

# Keeler

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ΛOS

ADVANCED  
OPHTHALMIC  
SYSTEMS

## New from Keeler, ΛOS Anterior software

Automated Grading System

[keeler.co.uk](http://keeler.co.uk) [keelerusa.com](http://keelerusa.com)

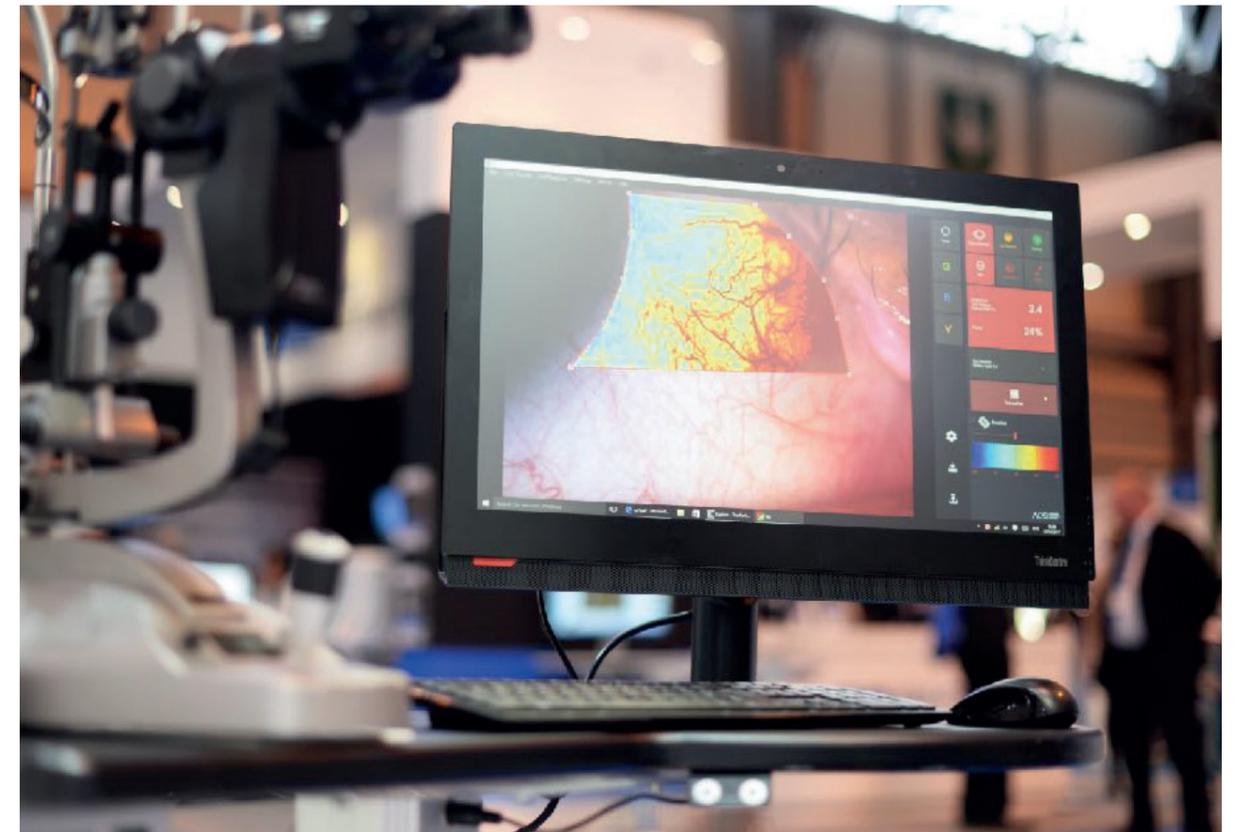
## AOS Anterior is a new standalone software designed to analyse slit lamp images of the eye and automate the grading scale for (1) Bulbar Redness (2) Lid Redness and (3) Corneal Staining.

Following years of research and development, AOS is bringing to market the first automated grading scale for slit lamps. AOS Anterior removes any subjectivity to facilitate clinicians during their diagnoses and patients monitoring.

Each feature allows clinicians to evaluate a variety of conditions very easily, and effortlessly record the results which can be used during follow-ups.

AOS Anterior is a powerful diagnostic tool developed to work in any practice. AOS Anterior has been designed to fit seamlessly into the busy workflow of an every day's practice and to add value and accuracy during slit lamp examinations.

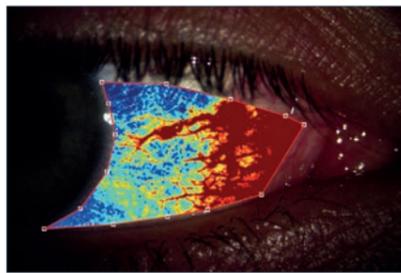
AOS Anterior comes with all the features that a clinician will need to improve their patients' evaluations. Furthermore, AOS provides its users with regular updates and the support which is all part of the one off cost.



Intuitively designed, AOS Anterior gives the clinicians the flexibility to select areas of interest to examine by simply using our drawing tools. During the development of AOS Anterior the software was tested and refined by some of the leading

optometrists in the UK, including Dr Sandip Doshi, PhD BSc MCOptom. It has been our objective to remove the subjectivity that is common place when using traditional methods.

YOUR LOGO HERE



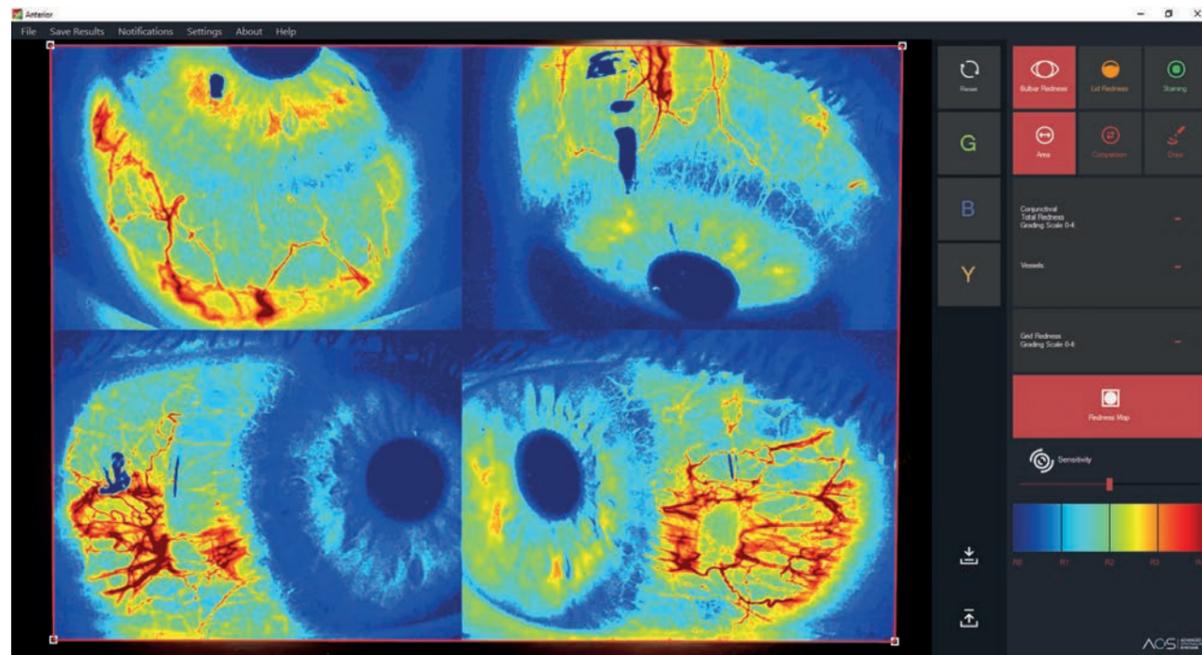
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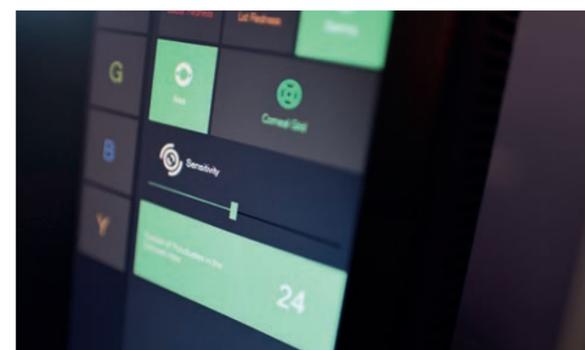
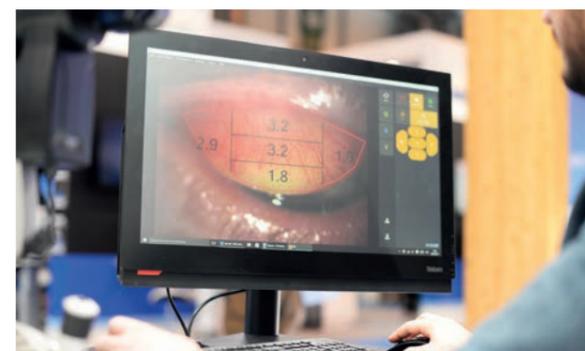
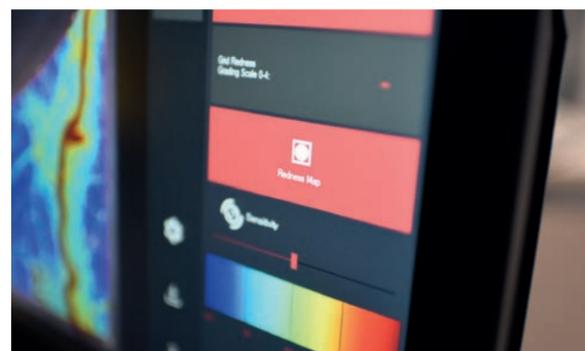
AOS Anterior is a unique piece of software that gives clinicians an important tool in assessing ocular surface conditions with consistency and accuracy that eliminates any inter-clinician variability.

Dr Sandip Doshi,  
PhD BSc MCOptom



Here are some examples of AOS Anterior in various modes. Using the additional features such as "Redness Map" the clinician can instantly produce visually striking diagnostic

maps which highlight certain conditions as well as display conditions that are not as easily visible to the human eye.



ACS Anterior is a unique piece of software that gives clinicians an important tool in assessing ocular surface conditions with consistency and accuracy that eliminates any inter-clinician variability.

It provides a unique tool for patient education that allows the patient to take ownership of their condition by giving it a "score" which they can work towards improving via the treatment regimen recommended by the clinician.

**Medical Benefits:**

The software is essential for any clinician working with:

1. Contact lenses
2. Dry eye
3. Red eye
4. Blepharitis

In general any condition/pathology which affects the bulbar redness, ocular surface, staining, and lid roughness (e.g. allergy).

It eliminates subjectivity, the software provides a consistent, objective grading. Current grading systems are affected by the clinician's subjectivity and experience; therefore, the assessment could be very different between practitioners (for example, optometrist A may grade a patient Level 2; while optometrist B could grade the same patient Level 3 – The difference may result in pathology being misdiagnosed or being under or over-treated).

Provides the clinician with an objective test to demonstrate to the patient the effectivity of any treatment being applied.

Helps determine which patients we should observe VS manage VS treat.

**Commercial Benefits:**

AOS Anterior is a useful application in patient education. It simplifies explaining why the treatment options have been recommended by giving an objective scoring system which the patient can relate to easily (the 0-4 grading scale).

**This is particularly effective for:**

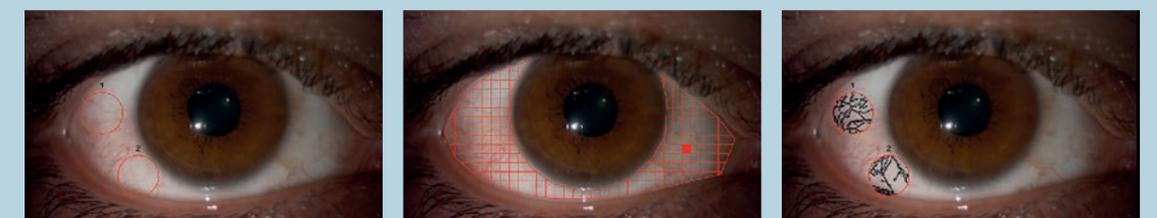
Contact lens upgrades – why a more expensive, healthier lens is needed.

Selling drops (for example: ocular lubricants, anti allergy drops – with the change of obtaining repeated sales).

Enhanced professional fees – why the patient should pay an extra fee for the optometrist to manage their condition – we are able to demonstrate why they need repeated visits.

**Conclusion:**

AOS Anterior gives consistent, objective readings of ocular surface grading, allowing practitioners to feel comfortable when diagnosing and treating a condition whilst providing a useful tool with which to educate their patients.

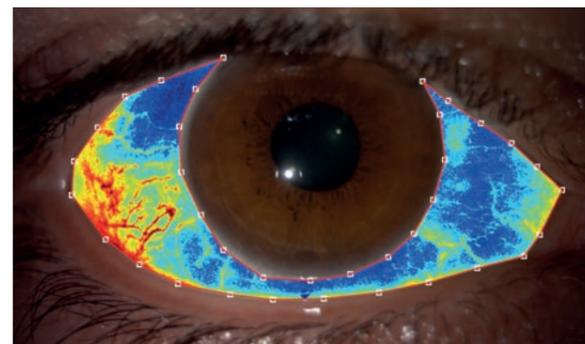
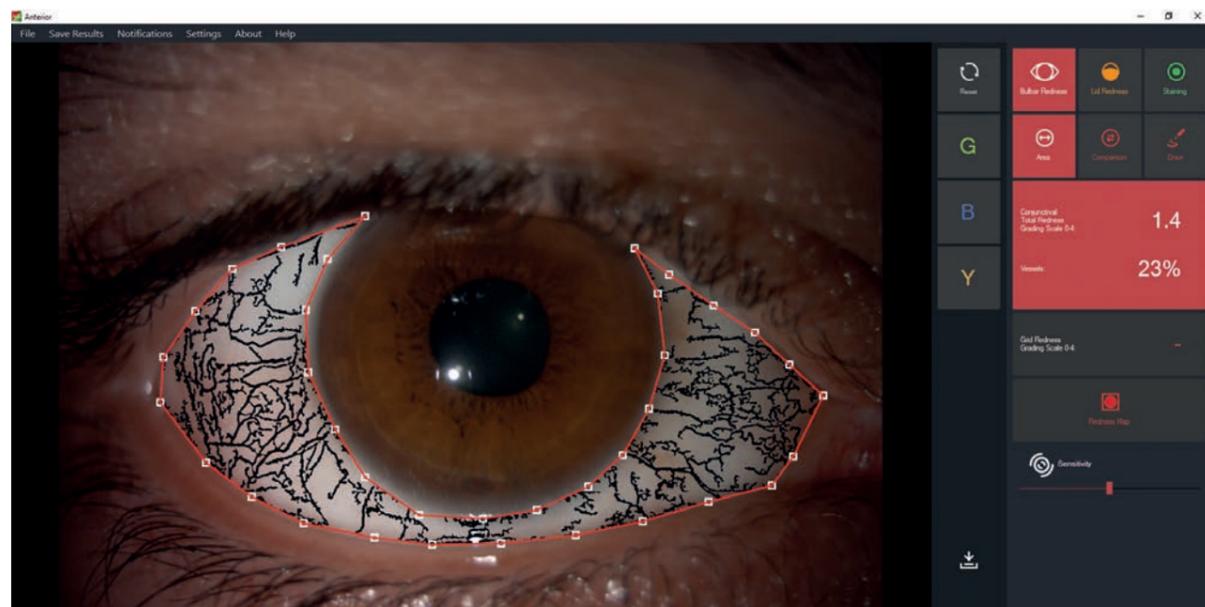


Bulbar Redness mode provides an objective grading scale for bulbar redness and also highlights all the vessels which would not be clearly visible in the original image and the human eye.

**Bulbar Redness mode:**

- Presents grading results showing the Conjunctival Total Redness on a 0-4 scale and the vessel coverage for the selected area.
- Results are shown in the Control Panel.
- There are three features in Bulbar Redness mode:

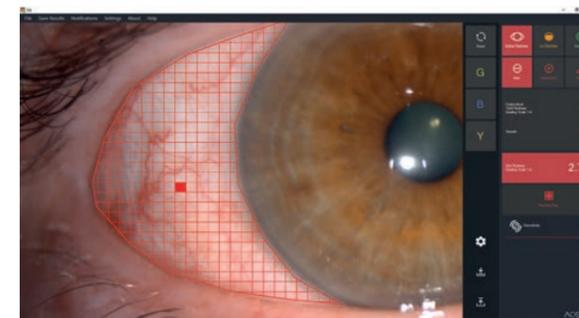
1. Area
2. Comparison
3. Draw



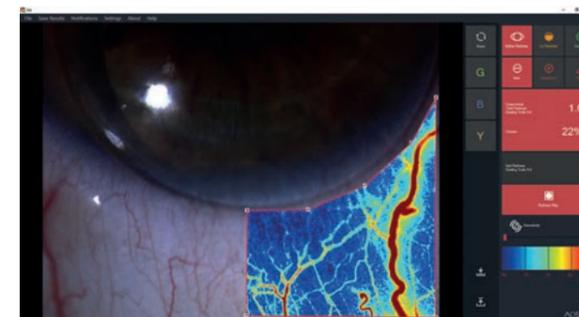
Our UI has been designed to be intuitive and easy to use. Simply select an area to be analysed and click to view the results in the control panel, these are displayed as Total Redness (0-4) and vessels extracted (%).

**In Area mode you can also select 2 further options:**

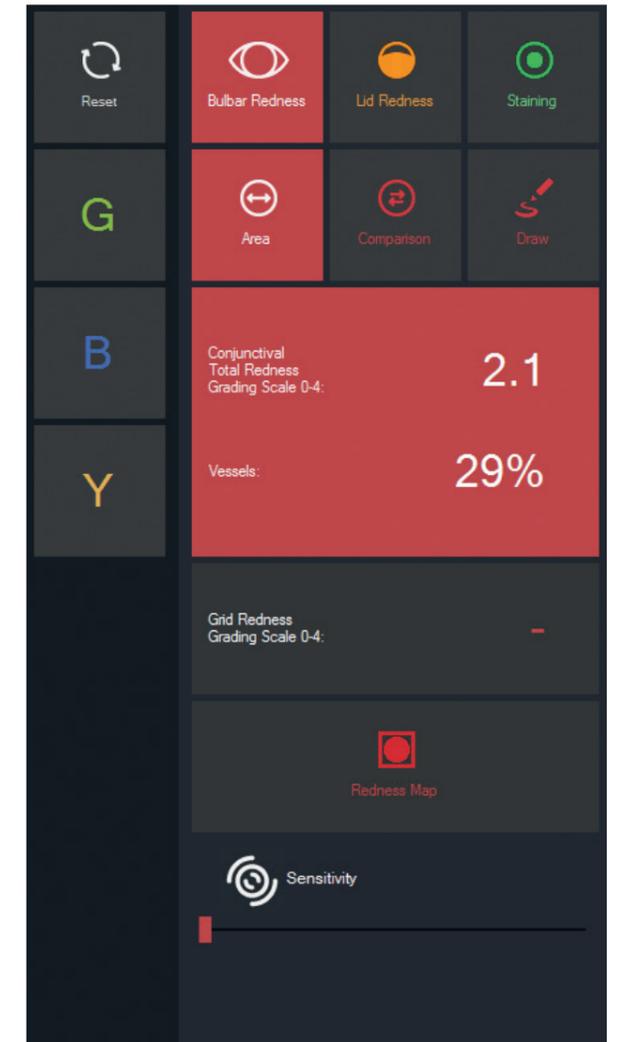
**Grid Redness** – The user is presented with a grid over the area to be analysed. Any single square in the grid can be selected and the redness scale value is displayed on the control panel.



**Redness map** – Simply select this option in the control bar to translate the selected area into a visually striking heat map. Instantly visualise conditions often not seen by the human eye.



In **Comparison mode**  two separate areas are simultaneously displayed over the image to analyse two separate areas at the same time. Furthermore, the user can easily adjust the size and shapes of the two comparing areas.

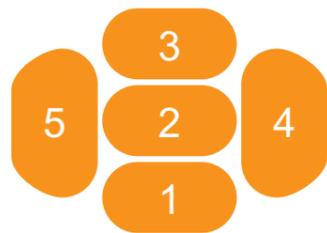


**Draw mode**  allows the user to draw over the image and illustrate the patients' possible irregularities or conditions. For instance the clinician might want to draw over the edge of the cornea to show the patient how the level of neo-vascularization is progressing.



Lid Redness mode divides the lid in the 5 zones (central, upper, lower, left and right), which clinicians are accustomed to, analyses palpebral conjunctival redness for each of the zones.

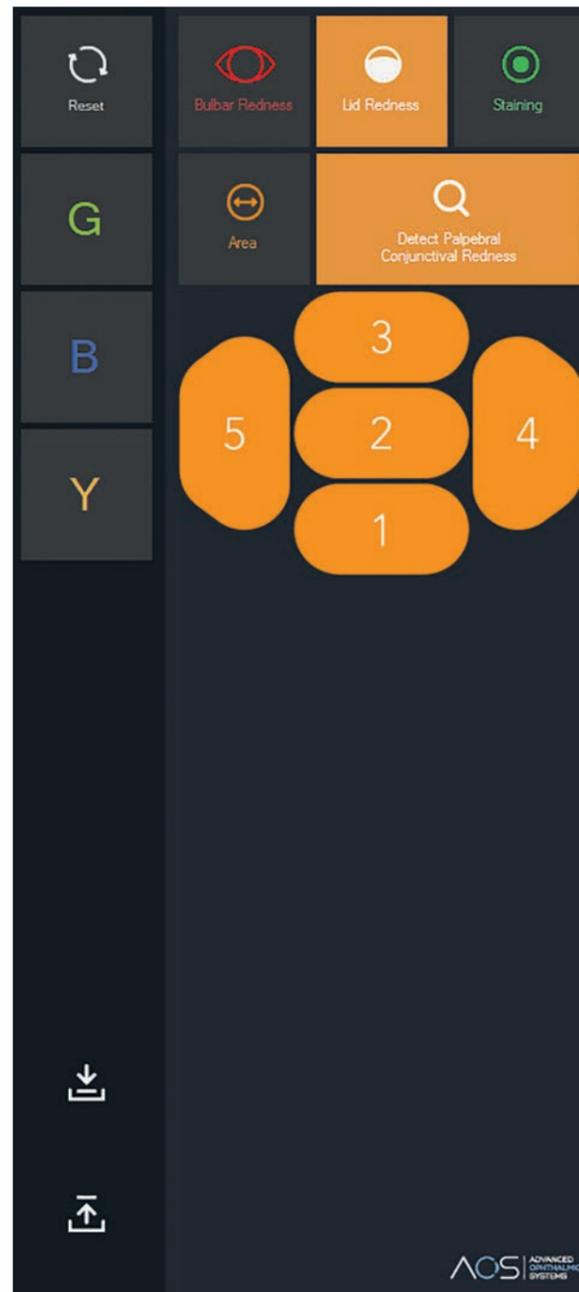
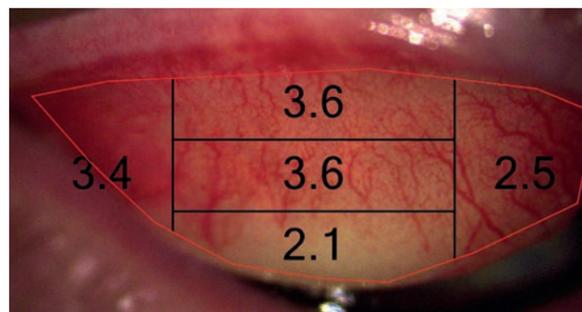
The Lid Redness tool detects Palpebral Conjunctival Redness, again using the 0-4 scale. It presents results in the industry standard 5 sector grid. Lid Redness mode is activated in the Control Panel, shown in orange.



Our UI has been designed to be intuitive and easy to use. Simply select the area icon  and draw carefully around the lid area to be analysed.



Then simply click the Detect Palpebral Conjunctival Redness icon  to have the results displayed within your selected area.



AOS has created a product hub for AOS Anterior and their other software releases offering unrivaled support and service to its members.

AOS will release a new version of the anterior analysis platform, AOS Anterior, on an annual basis. Each version will be a lifetime purchase with 1 years full technical support from the date of purchase.

AOS will release additional features as purchasable bolt-on products in between new version releases.

AOS Anterior gives you access to AOS Hub our members area. Becoming a member of AOS Hub means our clients can receive information on all the latest features, as well as training images, support documentation and upcoming events.

Our product hub members area also features online tools to support our clients and enable them to get the best from our service.

Through our partners Keeler, AOS Anterior is also available in various options offering even more choice to our clients.

Go to **AOS-hub.com** to find your nearest distributor and empower your practices diagnostic capabilities by using AOS Anterior.

#### Stand-alone Software:

- Windows 7+ compatible
- Bespoke systems for corporates
- 1 Year Full technical support
- Works with any:
  - Digital Anterior Lamp
  - Smart-phone adaptor
  - Digital camera adaptor
- Reporting for
  - Objective follow ups
  - Customer review
  - Patient records
- Ease of use
  - Intuitive adaptive UI
  - Touch screen compatible
  - Data location lock
  - Snippet tool

#### Applicable in Multiple market segments:

- Dry Eye
- Contact Lens – CLARE
- Specialist Contact Lens – monitoring
- Optometrists – eye examinations
- Clinical – research tool
- Ophthalmologists – diagnostic tool
- Device manufacturer (OE) – software upgrade USP
- Eye Drops – monitoring bulbar redness reduction
- Triage tool for quick objective results

#### Features Include:

- Bulbar Redness – 0-4 CCLRU grading
- Grid feature – pin point grading
- Redness map – visual 0-4 grading
- Corneal Staining – punctate counter
- Lid Redness – on-lid grid scale
- In-built .pdf – patient report creator



### More Keeler Instruments

For over one hundred years we have manufactured top quality precision ophthalmic instruments.

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