

User guide

This guide explains how to upload the corneal sections exported from your device and how to read the results. No technical background is needed; just follow the steps in order.

BEFORE YOU START

Every file you upload must be a corneal DICOM

The application recognizes cross-sectional images of the cornea only. Images of other structures, the device's alignment photographs, and files that are not in DICOM format cannot be analyzed.

If you are not sure which files are corneal images

Device exports usually mix several image types together. If you are unsure what a file contains, install a **DICOM viewer** and open the files before uploading. There are many free and paid options; which one you use does not matter, the goal is simply to see what is inside the file.

If a wrong file is uploaded, the analysis produces no result for that file and it is listed as skipped in the report.

STEP BY STEP

Upload flow

Follow the four steps below in order. The first and third steps offer two options; pick the one that matches your situation.

1 How many images will you upload?

The number **10** is the threshold that decides how you upload. In the first box of the application you choose one of these two ways.

10 or fewer

Select the files one by one.

- Type the number into the *How many DICOMs will you upload?* box.
- One file box opens for each file; select one file in each box.

More than 10

Upload the folder itself, not the files.

- Put all DICOM files into a single folder on your computer. The folder should not contain other folders.
- Press the *Choose folder* button and select that folder.
- The application shows how many files it found and analyzes all of them one after another.

For orientation: on the ANTERION, a Metrics scan usually produces 6 files per eye and an Imaging scan 21; a repeated scan gives 42. The exact number depends on your device settings.

Read this before uploading a folder

In the folder route the application tries to analyze **every file** inside. The folder should therefore contain corneal DICOMs only; if other device images or non-DICOM files are left in it, go back to the warning above and sort them out.

Allow for the time as well: each image takes about half a minute on the server. A folder of 42 files completes in 12–25 minutes, and the tab must stay open for the whole time.

2 Make sure all files are corneal sections

Every file you put in the upload box must be a corneal DICOM. Open any file you are unsure about in a DICOM viewer and look; do not upload a file you cannot identify.

3 Do the images belong to a single eye?

Yes, all one eye

If the uploaded images are different meridians of the same eye:

- Check the “**I will upload different meridians of the same eye**” box.
- The Excel file becomes a **single-eye report** that combines the meridians.
- Segmented images are still produced separately for every meridian.

No, different eyes

If the images belong to different eyes or different people:

- Leave the box **unchecked**.
- Each eye is listed as a separate row in the Excel file.
- Results are named **Eye 1** , **Eye 2** and so on.

4 Start the analysis and keep the tab open

While the analysis runs, the screen shows a status message and an estimated time. Do not close the tab during this time; if it is closed, the analysis stops halfway.

DURING THE ANALYSIS

What you will see on screen

Images are processed one after another. You can follow how many are done and the estimated time remaining; the estimate is updated as the work progresses, based on the speed measured so far.

If another user is running an analysis at that moment, your job is placed in a queue. The screen shows how many analyses are ahead of you and when yours is expected to start.

Analysis in progress, please wait

When finished, the results will be saved directly to your Downloads folder.

26 / 42 images · estimated time remaining 7 min

Appearance of the screen; the numbers are an example.

RESULTS

What arrives in your Downloads folder

When the analysis finishes, the **RESULTS** package downloads by itself; you do not need to press any button. When you open the package you will find three things inside.

RESULTS	
images/	The segmented version of every image. The corneal layers appear separated by color, so you can check by eye where the measurements were taken.
measurements.xlsx	The numerical results. If you chose single-eye mode, a single-eye report; otherwise one row per eye.
key.xlsx	The key to the pseudonyms: it shows which code belongs to which patient.

PATIENT INFORMATION

Names are hidden automatically

DICOM files carry identifying information such as the patient's name. The application reads this information and replaces it with a pseudonym before writing any result: **Patient 1** , **Patient 2** , or in single-eye mode **Eye 1** , **Eye 2** .

As a result, both the segmented images and the Excel file carry codes only. You can see which code belongs to whom in the **key.xlsx** file.

Keep the key file separate

key.xlsx is the only file that contains personal data. If you are going to share the results with a colleague or use them in a study, take this file out of the package and keep it to yourself. The other two files contain no patient identity.

FREQUENTLY ASKED QUESTIONS

Answers to common problems are collected on a separate page: <https://corneapp.com/faq.html>.

CorneApp is a research prototype and cannot be used as a clinical decision tool. Its measurements do not replace the physician's assessment.