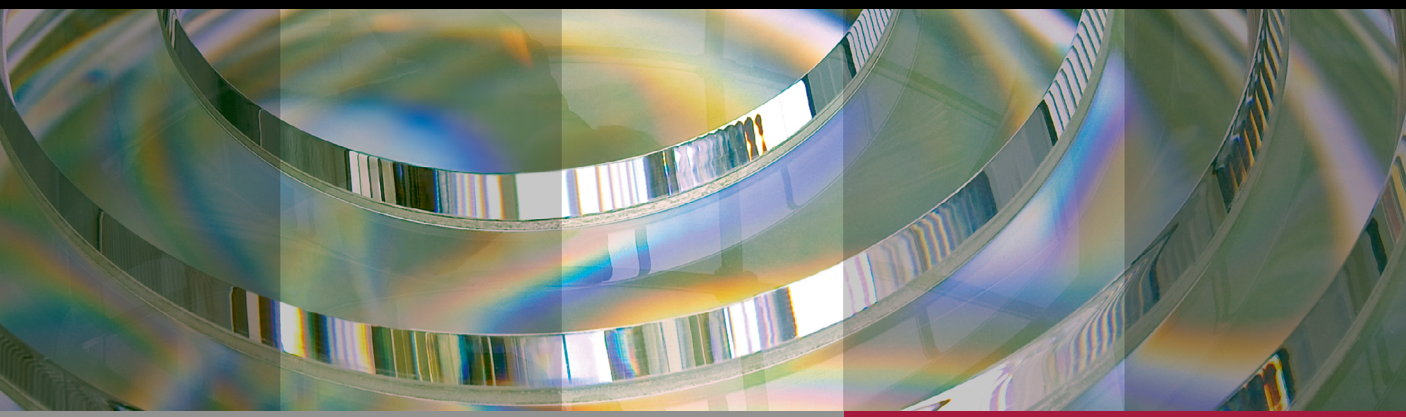
Quick Tutorial:

Image Acquisition



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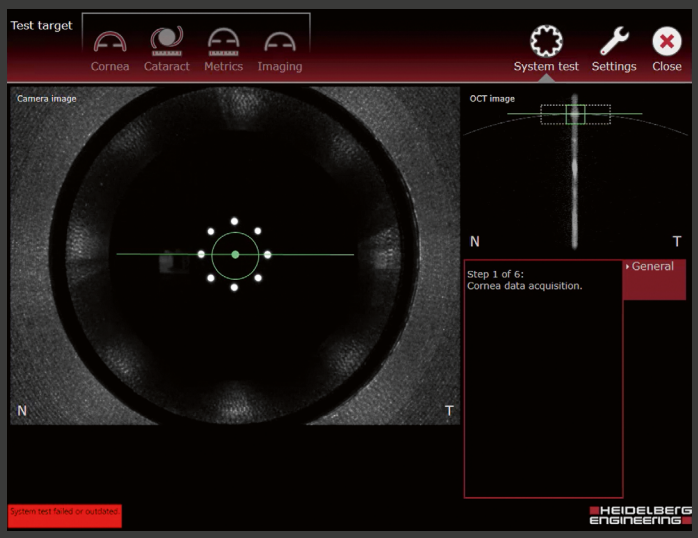
ACADEMY

System Test

Perform System Test

Every 24 hours a system test is required. It verifies that acquired parameters are accurate.



Attach the Test Target

- Move the camera backward and remove the lens cap vertically.
- Attach the clean test target to the head rest and position it facing the camera.

Perform System Test

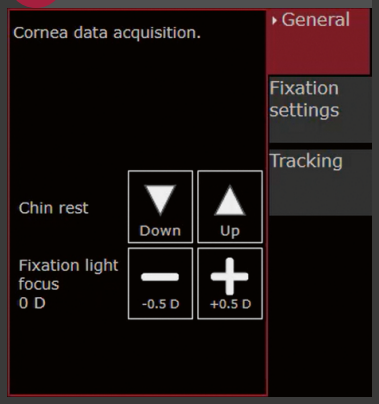
- Align the circle on the **camera image** to the center (dot) by moving the camera until it turns green.
- Center the line on the square in the **OCT section image** by moving the camera back and forth until both turn green.
- Press the joystick button, wait until all 6 steps are done and tap **OK** to confirm the test has been completed succesfully.

If the system test failed: Clean the test target and repeat the system test by touching **Repeat**.
If it fails multiple times, contact your Heidelberg Engineering partner.

General Settings

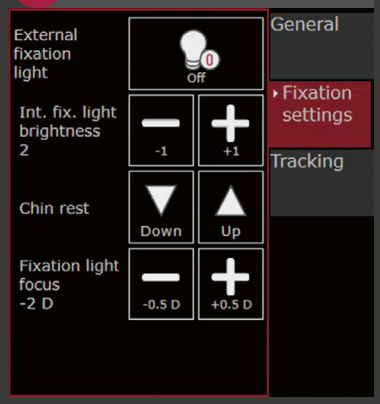
Standard Tabs on the Touch Screen

1 General Tab



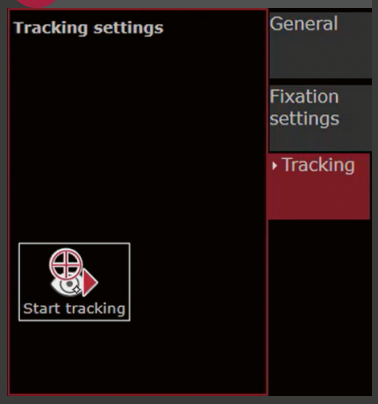
- Adjust the chin rest via **Up** and **Down.**
- Change the focus of the fixation light via **-/+ 0.5 D.**

2 Fixation Settings Tab



- Switch on the external fixation light by touching on the **bulb.**
- Change the brightness of the internal fixation light via **-/+ 1.**

3 Tracking Tab



- Switch tracking on and off by touching **Disable/Start tracking,** e.g., to capture peripheral structures.

Performing an Acquisition

Preparing for the Acquisition

- Adjust the table height and then the chin rest to align the patient's eyes with the head rest markers.
- Select the desired application by touching the appropriate icon:

Cornea | Cataract | Metrics | Imaging

Aligning the Camera Image

- Move the camera towards the eye and align it until the iris is visible.
- Turn the joystick until both the circle and the cross are aligned and appear green.
- Adjust the focus so that the internal fixation target is as sharp as possible (approx. spherical equivalent).

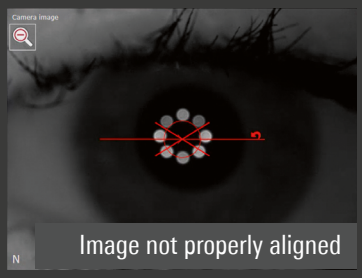


Image not properly aligned

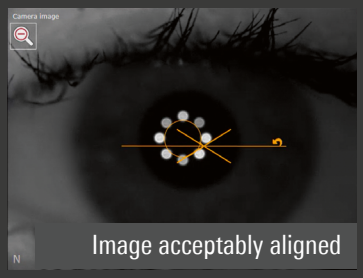


Image acceptably aligned

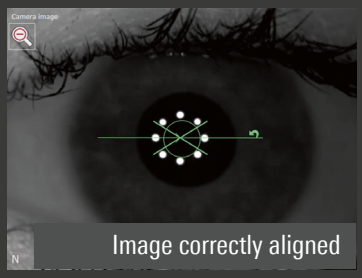


Image correctly aligned

Aligning the OCT Section Image

- Move the camera back and forth so that the cornea and the corneal reflex are within the dashed box.

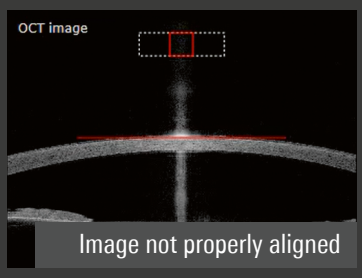


Image not properly aligned

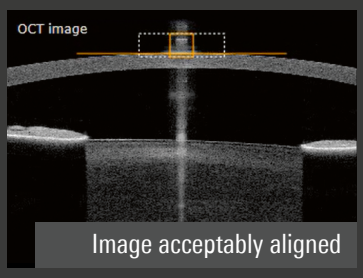


Image acceptably aligned

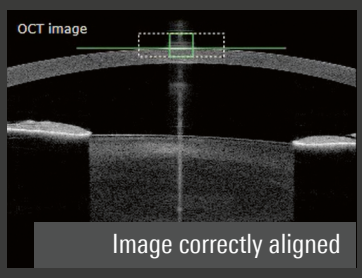


Image correctly aligned

Acquiring the Image

- Ask the patient to blink and hold the eyes wide open during the acquisition. Assist carefully, if the patient cannot open the eye wide enough.
- Start the acquisition by pressing the joystick button.

Cornea App

Checking Examination Quality

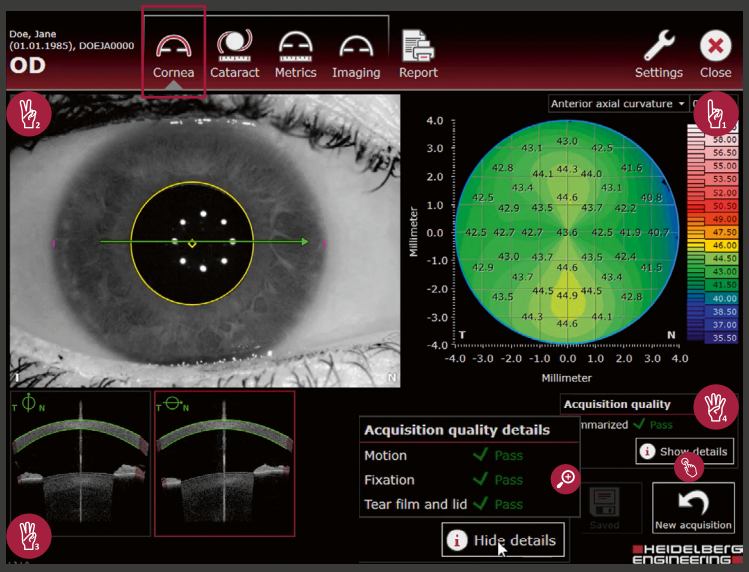
Immediately after the examination process is completed, a quality check page automatically appears. The examination results are displayed according to the App.

Corneal Topography

Check the tomographic data and maps for adequate results and missing information.

Camera Image

- Make sure the reflection points are sharply displayed with a round shape and build a circle.
- The pupil and white-to-white boundaries should be acceptably segmented.



OCT Section Images

- A symbol in the upper left corner shows the scan direction.
- Review the segmentation of the OCT section images. Reexamine the patient if corneal boundaries are not acceptably segmented.

Acquisition Quality Details

- Click **Show details** to display detailed acquisition quality results.
- If a parameter appears yellow or red, this can be due to:

Motion: The corneal vertex was not aligned or moved too much.

Fixation: The patient did not fixate properly.

Tear film and lid: The corneal reflexes were compromised because of blinking or eyes were not open wide enough, dry eyes, or corneal irregularities.

Metrics App

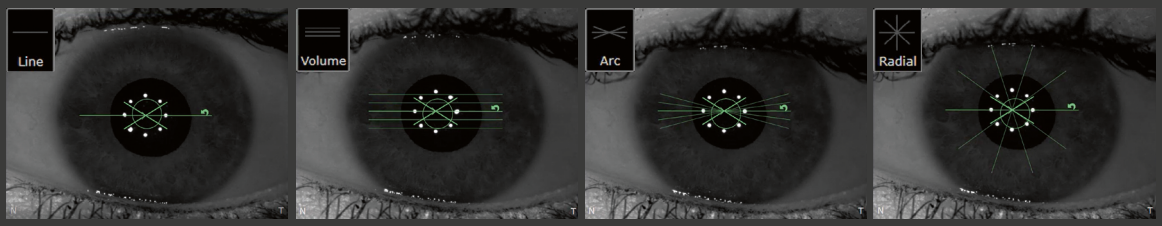
Checking Examination Quality

1. Check **camera image.**
2. Check **OCT section images.**
3. Select an OCT section image for a larger view. Review visibility of relevant anatomic structures, e.g. scleral spur and anterior chamber recess.
4. Check **acquisition quality.**

Imaging App

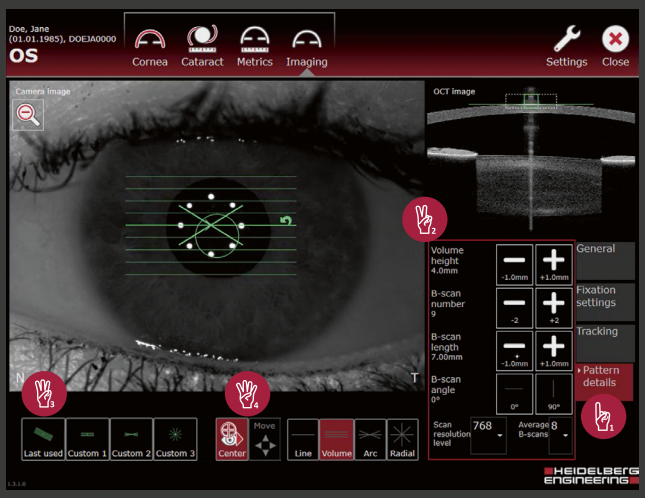
Default Scan Patterns

Choose one of 4 customizable scan patterns.

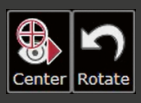


Customizing Scan Parameters

1. Select **Pattern details** tab.
2. Change desired scan parameters.
3. Save scan pattern as a preset:
   - The **Last used** button is only available after the first image acquisition of the current session.
   - To save the defined scan settings, tap and hold **Custom 1, 2** or **3.** To overwrite a pattern, repeat the procedure.



4. Position the scan:



By default, scan patterns are centered on the eye's corneal vertex. To use an off-centered scan, touch **Center.** The button turns black (inactive) and it is possible to move the scan pattern. If you want to rotate the scan, touch **Rotate.**

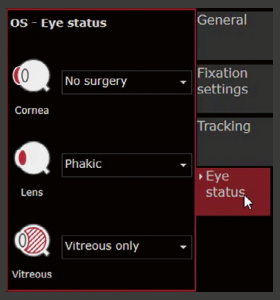
Paracentral Structures

1. Switch on the external fixation light by touching the bulb in the **General** tab.
2. Select the **Tracking** tab and **Disable tracking.**
3. Manually align the camera and the OCT section image until the structure is correctly displayed and the surface coincides with the dashed box.
4. Start the examination.

Acquisition quality checks are not applicable and indicated as **n/a.**

Cataract App

Editing Eye Status



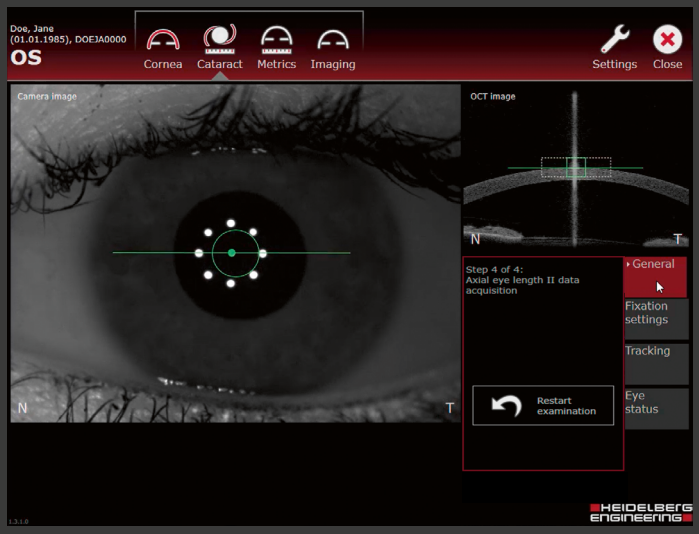
1. Select **Eye status** tab.
2. Open the drop-down lists and select the respective status.
3. Touch **Save.**

Four-Step Acquisition

Cataract App acquisition includes four acquisition steps:

1. Before each step, readjust the camera, if needed.
2. Start the acquisition by pressing the joystick button. The acquisition stops automatically and continues to the next step.

> *i* Before performing the fourth step, move the camera backward so that the cornea and corneal reflex are within the dashed box.



Checking Examination Quality

1. Check **camera image.**
2. Check **OCT section image.**
3. Check **acquisition quality details.**
4. Check **corneal topography.**
5. Check **axial length graph:**

   If the intensity peak does not represent the RPE, repeat the examination or adjust it manually in the viewer.