

# Tobii Dynavox Gaze Viewer

## User's Manual



## User's manual Tobii Dynavox Gaze Viewer

Version 2.0.1

01/2018

All rights reserved.

Copyright © Tobii AB (publ)

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form, by any means (electronic, photocopying, recording, or otherwise) without the prior written permission of the publisher.

Copyright protection claimed includes all forms and matters of copyrightable material and information allowed by statutory or judicial law or hereafter granted, including without limitation, material generated from the software programs which are displayed on the screen such as screen displays, menus, etc.

The information contained in this document is proprietary to Tobii Dynavox. Any reproduction in part or whole without prior written authorization by Tobii Dynavox is prohibited.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

While every precaution has been taken in the preparation of this document, the publisher and the author assume no responsibility for errors or omissions, or for damages resulting from the use of information contained in this document or from the use of programs and source code that may accompany it. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly by this document.

Content subject to change without notice.

Please check Tobii Dynavox web site [www.TobiiDynavox.com](http://www.TobiiDynavox.com) for updated versions of this document.

# Table of Contents

1	About Tobii Dynavox Gaze Viewer .....	4
1.1	Intended Use .....	4
1.2	System Requirements .....	4
2	Installing, Starting and License Handling .....	6
2.1	Installing Tobii Dynavox Gaze Viewer .....	6
2.2	Handling License .....	6
2.2.1	Activating License .....	6
2.2.2	Deactivating License .....	7
2.3	First Start Up .....	7
2.4	Updating the Gaze Viewer software .....	7
3	The Icons in Tobii Dynavox Gaze Viewer .....	8
3.1	The Icons in the Tobii Dynavox Gaze Viewer Controller .....	8
3.2	The Icons in the Tobii Dynavox Gaze Viewer Editor & Playback .....	9
4	Using the Tobii Dynavox Gaze Viewer .....	11
4.1	Tobii Dynavox Gaze Viewer Controller .....	11
4.1.1	Record Gaze and Sound .....	11
4.1.2	Record Gaze Only .....	11
4.1.3	Toggle Live Gaze On/Off .....	11
4.2	Tobii Dynavox Gaze Viewer Editor & Playback .....	12
4.2.1	Timeline Selection .....	12
4.2.2	Save Image or Video .....	13
4.3	Settings .....	13
5	Gaze Viewer Settings .....	14
5.1	Data Collection .....	14
5.2	License Manager .....	14
5.3	Eye Tracker .....	15
5.3.1	The Calibration Tab .....	15
5.3.2	The Advanced Tab .....	18

# 1 About Tobii Dynavox Gaze Viewer

## 1.1 Intended Use

The Tobii Dynavox Gaze Viewer is a powerful, easy to use, application that allows the professional to save videos, images and sound from a session on a device using Eye Control and Gaze Interaction. It presents editable playback with Heat Maps and Gaze Data plots, saved videos & images and even “live gaze” data over the top of any application to give the information needed to make simple reports in relation to Eye Gaze assessments, clinics, school work, reading comprehension, clinical comprehension and much more.

A Gaze Plot is a representation of user's eye movement across the screen, fixation by fixation. Each “dot” of the Gaze Plot is drawn when a “fixation” of the user's gaze is registered at a certain point of the screen. Each is represented by a dot of different sizes and by a number depending on the sequence of the fixations. The size of the Gaze Plot dot relates to how long a user has fixated, or dwelled, on that specific spot; the bigger the dot the longer the dwell, and thereby focus, on that spot of the screen.

A Heat Map is a representation of the different areas of the screen where the user has spent the most time looking. Once a Heat Map is generated there will be Green, Yellow, Orange and Red colored areas presented around the screen representing a user's focus on certain areas over time. The colors shift fluidly from Green to Yellow to Orange to Red (in that order) where Green represents the least time focused on an area and Red represents the most time focused on an area of the screen. This means that the Red areas are the “Hot Spots” in the Heat Map and are thus the areas that have been given the most focus by the user and thereby carry the most interest to them.

## 1.2 System Requirements

Component	Requirements
Computer and processor	2.0 gigahertz (GHz) or faster, Dual-Core processor (recommended minimum).
Memory (RAM)	4 gigabyte (GB) RAM (recommended minimum).
Hard Disk	450 megabytes (MB) available.
USB	USB 2.0
Software Compatibility for Eye Tracking	<ul style="list-style-type: none"><li>• Tobii Dynavox Gaze Interaction Software</li><li>• Tobii Dynavox Gaze Point</li><li>• Tobii Dynavox Windows Control</li></ul>
Operating System	<p>Tobii Dynavox Gaze Viewer runs on both 32-bits and 64-bit versions of Microsoft Windows operating systems. When you run Tobii Dynavox Gaze Viewer 32-bit on a 64-bit version of a Windows operating system, the program runs in the 32-bit layer of the Windows operating system.</p> <ul style="list-style-type: none"><li>• Windows 7 (32-bit<sup>1</sup> or 64-bit<sup>2</sup>)</li><li>• Windows 8.1 (32-bit or 64-bit)</li><li>• Windows 10 (32-bit or 64-bit)</li></ul>
.NET version	4.5
Eye tracker	Any eye tracker from Tobii Dynavox or Tobii Tech that supports Tobii Eye Tracking Core Software.
Additional requirements and considerations	Connection to internet is necessary for License activation.
Tobii Eye Tracking Core Software	Version 2.8 or later.
<p>1. when used with Gaze Interaction Software</p> <p>2. when used with Gaze Interaction Software or Windows Control</p>	

Recording requires 500 MB of free disk space and some additional space for saving your video file. The used disk space for your recording projects is very much depending on your system, the screen resolution, the recording length and if you record

gaze and sound or gaze only. One minute of recording requires approximately 140 MB for Gaze only and 165 MB for Gaze and Sound with a screen resolution of 1920 × 1200.

## 2 Installing, Starting and License Handling

### 2.1 Installing Tobii Dynavox Gaze Viewer

1. Go to [www.tobiidynavox.com/dl/gaze-viewer](http://www.tobiidynavox.com/dl/gaze-viewer) and download the Tobii Dynavox Gaze Viewer software.
2. Install the Tobii Dynavox Gaze Viewer.
3. Follow the directions on the screen.

### 2.2 Handling License

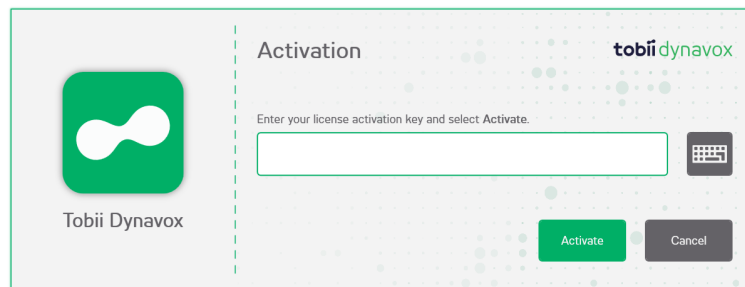
#### 2.2.1 Activating License



The Tobii Dynavox Gaze Viewer can run on one (1) computer/device at a time with the same license.

When you purchase Tobii Dynavox Gaze Viewer you will receive a License Activation Key for the software in the Order Confirmation e-mail.

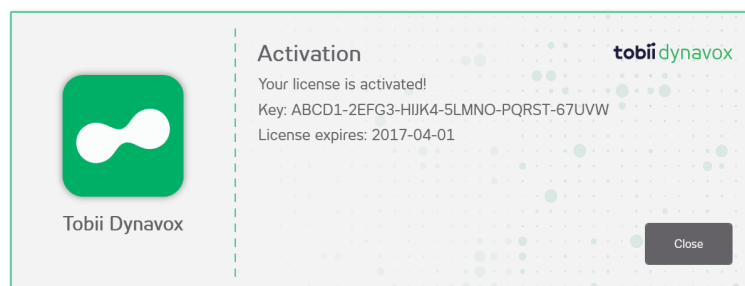
When the Tobii Dynavox Gaze Viewer is run for the first time the **License Manager** will start.



The License dialogue box will show the actual software icon for the license that is being handled.

Your **License Activation Key** can be found in the Order Confirmation e-mail.

1. Make sure the computer/device is connected to the Internet.
2. Enter the **License activation key**.
3. Select the **Activate** button.




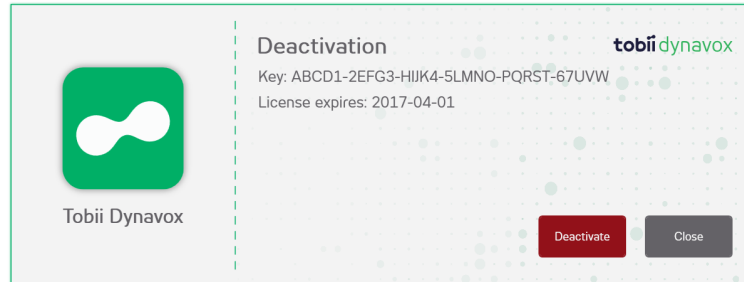
The License dialogue box will show the actual software icon for the license that is being handled.

4. Select the **Close** button.

### 2.2.2 Deactivating License

To deactivate Tobii Dynavox Gaze Viewer, follow these steps.

1. Make sure the computer/device is connected to Internet.
2. Start Tobii Dynavox Gaze Viewer.
3. Select the  (SETTINGS) button.
4. Select the **Open License Manager** button.
5. Select the **Deactivate** button.



The License dialogue box will show the actual software icon for the license that is being handled.

6. Select:
  - **Yes** — to deactivate the license on this device.
  - **No** — to cancel.

## 2.3 First Start Up


When Tobii Dynavox Gaze Viewer is launched for the first time a Configuration Guide will guide the user through the start up configuration of Tobii Dynavox Gaze Viewer. The steps in the guide are:

- Setup the display. For more information, see 5.3.2.1 *Setup Display*, page 18.
- Create new profile. For more information, see 5.3.1.1 *Create New Profile*.
- Test calibration, For more information, see 5.3.1.3 *Test Calibration*

## 2.4 Updating the Gaze Viewer software

Tobii Dynavox regularly releases updated versions of the Gaze Viewer software.

During the installation of the Gaze Viewer software, the Update Notifier software will be installed on the device. The Update Notifier will, if the device is connected to the Internet, automatically check for updated versions of the Gaze Viewer software and other Tobii Dynavox software installed on the device.

To manually check for new updates of the software, look up the Update Notifier application on the device and select the  (Update Notifier) icon to start the application.

# 3 The Icons in Tobii Dynavox Gaze Viewer

## 3.1 The Icons in the Tobii Dynavox Gaze Viewer Controller

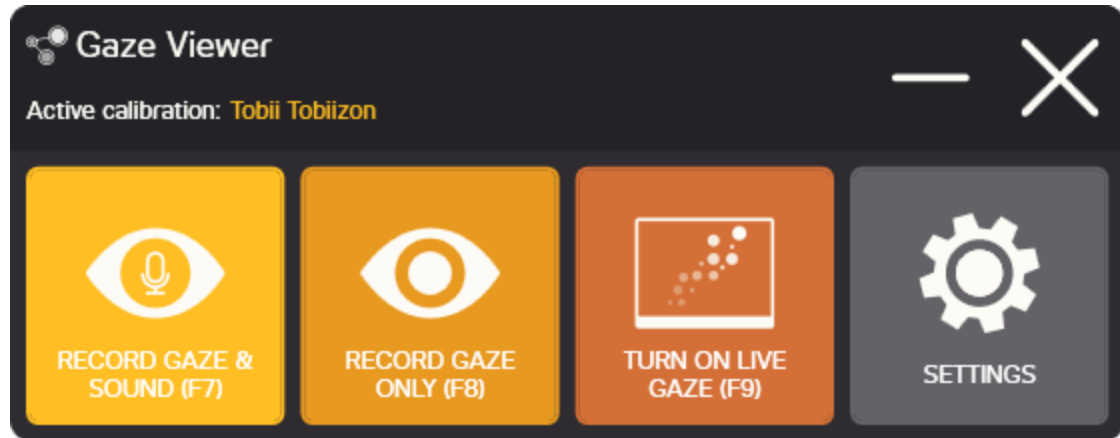








Figure 3.1 Tobii Dynavox Gaze Viewer Controller

Symbol	Description	Symbol	Description
<b>RECORD GAZE AND SOUND (F7)</b> 	Start a recording with both Gaze and Sound data.	<b>STOP RECORDING (F7, F8)</b> 	Stop the recording.
<b>RECORD GAZE ONLY (F8)</b> 	Start a recording with Gaze data only.	<b>TURN OFF LIVE GAZE (F9)</b> 	Live Gaze is on, toggle the button to turn off the visual live gaze.
<b>TURN ON LIVE GAZE (F9)</b> 	Live Gaze is off, toggle the button to turn on the visual live Gaze.	<b>SETTINGS</b> 	Tips & Settings for Tobii Dynavox Gaze Viewer. For more information, see 5 <i>Gaze Viewer Settings</i> , page 14.

## 3.2 The Icons in the Tobii Dynavox Gaze Viewer Editor & Playback

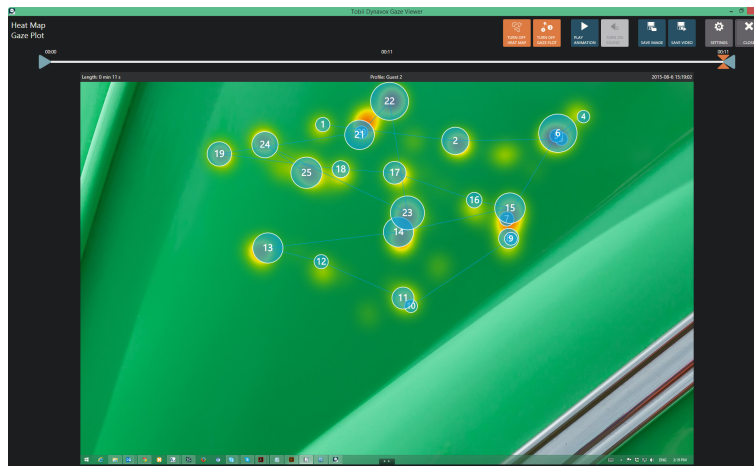



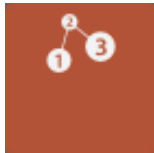



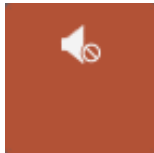







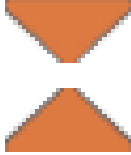


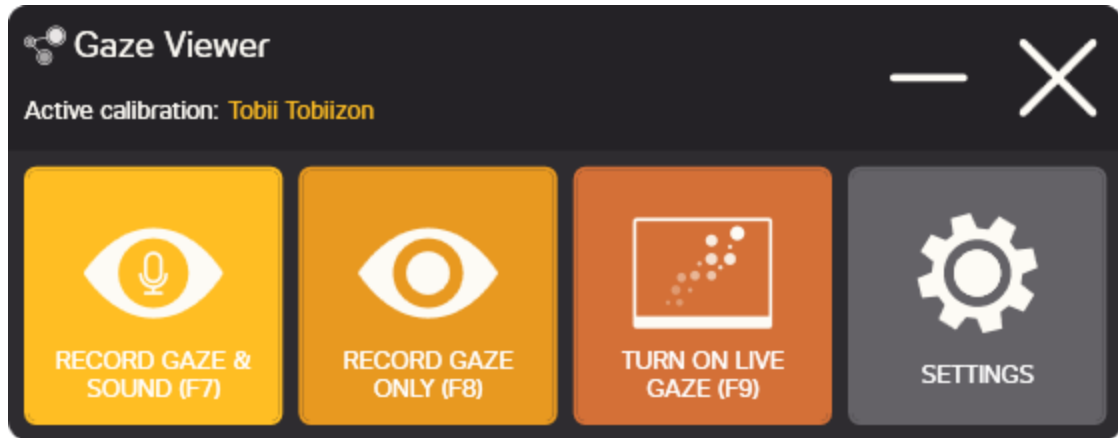
Figure 3.2 Tobii Dynavox Gaze Viewer Editor & Playback

Symbol	Description	Symbol	Description
<b>TURN OFF HEAT MAP</b> 	The heat map is visible (default). Toggle the button to turn Off the heat map.	<b>TURN ON HEAT MAP</b> 	The heat map is not visible. Toggle the button to turn On the heat map.
<b>TURN OFF GAZE PLOT</b> 	The Gaze plot is visible (default). Toggle the button to turn Off the Gaze plot.	<b>TURN ON GAZE PLOT</b> 	The Gaze plot is not visible. Toggle the button to turn On the Gaze plot.
<b>PLAY ANIMATION</b> 	Select the button to start the animation.	<b>STOP ANIMATION</b> 	Select the button to stop the animation.
<b>TURN OFF SOUND</b> 	The recording is made with sound and the sound is on and will be played back when playing the animation.	<b>TURN ON SOUND</b> 	The recording is made with sound and the sound is turned off and will not be played back when playing the animation.
<b>TURN ON SOUND</b> 	The recording is made without any sound.	<b>SAVE IMAGE</b> 	Save the recording as an Image as seen on the screen.

Symbol	Description	Symbol	Description
<b>SAVE VIDEO</b> 	Save the recording as a video with the current time interval setting for the recording.	<b>SETTINGS</b> 	Open the Settings page. For more information, see 5 <i>Gaze Viewer Settings</i> , page 14.
<b>CLOSE</b> 	Close the Gaze Viewer Editor & Playback.	<b>TIMELINE HANDLE (Start point)</b> 	Start point of recording. Drag to change start point of the recording.
<b>TIMELINE HANDLE (End point)</b> 	End point of recording. Drag to change end point of the recording.	<b>TIMELINE HANDLE (Specific time point)</b> 	Actual time point in the recording. Drag to change actual time point.

# 4 Using the Tobii Dynavox Gaze Viewer

## 4.1 Tobii Dynavox Gaze Viewer Controller



### 4.1.1 Record Gaze and Sound

Start a recording by selecting  (RECORD GAZE & SOUND (F7)) button or  key on the keyboard.



To hide the tool during recording, use the keyboard commands in brackets to start and stop the recording.

Stop the Recording by selecting the  (STOP RECORDING (F7, F8)) button or the keyboard keys  or .

### 4.1.2 Record Gaze Only



Start a recording by selecting  (RECORD GAZE ONLY (F8)) button or the  key on the keyboard.





To hide the tool during recording, use the keyboard commands in brackets to start and stop the recording.

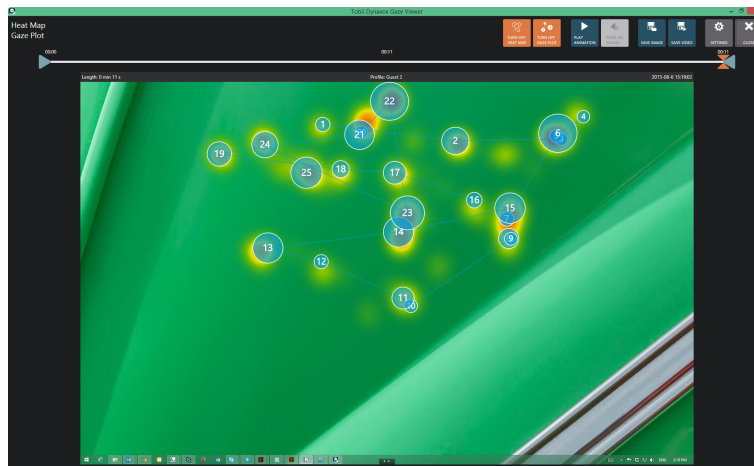
Stop the Recording by selecting the  (STOP RECORDING (F7, F8)) button or the keyboard keys  or .

### 4.1.3 Toggle Live Gaze On/Off












Select the  (TURN OFF LIVE GAZE (F9)) button or the  key on the keyboard to turn Off the Live Gaze.

Select the  (TURN ON LIVE GAZE (F9)) button or the  key on the keyboard to turn On the Live Gaze.

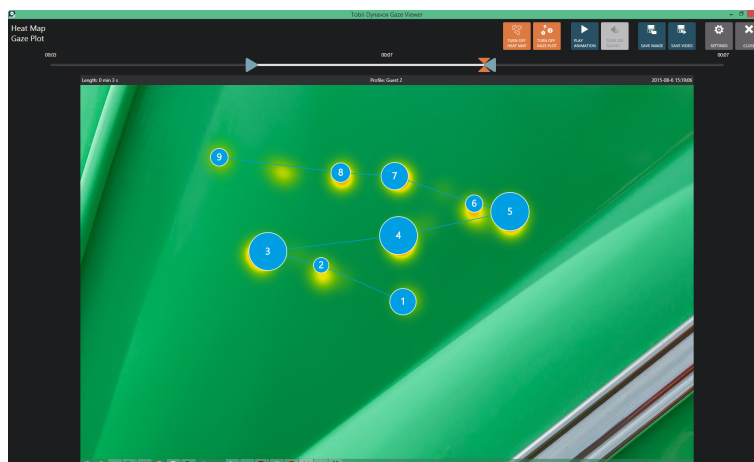
## 4.2 Tobii Dynavox Gaze Viewer Editor & Playback



When the recording is stopped, the Editor & Playback view will automatically open.

- Select the  (SETTINGS) button in the Editor & Playback view for tips, access to manual and License manager.
- Toggle the  (TURN OFF HEAT MAP) (default) /  (TURN ON HEAT MAP) to hide the Heat Map or to show it.
- Toggle the  (TURN OFF GAZE PLOT) (default) /  (TURN ON GAZE PLOT) to hide the Gaze Plot or to show it.
- Toggle the  (TURN OFF SOUND) (default) /  (TURN ON SOUND) to be able to playback the recording with the Sound on or off. If the recording is made without sound the button is greyed out  (TURN ON SOUND).
- Select the  (PLAY ANIMATION) button to start a playback of the recording and select the  (STOP ANIMATION) button to stop the playback.
- Select the  (CLOSE) button to close the Tobii Dynavox Gaze Viewer Editor & Playback and to go back to the Tobii Dynavox Gaze Viewer Controller and to be able to start a new recording. For more information, see 4.1 *Tobii Dynavox Gaze Viewer Controller*, page 11.




### 4.2.1 Timeline Selection





If you have recorded across different backgrounds or pages (screens), you need to drag the timeline handles one at a time to only show gaze data for the time window of interest. When you move a timeline handle, the Editor & Playback window will show the background image for that point in time to help you select the right screen. Save the current selection as an image or video and make a new time selection for the next screen. For more information, see [4.2.2 Save Image or Video, page 13](#).



Repeat until all different screens of interest have been saved from the recording.

- Drag the  (Start point) icon to a new location to change the Start point of the recording.
- Drag the  (End point) icon to a new location to change the End point of the recording.
- Drag the  (Actual time point) icon to a new location to see exactly that point in time of the recording on the screen.

### 4.2.2 Save Image or Video

- Select the  (SAVE IMAGE) button to save the current actual time point as an image.
- Select the  (SAVE VIDEO) button to save video of the selected time window of the recording.



The active Gaze Interaction User Profile will be displayed in the top center of the recorded screen. The length of the recording is displayed in the top left of the recorded screen and the date and time stamp of the recording is displayed in the top right of the recorded screen.




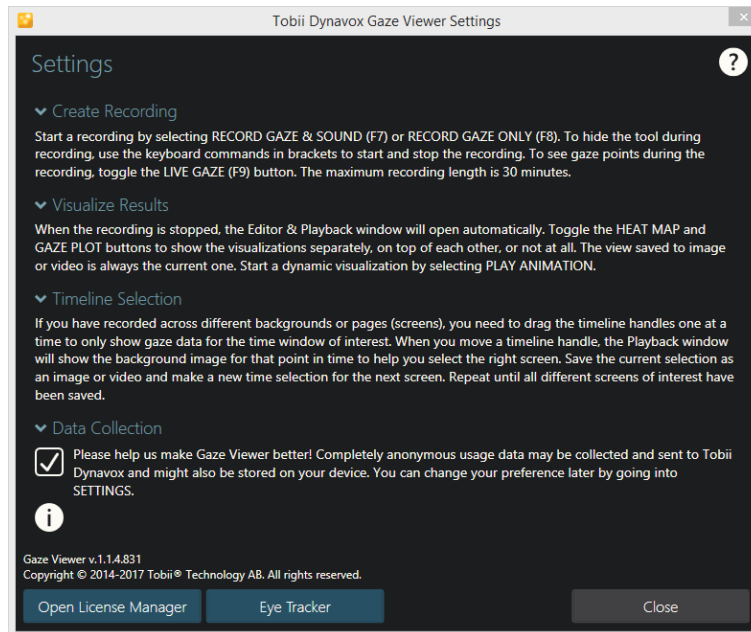
It will take some time to save a long recording, so please be patient.

## 4.3 Settings


For more information, see [5 Gaze Viewer Settings, page 14](#).

# 5 Gaze Viewer Settings

Select the  (SETTINGS) button to access the Settings for Tobii Dynavox Gaze Viewer.



In Settings, the user will get some short tips about how to use the Tobii Dynavox Gaze Viewer Software.

Select the  icon to open the manual. The manual will open in your default Internet browser.

## 5.1 Data Collection

Please help us to make Tobii Dynavox Gaze Viewer better by completely anonymous collect and share your usage data. No personal information will be shared.



No data from any recording will be collected, it is just data about how the software is used that will be collected.

Tick the **Data Collection** tick box to anonymous share the usage data for Tobii Dynavox Gaze Viewer.

Untick the **Data Collection** tick box if you don't want to share the usage data for Tobii Dynavox Gaze Viewer.

## 5.2 License Manager

The Tobii Dynavox Gaze Viewer can only be run on one computer/device at a time with the same license. To be able to use the Tobii Dynavox Gaze Viewer on another computer/device the Tobii Dynavox Gaze Viewer must first be deactivated.

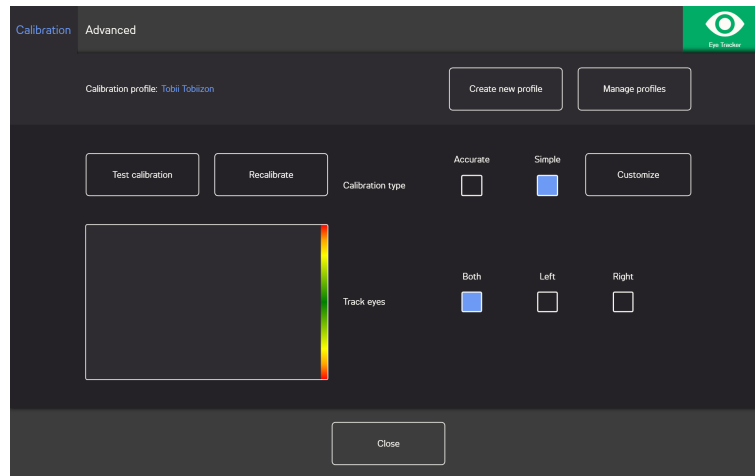
Select the **Open License Manager** button to access the License Manager.

For activating the license, see *2.2.1 Activating License, page 6*.

For deactivating the license, see *2.2.2 Deactivating License, page 7*.

## 5.3 Eye Tracker

### 5.3.1 The Calibration Tab



**Calibration profile:** Will show the name of the profile that is active.

**Create new profile:** Select this button to create a new profile. For more information, see 5.3.1.1 *Create New Profile*, page 15.

**Manage profiles:** Select this button to change to an already existing profile. For more information, see 5.3.1.2 *Manage Profiles*, page 15.

**Test calibration:** Select this button to open the test calibration page. For more information, see 5.3.1.3 *Test Calibration*, page 16.

**Calibration type:** There are two (2) different types of calibration: **Accurate** or **Simple**. For more information, see 5.3.1.5 *Calibration Type*, page 16.

**Track eyes:** Select how the device should track the user's eyes between: **Both**, **Left** or **Right**.

#### 5.3.1.1 Create New Profile

1. Select the **Calibration type** to use.  
For more information, see 5.3.1.5 *Calibration Type*, page 16.
2. Select the **Create new profile** button.
3. Select **Yes** to continue or **No** to cancel.
4. Give the new profile a name.



Keyboard and mouse must be used.  
Only Alpha-Numeric characters can be used.

5. Select the **Next** button.
6. Position the user so that the two dots, representing the user's eyes, are in the center of the box shown on screen.  
The calibration process will start when the right dot blinks at the user.
7. Follow the on-screen instructions for performing a calibration.
8. Test the calibration.  
For more information, see 5.3.1.3 *Test Calibration*, page 16.
9. Select **Close** to accept the calibration or **Recalibrate** to perform a new calibration process.

#### 5.3.1.2 Manage Profiles

On the Manage Profiles page you will be able to Activate or Delete an existing profile.

In the middle of the screen, under Active Profile, you will be able to see the name of the profile that is active.

All available profiles will be listed as button on the page, use the < and > button to scroll through the available profiles.

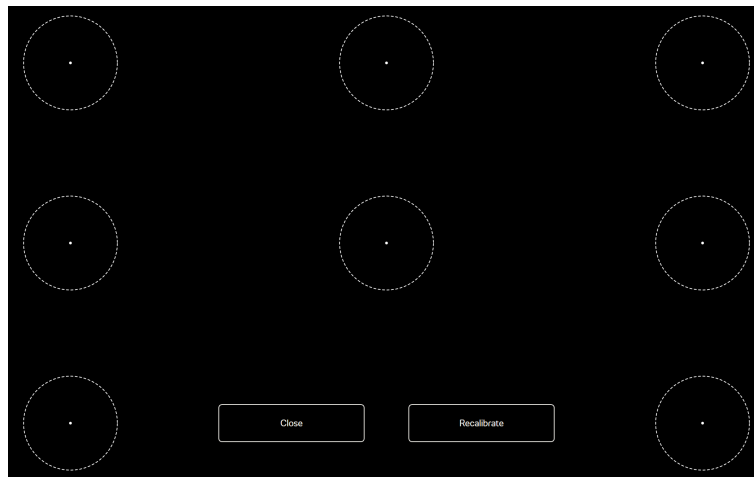
#### 5.3.1.2.1 Activating a Profile

1. Select the button with the name of the profile to activate.
2. Select the **Activate** button located in the top right corner of the screen.
3. Select **Yes** to activate the selected profile or **No** to cancel.
4. Select **Close** to leave the page.

#### 5.3.1.2.2 Deleting a Profile

1. Select the button with the name of the profile to delete.
2. Select the **Delete** button located in the top left corner of the screen.
3. Select **Yes** to delete the selected profile or **No** to cancel.
4. Select **Close** to leave the page.

#### 5.3.1.3 Test Calibration



On the test calibration page the calibration can be tested, using predefined targets on the screen, to see if the user need to re-calibrate the eye tracker.

1. Look at each dot in each circle on the screen to see how accurate the eye tracking is in that area.
2. Select **Close** to accept the calibration or **Recalibrate** to perform a new calibration process.

#### 5.3.1.4 Recalibration

1. Select the **Calibration type** to use.  
For more information, see 5.3.1.5 *Calibration Type*, page 16.
2. Select the **Recalibrate** button to start a new calibration process for the active profile.
3. Follow the on-screen instructions for performing a calibration.
4. Test the calibration. For more information, see 5.3.1.3 *Test Calibration*, page 16.
5. Select **Close** to accept the calibration or **Recalibrate** to perform a new calibration process.

#### 5.3.1.5 Calibration Type

There are two (2) calibration types available: **Accurate** and **Simple**.

#### 5.3.1.5.1 Accurate

Select the **Accurate** box to activate the most accurate calibration type.

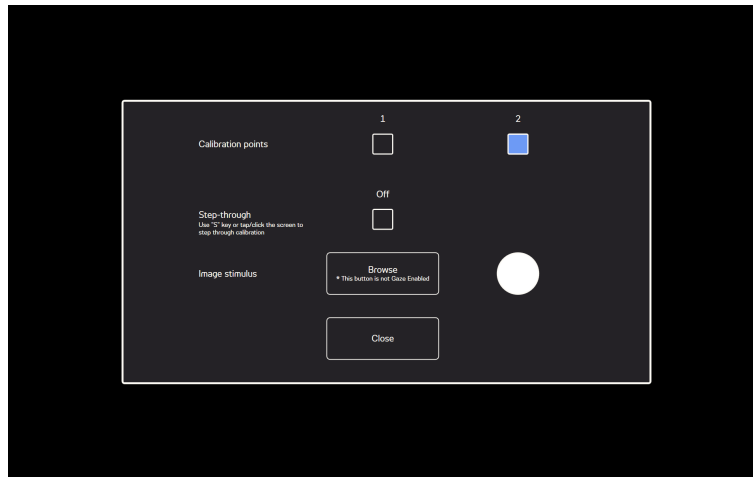
With the Accurate calibration type activated the calibration process will be a seven (7) points, “pop the dots” calibration. The Accurate calibration type is the default calibration type.

#### 5.3.1.5.2 Simple

Select the **Simple** box to activate the easy calibration type, when it is of higher importance that the calibration is quick and easy, rather than highly accurate.

When the simple calibration type is selected, the calibration process can be customized.

Select the **Customize** button to customize the calibration process.



**Calibration points:** Select if **1** or **2** calibration points should be used.



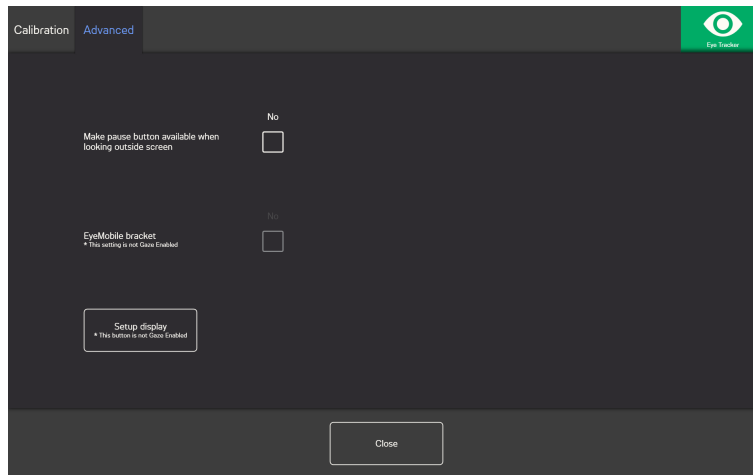
1-point calibration is not available on PCEye Go.

**Step-through:** Toggle the Step-through On/Off check box to On to activate the function where you use the “S” key on a keyboard or tap/click the screen to step through the calibration.

**Image Stimulus:** Select the **Browse** button to change the **Image Stimulus** from the default white dot into one of the included stimulus or to an image of the user's favorite toy or something else.

**Close:** Select the **Close** button to leave the page.

## 5.3.2 The Advanced Tab

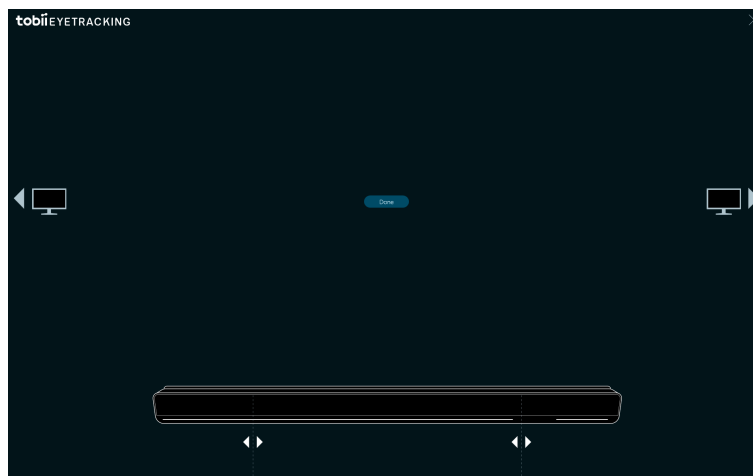




**Make pause button available when looking outside screen:** Toggle the On/Off check box to **On** if the pause button shall appear on the screen when the user looks outside of the screen so the user can easily pause and restart the eye tracking.

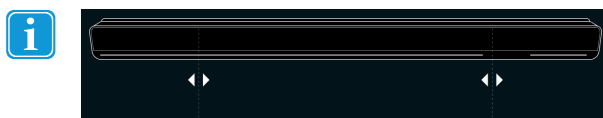
**EyeMobile bracket:** Toggle the EyeMobile bracket On/Off check box to **On** if you are using an EyeMobile or EyeMobile Mini. The EyeMobile bracket setting is not relevant for EyeMobile Plus and hence disabled.

### 5.3.2.1 Setup Display

If more than one (1) display is used, you will need to specify which display the eye tracker is attached to. The system will also need to know the size of the display that is used.



1. Use the  or  to select which display the eye tracker is attached to.
2. Align the left and right vertical line, which are under the visualization of the eye tracker on the screen, with the markings that are on top of the eye tracker in use.



This will set the screen size that is used for the Tobii Dynavox Gaze Viewer.

3. Select **Done** to finalize.





Copyright ©Tobii AB (publ). Illustrations and specifications do not necessarily apply to products and services offered in each local market. Technical specifications are subject to change without prior notice. All other trademarks are the property of their respective owners.

## Support for Your Tobii Dynavox Device

### Get Help Online

See the product-specific Support page for your Tobii Dynavox device. It contains up-to-date information about issues and tips & tricks related to the product. Find our Support pages online at: [www.TobiiDynavox.com](http://www.TobiiDynavox.com) or [www.myTobiiDynavox.com](http://www.myTobiiDynavox.com).

### Contact Your Sales Representative or Reseller

For questions or problems with your product, contact your Tobii Dynavox sales representative or authorized reseller for assistance. They are most familiar with your personal setup and can best help you with tips and product training. For contact details, visit [www.TobiiDynavox.com/contact](http://www.TobiiDynavox.com/contact)