Introduction

The Tobii Dynavox Gaze Interaction Software is a software solution for controlling Windows applications using gaze with Tobii Dynavox eye trackers. The software consists of the following major parts:

- Gaze Interaction Server
- Gaze Interaction Settings application
- Windows Control

System Requirements

- Windows 7, 8.1 or 10
- .NET Framework 4 Full
- DirectX 9.0c

Supported Tobii Dynavox Eye Trackers

<table>
<thead>
<tr>
<th>Discontinued Support</th>
<th>Final Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-Series</td>
<td>2.6.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supported Products</th>
<th>From version</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCEye</td>
<td>1.3.0</td>
</tr>
<tr>
<td>PCEye Go</td>
<td>2.2.0</td>
</tr>
<tr>
<td>I-Series</td>
<td>2.3.0</td>
</tr>
<tr>
<td>EyeMobile</td>
<td>2.4.0</td>
</tr>
<tr>
<td>I-Series+</td>
<td>2.6.4</td>
</tr>
<tr>
<td>I-Series+ with IS4</td>
<td>2.8.0</td>
</tr>
<tr>
<td>PCEye Mini</td>
<td>2.8.1</td>
</tr>
<tr>
<td>PCEye Explore</td>
<td>2.8.1</td>
</tr>
<tr>
<td>EyeMobile Mini</td>
<td>2.8.1</td>
</tr>
</tbody>
</table>

Customer support: For more information or support, please visit [www.TobiiDynavox.com](http://www.TobiiDynavox.com).

Release Version 2.9.1

Release date: 2019-12–03

Improvements

- Fixed a bug where eye tracking in certain situations would stop functioning (TASK-13989)
Release Version 2.8.9

Release date: 2018-10-22

Improvements

- Added statistics (NESDK-2777)
- Updated how learned words are loaded in the word prediction engine for Gaze Selection (NESDK-2780)
- Fixed a bug where sending input could fail with error '5' on Windows 10 devices (NESDK-2781)

Release Version 2.8.8

Release date: 2018-04-18

Improvements

- Removed the settings synchronization between the TecSDK and Gaze Selection introduced in 2.8.6 (NESDK-2737), as it caused a delay and sometimes crashes when opening, closing or moving the Gaze Selection keyboard (NESDK-2770)

Release Version 2.8.7

Release date: 2018-04-13

Improvements

- Fixed a bug where Gaze Interaction Settings froze when showing the firmware upgrade notification (NESDK-2765)
- Fixed a crash in startup of Gaze Selection if the setting for taskbar width was missing or zero (NESDK-2766)

Release Version 2.8.6

Release date: 2018-04-12

Improvements

- Avoid crash in Windows Control related to Windows Aero Peek functionality (NESDK-2732)
- Improved stability of writing to keyboard word prediction store (NESDK-2733)
- Added support for command line calls to open the Windows Control keyboard (NESDK-2736)
- Some Windows Control settings are now exposed through the TecSDK (NESDK-2737)
- Fixed a bug where drawing using Mouse Emulation's drag & drop in e.g. Paint did not work (NESDK-2738)
- Fixed a bug where it was possible to get stuck with the Windows Control keyboard taskbar open without a keyboard (NESDK-2746)
- Updated keyboard keys in Icelandic keyboard (NESDK-2748)
- Fixed a bug where Arabic word prediction was not available for the keyboard, Language Pack 1.7.10 needed (NESDK-2753)
- Migrated from .NET 4 to 4.5 to mitigate out of memory problems (NESDK-2757)
- Using software rendering to mitigate out of memory problems (NESDK-2758)
- Added possibility to launch Windows Control in hidden mode (TGP-2791)
Release Version 2.8.5
Release date: 2017-10-16

Improvements

- Updated licensing window user interface (NESDK-2711)
- Added user notification when running Windows Eye Control at the same time as TGIS (NESDK-2721)
- Fixed a bug where the feedback window's size was set to infinite value (NESDK-2727)

Release Version 2.8.4
Release date: 2017-05-17

Improvements

- Fixed a bug where TGIS server could not wake Windows 10 when screen is off (NESDK-2654)
- Added functionality for recovering from corrupted word prediction data files (NESDK-2665)
- Fixed a bug where an eye tracker disconnect during calibration could cause the calibration window to stay open indefinitely (NESDK-2667)
- Included new PCEye Mini and I-Series IS4 firmware version 2.9.0 (NESDK-2671)
- Added detection and remove corrupted calibration files, if a backup calibration exists it can be restored if the user requests it (NESDK-2684)
- Fixed a bug where Wake-on-Gaze on the I-Series using Windows 10 stopped working (NESDK-2687)
- IS4 drivers for Windows 7 are no longer included when installing TGIS, those are moved to the PCEye package installer (NESDK-2708)

Release Version 2.8.3
Release date: 2016-11-03

Improvements

- Added possibility through settings files to fine tune timing for mouse up when performing clicks (NESDK-2592)
- Fix to Arabic keyboard for some letters that were not typed correctly (NESDK-2632)
- Fixed a bug where the Tracked Eye setting did not become effective until the TGIS server restarted (NESDK-2639)
- Fixed punctuation errors in Gaze Interaction Settings' Information panel for French, Japanese and Chinese (NESDK-2641)
- Version check of Tobii Service before upgrading to new firmware for affected eye tracker models (NESDK-2642)
- Includes new firmware for IS4 eye trackers (NESDK-2643)
- Disable option to improve and remove points to calibrations done using IS4 Eye Tracker with firmware version prior to 1.10, if the current firmware is 1.10 or above, to avoid a cleared calibration (NESDK-2644)
- The Gaze Interaction server will start PCEye Notifier in case it has not been auto started by Windows (NESDK-2645)

Release Version 2.8.2
Release date: 2016-08-15

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Improvements

- Fixed a bug where the window control buttons would become highlighted on gaze over (NESDK-2591)
- Licensing translated to Hebrew (NESDK-2554)
- Offline activation for licensing added (NESDK-2564)
- Removed a call to Eye Tracker in cases where the USB was disconnected (NESDK-2567)
- Improved installer logic for upgrades (NESDK-2596)
- Fixed a bug where PCEye Mini calibration crashes after one point fails (NESDK-2598)
- More robust license handling when license server is unresponsive (NESDK-2601)
- Fixed a bug where the server communication was aborted due to concurrency issues (NESDK-2604)
- Fixed a bug where an outline of the mouse cursor could be shown while zooming in Gaze Selection (NESDK-2607)
- Improvements to the PCEye Mini driver for Windows 7 (NESDK-2615)

Release Version 2.8.1

Release date: 2016-05-12

New Features

- Added support for PCEye Explore, PCEye Mini and EyeMobile Mini (NESDK-2169)
- Added support for licensing (NESDK-2513)

Improvements

- Removing option to mute new firmware notification to guide more users to perform the upgrades (NESDK-2546)

Release Version 2.8.0

Release date: 2016-05-12

Improvements

- Support for I-Series+ IS4 eye tracker (NESDK-2066)
- Excluded Flash from Mouse Emulation scrolling in Firefox to avoid a crash (NESDK-2228)
- Improved interaction when using the mouse in the Gaze Selection task overlay Snap/Close function (NESDK-2295)
- Fixed a bug where the TGIS tray icon could be closed using Alt+F4, with no way of getting it back (NESDK-2334)
- Fixed a bug where the mouse cursor was not shown after using the place cursor task if using switch (NESDK-2373)
- Gaze Selection Word Prediction added support for Japanese (NESDK-2383)
- Gaze Selection keyboard layouts added for Turkish, Hungarian, Persian/Farsi, Slovenian, Estonian, Russian, Icelandic, Romanian (NESDK-2406, NESDK-2409)
- Fixed a bug where Gaze Selection was displayed in the Windows Task View (NESDK-2411)
- Improved robustness of Gaze Selection overlay task selection (NESDK-2427)
- Fixed a bug where Gaze Selection could affect the z-order of windows so that windows were not brought to top when activated (NESDK-2428)
- Mouse Emulation dwell allowing larger gaze movement from the initial gaze point if the movement is not rapid (NESDK-2429)
- Mouse Emulation dwell activation is performed where the gaze point is fixated at the end of the dwell instead of where the initial fixations was done (NESDK-2430)
- Support for 1-point calibration for I-Series+ using IS4 eye tracker (NESDK-2431)
- Fixed a bug where the Gaze Selection keyboard was not possible to close if Windows had previously been closed with the keyboard was open (NESDK-2443)
- Fixed a crash in Gaze Selection (NESDK-2457)
- Added an exception to allow pressing Ctrl and Shift on the physical keyboard without overriding gaze input (NESDK-2461)
- Fixed a bug where learnt predictions were not properly stored when shutting down Gaze Selection (NESDK-2484)
- Improved behavior so that media playback controls are not intermittently shown as frequently while watching full-screen video (NESDK-2486)
- Applying a default color to the Gaze Selection Taskbar tasks in cases where the difference in background color and the accent color from Windows is considered too small (NESDK-2498)
- Allowing Gaze Selection overlay to stay active longer without inactivity timeout in cases where only mouse or touch is used (NESDK-2499)
- Keyboard layout improvements to Check and Slovak (NESDK-2503, NESDK-2508)
- Fixed a bug in scrolling for Windows 10 UWP apps (NESDK-2534)

**Release Version 2.7.5**

**Release date:** 2016-03–01

**Improvements**

- Fixed WMI exceptions on TobiiEyeControlServer startup (NESDK-2433)
- Fixed a bug where Windows 7 touch devices' system off screen menu was not possible to activate using gaze (NESDK-2455)

**Release Version 2.7.4**

**Release date:** 2016-01–25

**Improvements**

- Added keyboard shortcuts for calibration (Ctrl+Shift+F9), track status (Ctrl+Shift+F10) and pause gaze interaction (Ctrl+Shift+F1) (NESDK-2424)
- Fixed a bug where gaze data would be repeatedly interrupted while typing on the Gaze Selection keyboard (NESDK-2426)
- Fixed a bug where Gaze Selection would show the mouse cursor after mouse click tasks (NESDK-2434)

**Release Version 2.7.3**

**Release date:** 2016-01–11

**Improvements**

- Reduce usage of WMI to lower WMI provider host CPU usage (NESDK-2352)
- Gaze Interaction Settings' color picker custom colors preserved after closing/opening (NESDK-2356)
- Fix to avoid crash when changing Gaze Selection keyboard language (NESDK-2323)
- Gaze Selection is paused when the user is typing on the physical keyboard (NESDK-2363)
- The Gaze Selection keyboard now allows region interaction when opened (NESDK-2364)
- Gaze Selection keyboard next and previous page buttons have modified active area to reduce accidental activations (NESDK-2366)
- Faster Gaze Selection startup and fix for UI freeze when changing certain settings (NESDK-2367)

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**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/support-training](http://www.TobiiDynavox.com/support-training)

**Contact Your Solution Consultant or Reseller**

For questions or problems with your product, contact your Tobii Dynavox solution consultant 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)
Release Version 2.7.2
Release date: 2015-11-05

New Features
- TobiiDynavox.ReLaunch crash recovery tool will make sure Gaze Selection is restarted in case of an application crash (NESDK-2323)

Improvements
- Removed possibility to close the tray icon that controls Gaze Interaction, which could leave the user without option to properly exit (NESDK-2334)
- Presence detection should wake turned off screen (NESDK-2359)

Release Version 2.7.1
Release date: 2015-09-21

Improvements
- Fixed a bug where Gaze Selection would crash if settings were opened after Gaze Selection had been deactivated once (NESDK-2326)
- Improved behavior of restoring mouse cursor on the secure desktop (NESDK-2327)
- Mouse cursor visibility behavior improved for Gaze Selection startup and clicking (NESDK-2328)

Release Version 2.7.0
Release date: 2015-09-15

New Features
- Support for Windows 10 including a Windows 10 specific overlay task in Gaze Selection. (NESDK-1874)
- Word prediction with the keyboard. (NESDK-765)
- Keyboard specific taskbar to move and to close the keyboard, and to do left click. (NESDK-1887, NESDK-1888, NESDK-2040)
- Button in the keyboard to clear text word by word. (NESDK-1890)
- Small and large size of the keyboard. (NESDK-1892)
- Additional keyboard languages. (NESDK-1997, NESDK-2240)

Improvements
- Improved filtering of gaze data where the individual eyes' gaze have different precision (NESDK-1895)
- Fixed a bug where changes in the system clock of a device would cause fixations to stop working. (NESDK-2023)
- Improved translations in some languages. (NESDK-2031, NESDK-2032, NESDK-2033, NESDK-2034, NESDK-2056)
- Improved scrollable area detection for Mouse Emulation. (NESDK-2210)
- Fixed a bug where the Mouse Emulation magnifier would be hidden by Windows Peek. (NESDL-2212)
- Fixed a bug where the Mouse Emulation feedback would be hidden by Windows Peek. (NESDK-2213)
- Fixed a bug that could potentially lead to an infinite loop. (NESDK-2223)
• Calibration calculation progress dialog is placed in the center of the screen also when Gaze Selection is running. (NESDK-2236)
• Fixed a bug where the custom cursor in Mouse Emulation would unintentionally switch back to the regular cursor. (NESDK-2237)
• Fixed an incorrect text regarding secondary stimuli in Gaze Interaction Settings. (NESDK-2241)
• Fixed a bug where Mouse Emulation would show incorrect window state after Windows sleep (NESDK-2242)
• Improved stability of the user positioning guide (NESDK-2243)
• Fixed a bug where changing the "Size of all items" setting in Windows would not update the space that the taskbar should reserve on the desktop until Windows was rebooted (NESDK-1388)
• Fixed a bug where some keyboard keys, e.g. '@' and '£', would not work. (NESDK-1952)
• The settings page to select keyboard language can accommodate more languages. (NESDK-2000)
• Changed behavior so Gaze Selection taskbar do not cover Windows taskbar when in desktop mode in Windows 8.1. (NESDK-2029)
• Fixed a bug where the arrows to change the keyboard page would not be visible until the page had been changed once. (NESDK-2042)
• Fixed the sizing of the left and right arrow keyboard buttons to match the up and down arrows' size (NESDK-2058)
• Improved the process of opening the keyboard. (NESDK-2059)
• Removed the black area at the top of the screen when using the Gaze Selection keyboard at the top of small screens. (NESDK-2137)
• When starting Gaze Selection the splash screen is shown until the taskbar is fully loaded (NESDK-2139)
• Fixed a bug where changing the "Size of all items" setting in Windows would cause the zoom screen shots to be shown incorrectly until Windows was rebooted (NESDK-2164)
• Fixed a bug where the taskbar would cover the windows taskbar in Windows 7. (NESDK-2173)
• Fixed the visual representation of the Arabic keyboard (NESDK-2174)
• Improved management of non-default Windows DPI settings. (NESDK-2177)
• Improved management of resolution changes for the Gaze Selection keyboard. (NESDK-2178)
• Improved management of resolution changes for the placement of the arrows to bring back the hidden Gaze Selection taskbar. (NESDK-2179)
• Replaced one of the two Windows-keys in the 1:st page of the Polish and Arabic keyboards with Alt (NESDK-2196)
• Fixed a bug where the mouse pointer would not be visible when using the physical mouse in conjunction with Gaze Selection. (NESDK-2222)
• Fixed a bug where the Snap&Close feature of overlay would sometimes not work. (NESDK-2231)
• Fixed a bug where clicking on the Windows start button by use of Gaze Selection would sometimes not work. (NESDK-2232)
• Improved the responsiveness when changing settings. (NESDK-2238)
• Improved layout of the French keyboard (NESDK-2250)
• Fixed a bug where the lowest row in the Polish keyboard would not show the preview of the current word. (NESDK-2270)
• Fixed a bug where the keyboard could not be used to type into the Windows Command prompt window. (NESDK-2299)
• Fixed a bug where the memory consumption would increase when changing keyboard language. (NESDK-2307)
• Fixed a bug where it was possible to activate the inactive tasks on the overlay, which then made them look active (NESDK-2312)
• Gaze Selection settings window is now excluded from Aero peek, avoiding situations where the settings window was open and active but not visible (NESDK-2313)
• Gaze Selection keyboard window is now excluded from Aero peek, avoiding situations where the keyboard window was open and active but not visible (NESDK-2314)

Release Version 2.6.5

Release date: 2015-07-10
New Features

- G5 eye tracker firmware version 1.2.4 (NESDK-2140)

Improvements

- Solved possible timeout issue when switching between Mouse Emulation and Gaze Selection (NESDK-2175)
- Fixed a bug were the keyboard language label could be empty if the keyboard file specified by the settings file did not exist (NESDK-2086)
- Fixed a bug where migrating from 1.6.2 (TGIS 2.6.3) or earlier to 1.6.3 (TGIS 2.6.4) cleared the selected keyboard file (NESDK-2130)
- Fixed a bug where migrating from 1.6.2 (TGIS 2.6.3) or earlier to 1.6.3 (TGIS 2.6.4) showed “???” for some keyboard buttons (NESDK-2133)

Release Version 2.6.4

Release date: 2015-06-08

New Features

- Changed "Tobii" for "Tobii Dynavox" (NESDK-1894)
- G5 Eye tracker Firmware version 1.2.3 (TITI-335)

Improvements

- Added an "é" key to the French layout of the Gaze Selection keyboard (NESDK-1169)
- Fixed a bug where the Gaze Selection dock side setting was not preserved between sessions (NESDK-1929)
- Fixed a bug where the user could get trapped after showing the Gaze Selection keyboard and simultaneously hiding the Gaze Selection taskbar (NESDK-1978)
- Fixed a bug with the Gaze Selection keyboard where the function keys would not "lock" if selected by switch (NESDK-2024)
- Fixed a bug where Gaze Selection did not properly restore desktop icon placement after closing (TITI-76)
- Fixed a bug where Mouse Emulation scroll would not work when the "size of all items" setting in Windows was set to larger than 100 % (NESDK-1867)
- Lower usage of WMI queries for server because the WMI host process is consuming lots of CPU resources on some computers (NESDK-1930)
- Fixed a bug in Mouse Emulation using the Magnifier function, where an error message was displayed saying "a generic error occurred in GDI++" (NESDK-1932)
- Fixed a bug where the Mouse Emulation scroll marker would not display in the correct location when the "size of all items" setting in Windows was set to larger than 100 % (NESDK-1958)
- Fixed a bug where the "Pause" icon would not display in the correct location when the "size of all items" setting in Windows was set to larger than 100 % (NESDK-1959)
- Fixed a bug where the server would incorrectly think that there is a driver issue, when connecting and disconnecting the eye tracker rapidly (NESDK-1977)
- Fixed a bug where the server would block gaze data due to believing that the secure desktop was visible (NESDK-1979)
- Fixed a bug where the server could fail to correctly register a client application when two clients where started at the same time (NESDK-1984)
- Fixed a bug where it was possible for a client application to call Register with the server, after server has begun to shut down (NESDK-1985)
- New error massage when there is a timeout in the communication between the server and a client application Improvements have also been made to lower the risk of having a communication timeout (TITI-85)
- Improved, more robust, behavior of the Eye Tracker connection when USB temporarily detaches and attaches (TI-TI-200)
- Fixed a bug where a client application would get an insufficient memory exception after waking from sleep mode (TITI-244)

**Release Version 2.6.3**

*Release date: 2015-02-03*

**Improvements**

- Fixed a graphical bug regarding a frame in Gaze Selection settings. (NESDK-1868)
- Fixed a bug where the user could get stuck when selecting keyboard language in Gaze Selection settings. (NESDK-1870)
- Fixed a bug where the mouse cursor would indefinitely remain invisible after using the secure desktop. (NESDK-1871)
- Fixed a bug where Windows Control would still be active when using the secure desktop. (NESDK-1872)

**Release Version 2.6.2**

*Release date: 2014-12-17*

**New Features**

- Auto repair functionality for IS Driver state for cases when the device has been associated with an incompatible driver. (NESDK-1863)
- Publisher policy files now added for each major and minor version of TGIS. (NESDK-1853)

**Improvements**

- The interaction feedback dot is sometimes shown over menus that are opened using keyboard commands. (NESDK-1846)
- Illuminators go dark and eye tracker stops working due to exception Gaze Interaction Server. (NESDK-1850)

**Release Version 2.6.1**

*Release date: 2014-09-15*

**New Features**

- Japanese keyboard layout (NESDK-928)
- Eye Tracker firmware 1.2.2 included (NESDK-1825, NESDK-1837)

**Improvements**

- Resolved issues where the Mouse Emulation menu position is reset on reboot (NESDK-1414)
- Resolved issue where two calibrations started in quick sequence caused the calibration background to remain (NESDK-1835)
Release Version 2.6.0
Release date: 2014-06-23

New Features

- Translated into Hebrew (NESDK-1521)
- Hebrew keyboard layout in Gaze Selection (NESDK-991)
- Greek keyboard layout in Gaze Selection (NESDK-849)
- Arabic keyboard layout in Gaze Selection (NESDK-790)
- Polish keyboard layout in Gaze Selection (NESDK-1781)
- New firmware for I-Series and PCEye eye trackers, 1.1.5 (NESDK-1517)
- Possibility of hiding the Mouse Emulation menu (NESDK-590)
- Gaze Selection keyboard names are now defined in the keyboard definition file and not translated (NESDK-1694)

Improvements

- Fix for crash that could occur while using Scroll in Gaze Selection (NESDK-1571)