glasspop – User Manual

Automated Refraction Software

update : 04/10/2024

Functional description

The Glasspop software is a solution that allows the patient to benefit from an automated visual test. This software, combined with three ophthalmological devices (frontofocometer (**LM),** autorefractometer (**AR**) and refractor already present at the healthcare professional), accompanies the patient throughout the visual test.

The process allows the successive use of these 3 devices with the performance of several refractive tests.

The measurement on the autorefractometer allows the measurement of the patient's objective refraction. It gives a rough idea of the spectacle lenses that would be needed to improve the patient's vision.

The measurement on the refractor (phoropter), by positioning different lenses in front of the patient's eyes, makes it possible to determine which ones allow him to read the best possible line of visual acuity (the smallest). This measure thus clarifies the objective measure.

Patient journey

Preliminary measures

An assistant is responsible for carrying out the first two measurements:

1. **Measuring the glasses lenses with the frontofocometer and sending (or entering) into the refractor via glasspop**
2. **Objective measurement using the autorefractometer and sending (or entering) into the refractor via Glasspop**

This order of measurement and sending (or entering) of the data must always be adhered to, as the Glasspop test starts automatically when the objective data from the autorefractometer is detected in the refractory. **If the autorefractometer measurements are sent before the frontofocometer (the lenses worn by the patient) then the latter measurements will be ignored by the system**

Before sending the objective data, make sure that the patient is seated in front of the tablet screen and that he is wearing the

Subjective refraction test

The patient is here alone and interacts with the device according to the instructions given via the headset.

Once preliminary measurements are sent to Glasspop, the system asks the patient how they feel with their current glasses on a scale of 1 to 5.

The patient then enters their age on the screen and the vision test begins on the refractor*.

The patient is guided through every step, from receiving preliminary data to performing the eye exam.

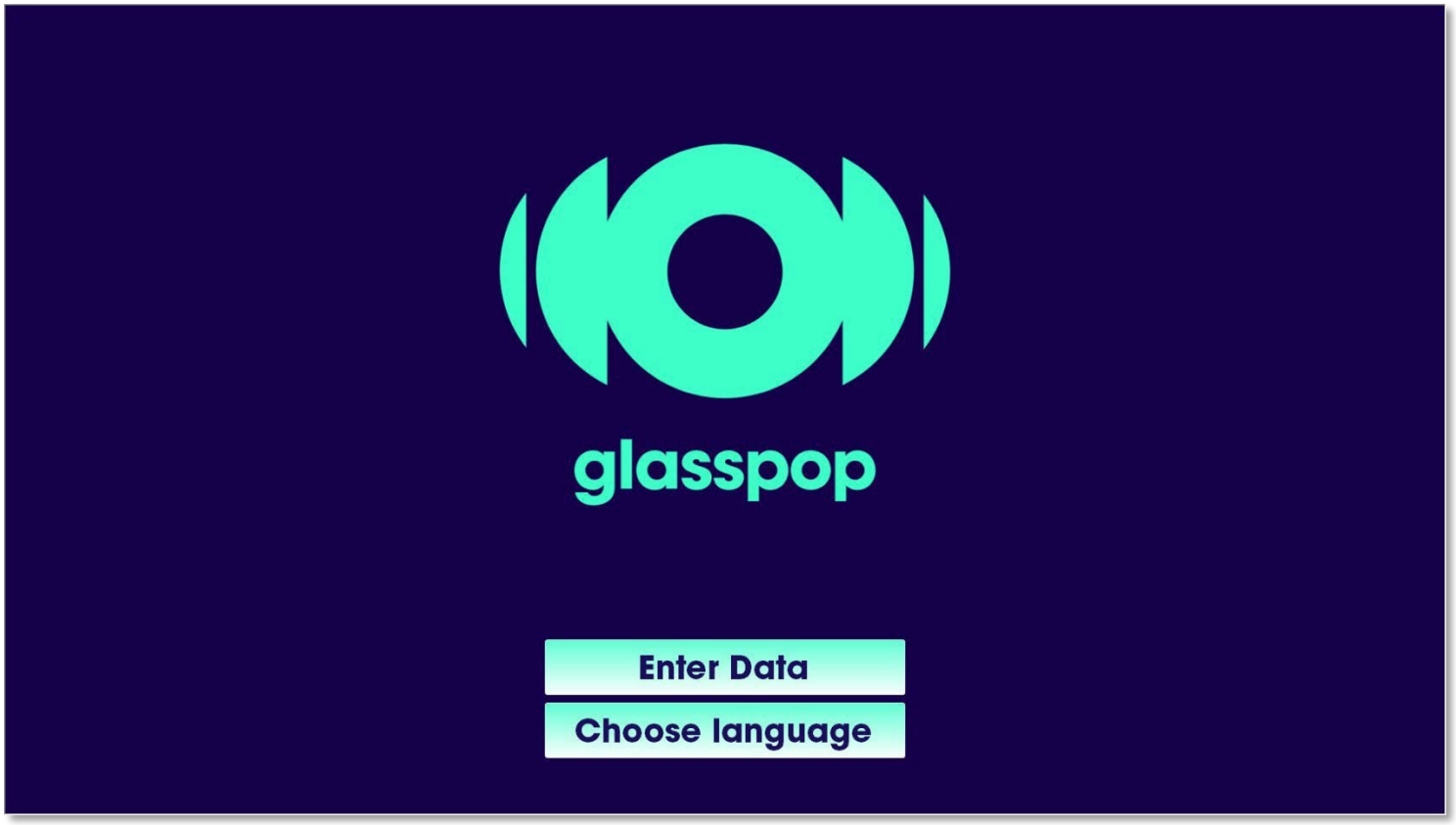
At the end of each exam, the system is automatically reset to sleep mode (see screen on the next page).

At any time during the test, it is possible to reset it manually by pressing the "Reset" button on the screen. In the event of cancellation, the preliminary measurements will have to be redone.

* Not supplied by glasspop

User Interface Description

Home screen



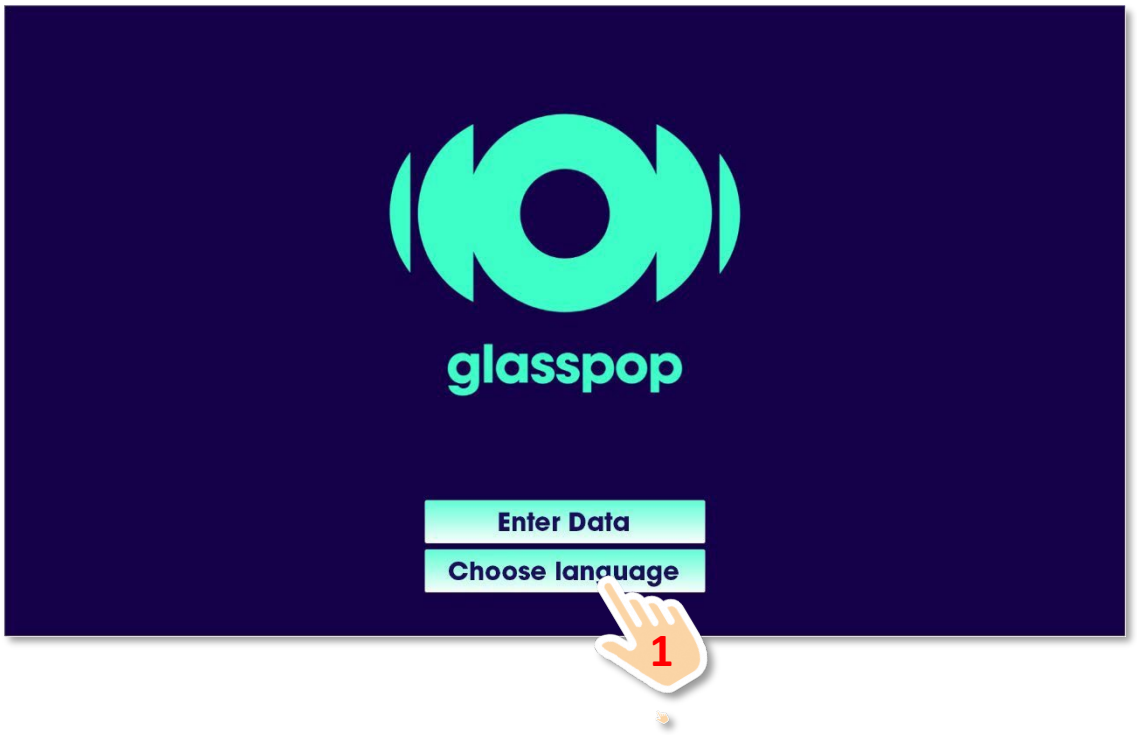
After the initialization step, the Glasspop software goes into standby mode and waits for the incoming AR and LM data.

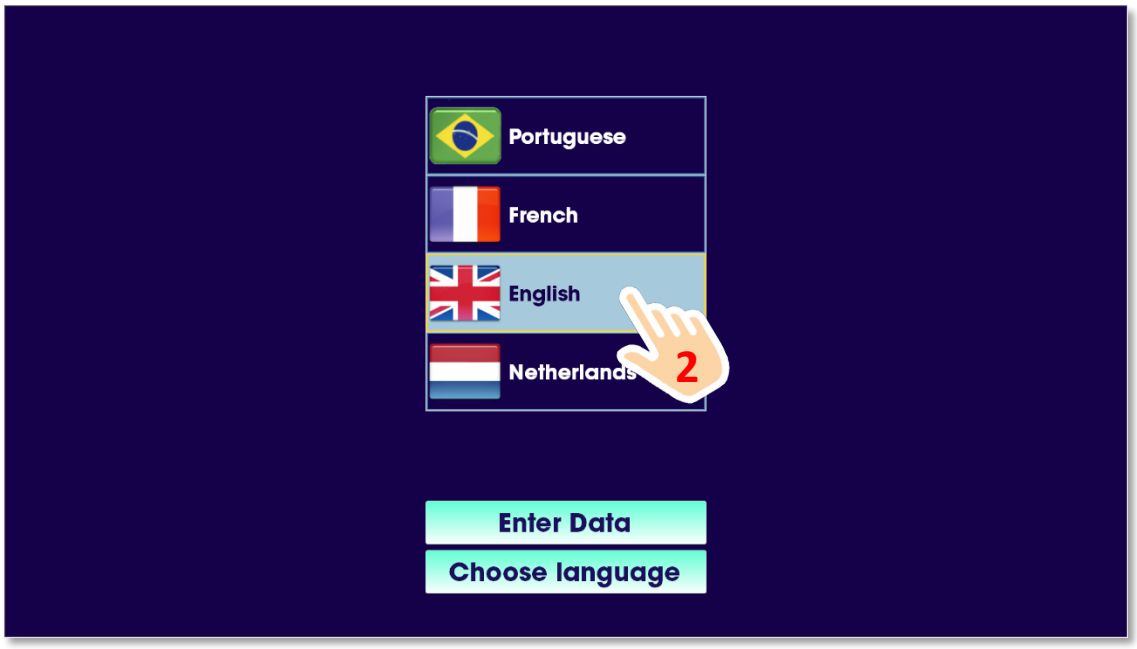
Data acquisition:

- The data can come directly from the measuring devices themselves (frontofocometer -LM - and autorefractometer - AR -) if they are connected (via a LAN network) to the Glasspop software. The test starts automatically when the AR data is received.
  In this case, it is not necessary to go to the "Enter Data" menu.

- If there is no frontofocometer (LM) or autorefractometer (AR) or if neither is connected to Glasspop, you can enter the data manually from the display using the "Enter Data" function (see description below).

Language selection





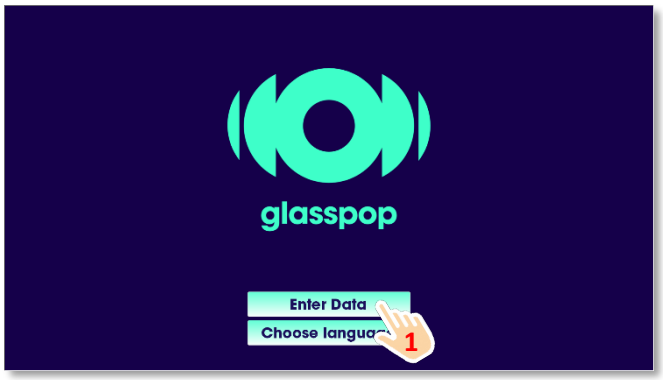
A local language is set as the standard language during installation. For example, in the United Kingdom, the standard language will be English. You don't need to select this language every time you want to run a test.

Note that if you select a language other than the standard language for any reason, that language will be retained for future exams.

The language can be changed at any time during the test by pressing the « Choose Language » button.

So remember to reselect the standard language if necessary following a language change

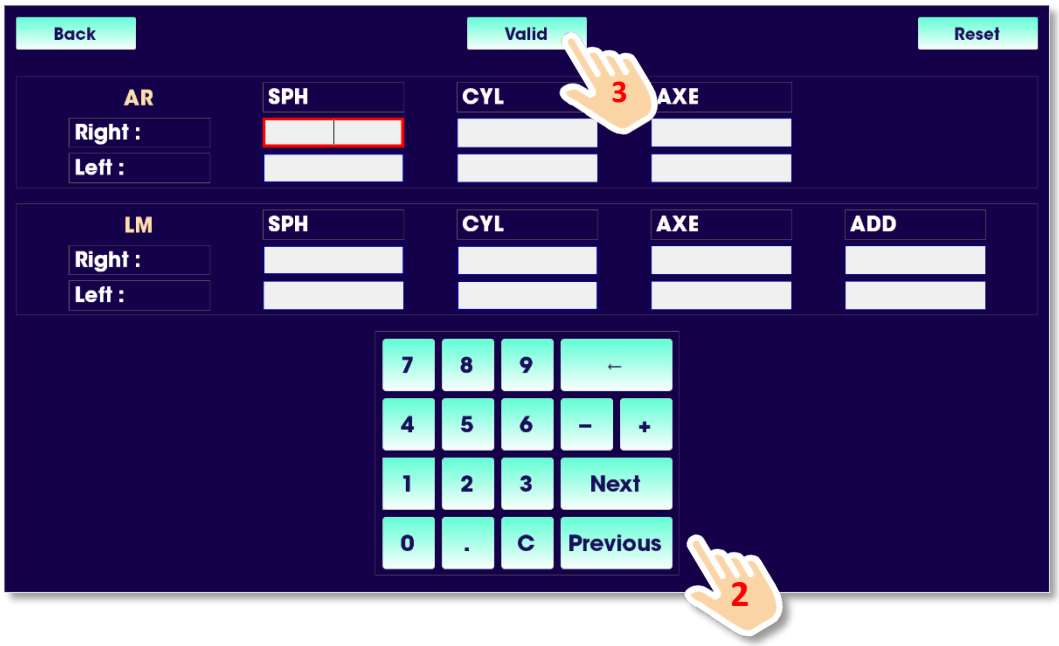
Enter Data function



Range of allowed refractive values for:

- Sphere: **[-29 ; +26.75]** diopters
- Cylinder: **[-8.75 ; 0]** diopters
- Axis: **[0° ; 180°]**

Out of these ranges, the exam will not start, and an error message will notify the user.



Fill in the fields for **the AR** and **LM** data using the keypad and press the "**Validate**" button.

An empty field will be considered a value of **0**.

You can navigate between the different fields using the **Next** and **Previous** buttons.You can also access a particular field by touching it directly.

The " **Reset** " button clears all fields.

The " **Back** " button allows you to return to the home screen.

The cylinder value must be entered in negative. Use the "**minus**" **key** on the keyboard.

Data acquisition scenarios

1. **No device (Frontofocometer - LM/Autorefractometer - AR) is connected.**
   Fill in all the fields and press Validate, the test will start automatically after a few seconds. An unfilled field will be considered with a value of 0. *If you validate with all fields empty, the system returns to the home screen without starting a test.*
   LM data is not required to start an exam. A patient may not have their glasses on them or have never worn glasses. In this case, leave the LM fields blank.

1. **The autorefractometer is connected and the frontofocometer is not connected.**
   First fill in the LM fields and press **Submit**. The system will integrate these values and wait for the AR data to be sent by the automatic refractor to start the examination automatically. LM data is not required to start an exam. A patient may not have their glasses on them or have never worn glasses. In this case, it is not necessary to use the **Enter Data function.**

1. **The autorefractometer is not connected and the frontofocometer is connected.**
   Send the **LM data** from the frontofometer first. The system integrates these values and waits for the AR data.
   Then fill in the AR data fields and press **validate**.
   The test starts automatically.
   LM data is not required to start an exam. A patient may not have their glasses with them or have never worn glasses. In this case, it is not necessary to use the frontofocometer.

Evaluation screen of current glasses

Back: Return to previous screen

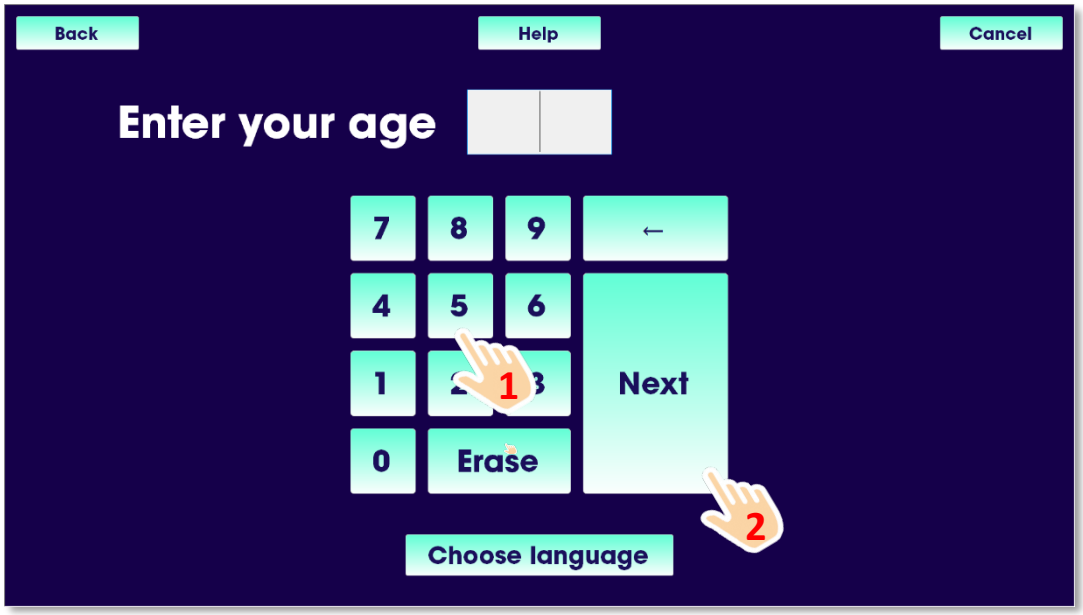
Help: Repeat the instructions.

Cancel: Cancels the test and returns to the home screen.

Choose language: Language selection

If the system detects LM data capture when the measurements are received, it then asks the patient what they think of their current glasses. The patient responds on a scale of 1 to 5.
1 being "not at all satisfied" and **5** "very satisfied".

Age information screen



Back: Return to previous screen

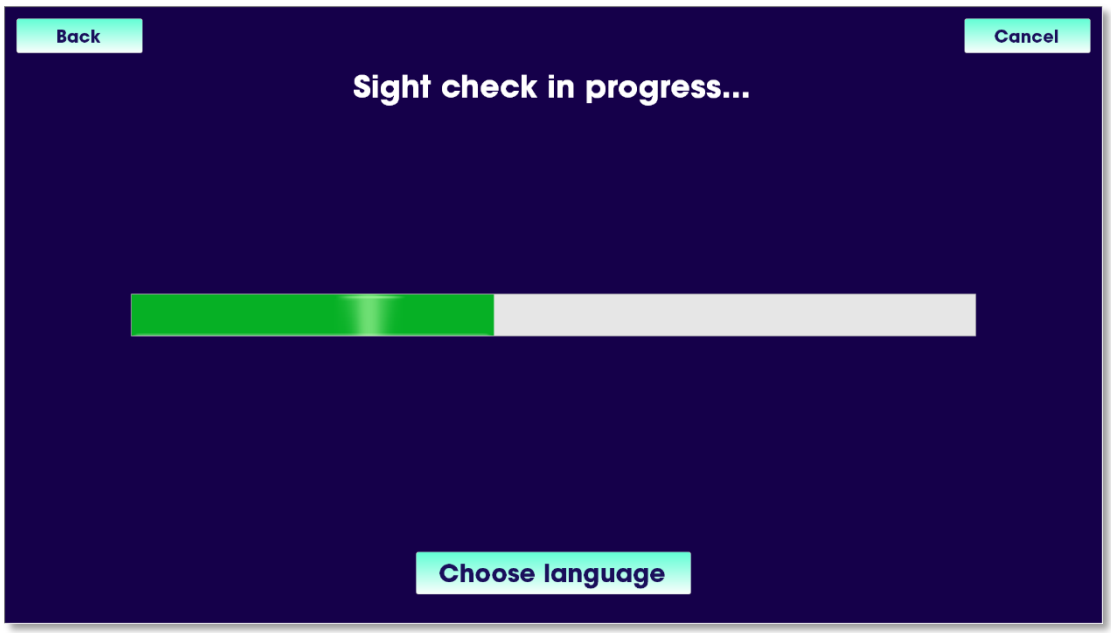
Help: Repeat the instructions.

Cancel: Cancels the test and returns to the screensaver.

Choose language: Language selection

The patient enters their age by simply using the on-screen keyboard and presses **Next** to start the test.

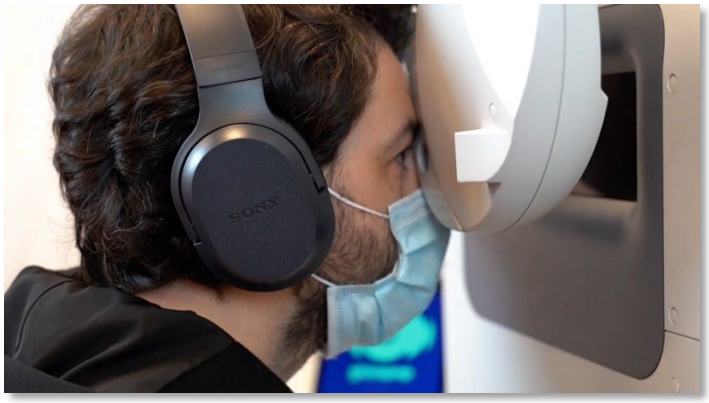
Test progress screen



Cancel: Cancels the test and returns to the screensaver.

Choose language: Language selection

Immediately after age validation, the system asks the patient to remove their glasses and stand in front of the refractor* looking through the two holes in the refractor's head.



Then, the system asks to press the button (on the BFK-BC control box**) to start the test.

The patient receives all the necessary instructions during the test through the headphones.

* Not supplied by glasspop
** Accessory sold separately

Label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r Data
language
À propos

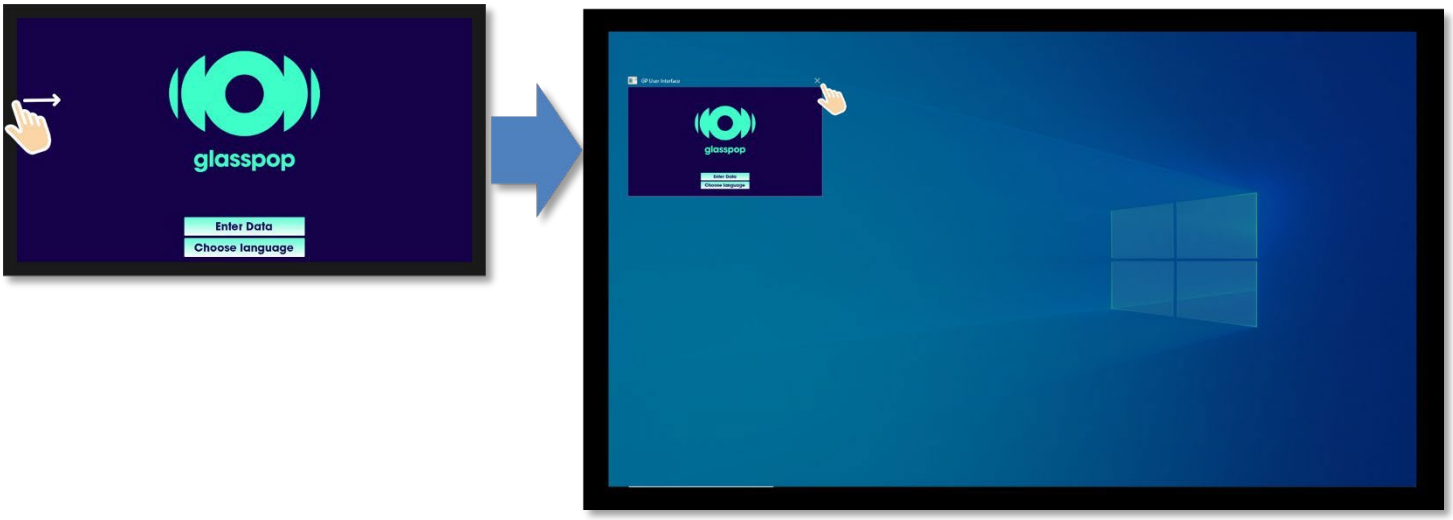

A propos


2023
Version: 8.0.12.2
Glasspop
Lieu dit Pastrecciarella
20167 ALATA
contact@glasspop.co
This app is intended for refraction examination and data processing in order to output patient's visual correction results and ideal lens measures to the ophtalmologist.

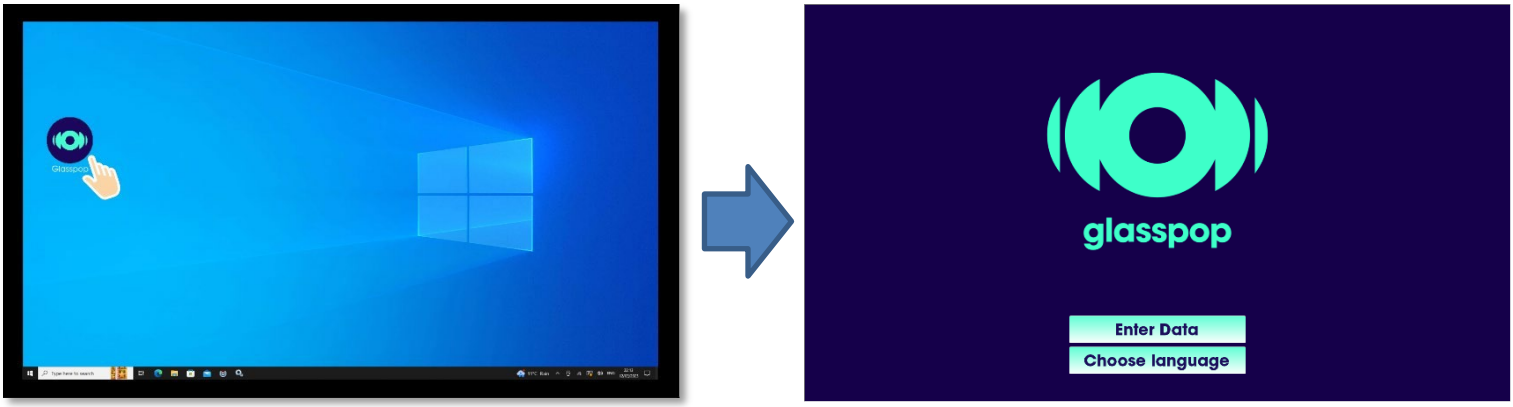
Troubleshooting

Glasspop app reboot

Swipe in from the left edge to minimize the Glasspop app and exit by clicking the X.



Restart the app by double-clicking the Glasspop icon on the Windows desktop.



issue	Reasons	solution
The touch screen remains on a page with the following message *"Attemp to connect to the server"*	·The refractor is off ·The refractor LAN cable is disconnected L'adresse IP du CB ne correspond pas à l'adresse IP du RTThread	·Turn on the refractor ·Check the connection of the LAN cable between the refractor and the Glasspop PC. ·Call your local distributor
The touch screen remains on a page with the following message *WARNING, the license is not ready yet, wait 10s before checking again...*	·The refractor has been shut down for too long	·Reboot the refactor ·Reboot the Glasspop app.
Touch function does not work	·The USB-C/USB-A cable is disconnected from the tablet (USB-C side) or the Glasspop PC (USB-A side).	·Reconnect the cable
The button or joystick is not working	·The USB cable from the control box is disconnected	·Reconnect the USB cable to the Glasspop PC
The Glasspop exam does not start.	·The refractor is off ·Refraction values sent out of range ·LAN connection issue ·Network settings issue	·Turn on the refractor and reboot the Glasspop app. ·Check for the réfraction value allowed. *See page 5* ·Check the ethernet cable connection between the refractor abd the Glasspop PC. ·Call your local distributor
No audio	·Headset unplugged ·Volume set to 0 (on the controller or in the windows settings) ·Wrong audio device selected in the Windows settings	·Check that the USB socket is plugged in correctly. Unplug/reconnect. ·Press the + button on the volume controller or in the Windows volume settings. ·Select your headphones in the audio settings of Windows. (e.g. Sennheiser 60)