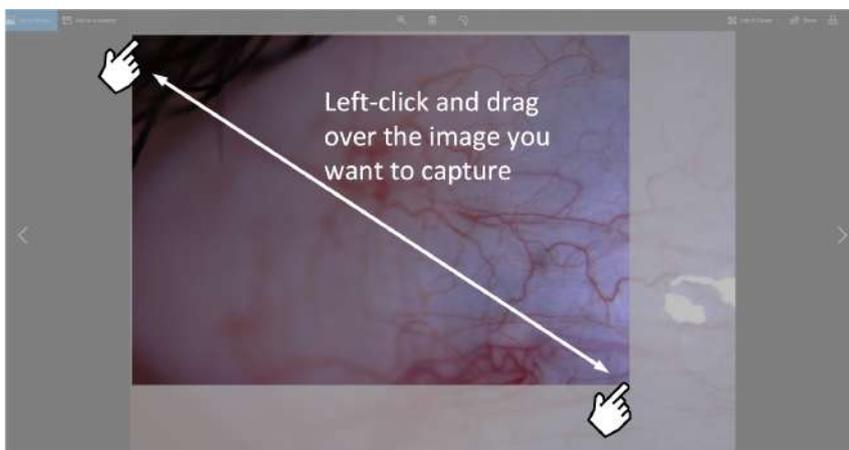
- a) Use the fast and easy Crop Tool
- b) Click on File > Open, and you can import the image from any of your folders.



The Crop Tool allows you to snip any image which is on your screen, directly into the AOS Anterior software.

Click on the Crop Image button and then left-click and drag the cursor around the area you want to capture.

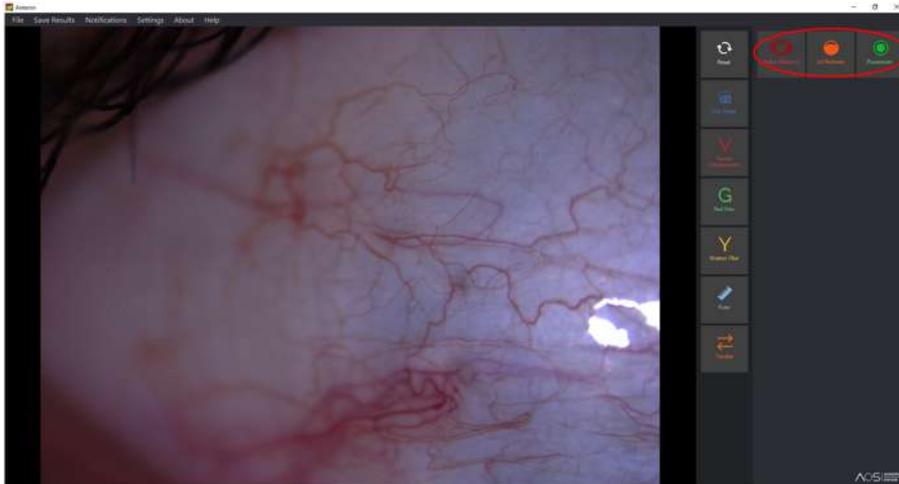
The image you crop must be in the application directly behind Anterior.



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Modes of Operation

The three main modes are available across the top of the control panel on the right of the application window;



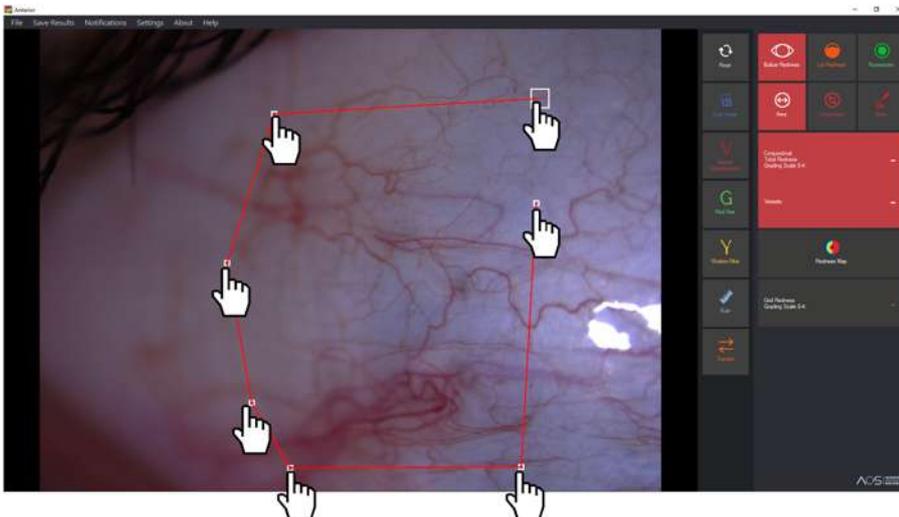
Bulbar Redness

Lid Redness

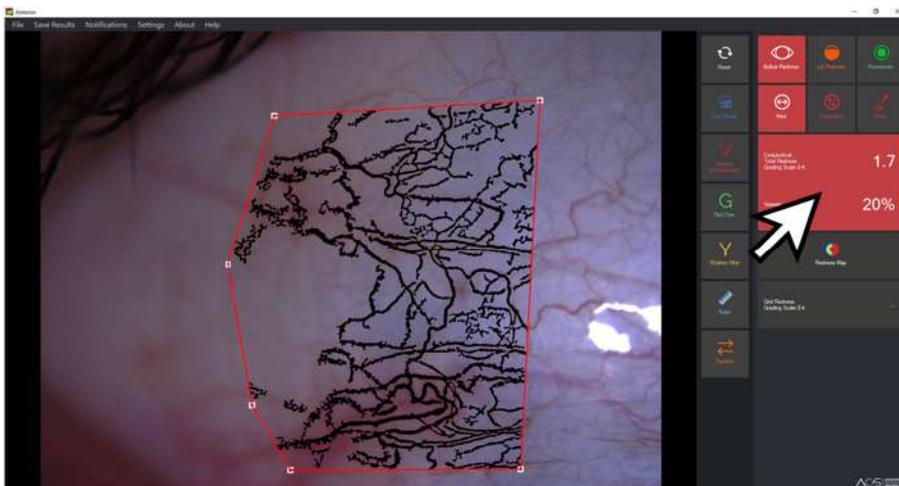
Fluorescein

Grade Bulbar Redness and extract vessels percentage

Click on **Bulbar Redness** and begin by drawing an area to analyse by 'left clicking' with a mouse or trackpad, to close the area 'right click' your mouse or trackpad.



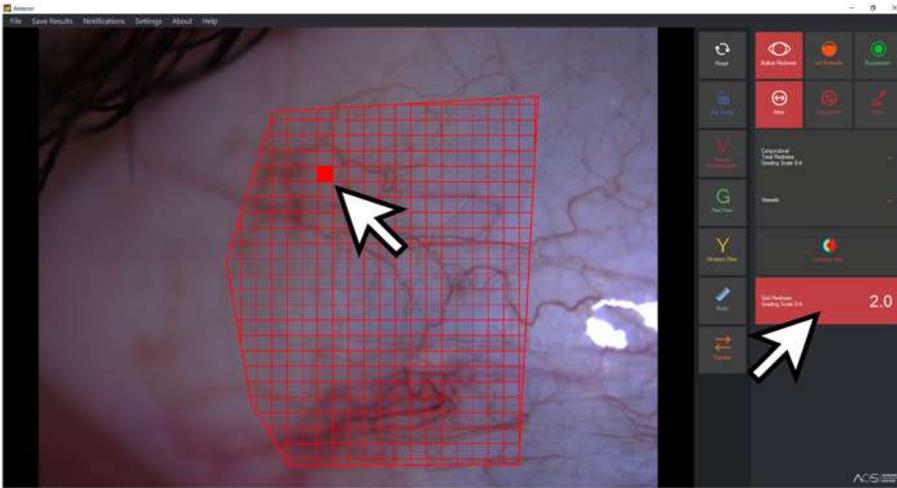
Once your area is drawn, simply click on the button below "Conjunctival Total Redness Grading Scale 0-4:" button to obtain the bulbar redness grading and the percentage of vessels captured within the selected area:



From above it's possible to see that the grading is 1.6 with 23% vessels present in the selected area.

Calculate the grading redness on individual points over the selected area by using the Grid Redness

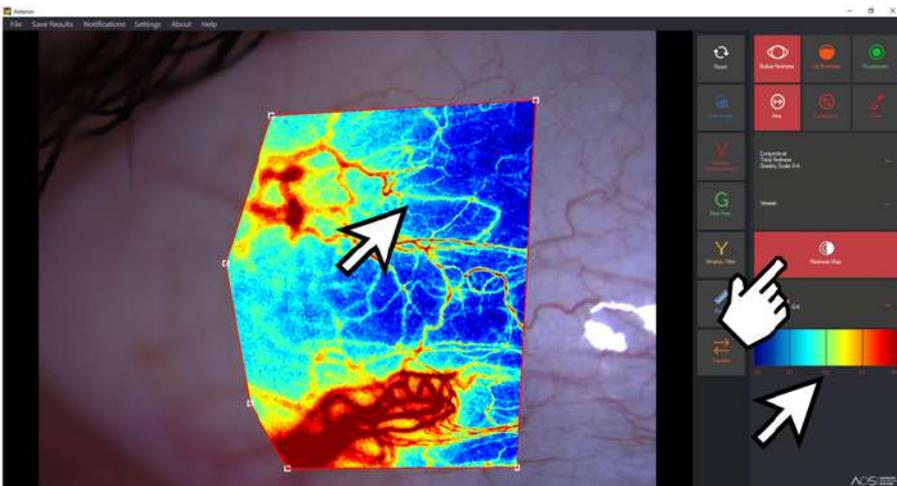
Some areas might be “redder” than others, it is possible to grade individual small areas singularly, simply by clicking on the “Grid Redness Grading Scale 0-4:” button and clicking on one of the squares within the grid.



Select other grid squares and notice the 0 – 4 Grading Score change in the control panel.

Redness Map - generate a colour visual representation of the Bulbar Redness

The Redness Map feature associates Hot/Cold colours to the 0 to 4 grading scale to allow the user and the patient to immediately observe how the redness is distributed over the selected area:



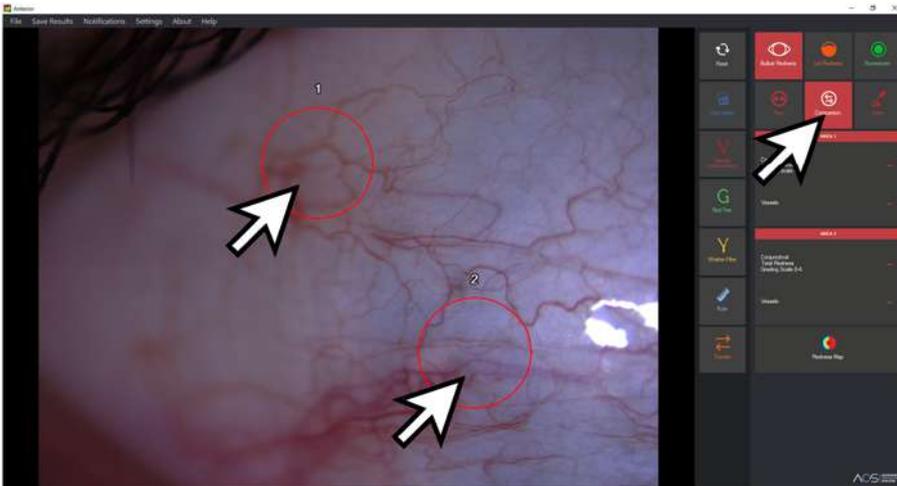
Dark Blue = 0 and Red = 4 in the 0-4 grading scale.

Whilst in this mode the 0 – 4 score will be given for any given point at the tip of the cursor.

To draw a new area to analyse, click on the image away from the area and you will be prompted to draw a new area.

Simultaneously compare different areas over the Bulbar region

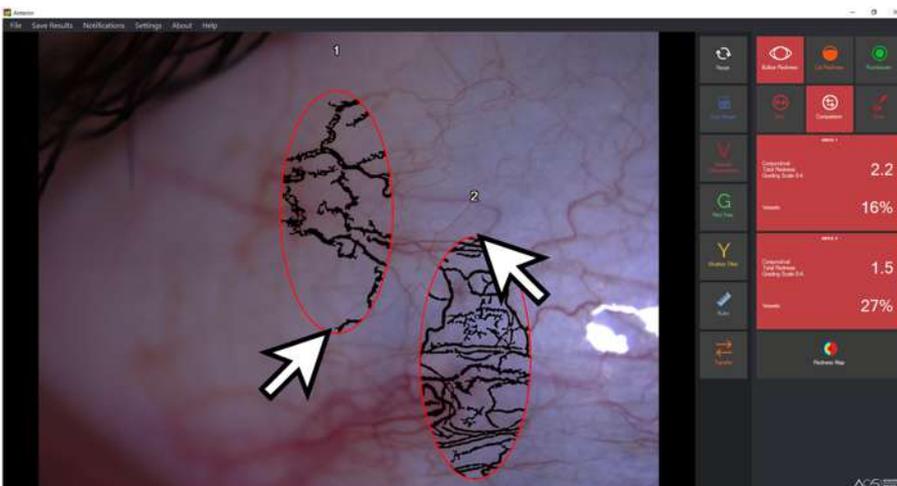
Select the Comparison feature and “click & drag” the two circles to position where desired



When in the centre of the circle, the mouse cursor will show as a 'hand' and allow you to grab and drag the circle to a new position.



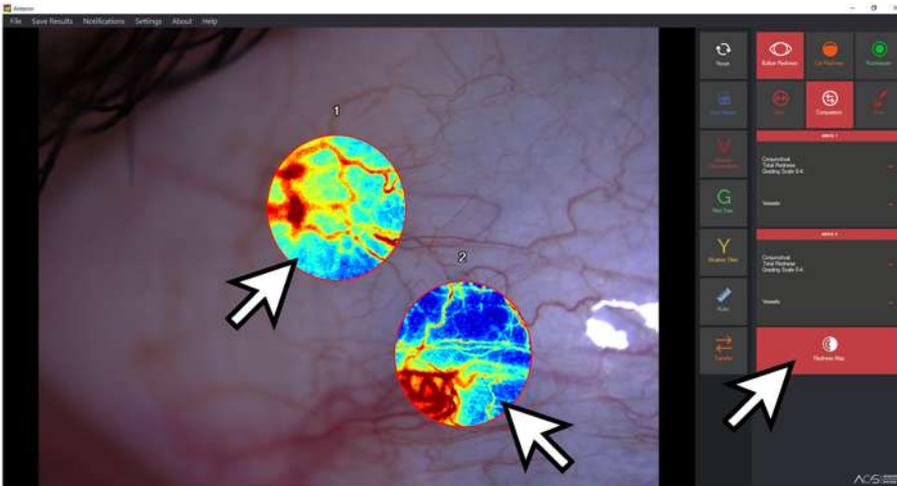
Check the Conjunctival Total Redness area in the control panel for vessel extraction to take place and a score applied.



Moving the cursor over the edges of the circles will allow you to grab the sides or top or bottom, allowing you to stretch and resize both circles simultaneously. The score will again be applied.

Simultaneously compare different areas over the Bulbar region (cont'd)

Redness Map can also be applied to the identical areas being compared. If the areas are moved, the Redness Map continues to be applied. However, no score is given in these windows at the mouse cursor.



The Draw tool

If you need to draw a line over the image for any reason, perhaps to highlight an item for patient education purposes, click on the Draw tool button followed by 'left clicking' to draw the path of the line (as you would when drawing an area to analyse). Again, right click your mouse or trackpad to end the line.

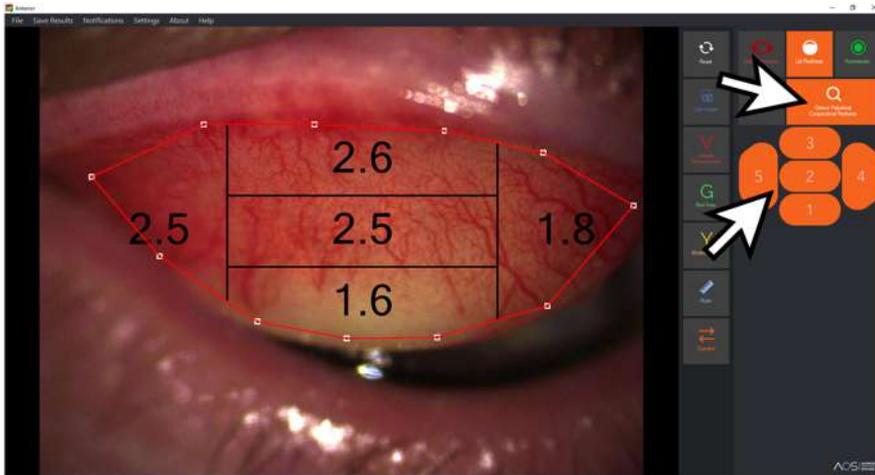


Once the line is drawn you can change the thickness and colour easily using the buttons provided.

To draw a new line, click on the image away from the line and you will be prompted to draw a new line.

Grade Lid Redness

Select the Lid Redness mode and draw an area over the palpebral Conjunctiva as shown below by “left clicking” with your mouse, remembering to ‘right click’ to close the area.

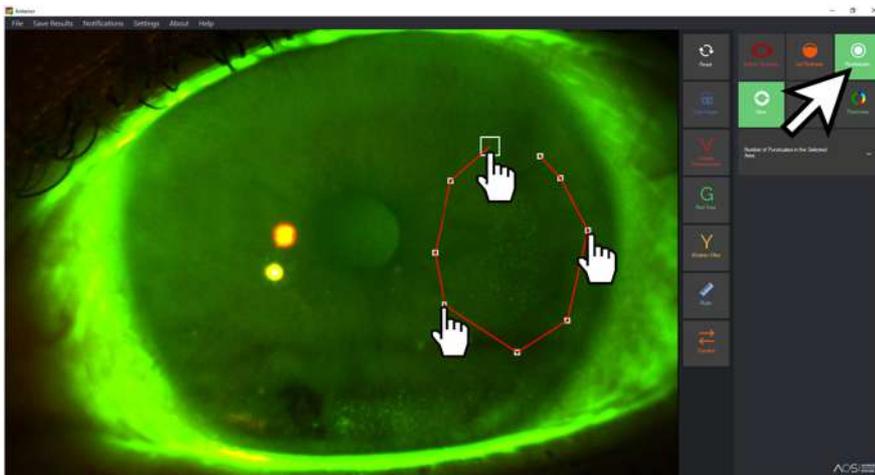


Once the area is drawn the area is split into 5 sectors and the Palpebral Conjunctival Redness score is displayed.

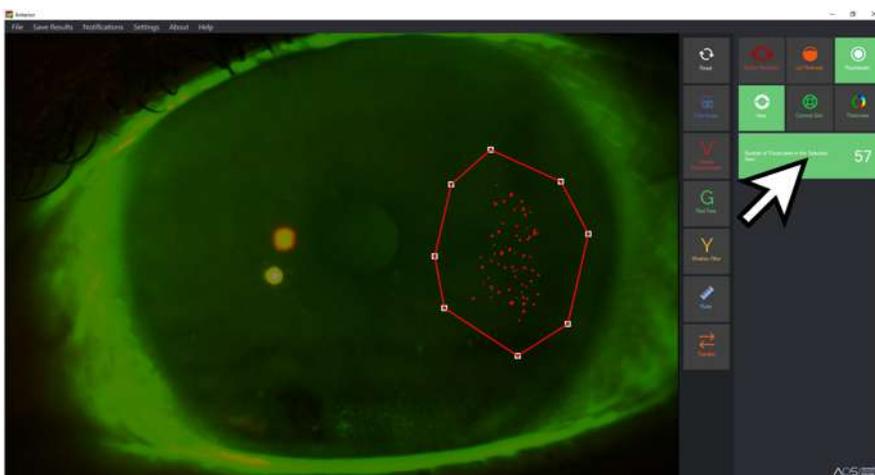
To amend this and any other drawn area you can grab and drag the anchor points, or add an anchor point by clicking on the line.

Fluorescein

The Fluorescein > Area feature allows the user to select areas over the cornea and conjunctiva to extract and accurately count punctuates and conjunctival folding.



Simply upload an image, click on the Fluorescein mode button and draw an area of interest using the left click and right click to close method.

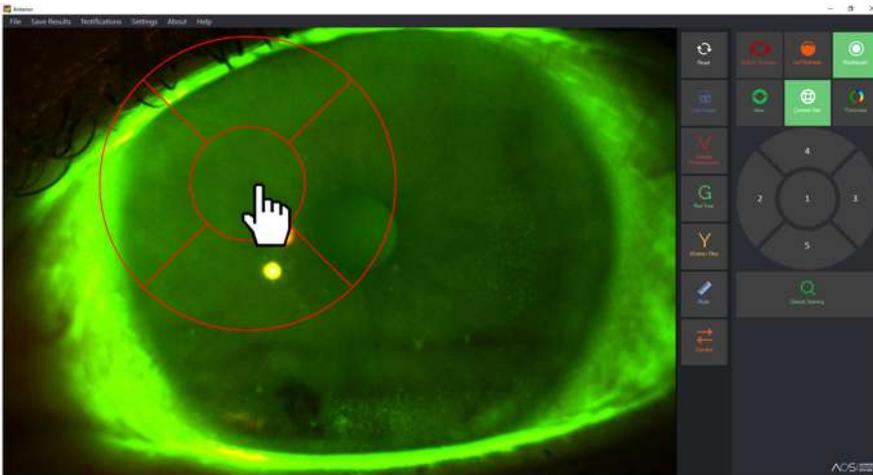


The red dots or blobs represent punctuates on the cornea and the number is automatically shown in the control panel.

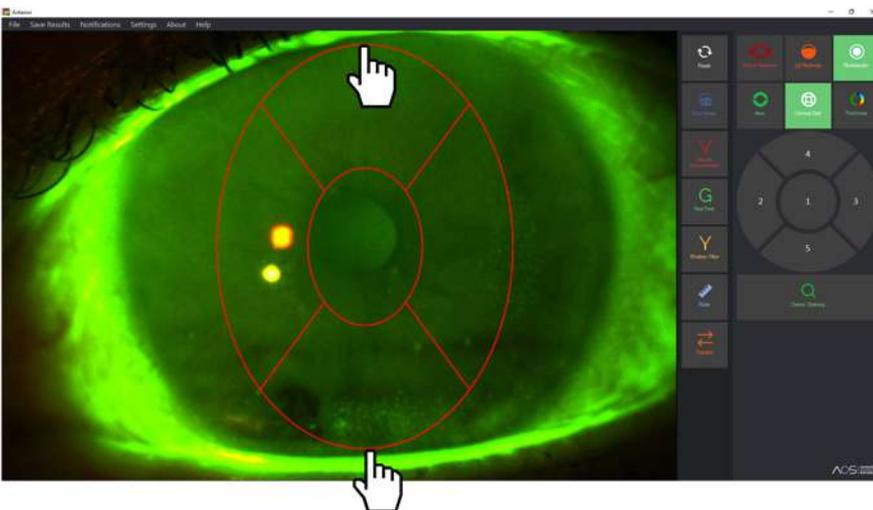
If some of the dots are unwanted artefacts, they can be removed by ‘right clicking’ and ‘wiping’ over the image. The count will be automatically adjusted.

Fluorescein and Corneal Grid

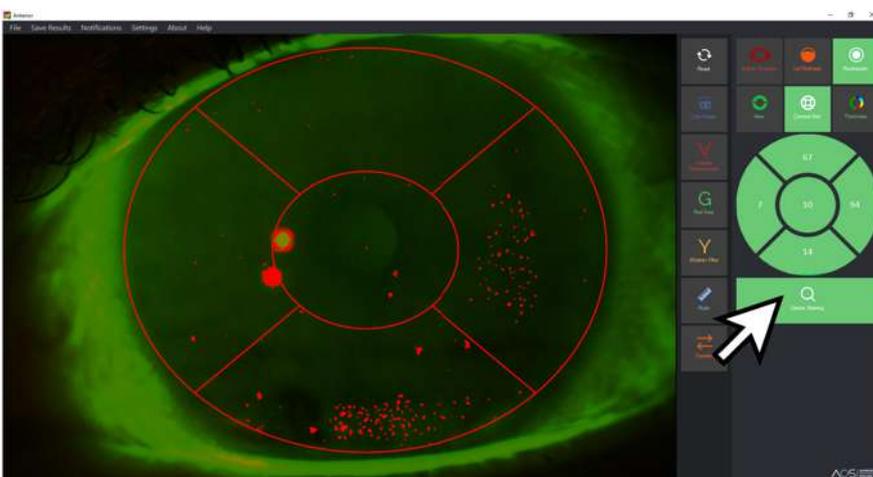
Fluorescein mode also allows users to analyse the cornea based on the 5 corneal regions. Simply click on Corneal Grid and the grid will automatically be displayed over the image. You can click in the centre of the grid to change location, and you can click on the sides to adjust height and length of the grid:



Once the hand cursor is shown by hovering in the centre sector, you can grab and move the grid.



The grid can be adjusted to fit the cornea by grabbing the side and top / bottom handles and stretching the grid to fit.

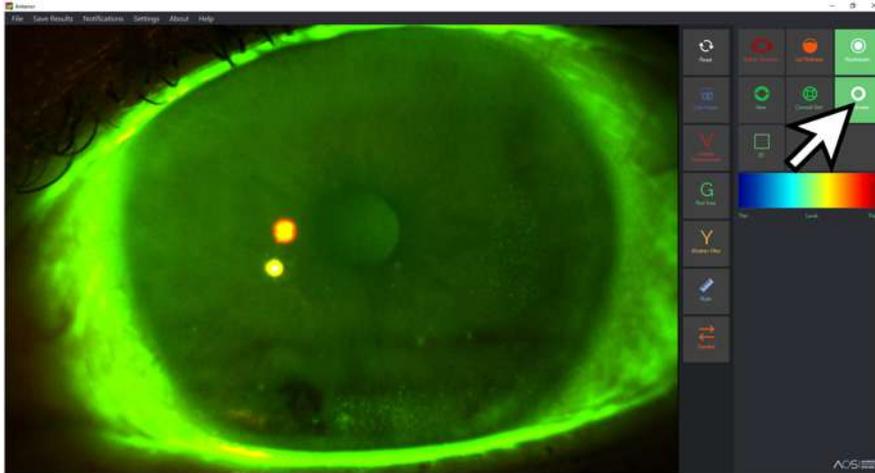


Once you have the grid in place, click 'Detect Staining' to show the punctuates and the count for each sector.

Again, any unwanted artefacts can be removed by 'right clicking' and 'wiping' them off. The score will be adjusted.

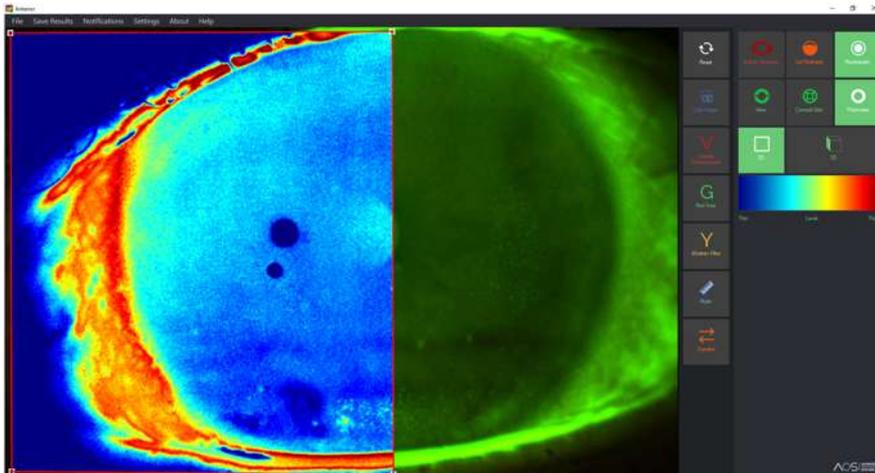
Fluorescein – Thickness

AOS Anterior can also help visualise the thickness of fluorescein over the eye by creating a heat map. Working identically to Redness Map, cold colours (e.g blue) represent thinner levels of fluorescein, whilst red represents thicker levels.



Whilst in Fluorescein mode, select the Thickness button, to reveal two further options; 2D & 3D.

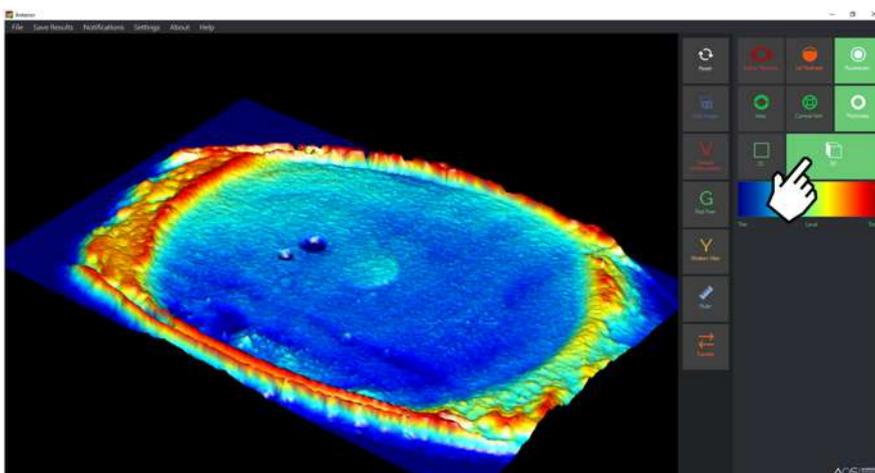
2D Fluorescein



To analyse the entire image, click 2D. Or draw an area on the image and analyse a section only, as in the example here.

3D Fluorescein

By selecting 3D the image will show a 3D representation of the levels of fluorescein on the eye, with higher levels being shown as raised and red.

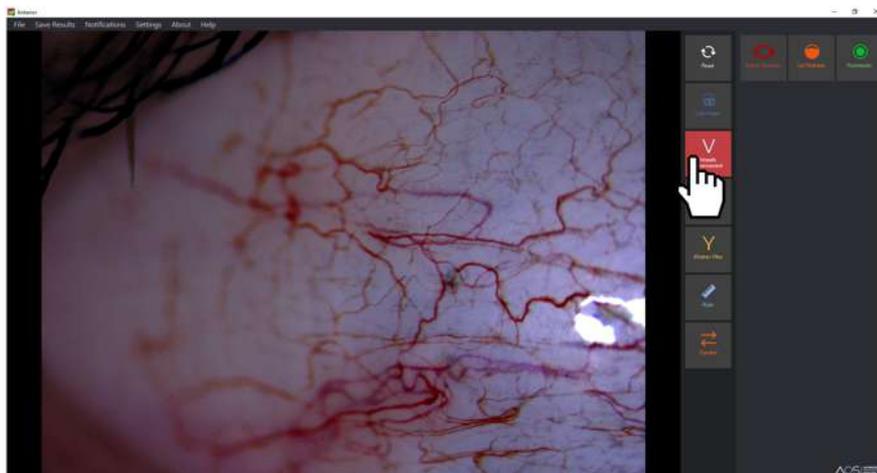


The 3D image can be rotated around by grabbing with the mouse.

Also, if an area is drawn in 2D mode, this can be converted to show the 3D area within the 2D image.

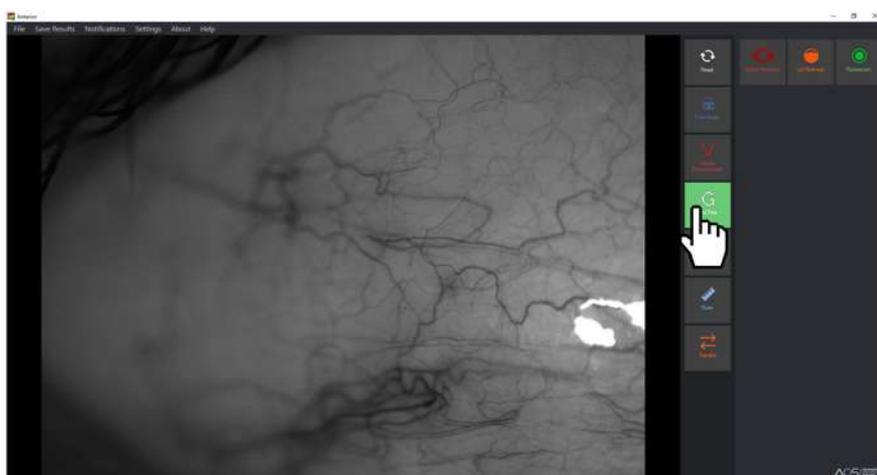
Other enhancements and tools

Vessel Enhancement



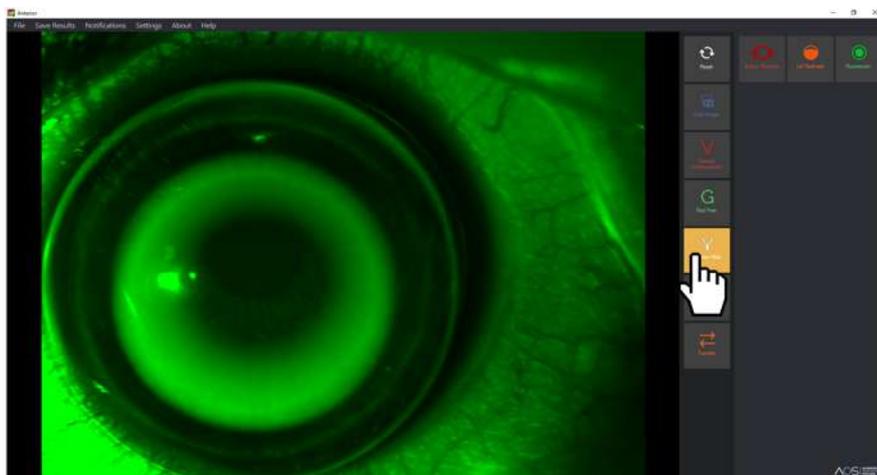
Click on the Vessels Enhancement to obtain a better visualisation of the blood vessels. This example shows an enhanced image.

Red Free



Click on the “G” button to visualise a Red-Free image:

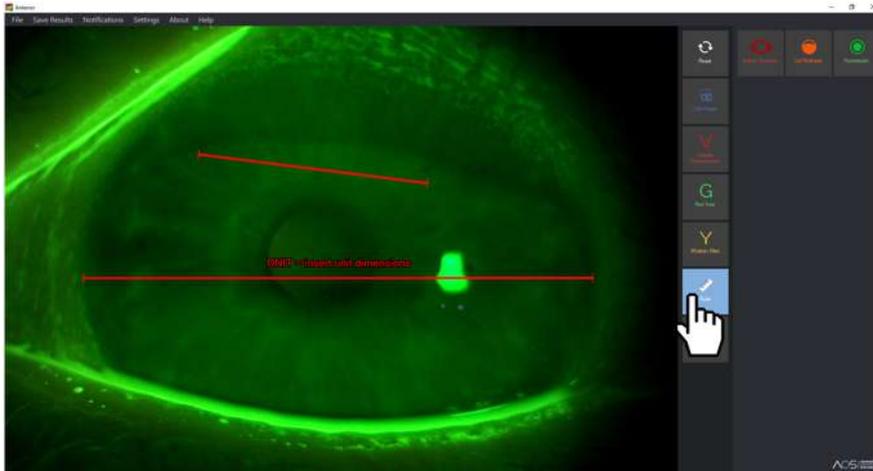
Wratten Filter



The AOS Wratten Filter allows an enhancement of the fluorescein over the anterior segment:

Ruler feature

The Ruler feature allows multiple rules to be added and like areas, can be manipulated, moved and resized.



The Ruler feature allows you to take measurements across the eye, based upon an area of known size. Therefore, a manual measurement of the cornea, for example, must be taken and entered as a baseline. The Ruler will use this measurement upon which to base all other measurements.

Save Results

To save analysis results in to a PDF report, click the Save Results menu. There are 3 ways of Saving Results:

- 1) Save results as an image a. Allows the user to save the results as an image (in the form of JPEG or PNG file)
- 2) Save results as new patient’s file a. This allows the user to create a new file with the patient’s data and results
- 3) Attach to existing patient’s file a. The user can attach the current results to an already existing report. For instance, this option can be suitable to attach the follow-up results to the previous archived report

Patient's Details

Last Name:

Name:

Patient's Reference Number:

DOB:

Mon	Tue	Wed	Thu	Fri	Sat	Sun
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Today: 20/02/2018

Date of examination:

Mon	Tue	Wed	Thu	Fri	Sat	Sun
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20					

Today: 20/02/2018

Comments:

Small levels of hyperemia, possible follow up will be required.

The patient has been prescribed with basic eye drops.

Different treatment will be prescribed if there is a no improvement within a

OK

Cancel

While saving results, patient’s information can be easily inserted by inserting, surname, name, date of birth (DOB), Patient’s reference number, date of examination and additional comments which will be attached in the report.

For more information about AOS Slit or if you are having technical issues please either fill out the form on the support page found in your members area or email your request to the following:

Technical - technicalsupport@aos-hub.com Enquiry - enquiries@aos-hub.com

We will try to answer all contact emails as soon as possible, but please give 24hrs for a response.