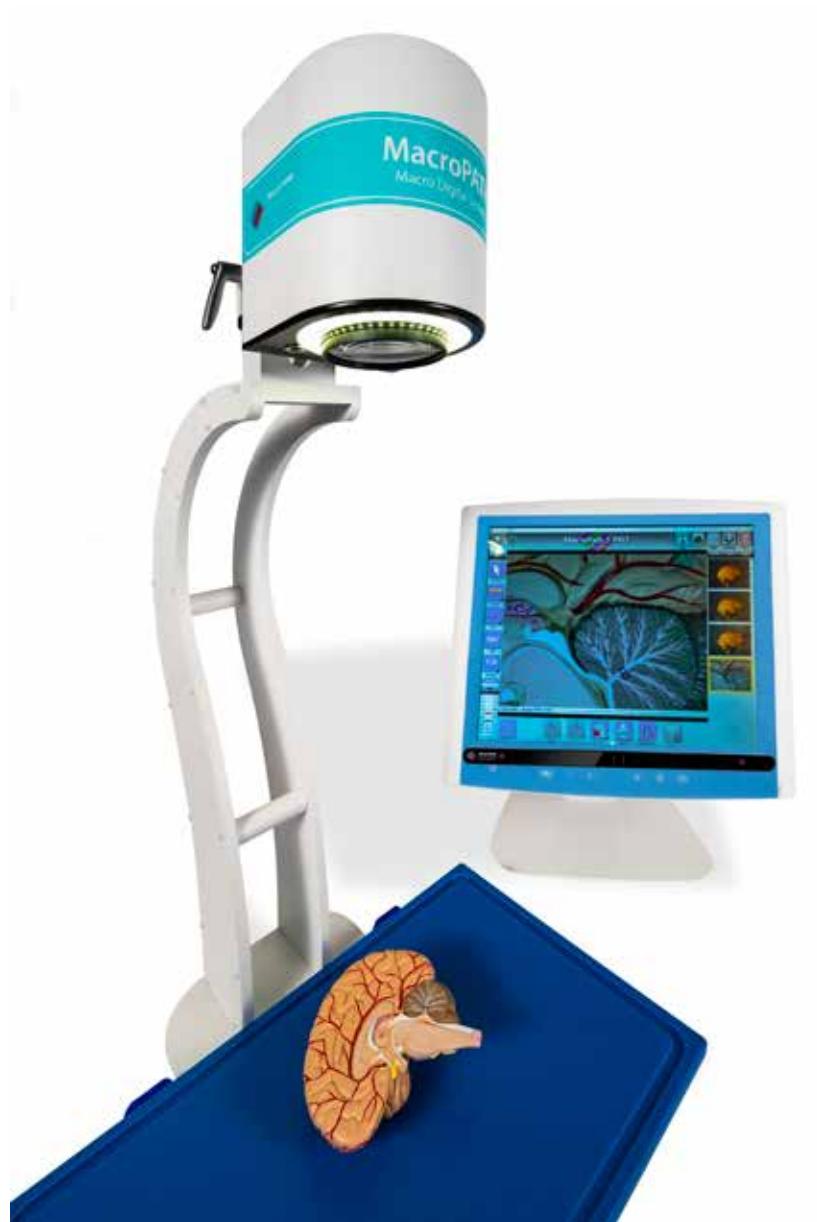




MILESTONE

H E L P I N G
P A T I E N T S



LOOX
EYE-CONTROL FOR MACROPATH

Operator Manual - MM171

Thank you for choosing one of our systems and welcome to the increasingly crowded club of Milestone laboratory instrumentation users.

We feel confident that you will be fully satisfied adding this new device to your laboratory.

We recommend you read this operator manual carefully and always keep it within reach for convenient and quick referencing.

For any clarification or request for assistance, please contact our representative in your country:

Or contact

Milestone s.r.l.

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24010 Sorisole (BG) Italy

Tel. +39.035.412 8264

Fax +39.035.575498

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e-mail marketing@milestonemedsrl.com



Read this manual carefully before using the instrument.

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The manufacturer reserves the right to change and/or improve specifications without notice and without incurring any obligation.

1 INTRODUCTION

1.1 Symbols used



An instruction accompanied by this symbol provides a quite important and require more attention.



An instruction accompanied by this symbol provides a cautionary statement: failure to follow the instruction may endanger the operator or cause damage to the instrument.

CE logo: this instrument complies to European Community directives.

LOOX Eye-Control for MacroPATH is CE-marked, indicating compliance with the essential health and safety requirements set out in European Directives.



CE Statement

LOOX Eye-Control for MacroPATH complies with the following Directives:

- 2011/65/EU (RoHS 2) - Restriction of Hazardous Substances Directive
- R&TTE 1999/5/EG (R&TTE) - European Radio equipment and Telecommunications Terminal Equipment Directive
- 2004/108/EC (EMC) - Electromagnetic Compatibility Directive
- 2006/95/EC (LVD) - Low Voltage Directive

LOOX Eye-Control for MacroPATH complies with the following standards:

- IEC/EN 62471:2008, Photo Biological Safety of Lamps and Lamp Systems
- EMC Emission: EN 61000-6-3:2007, Generic Emission standard for residential, commercial and light industry environments
- EMC Immunity: EN 61000-6-1:2007, Generic Emission standard for residential, commercial and light industry environments
- EN 55024:1998+A1+A2, Information technology equipment. Immunity characteristics. Limits and methods of measurement
- IEC 60950–1:2005, Safety of information technology equipment
- FCC part 15, Class B

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.



WEEE European directive symbol (2002/96/EC):
Electric/electronic device do not throw out in the environment.



Indicates the manufacturer's serial number.

1.2 Designated use

LOOX EYE-CONTROL FOR MACROPATH is designed to improve the way of controlling MacroPATH system (Macro Digital System for Grossing) with the use of eye tracking in order to develop new interfaces that are moving from keyboard and touchscreen to “hands-free” technique, transforming the way to interact with device, data and users.

The solution relates to a method based on an “eye-tracking” application, characterized by a perceptual interface designed to facilitate the display, manipulation, analysis and sharing of medical images which replaces keyboard and mouse with most intuitive and efficient visual control



Any other use of the instrument should be deemed as misuse and voids the manufacturer's warranty.

1.3 Technical specifications

- **CODE 370635** **LOOX EYE-CONTROL FOR MACROPATH**

1.3.1 Product specifications

- Dimensions: 335mm x 15mm x 17mm (13.1 x 0.6 x 0.66in)
- Weight: 95g (0.21lbs)
- Max Screen Size: 27 inches with 16:9 Aspect Ratio 30 inches with 21:9 Aspect Ratio
- Operating Distance: 50 - 95cm (20 – 37in)
- Track Box Dimensions: 380 x 58 x 22mm (15 x 2 x 0.8in)
- USB Cable Length: 80cm (32in)
- Head Tracking: Yes (not powered by EyeChip so it will increase your CPU load)
- CPU Load: Averagely 5% (Core i7, 9th Gen)*
- Power Consumption: 2.0 Watt**
- USB Data Transfer Rate: 100KB/
- Data frequency: 90Hz
- Illuminators: Near Infrared (NIR 850nm) Only
- Tracking Population: 97%
- Altitude: up to 2000m
- Working temperature: 15°C to 30°C (59°F to 86°C)
- LOOX Eye-Control is suitable for MacroPATH, eGROSS pro-x, WorkSTATION pro-x 140 starting from MacroPATH software version 5.14. Not suitable for oldest MacroPATH D, Lean and Pro versions.

** The average power consumption during usage is 2.0W, but the eye trackers power consumption can spike up to 5-6W depending on the use. For example, when the illuminators first turn on, the consumption can briefly spike (a matter of milliseconds) at around 5-6W. LOOX Eye-Control officially works with USB 2.0 BC1.2 which can handle spikes up to 7.5W.

1.3.2 Recommended system specifications

- OS: Windows 10 Professional/Enterprise (64-bit only)
- CPU (minimum requirements): 2.0GHz Intel i5 or i7
- RAM (minimum requirements): 8GB
- USB Connectivity: USB 2.0 (integrated cord, USB 2.0 BC 1.2)

1.3.3 Biometrix Safety

- The Windows Hello biometric functionality relies on images provided by sensor to work with Microsoft face recognition algorithms.
- Built into Windows 10, these algorithms determine the identity of the user, making it possible to log in securely to Windows devices. This technology makes it possible for Windows Hello to work in a variety of lighting conditions, even in the dark.
- When you set up Windows Hello biometrics, it takes the data from the face camera, iris sensor, or fingerprint reader and creates a data representation—or graph—that is then encrypted before it's stored on your device.
- To help Windows Hello keep things working properly, help detect and prevent fraud, and to continue improving Windows Hello, we collect diagnostic data about how people use Windows Hello. For example, data about whether people sign in with their face, iris, fingerprint, or PIN; the number of times they use it; and whether it works or not is all valuable information that helps us build a better product. The data is pseudonymized, does not include biometric information, and is encrypted before it's transmitted to Microsoft. You can choose to stop sending diagnostic data to Microsoft at any time
- Milestone srl does not receive, manage any information of the LOOX Eye-Control functionality or the customer use.

1.3.4 Language support

These are the supported languages available:

- Brazilian Portuguese
- Czech
- Danish
- Dutch
- English
- Finnish
- French
- German
- Greek
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Russian
- S. Chinese
- Spanish
- Swedish
- Turkish
- T. Chinese

1.4 Transportation and storage conditions

Temperature: –20°C up to +60°C (–4°F up to 140°F)
Humidity: up to 80% (up to 50% at 40°C (104°F)) non-condensation

1.5 Warnings



DO NOT OPEN THE CHASSIS. Failure to follow the instruction in the documentation might lead to a reduction of device safety. If the equipment is not working properly, contact your supplier or the manufacturer.



Do not remove the instrument, optional parts, panels or cover. Only authorized and qualified **SERVICE** personnel may repair the instrument and access the instrument's internal components.



It is important that normal standards for safety and good laboratory practices are applied. Always use common sense and the best-known practice when operating the instrument. Failure to follow the instructions in the documentation might lead to a reduction of device safety.

The Competent Authority owning the instrument has primary responsibility for accident-free operation together with designated personnel who operates **SERVICE** or repair it.



Refer to MM161- MacroPATH and MacroPATH Basic QX Series - Operator Manual.

SAFETY INFORMATION

MOUNTING WARNING

LOOX Eye-Control should be mounted according to MANUFACTURER instructions of approved mounts.

The mounting of a LOOX Eye-Control is done entirely at the user's own risk.



The double-sided tape supplied with the adhesive magnetic mounting brackets is designed to permanently attach the bracket to the monitor/laptop. Attempting to remove the bracket after attaching it using the supplied tape can result in damage both to the monitor/laptop and the bracket.

Do not lick the tape or place any part of the tape or magnetic mounting brackets in one's mouth. Do not mount LOOX Eye-Control on monitors positioned above the head or face of users unless using a dedicated "fixed mounting" solution.

EPILEPSY WARNING

Some people with photosensitive epilepsy are susceptible to epileptic seizures or loss of consciousness when exposed to certain flashing lights or light patterns in everyday life. This may happen even if the person has no medical history of epilepsy or has never had any epileptic seizures.



A person with photosensitive epilepsy would also be likely to have problems with TV screens, some arcade games, and flickering fluorescent bulbs. Such people may have a seizure while watching certain images or patterns on a monitor, or even when exposed to the light sources of an eye tracker. It is estimated that about 3-5% of people with epilepsy have this type of photosensitive epilepsy. Many people with photosensitive epilepsy experience an "aura" or feel odd sensations before the seizure occurs. If you feel odd during use, move your eyes away from the eye tracker.

INFRARED WARNING



When activated, LOOX Eye-Control emits pulsed infrared (IR) light. Certain medical devices are susceptible to disturbance by IR light and/or radiation. Do not use LOOX Eye-Control when in the vicinity of such susceptible medical devices as their accuracy or proper functionality could be inhibited.

MAGNETIC FIELD WARNING



LOOX Eye-Control magnetic mounting brackets contains magnets. Magnetic fields may interfere with the function of cardiac pacemakers and implantable cardioverter-defibrillators. As a general rule, maintain a minimum distance of 15cm (6 inches) between any item with magnets and your heart device.

CHILD SAFETY



LOOX Eye-Control is an advanced computer system and electronic device. As such it is composed of numerous separate, assembled parts. In the hands of a child certain of these parts have the possibility of being separated from the device, possibly constituting a choking hazard or another danger to the child. Young children should not have access to, or the use of, the device without parental or guardian supervision.

DO NOT OPEN LOOX EYE-CONTROL



Non-compliance will result in loss of Warranty.

There are no user serviceable components inside. Contact customersupport@milestonemedsrl.com if LOOX Eye-Control is not working properly.

COMPLIANCE INFORMATION

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.



However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into a wall outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or experienced radio/TV technician for assistance.

1.5.1 Personal data safety

The Device described herein is not intended for managing personal data of natural persons. Personal data of natural persons shall not be inserted into the Device during the use of the Device. The organization that uses the Device shall implement appropriate measures to ensure that no personal data of natural persons is inserted into the Device. All the data referring to a person and inserted into the device shall use, at least, the “pseudonymization”, in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organizational measures to ensure that the personal data are not attributed to an identified or identifiable natural person.

1.6 Waste disposal of the equipment



Do not dispose LOOX Eye-Control in general household or office waste. Follow your local regulations for the disposal of electrical and electronic equipment.



**Before doing any operation disconnect the power supply.
Do not use direct or high-pressure water to clean the instrument.**



For safety reason, any operation without the individual protective devices must be avoided.

It is recommended to use alcohol-based rapid disinfectant for non-invasive medical products.
For further information, contact application@milestonemedsrl.com

Complying with directive 2012/19/EC of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), the separate collection environmental managed of equipment is mandatory.

It is necessary to return the used equipment to the distributor or to inquire about the presence of a local empowered system for collection and disposal of WEEE.

The in-observance of Directive 2012/19/EC or of the local law which acknowledge it can have potential effects on the environment and human health.



**This symbol indicates separate collection
for electrical and electronic equipment**

If additional requirements on accident prevention and environmental protection exist in the country of operation, this instruction manual must be supplemented by appropriate instructions to ensure compliance to such requirements.



1.7 Return for repair to manufacturer

This instrument is not an in-vitro medical diagnostic device and it is usually installed in a laboratory where samples and other biological tissues are present. For your safety, it must therefore be cleaned and disinfected before use, and gloves must be worn when touching this instrument.

If the unit needs to be returned to Milestone s.r.l. for repairs, the device must be cleaned up and disinfected prior to shipment. See chapter 5. Any units that have not been disinfected will not be accepted and you will be contacted with regards to disinfection cost. In accordance with international health standards, biohazard materials must be shipped in appropriate packages disinfected (risk of fines).

2 INSTALLATION

2.1 Unpacking and check list

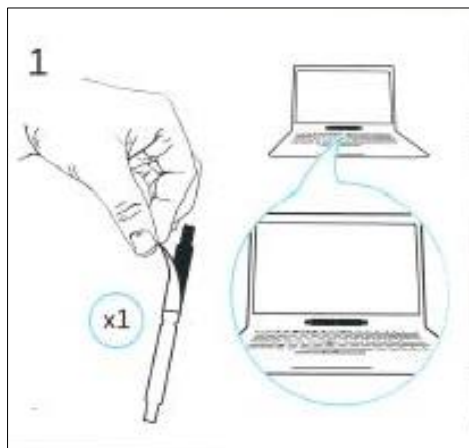
DESCRIPTION	QUANTITY	IMAGE
Mounting brackets	2	
Eye-tracker with USB cable	1	
USB key with Serial Number including: <ul style="list-style-type: none">- Milestone license file- Tobii software- Operator manual in electronic format	1	



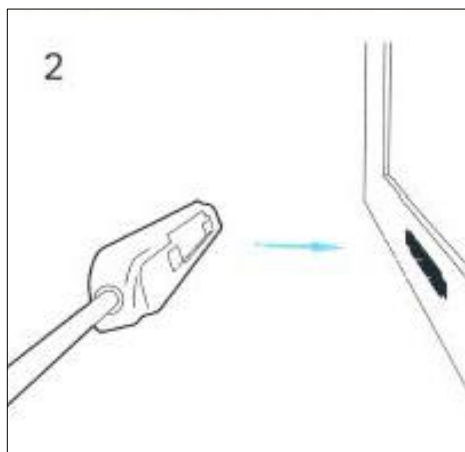
The images shown are for illustrative purposes only.

2.2 Placement

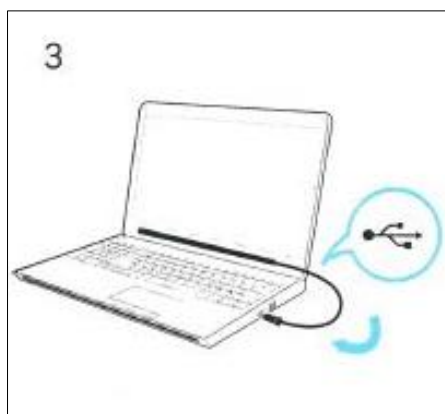
- Clean with alcohol base reagent the center of the PC, under the video, where the bracket will be attached
- Peel off the adhesive and apply the mounting bracket on the center of PC



- Put the Eye-tracker on the magnetic mounting bracket

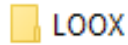


- Plug Eye Tracker into a USB port on PC.

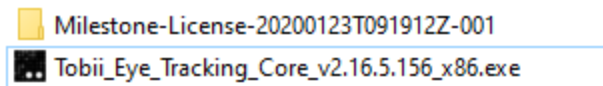


2.3 Software installation

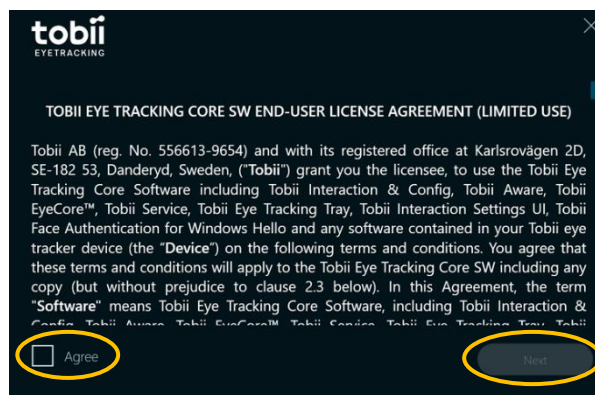
- Insert the USB key on PC and open LOOX folder.



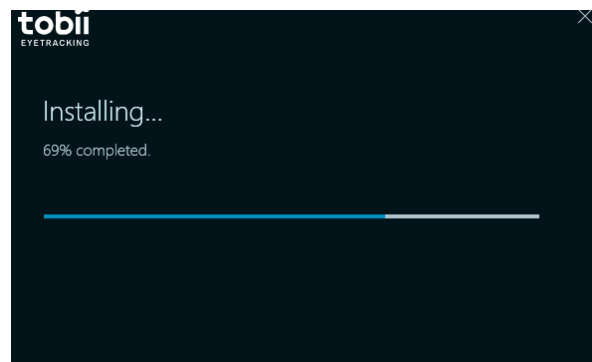
- Run as administrator the file "Tobii_Eye_Tracking_Core_v2.16.5.156_X86.exe".



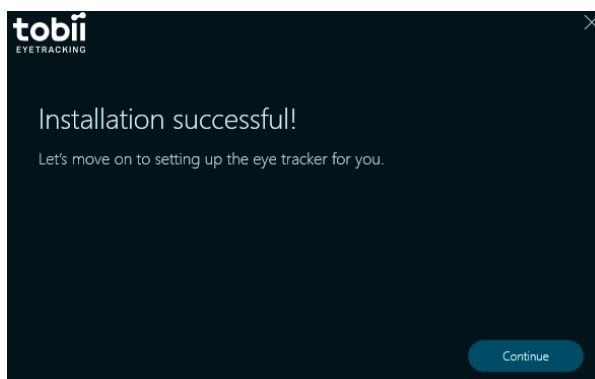
- In the software installer, tick Agree and then select Next.



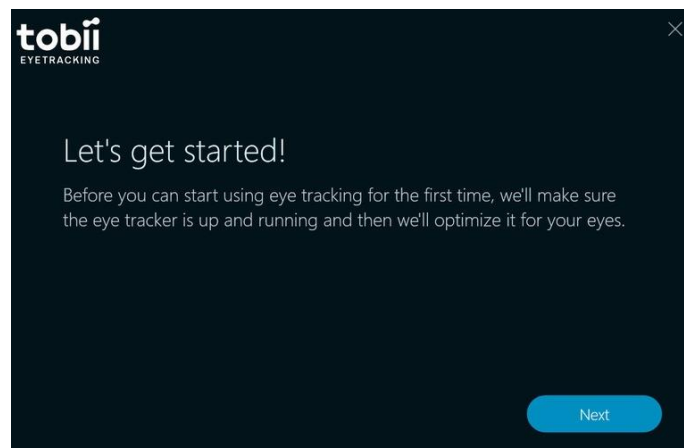
- Wait for installing, this should take just a couple of minutes.



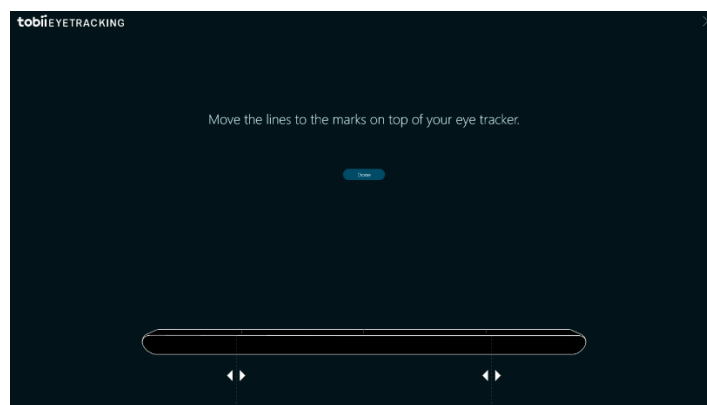
- Once the installation is complete, select Continue.



- Select Next.



- Make sure your Eye Tracker is positioned at the bottom center of your monitor and align the lines that are on display with your mouse (to the lines present on the LOOX Eye-Control device).

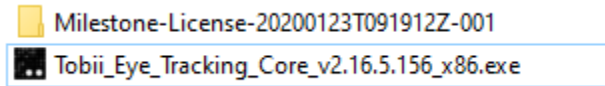


- Select Done.
- LOOX Eye-Control icon will be displayed on the tool bar.

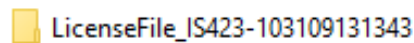


2.4 License activation

- Insert the USB key on PC and open LOOX folder.

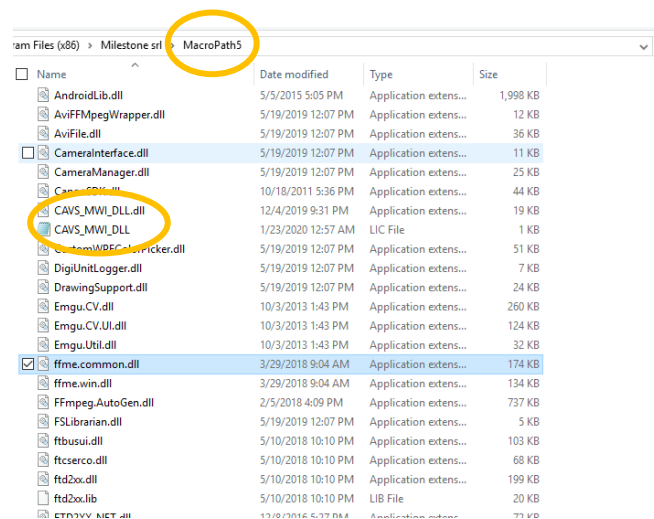
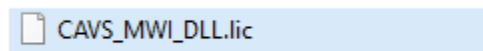


- Open the folder Milestone License and License File.



The showed Serial Number is only an example.

- Copy the file CAVS_MWI_DLL.lic in the MacroPATH5 folder: C:\Program files (x86)\Milestone srl\MacroPath5.

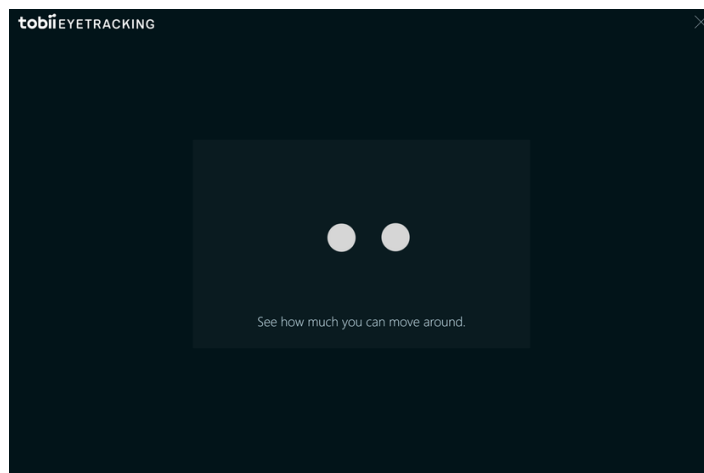


- LOOX Eye-Control device works only with its license, the license is not bound to the PC but to the LOOX Eye-Control device.

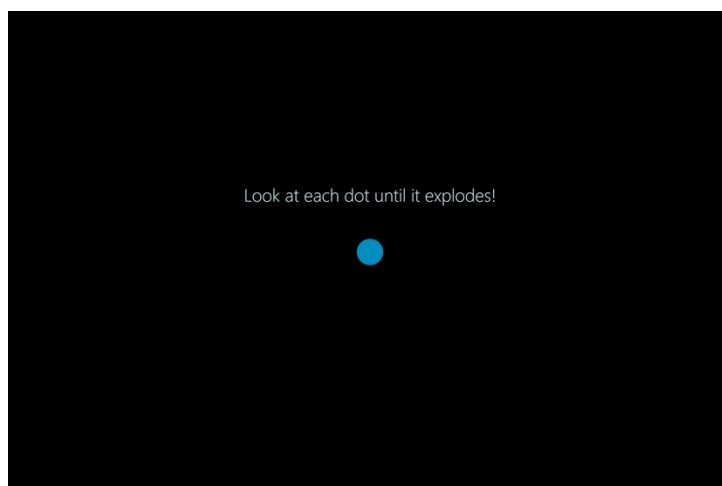
- The licence does not expire.

2.5 Create a new user's profile

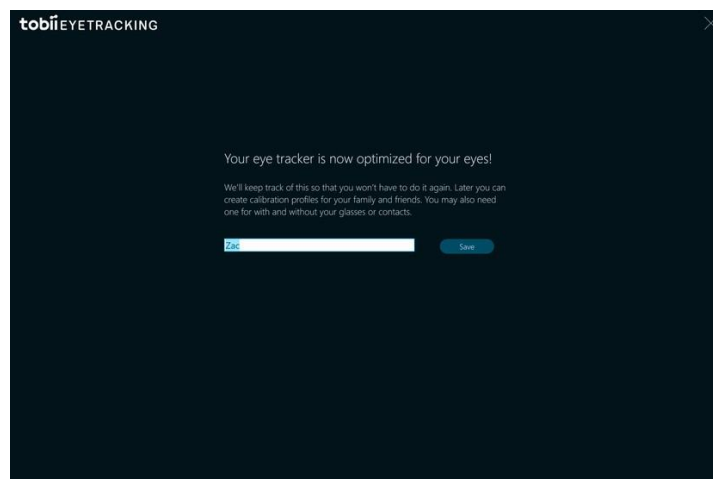
- Make sure the Eye Tracker can see your eyes.



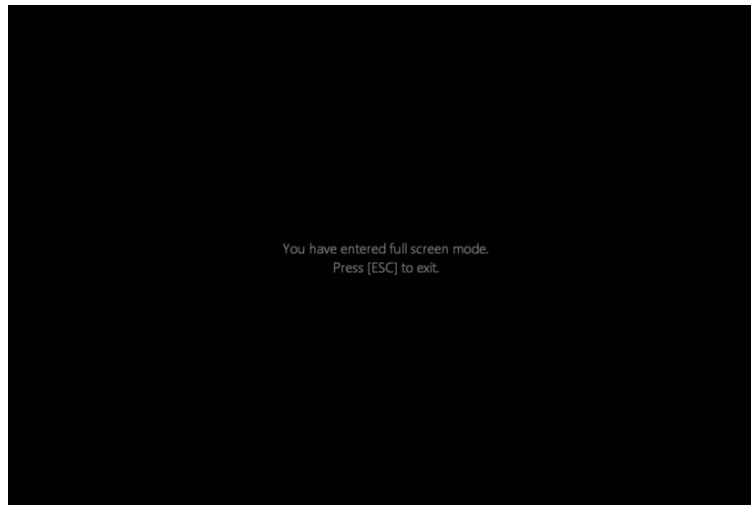
- Follow the on-screen instructions to calibrate your eye tracker



- Type your name and select Save



- When prompted, press the escape key on your keyboard.



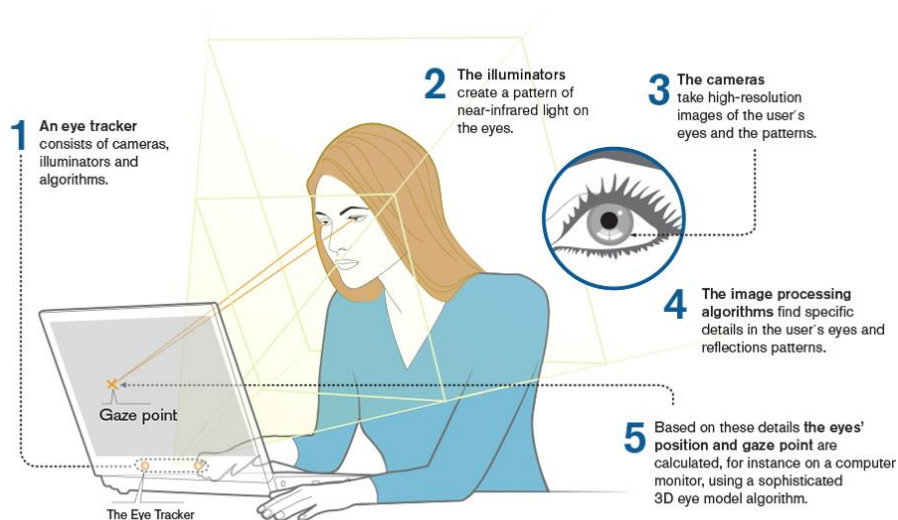
2.5.1 How does the calibration work?

An eye tracker consists of illuminators that illuminate near infra-red light onto your eye. This light creates a reflection also known as a glint on your cornea. Our sensor picks up that reflection and we can pick up your gaze point on a screen.

When you calibrate, we measure characteristics and calculate the personal differences such as where your pupil is located in relation to your cornea and fovea at the back of your eye. We do this to give you the best accuracy possible.

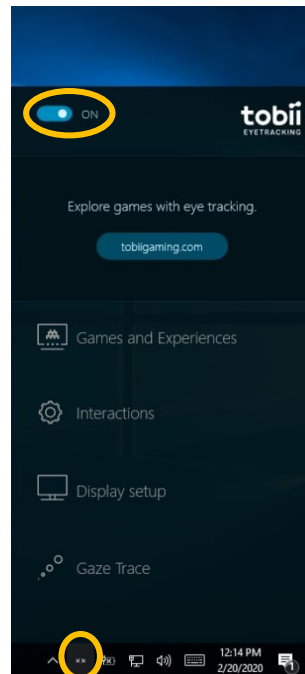
Therefore, it is not required to re-calibrate on a regular basis unless you have changed your light environment. We do however recommend you to do one calibration in a light environment and one when it's dark to have the best tracking result possible.

If you have glasses or lenses, we recommend that you create two different profiles.

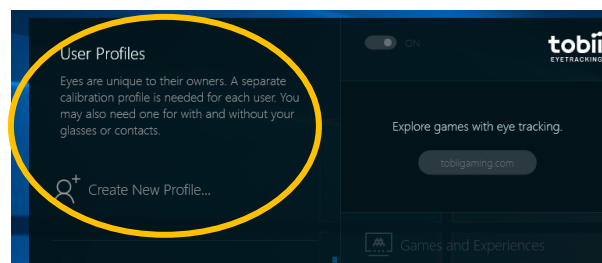


3 SETTINGS

- After software installation and licensing, LOOX Eye-Control icon will be displayed on the tool bar
- Double click on it, then to activate LOOX Eye-Control select ON.

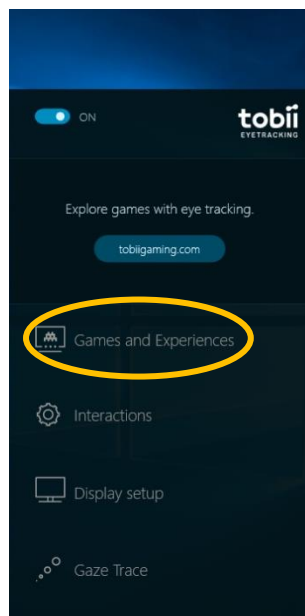


- To create a new user's profile, refer to the procedure described in chapter 2.4.

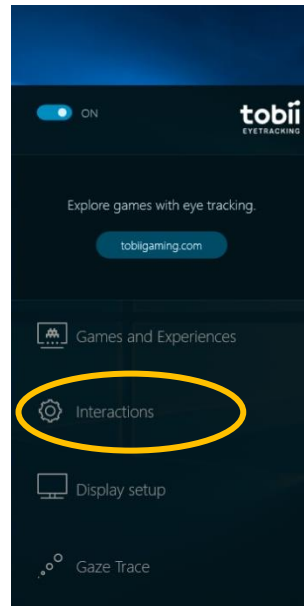


3.1 Game and experiences

This section refers to a different use of the tracker according to the possibilities offered by the manufacturer. It is not linked to the use of MacroPATH.



3.2 Interactions



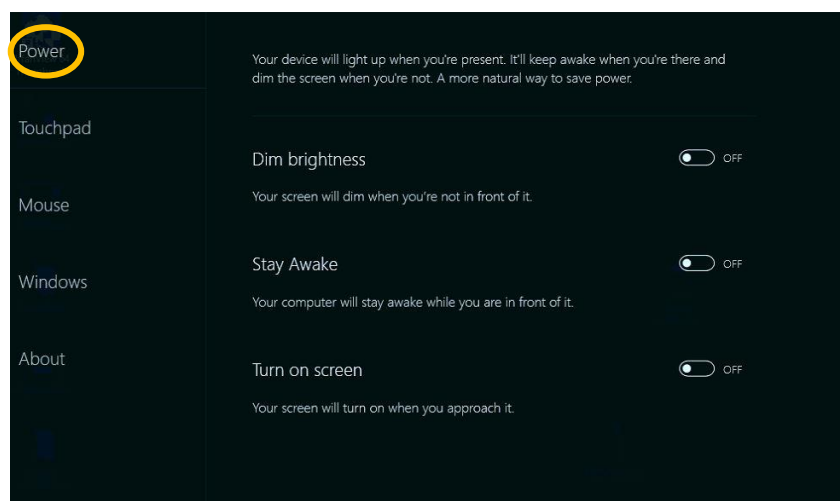
Please note that you can toggle the on/off switch to activate or deactivate all the functions of Interactions menu: POWER, TOUCHPAD, MOUSE, WINDOWS, ABOUT. Refer to the below chapters.

3.2.1 Power

Power

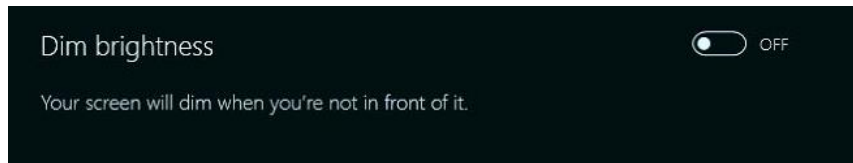
Available in Windows 10.

With the Eye Tracker active, the computer can automatically sense if you are present in front of the screen or not. If the eye tracker can detect your eyes, the screen will stay lit.



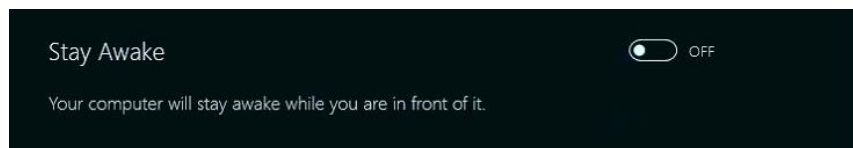
Dim brightness

Only monitors that allow you to adjust the brightness in Windows is supported by this feature. When you leave or look away, the Eye Tracker will not detect your eyes and it will dim your screen after a pre-set time. We advise to set Dim brightness OFF. If it is set ON you can specify the Time before dimming.



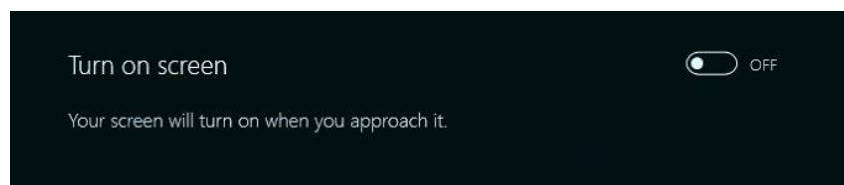
Stay Awake

Your computer will stay awake while you are in front of your eye tracker. We advise to set Stay Awake OFF.



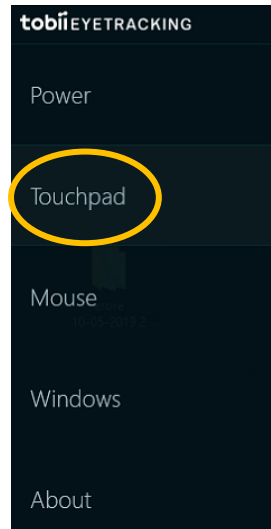
Turn on screen

Your screen will turn on as soon as the eye tracker has detected your presence. We advise to set Turn on screen OFF.



3.2.2 Touchpad

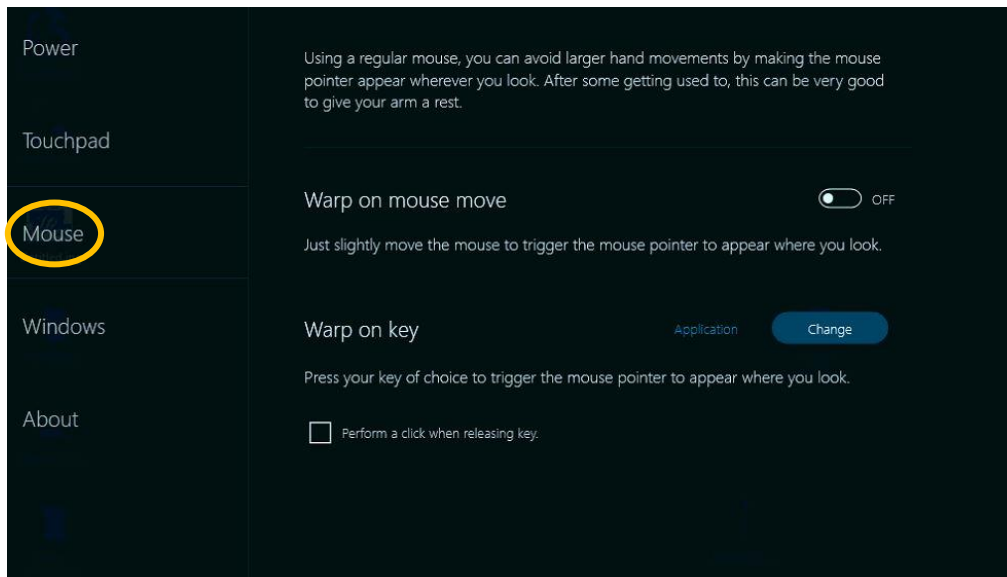
This section refers to a different use of the tracker according to the possibilities offered by the manufacturer. It is not linked to the use of MacroPATH.



3.2.3 Mouse

Mouse

You can easily avoid long mouse movements and drastically lower your mouse mileage with the LOOX Eye-Control and software.

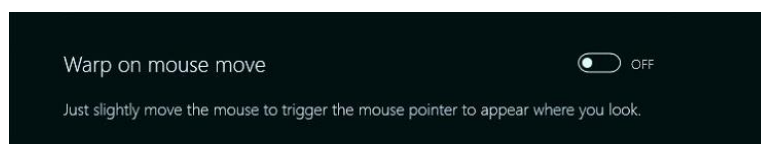


Warp on mouse move

We advise to set this option OFF.

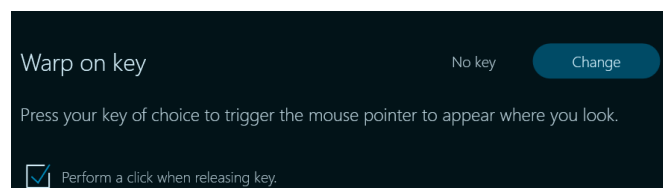
Just slightly move the mouse to trigger the mouse pointer to appear where you look.

- The mouse cursor will appear where you look on the screen just by starting to move the mouse.
- You have the option to only warp when moving pointer towards where you look.
- Inactive zone can be set to 1cm and up to 10cm.



Mouse warp on key

We advise to set this option No key.



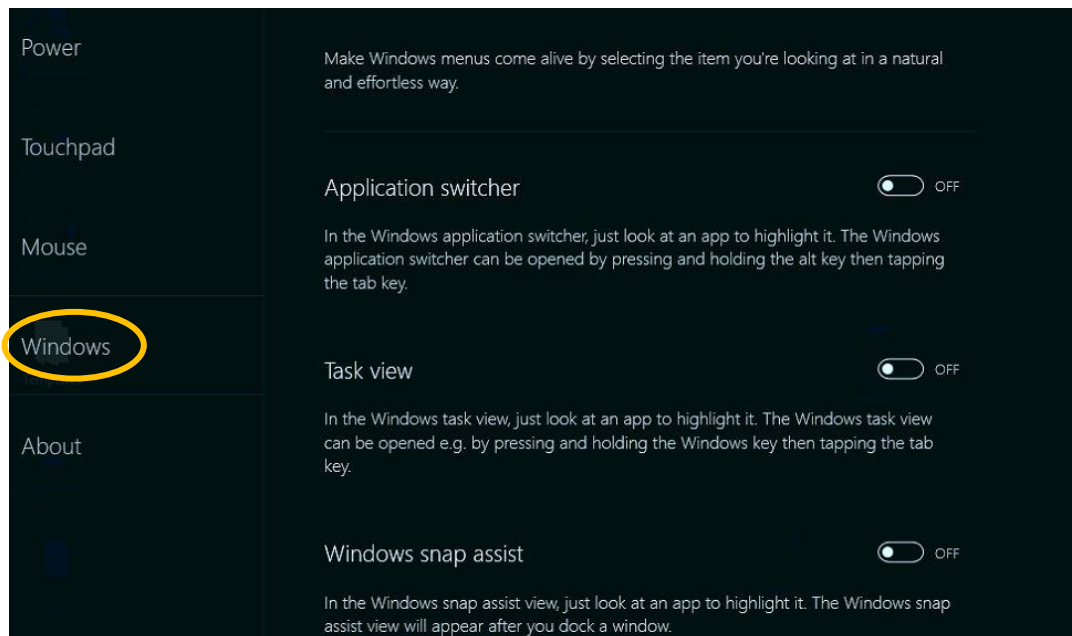
3.2.4 Windows

Windows

Available in Windows 10.

Windows menus will become responsive to where you look if you enable the Windows functions.

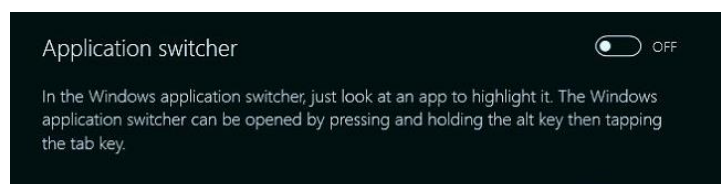
We advise to set this option OFF.



Application switcher

We advise to set this option OFF.

1. Press and hold the Alt or Win key and then tap the Tab key.
2. Keep the Alt or Win key pressed.
3. Look at the application you want to go to.
4. Release the Alt or Win key.
5. You will now go to the application you looked at.

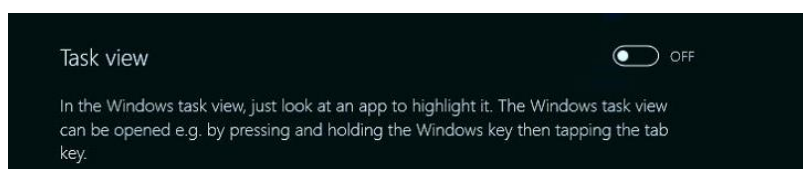


Task view

We advise to set this option OFF.

1. Open Windows Task View by pressing and holding the Windows key then tapping the tab key.
2. In Task View, look at an app to highlight it.

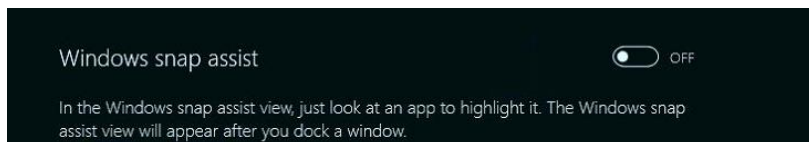
Since the Windows 10 Version 18.03 this function is not available. Microsoft is redesigning this feature. If you have any questions contact us.



Windows snap assist

We advise to set this option OFF.

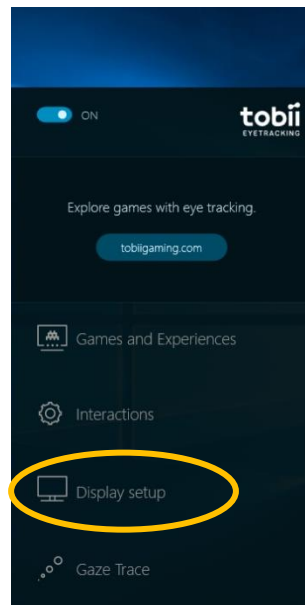
1. Look at the menu item you want. The menu item will highlight.
2. Press the Enter key to confirm. You will now execute the chosen menu item.



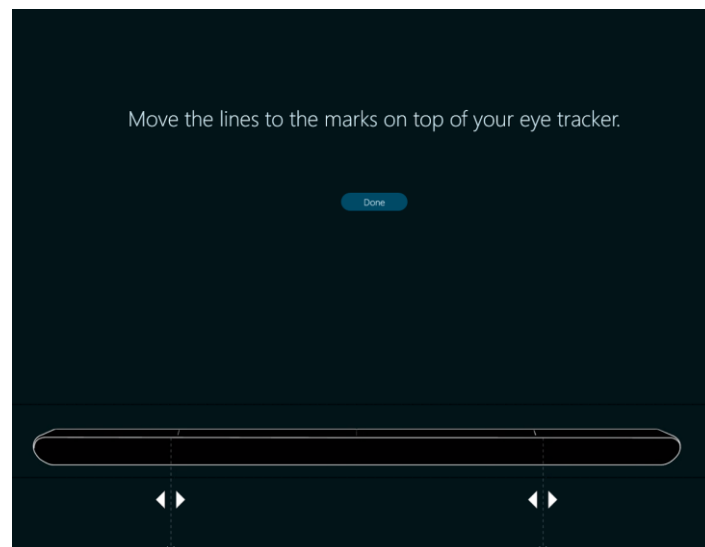
3.2.5 About

It refers to TOBII company information which is the manufacturer of the device.

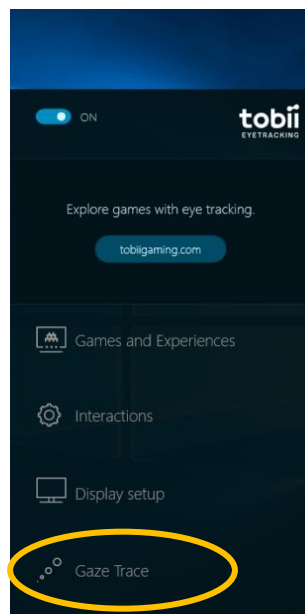
3.3 Display setup



It refers to software installation for more details (see chapter 2.3).

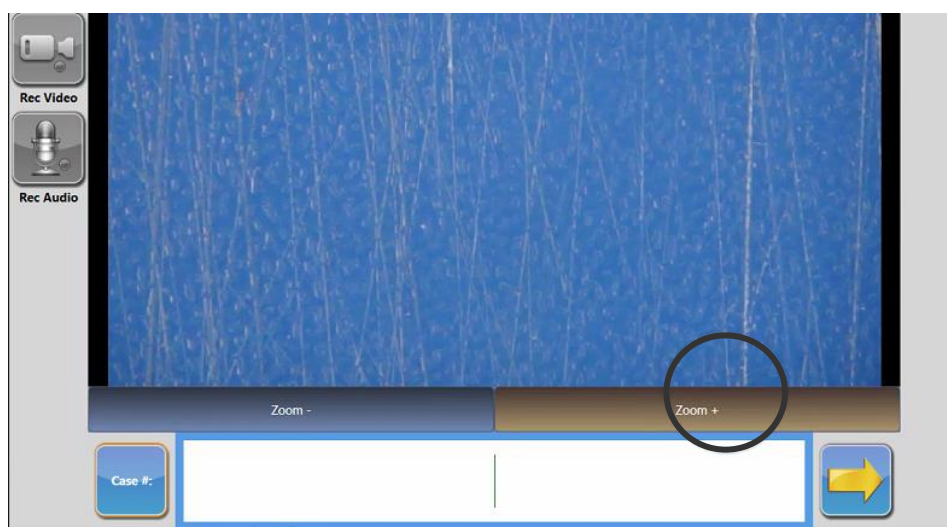


3.4 Gaze trace




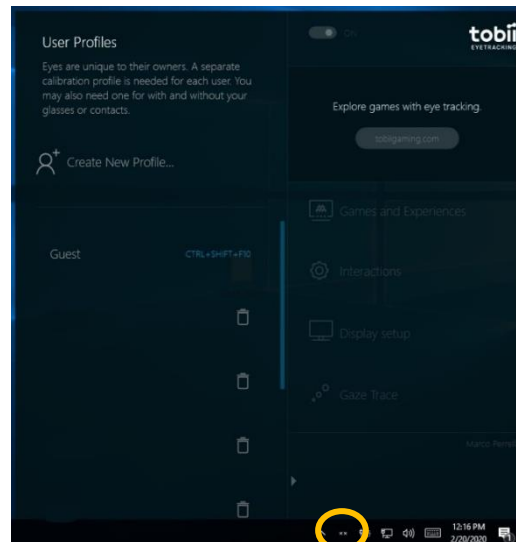
It is used to allow the user a better user experience by tracking what is pointed with the eyes with a visual feedback.

We advise to set this option ON at least to start familiarizing yourself with the instrument, then you can deactivate it.



4 USE of MacroPATH & LOOX Eye-Control

- Open the LOOX Eye-Control software by double click on the ICON  showed below:
- Select the profile. To create a new user profile refer to chapter 2.4.



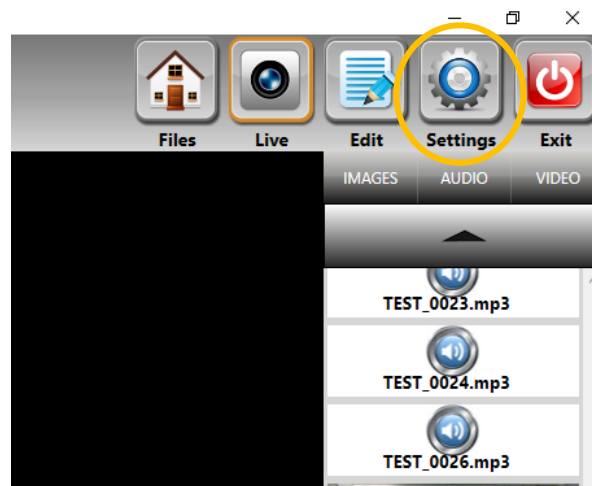
- Run MacroPATH



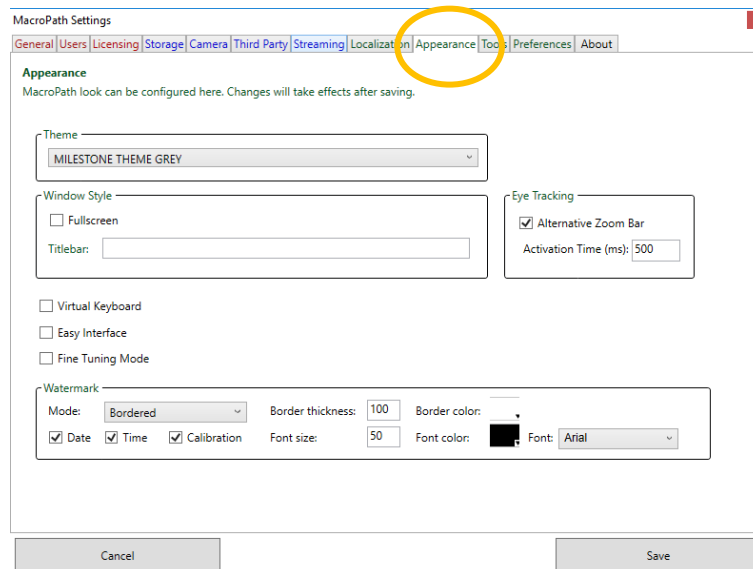
We suggest to create users also in MacroPATH software and login to MacroPATH with the same user profile selected in LOOX Eye-Control software.

Refer to MM161- MacroPATH and MacroPATH Basic QX Series - Operator Manual for how to create a user.

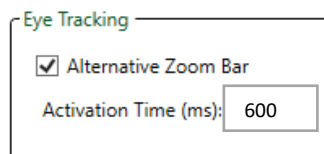
- Select “Settings”



- Select “Appearance”



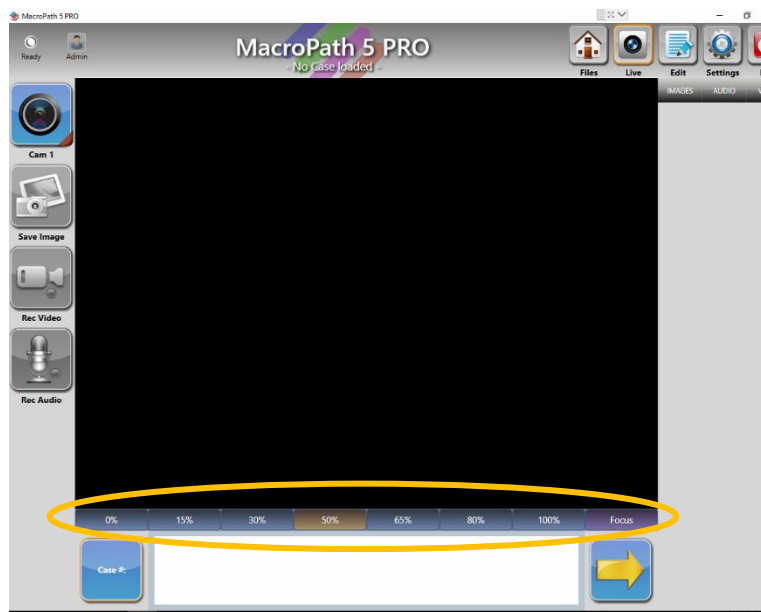
- Select “Alternative Zoom Bar” to activate LOOX Eye-Control



- Activation time: it is the time that passes between looking the icon to select and when it is activated. Default value is 600 milliseconds (suggested). It can be modified and insert values between 0 and 2500 milliseconds.
- Save, close MacroPATH and restart the program
- Run MacroPATH. The zoom bar will be modified according to the below picture. Now it is possible to use the following functions with LOOX Eye-Control: LIVE – SAVE IMAGE – REC VIDEO – REC AUDIO – ZOOM - - ZOOM +



- LOOX Eye-Control log files will be saved in C:\ProgramData\Milestone srl\LOOX\APPDATA.
- If “Alternative Zoom Bar” is not selected it is not possible to use LOOX Eye-Control with standard zoom bar.



- Refer to the MM161 MacroPATH e MacroPATH BASIC QX Series - Operator Manual to work with MacroPATH

5 DECONTAMINATION AND CLEANING

The procedure described in this chapter must be done at least once a day or following the regulations in use in the laboratory.



For reasons of safety, any operation without the required personal protection equipment is to be avoided.

The decontamination of the Unit must be done because of the biohazard risk due to fresh or partially-fixed tissues.

The personnel involved in decontamination of unit and optional parts (if any) must wear personal protective equipment, specifically:

- HI-RISK type single-use protection gloves (100% latex or equivalent material). Personal protection system compliant with standard EN 374 and Directive 89/686/EEC.
- Antibacterial mask for surgical/operating theatre use and white coat. Personal protection system compliant with standard EN 149 Grade FFP3D and Directive 89/686/EEC.



It is recommended to use alcohol-based rapid disinfectant for non-invasive medical products and other surfaces on basis of alcohol.



DISCONNECT THE PLUG FROM THE SOCKET BEFORE STARTING THE CLEANING UP PROCEDURE

Cleaning up steps:

1. Prepare agent as per the manufacturer's instructions or hospital protocol,
2. Wipe the instrument with a clean cloth that has been moistened in the cleaning solution,
3. Clean thoroughly with a clean cloth.



Do not soak or rinse the PC or its peripherals.

Do not use abrasive cloths to clean the instrument.

Should you accidentally spill liquid on the device, disconnect the unit from the power source.

Do not use disinfectants that contain phenol.

Do not autoclave or clean with strong aromatic, chlorinated, ketone, ether or ester solvents (such as ethyl acetate or methyl palmitate), sharp tools or abrasives.

Never soak electrical connectors in water or other liquids.



Always check the label of the disinfectant agent used in the laboratory to verify the correct efficacy timing

6 MAINTENANCE



LOOX Eye-Control for MacroPATH does not require any year maintenance. In case of trouble contact your local distributor or Milestone offices directly: customersupport@milestonemedsrl.com.

7 FAQ

1. Q: Does it work for everyone?

A: LOOK Eye-Control works for 97% of the population, making it the most widely compatible eye tracker in the market. It works in a variety of contexts, regardless of eye colour, ambient light conditions or use of glasses or lenses.

2. Q: What is the operating distance of the eye tracker?

A: LOOK Eye-Control works at a distance of 50 – 95cm / 20-37".

3. Q: Can be used with protective mask and glasses?

A: Yes

4. Q: Does it work with glasses or lenses?

A: Yes, unless you have glasses that have very reflective glass.

LOOK Eye-Control have a unique tolerance for eyewear, variances in eye colour or ambient light conditions. The eye trackers track each eye individually, and you can choose to track left, right or both eyes in the calibration settings.

- If you wear glasses, make sure they are smudge-free.
- Make sure that if you sometimes wear glasses and sometimes don't, create two calibration profiles and name them accordingly.

If you have gone through an eye surgery where scars were left on your cornea, the eye tracker might for some view angles have difficulties locating the reflection created on your cornea. This could lead to inaccurate results for some gaze angles or further complications such as that your eyes can't be detected.

If you have only undergone surgery on one of your eyes that left scars and makes the reflection distorted, then you have the option to exclusively track the other eye. This can be selected in your profile settings.

Have in mind though that every case is different.

Recommendations

There are certain types of glasses that could affect the accuracy and the precision of the gaze estimation.

- Bifocal, trifocal..., progressive

There are also certain types of glass characteristics that could affect the NIR (Near infrared reflection) light from reaching your eyes.

- NIR blocking coatings will obstruct the eye tracker from detecting your eyes.
- NIR blocking glass material will obstruct the eye tracker from detecting your eyes.

5. Q: What is the maximum screen size it works with?

A: For LOOK Eye-Control, the maximum screen sizes are:

- 27 inches with a 16:9 Aspect Ratio
- 30 inches with a 21:9 Aspect Ratio

We do not recommend that you use a larger screen. especially for our Windows Interaction features,

6. Q: I can see red lights on the eye tracker, is it safe?

A: Our eye trackers use Near Infrared light which is completely safe for the human eye. You can, for example, find Near Infrared light in our natural environment for instance in fires.

7. Q: What's the data rate?

A: The frequency is 90Hz which means the LOOK Eye-Control tracks where you look 90 times per second.

8. Q: Will it work on curved screens?

A: Yes, it works on curved screens, but we currently do not provide mounting plates that are tuned for them.

8 TROUBLESHOOTING

1. In case your Eye Tracker menu is receiving error messages and it's not connecting, try out the suggestions below:

- First, make sure that your Eye Tracker software is up to date. Contact: customersupport@milestonemedsrl.com.
- If you're having connection issues, ensure that you're using the extension cable provided by us, if that doesn't work instead use an **active extension cable** or a **powered USB hub**. A hub with BC 1.2 ports is recommended, they're marked with a flash.
- If the eye tracker is still not connecting, make sure to try all of your USB 2.0 and 3.0 ports. The USB ports in the back generally provide more power so prioritize using those and look for a BC 1.2 port (marked with a flash). You can also try to unplug any other devices that are plugged into the same USB controller in order to give the eye tracker more power.
- Make sure that your USB controller can continuously provide at least 1.5 - 2 W of power. Some controllers have power caps or are configured to save power so that might limit the amount of power given to each USB device.

2. In case the LOOX Eye-Control is not recognized check:

- Open Device Manager and expand Universal Serial Bus devices. The driver for your Eye Tracker is named EyeChip. If this is listed, your PC can detect the tracker so double-click to open. Are there any error messages for the driver? If so, make sure to update Windows so you have all the latest updates for WinUSB since that's the driver EyeChip is using.
- Check if there are any driver updates available for your USB Controller. Open the Driver tab for your USB Controller and check the driver date and the driver version. Then check online if there are any new updates available for the USB Controller.
 - *The driver should not be older than from 2014.*
- Reboot your computer and check if the LOOX Eye-Control is recognized.

3. LOOX Eye-Control is not connecting, what can I do?

If your eye tracker is not connecting it could mean that your USB controller is not providing enough power. The tracker needs about 5 - 6W for a few milliseconds to turn on its lights and it uses about 1.5 - 2W while in use.

It's also recommended to use a USB 2.0 port to power the tracker. If it's still a no-go, try using a powered USB 2.0 hub in order to provide more power for the tracker.



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