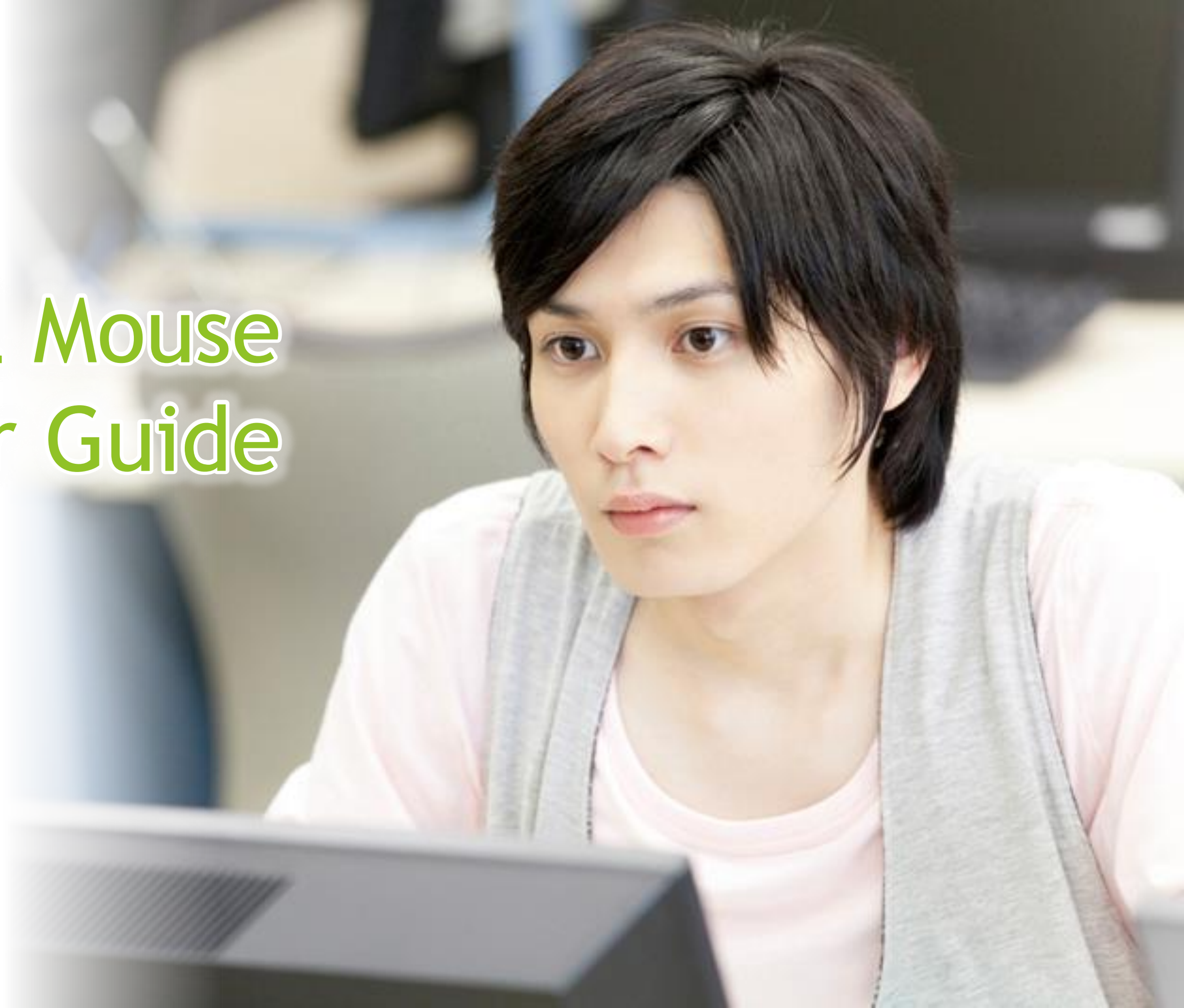




# Mill Mouse User Guide

Ver. 4.4

Author: topolo-Z



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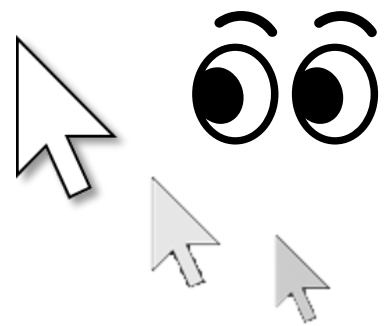
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# Introduction

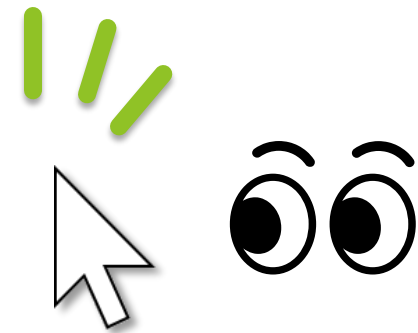


Thank you for using **Mill Mouse**.

Mill Mouse controls mouse with eye tracking by Tobii Eye Tracker 4C.



You can move the pointer to where you are looking at.



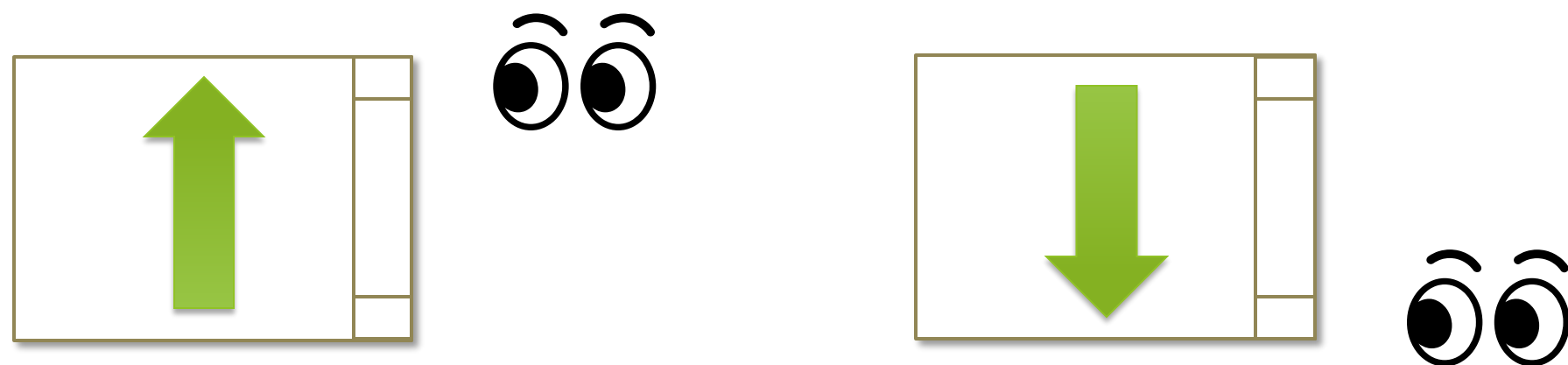
You can click when you keep gazing at the same place or close eyes.

# Features



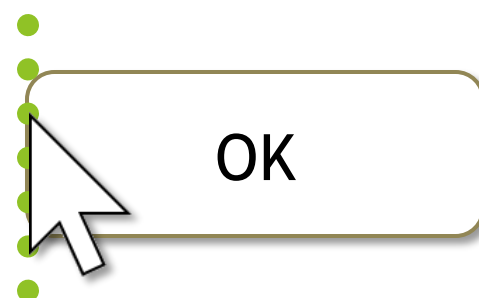
## ► Support scroll operations

Mill Mouse supports scroll operations on the start menu, Web browsers, etc. You can scroll up by looking at the top of them and scroll down by looking at the bottom.



## ► Adjust against the involuntary shaking of eyes

Mill Mouse controls the mouse pointer not to be protruded from the frames of the buttons or other objects in order to make it easier to click them.



# System requirements



The followings are required to use Mill Mouse.

- ▶ OS: **Windows 10, Windows 8.1, Windows 7**
- ▶ Device: **Tobii Eye Tracker 4C**
- ▶ Software: **Tobii Eye Tracking Core Software**  
<https://tobiigaming.com/getstarted/>

✂ Devices other than Tobii Eye Tracker 4C are not tested with Mill Mouse.



# Guide to click action



You can select the input method from ‘Click when you keep gazing at the same place’ or ‘Click when you close your eyes’ in the settings of Mill Mouse.

The default setting is the former. This guide is based on the former.

For the operations when selecting the latter, please change the description of “keep gazing” to “close eyes” in this guide.



# Installation



Please extract the ZIP file of Mill Mouse anywhere.  
Mill Mouse folder and the following items will be extracted.

mm.exe	32-bit version
tobii_stream_engine.dll	
x64¥mm.exe	64-bit version
x64¥tobii_stream_engine.dll	
UserGuide.pdf	This file

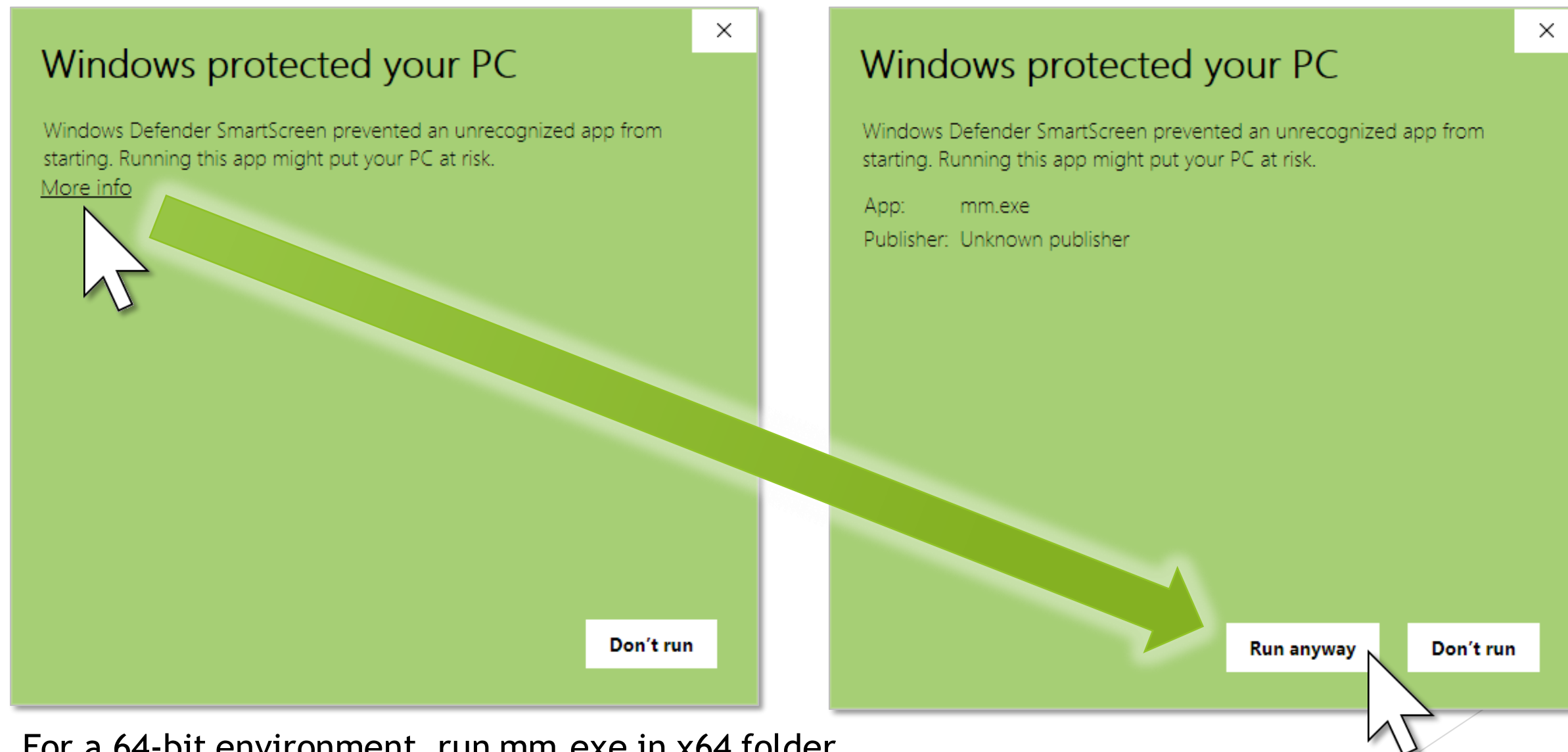
- ✂ .exe or .pdf is not displayed in some cases.
- ✂ If you have already installed Mill Mouse of the previous version, overwrite them with the above files.

# Launch Mill Mouse



Connect Tobii Eye Tracker 4C to your PC and run mm.exe.

If the SmartScreen like following is displayed, click 'More Info' and 'Run anyway'.

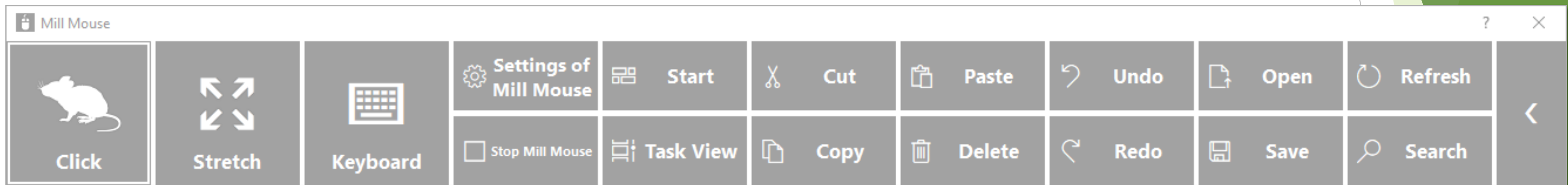


- ✂ For a 64-bit environment, run mm.exe in x64 folder.  
If you are not sure, run mm.exe just under Mill Mouse folder.

# Launch Mill Mouse



Mill Mouse starts up and the window will be appeared at the top left of the desktop screen.

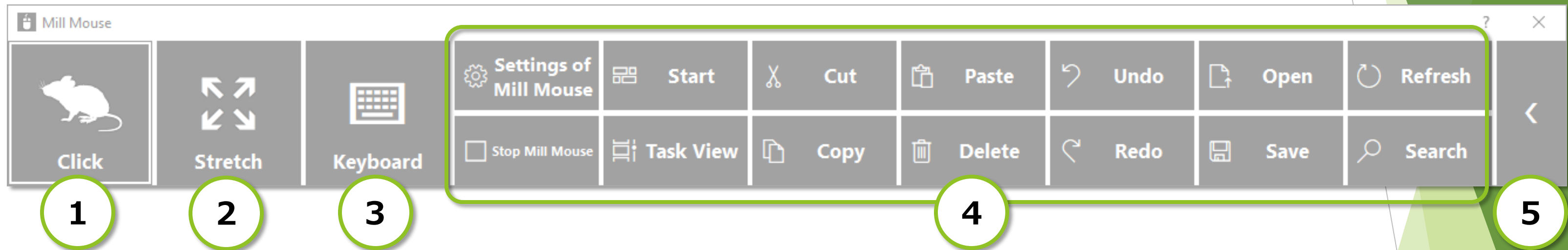


- ✂ The number of buttons on the right side of the window depends on the size of the desktop screen.
- ✂ When the task bar is placed to the top or the left, the window will be appeared at the bottom right.

# Basic functions



The each functions are as follows.

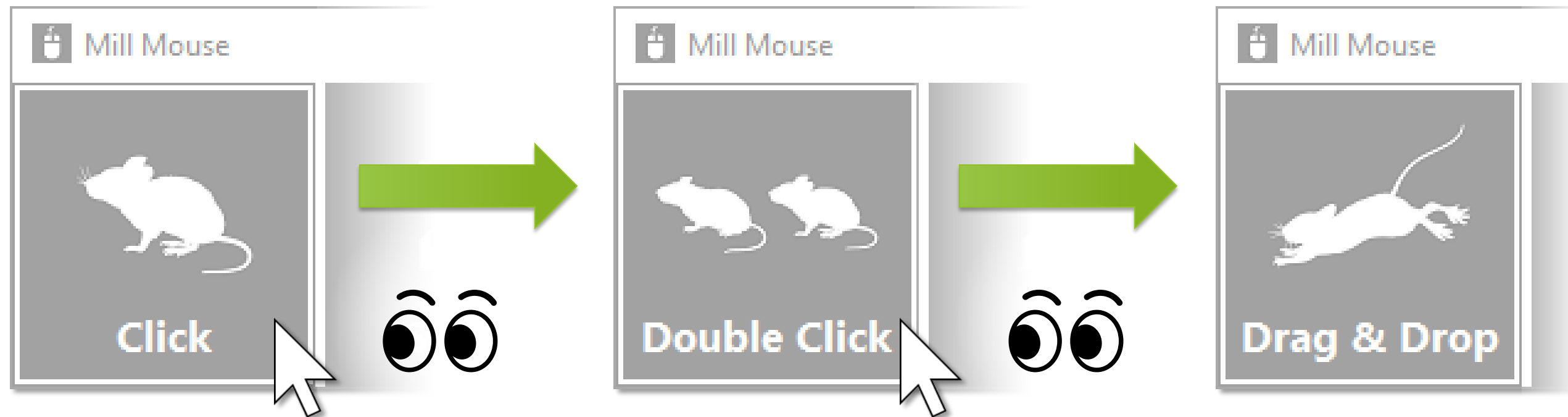


- |   |                        |
|---|------------------------|
| ① | Change click action    |
| ② | Zoom to apps           |
| ③ | Switch touch keyboard  |
| ④ | Perform shortcuts      |
| ⑤ | Expand/collapse window |

# Change click action



You can change the click action performed when you keep gazing at the same place. Each time you look at the button on the far left of the window, the action will be changed.



You can change between seven types of actions: Click, Double Click, Drag & Drop, Right Click, Tap, Choose, and No Click.

- ✘ Tap action is not supported on Windows 7.
- ✘ If 'Switch primary and secondary buttons' is enabled for the mouse, it will be left click rather than right click.

# To change click action frequently



By changing the click action to Choose, you can select the action each time you keep gazing at the same place.



① Change to Choose.



② When you keep gazing at the same place, the action panels will be displayed around.



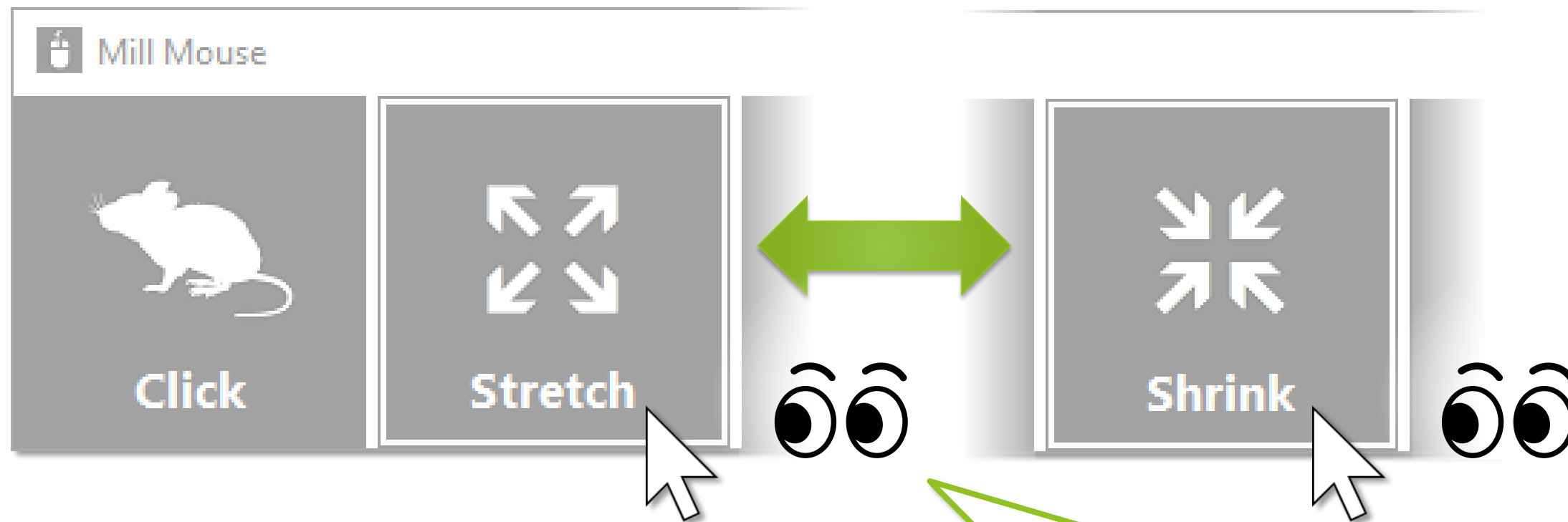
③ When you keep gazing at any panel, that action will be done. If you do not want to action anything, keep gazing at anywhere other than the panels or close your eyes.

※ If you keep gazing at any object on the front of Mill Mouse, such as the start menu, touch keyboard, pop-up menus, etc., the click action will be done without displaying the action panels.

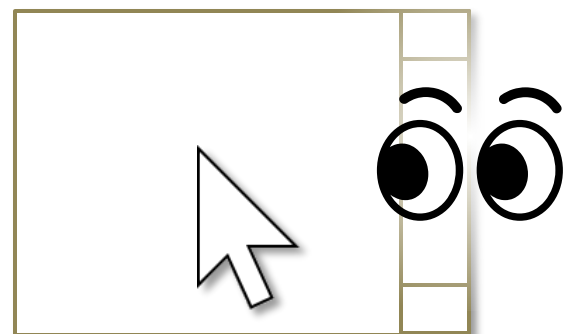
# Zoom to apps



You can zoom to the Web browsers or some other apps by using Stretch or Shrink on the second from the left of the window.



① Change to Stretch or Shrink.



② If you keep gazing at the same place on the Web browser or other apps, the zoom action will be done.

③ To stop zooming, switch to the click action on the left side of the window of Mill Mouse.

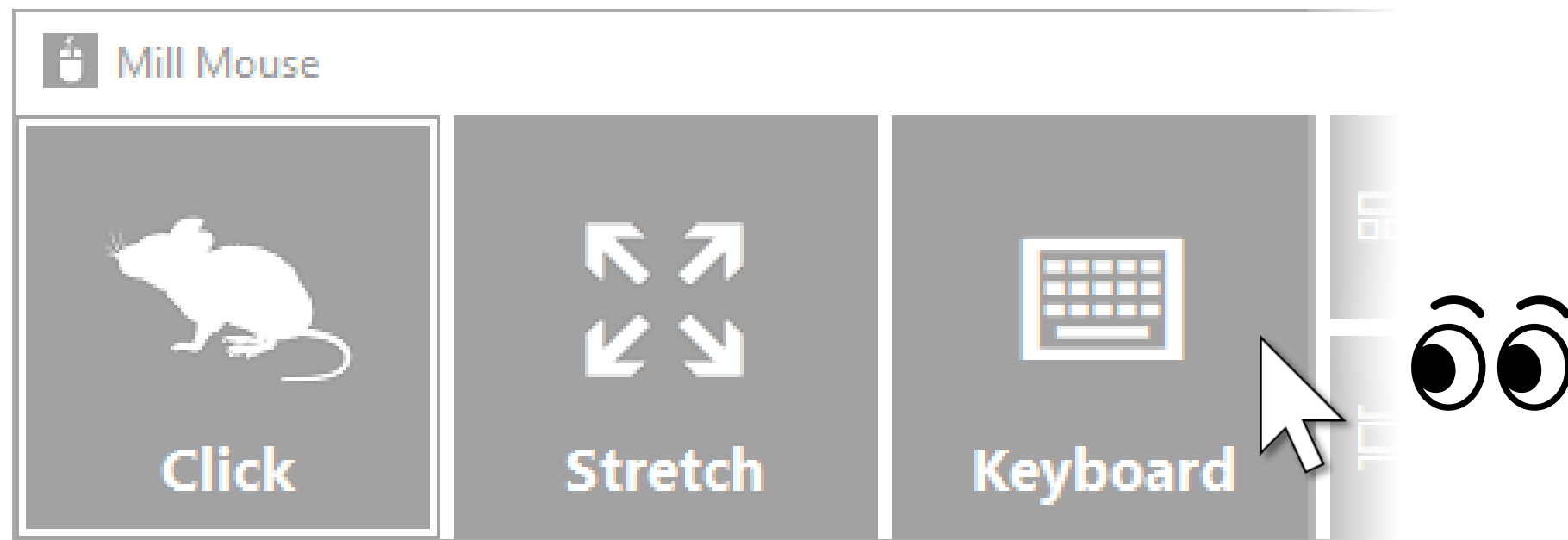
※ Some apps may not support zoom action.



# Switch touch keyboard



You can switch show/hide of the touch keyboard by looking at Keyboard on the third from the left of the window.



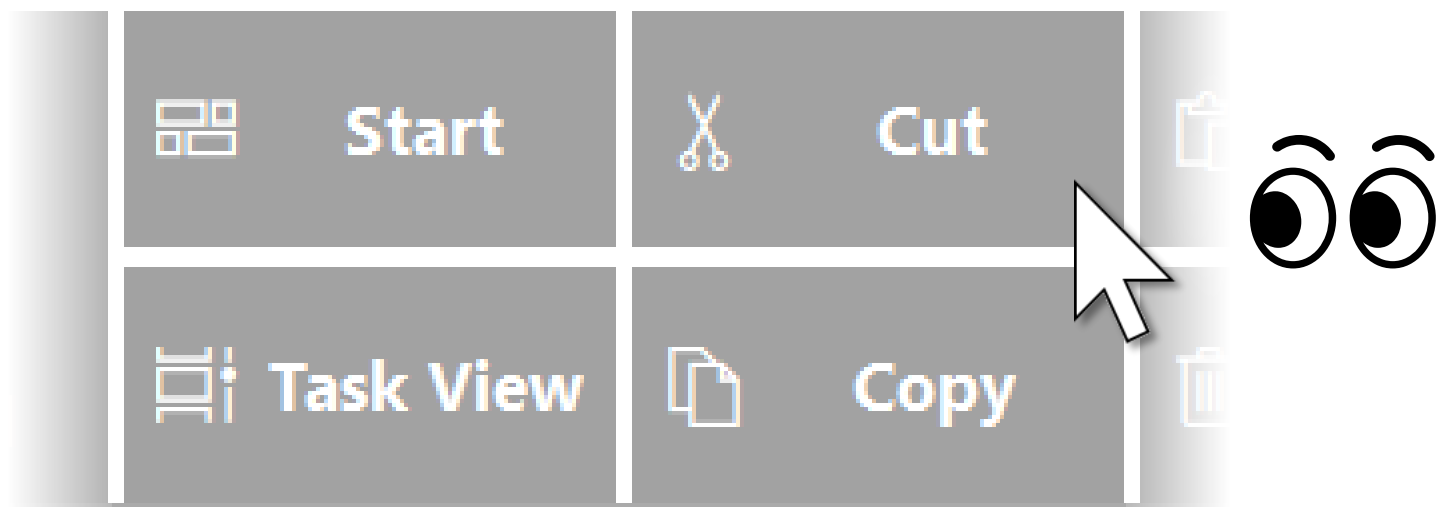
You can also use the on-screen keyboard instead of the touch keyboard by changing the settings of Mill Mouse.

# Perform shortcuts



If you look at any button on the right side of the window, you can perform shortcuts assigned to them, such as Ctrl + X, Ctrl + V, and so on.

You can change the settings of which shortcuts are displayed in the window.

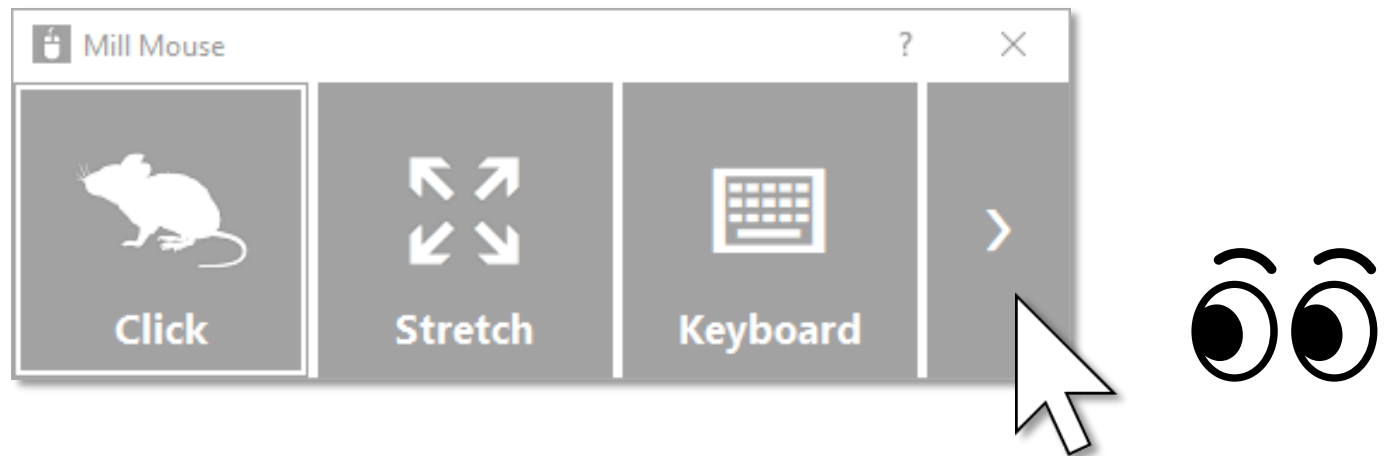
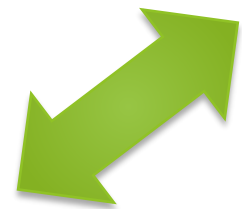
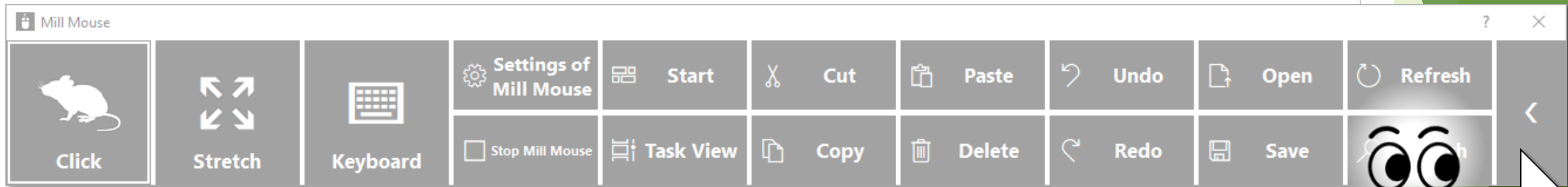


✂ On Windows 8.1 and Windows 7, shortcut icons are not displayed.

# Expand/collapse window



You can collapse or expand the window by looking at the button on the far right of the window.



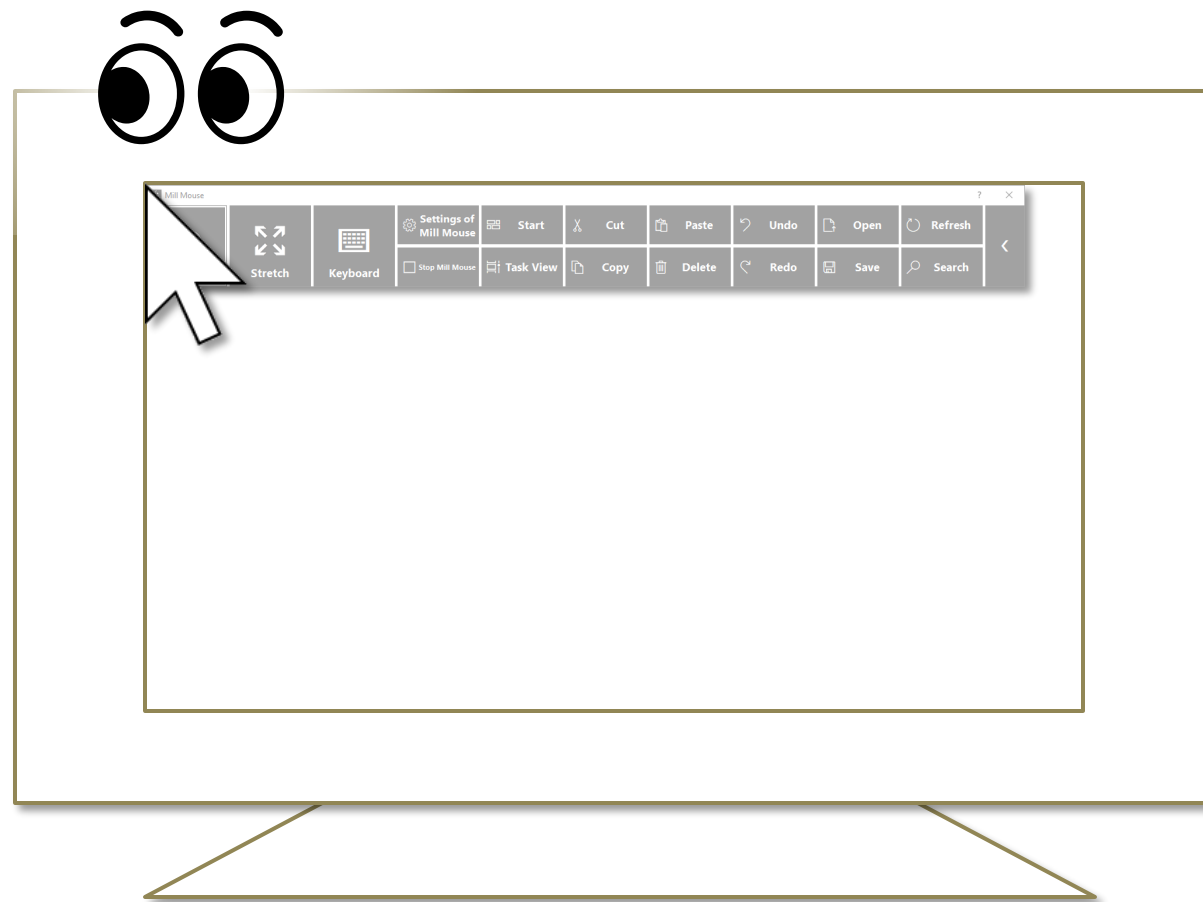
# Unhide window



By default, the window will be hidden after a while.

To unhide, look at the upper left corner of the desktop screen.

If it does not work, try to look at the outer frame of the monitor.

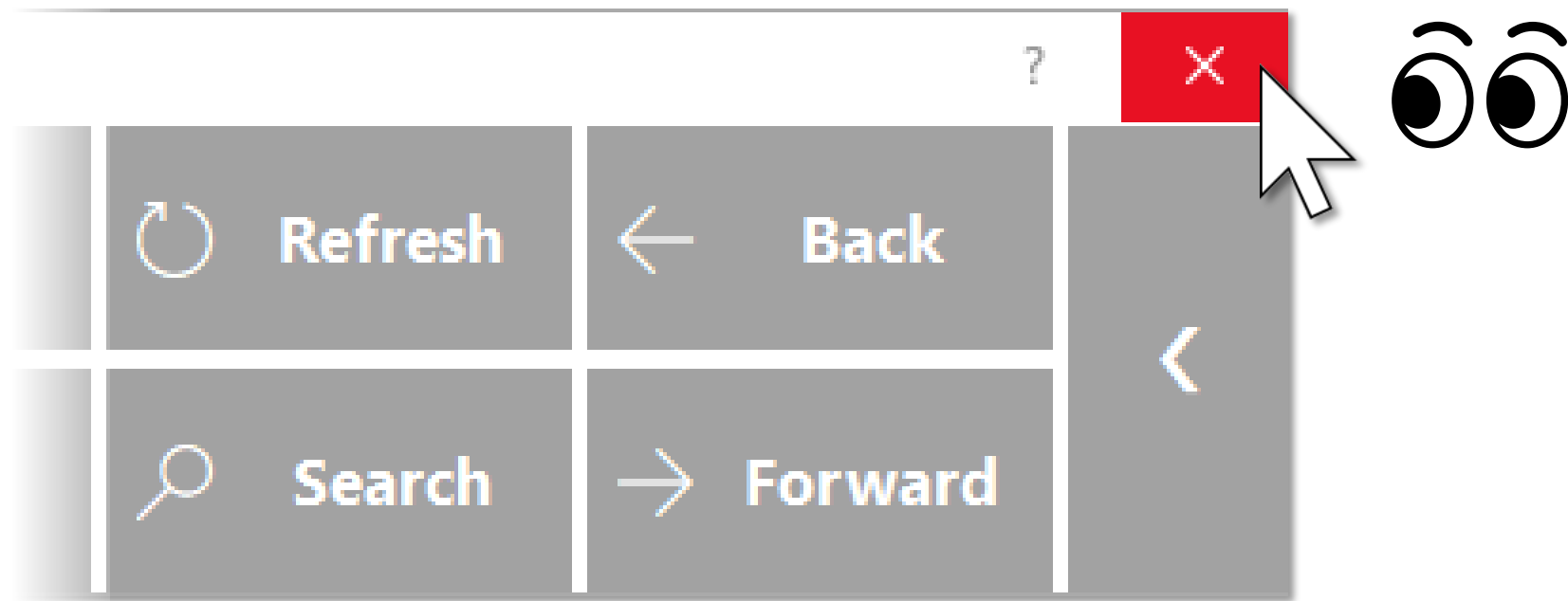


- ✂ Whether or not to automatically hide the window can be changed by settings.
- ✂ If the taskbar is located at the top or the left, look at the bottom right corner of the screen.

# Exit Mill Mouse



To exit Mill Mouse, look at the X button at the top right of the window.





# Settings of Mill Mouse

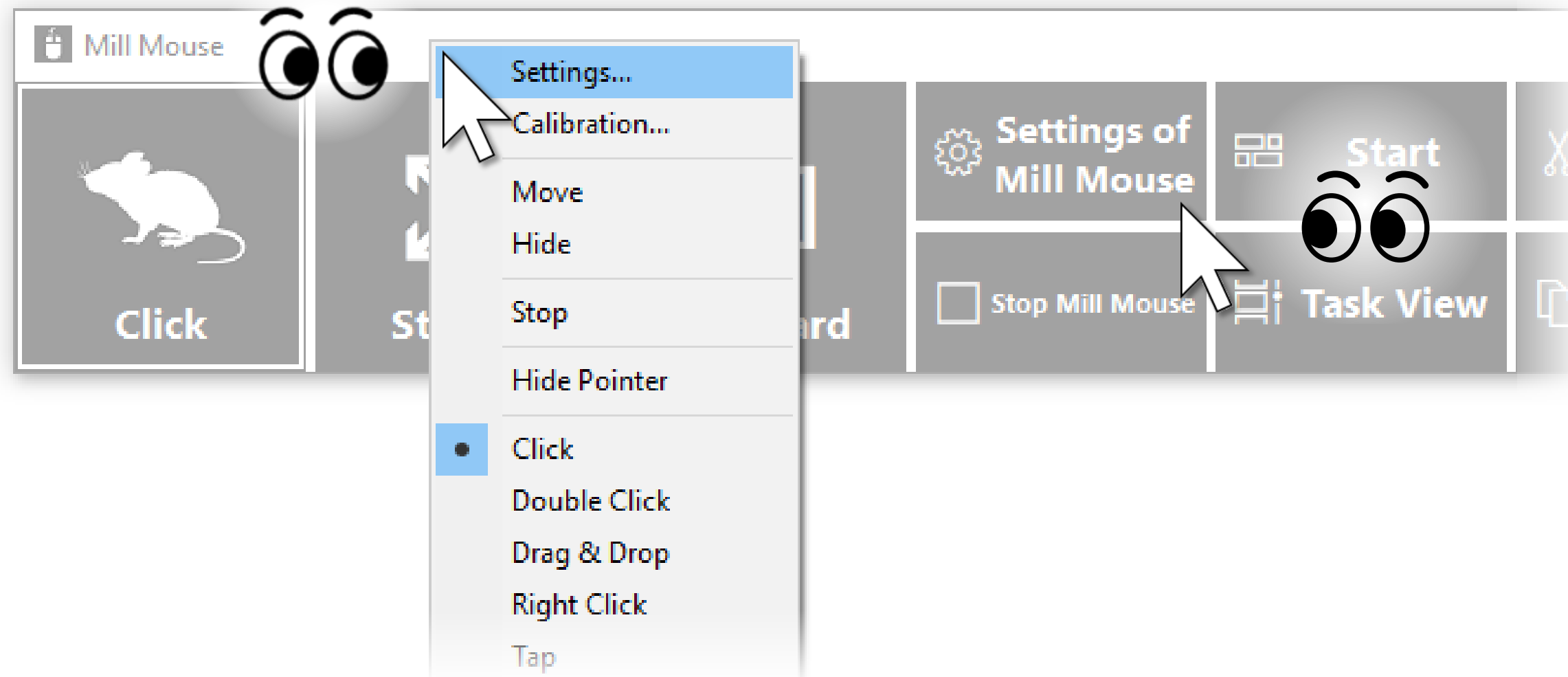


# Settings - Open settings dialog



If the shortcut of 'Settings of Mill Mouse' is displayed in the window, you can open the dialog to change the settings of Mill Mouse by looking at it.

If 'Settings of Mill Mouse' is not displayed, keep gazing at the title bar of the window to display the menu. Then, keep gazing at Settings on the menu. After that, the settings dialog will be opened.

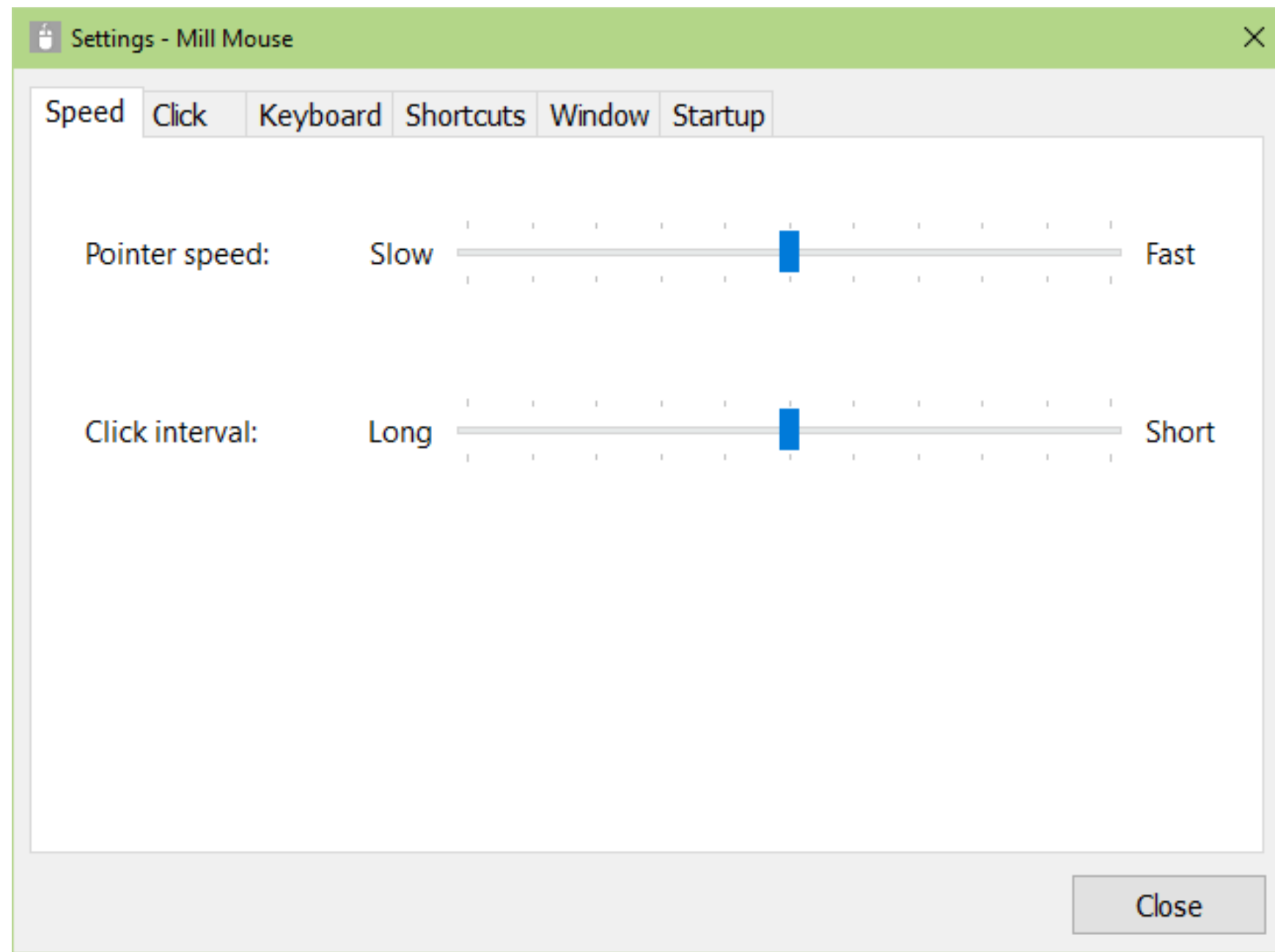




# Settings - Speed adjustments



You can adjust the speeds on the Speed tab of the settings dialog.



# Settings - Speed adjustments



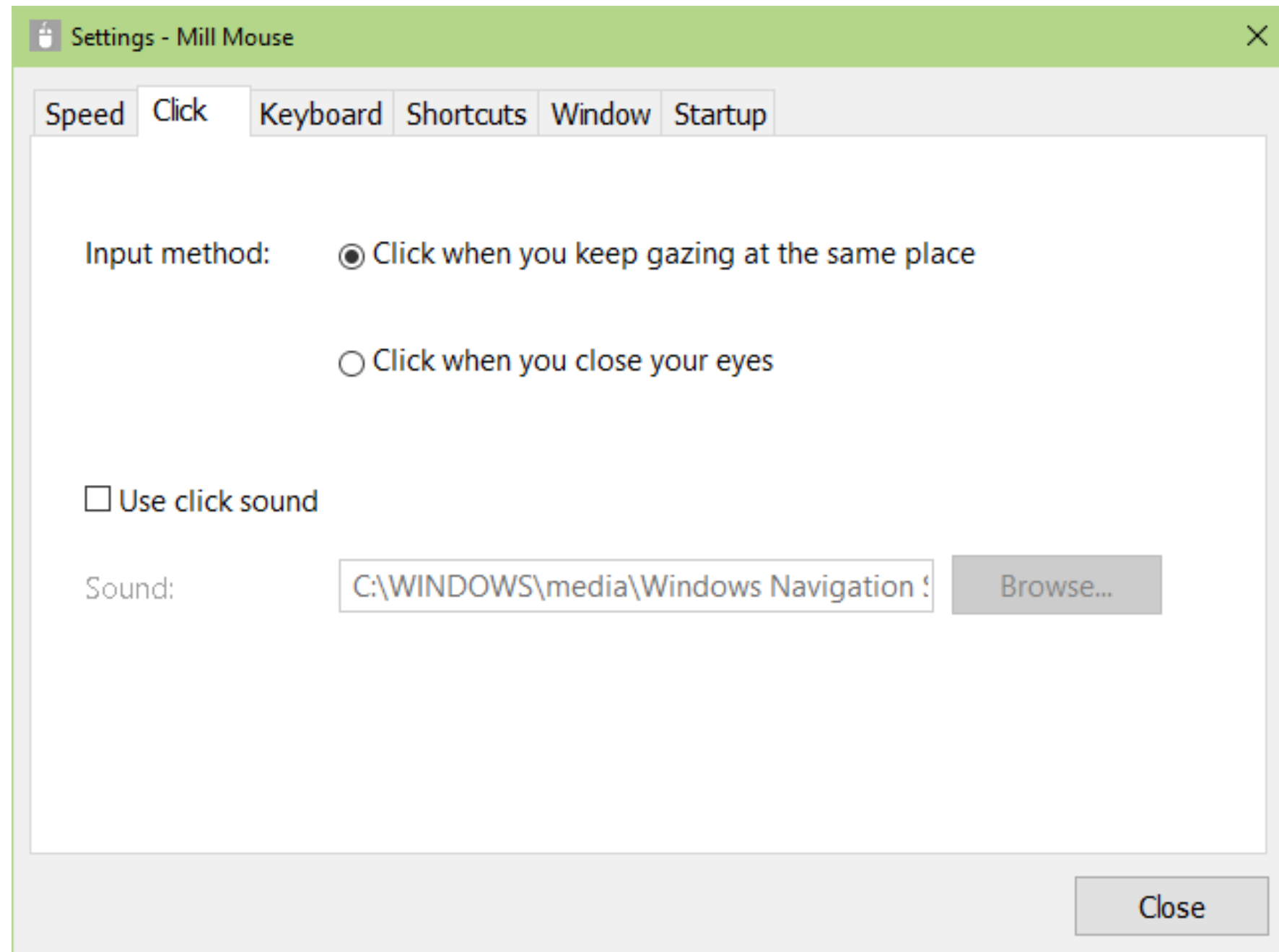
Depending on the setting of 'Input method' on the Click tab, the meaning of 'Click interval' changes as follows.

<b>'Input method' on Click tab</b>	<b>Meaning of 'Click interval'</b>
If you select 'Click when you keep gazing at the same place'	How long time you keep gazing at the same place in order to perform the click action
If you select 'Click when you close your eyes'	How long time you keep closing your eyes in order to perform the click action

# Settings - Click action



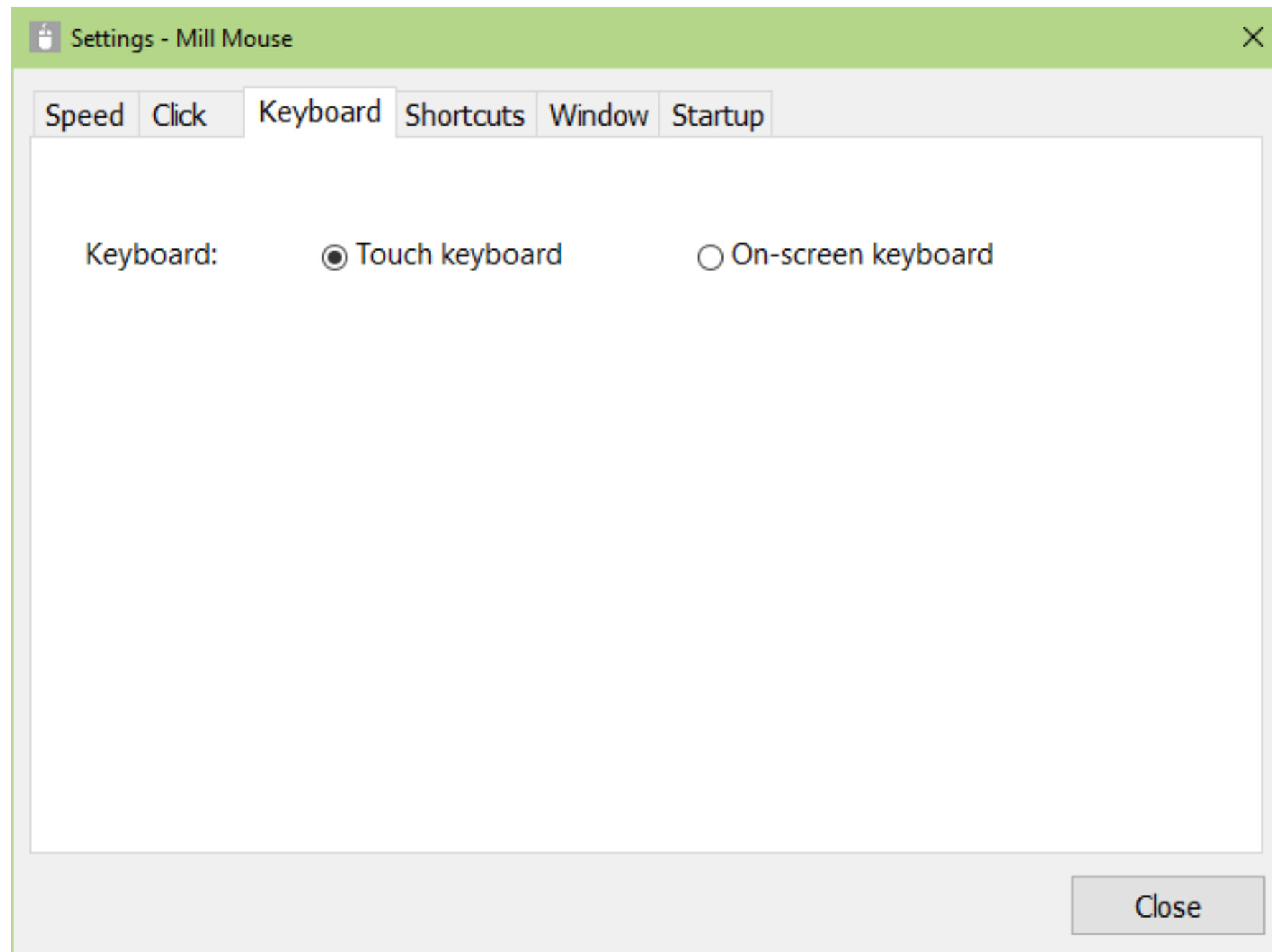
You can change the input method and whether or not to use click sound on the Click tab of the settings dialog.



# Settings - Keyboard



You can change whether to use the touch keyboard or the on-screen keyboard on the Keyboard tab of the settings dialog.

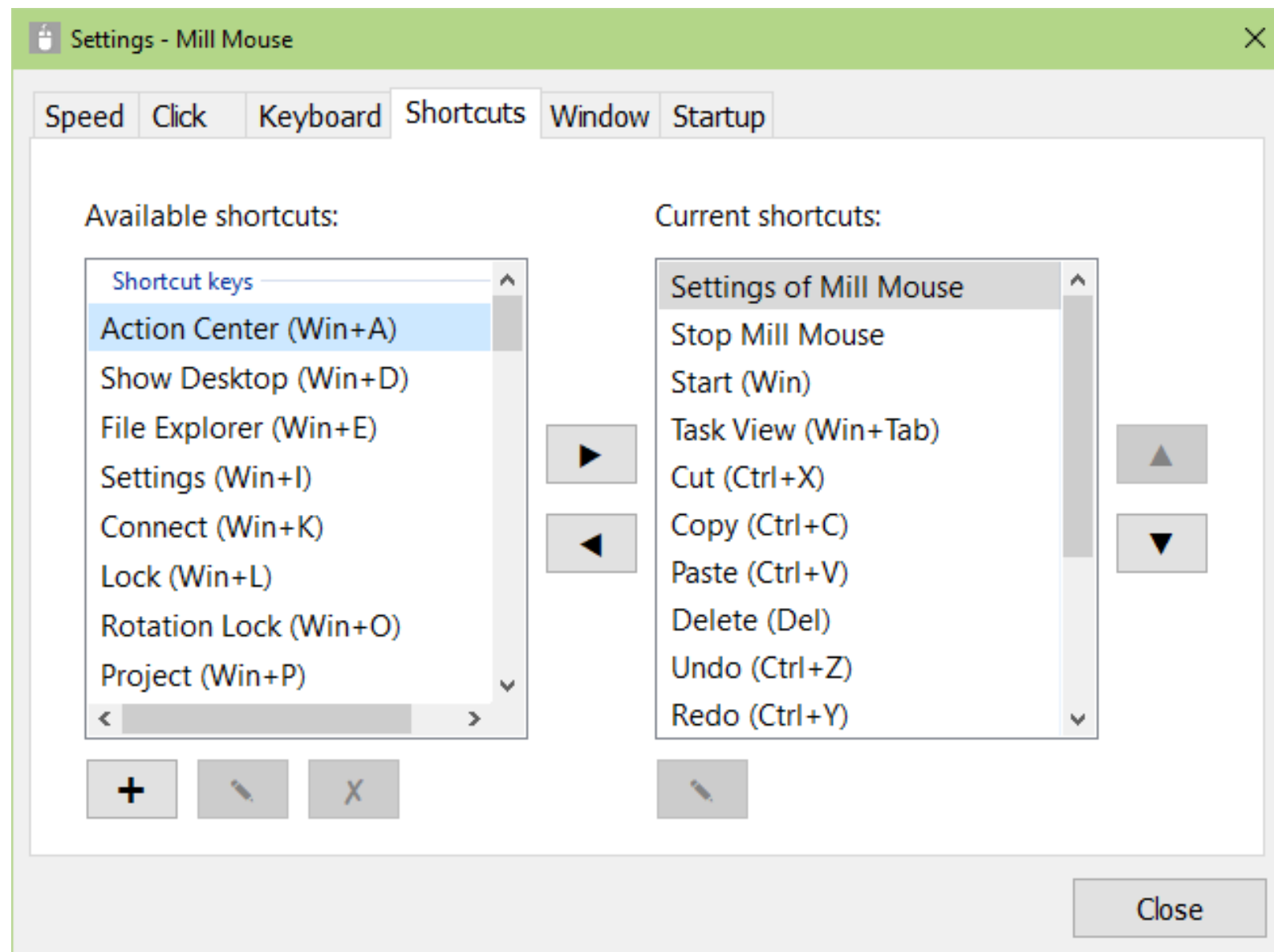


# Settings - Shortcuts



You can change the shortcuts to be displayed in the window from the Shortcuts tab of the settings dialog.

Up to 20 shortcut keys can be displayed within the width that fits on the desktop screen.



# Settings - Shortcuts



64 types of shortcut keys listed at the end of this guide are available as shortcuts.

In addition to the shortcut keys, the following 7 types of shortcuts for Mill Mouse are also available.

- ▶ Settings of Mill Mouse
- ▶ Calibration
- ▶ Move Mill Mouse
- ▶ Hide Mill Mouse
- ▶ Stop Mill Mouse
- ▶ Hide Pointer
- ▶ Exit Mill Mouse

# Settings - Add custom shortcuts



You can add up to 20 custom shortcut keys.

① Press '+' button.

② Dialog will be displayed. Set the name and shortcut key, and press OK.

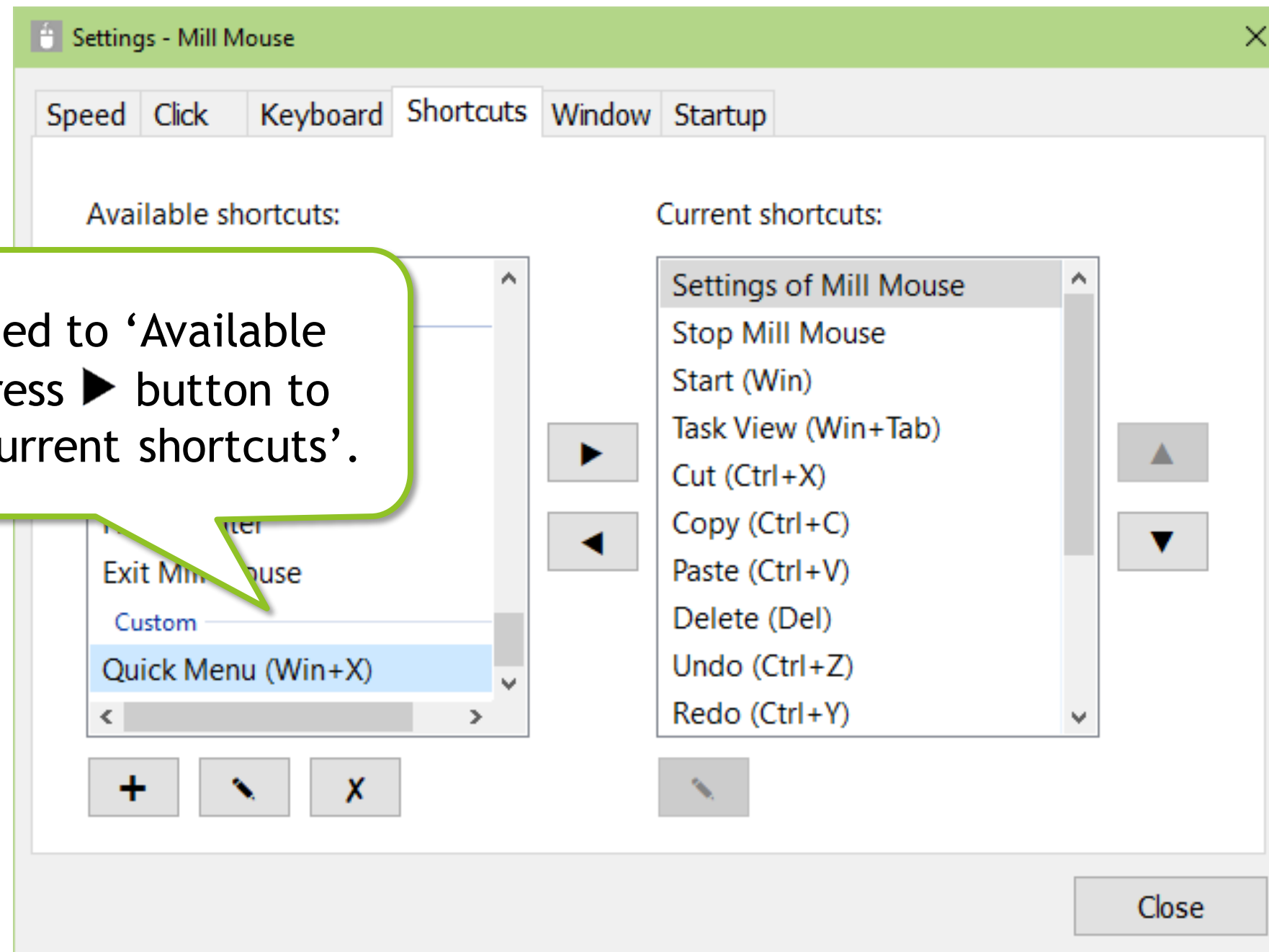


# Settings - Add custom shortcuts



(Continuation from the previous page)

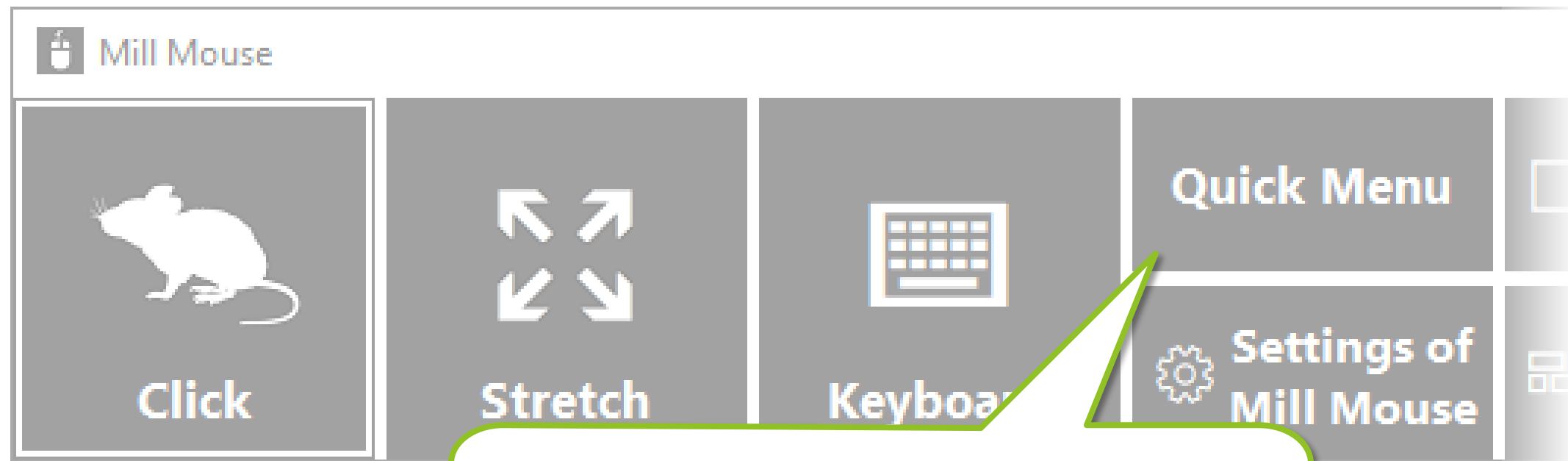
③ It will be added to 'Available shortcuts'. Press ► button to move it to 'Current shortcuts'.



# Settings - Add custom shortcuts



(Continuation from the previous page)

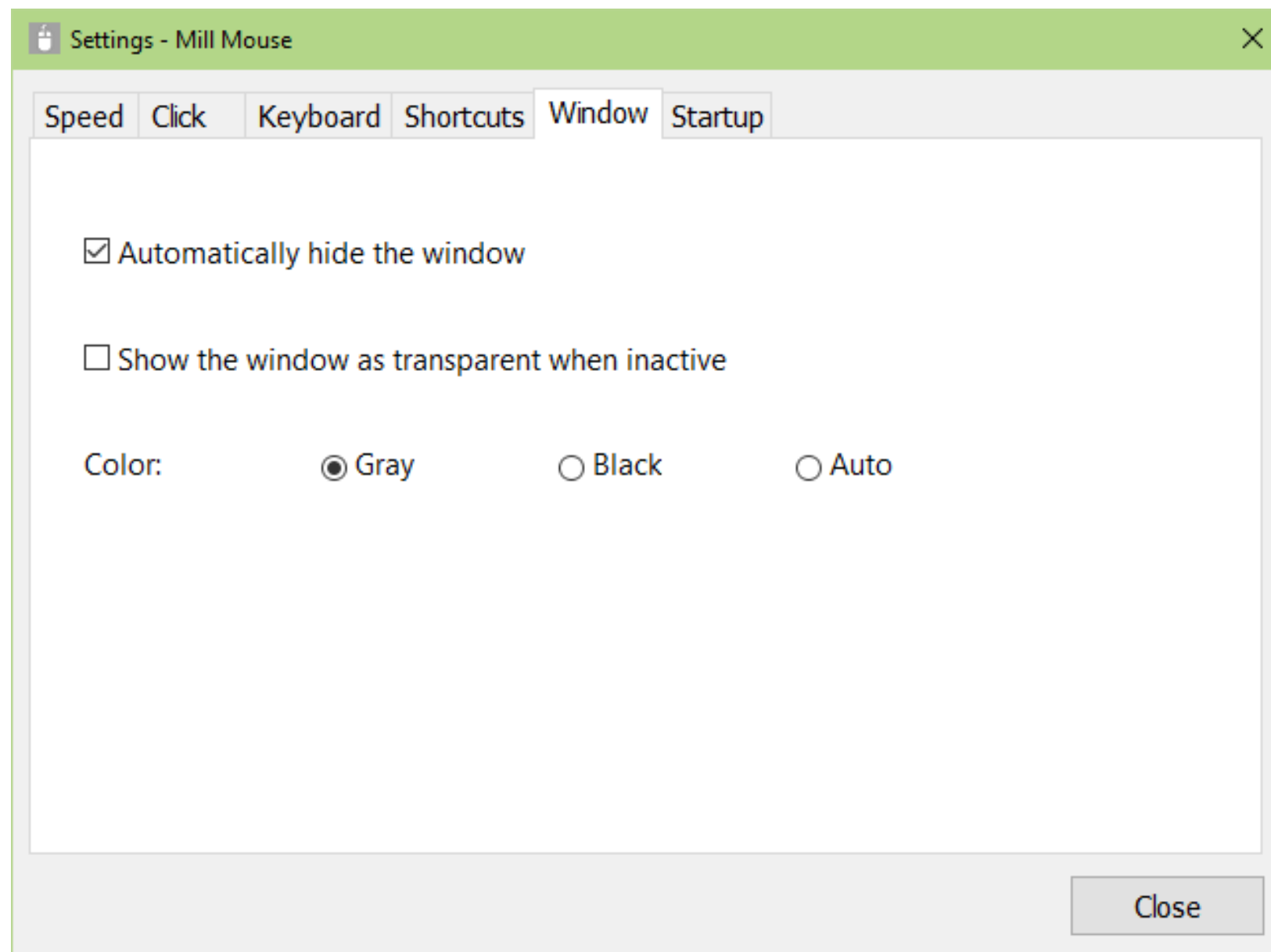


④ It will be displayed in the window and can be performed in the same way as other shortcuts.

# Settings - Window display



On the Window tab of the settings dialog, you can change whether or not to automatically hide or fade the window and the color of the window.

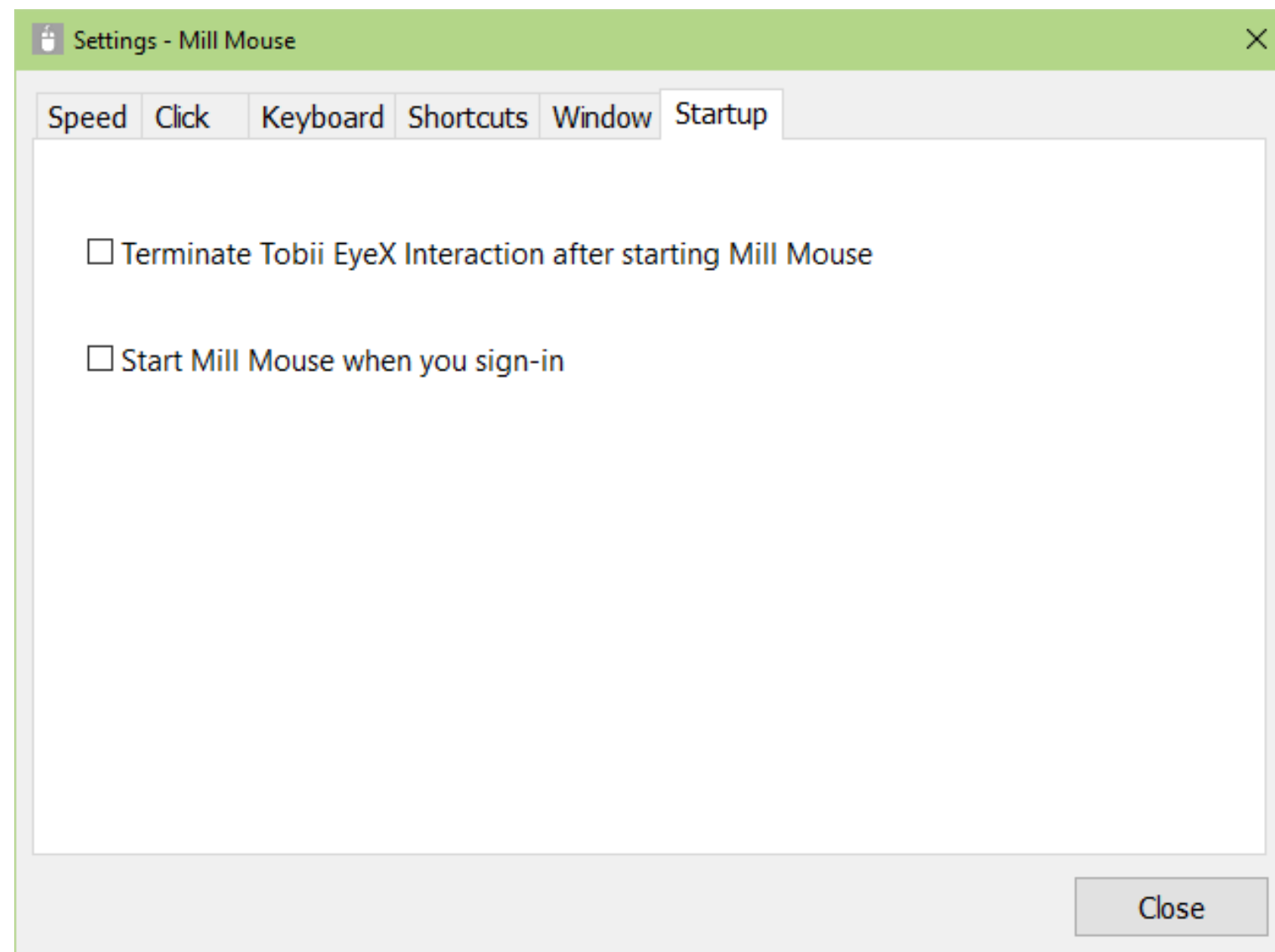


✂ If high contrast is enabled, the color can not be changed.

# Settings - Startup



On the Startup tab of the settings dialog, you can change whether to terminate Tobii EyeX Interaction on the taskbar and whether to automatically launch Mill Mouse when you sign-in to Windows.



✂ Mill Mouse automatically launched will run as normal, not 'Run as administrator'.

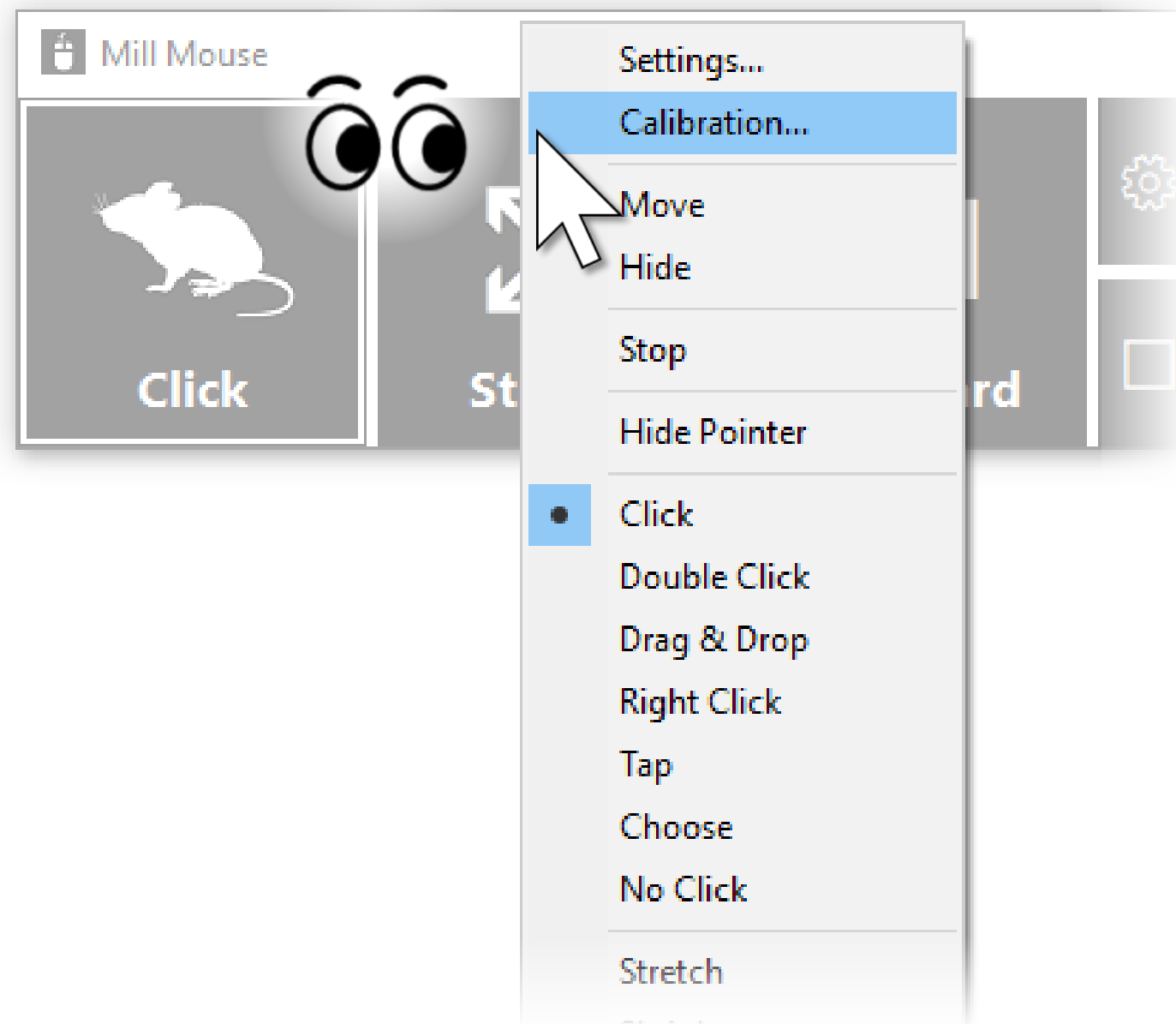
# Other functions



# Others - Calibration of eye tracking



You can open the calibration screen of the eye tracking from Calibration on the menu displayed when you keep gazing at the title bar of the window.



✂ It takes about 10 seconds from the menu selection until the calibration screen is displayed.

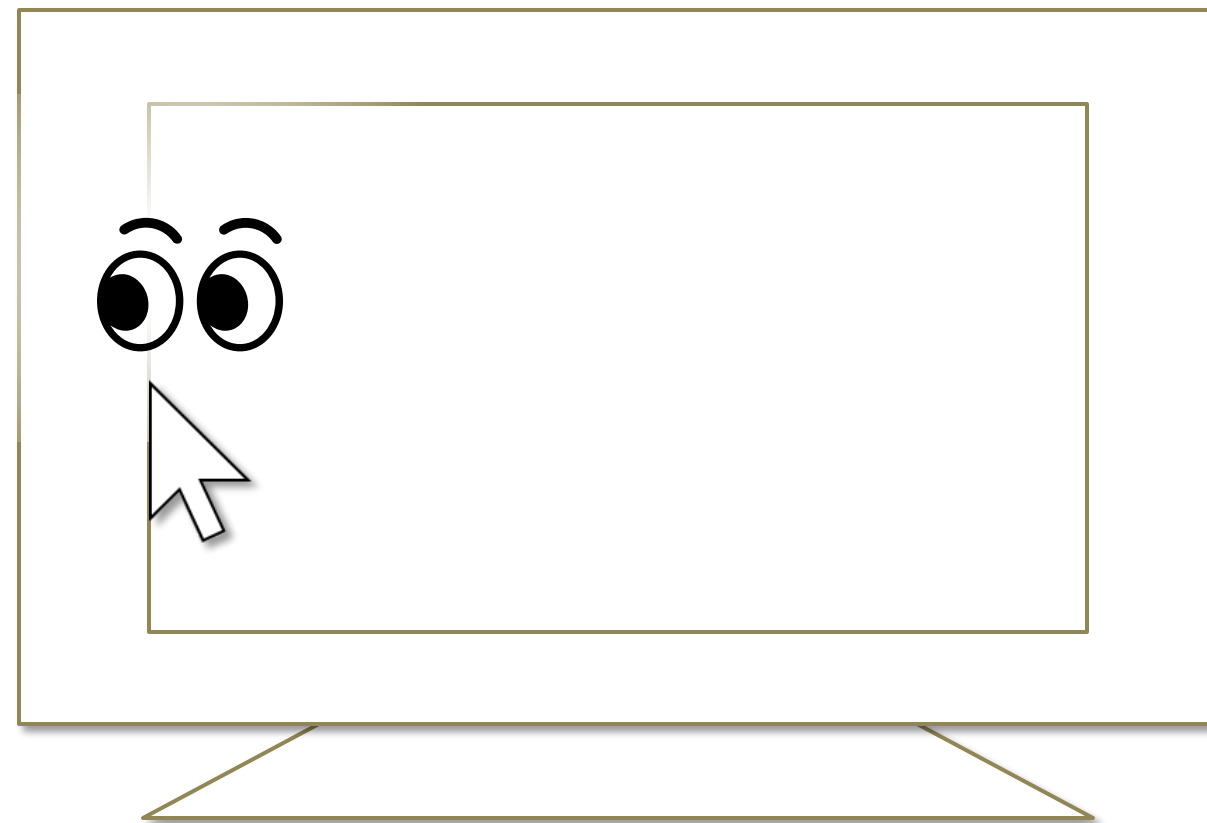


# Others - Task View



Keep gazing at the middle height of the left edge on the desktop screen to display the Task View on Windows 10.

If it does not work, try to gaze at the outer frame of the monitor.



- ✂ Keep gazing at there on Windows 8.1, the list of recently used store apps will be displayed.
- ✂ On Windows 7, Flip 3D will be used when Windows Aero is enabled.

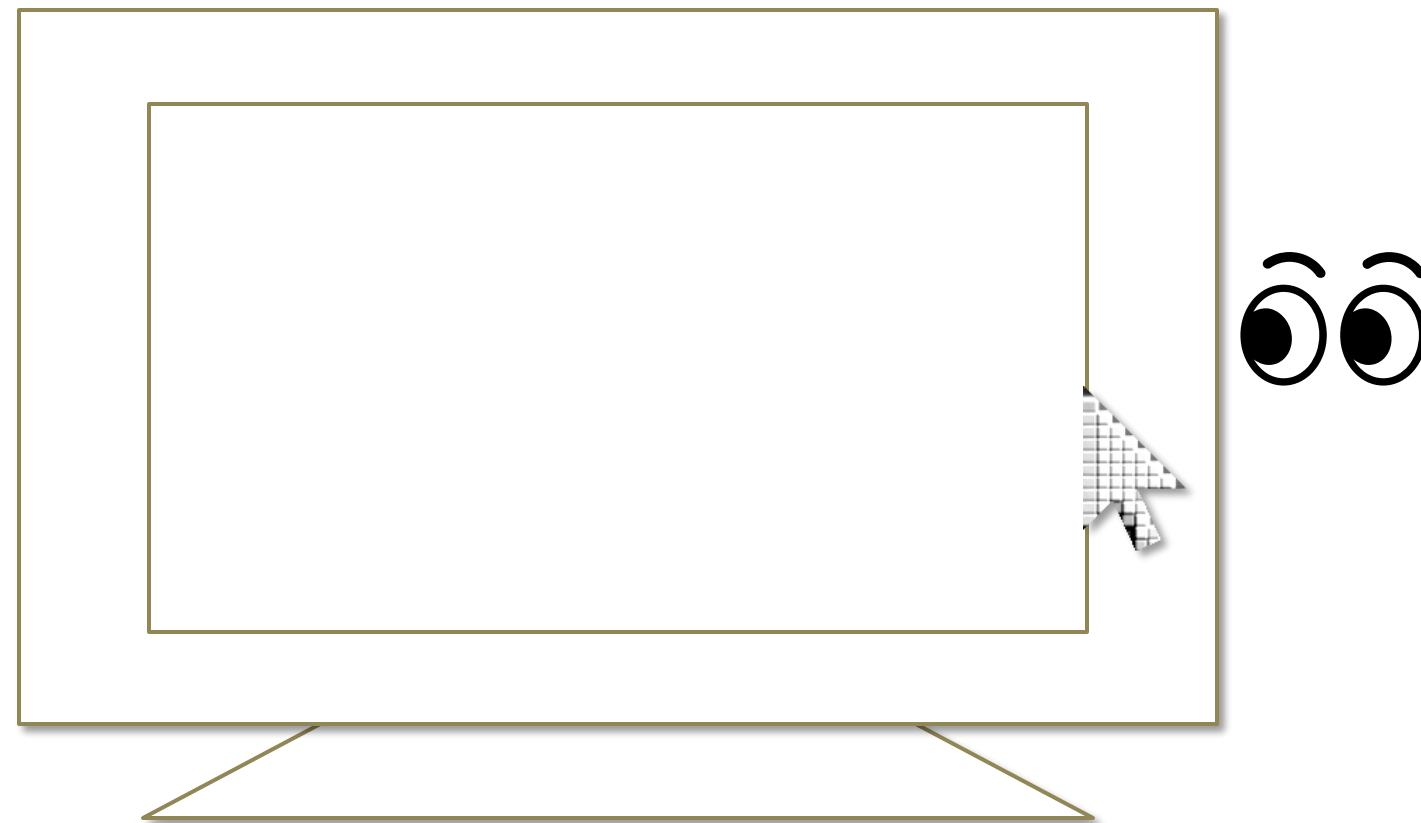


# Others - Action Center



Keep gazing at the middle height of the right edge on the desktop screen to display the Action Center on Windows 10.

If it does not work, try to gaze at the outer frame of the monitor.



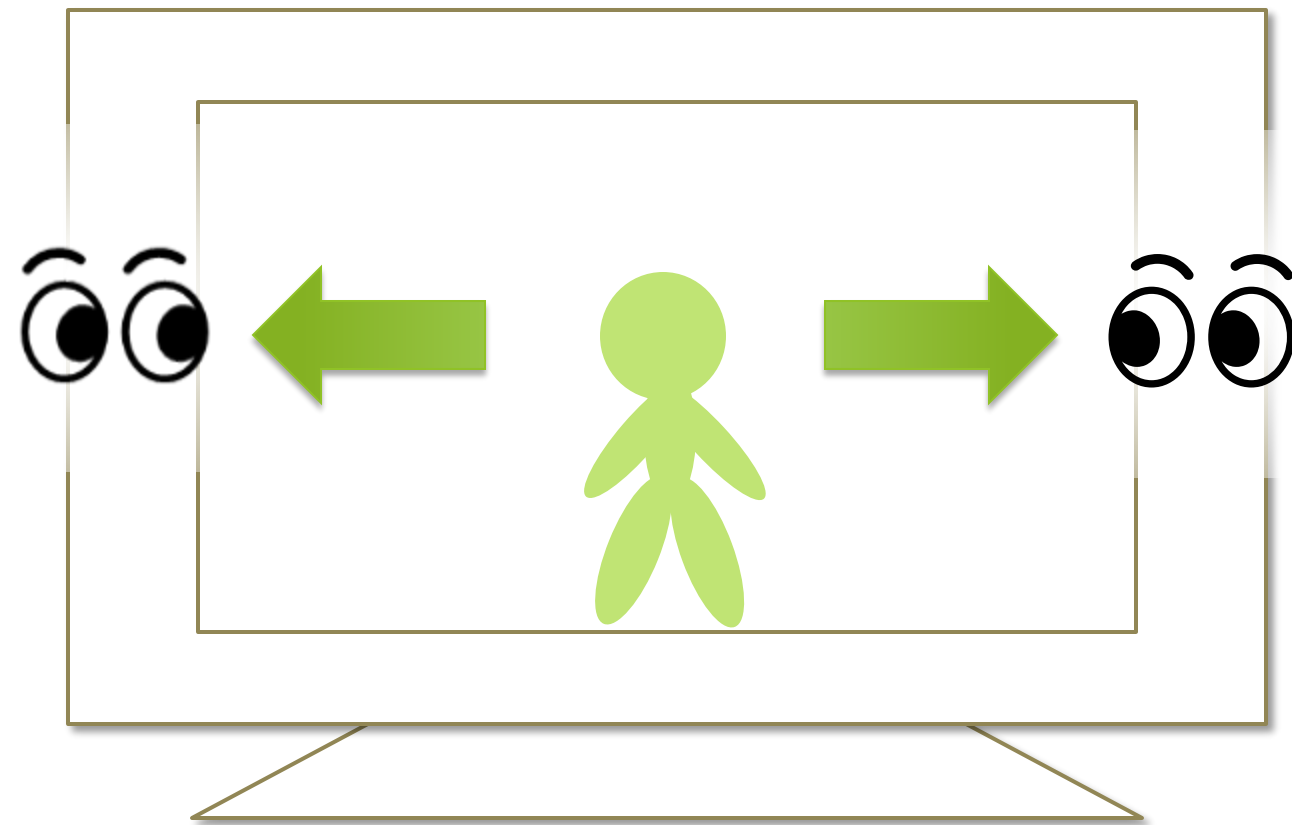
- ✂ Keep gazing at there on Windows 8.1, the Charm bar will be displayed.
- ✂ Nothing special will be happened on Windows 7.

# Others - Camera panning during games



While playing a game that you pan the camera by mouse operation, you can pan in the direction you are looking at by using Mill Mouse.

While playing such a game, Mill Mouse will not click on it even if you keep gazing at the same place.



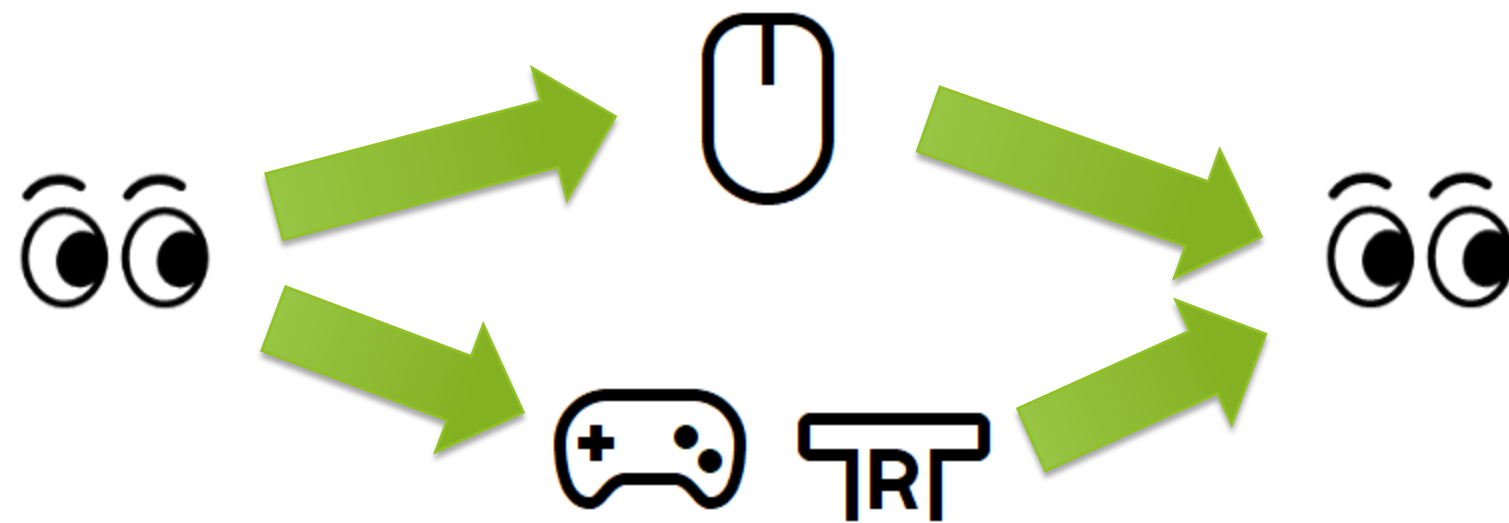
# Others - Combination with physical mouse



It is also possible to use in combination with a physical mouse device.

If you operate the physical mouse device while using Mill Mouse, the eye tracking will be paused and the operation by the physical mouse will take precedence. After stopping the operation by the physical mouse and waiting for a few seconds, you will be able to operate the mouse again with eye tracking.

In addition to the physical mouse, if you operate the right thumbstick of the Xbox controller, the eye tracking will be paused.

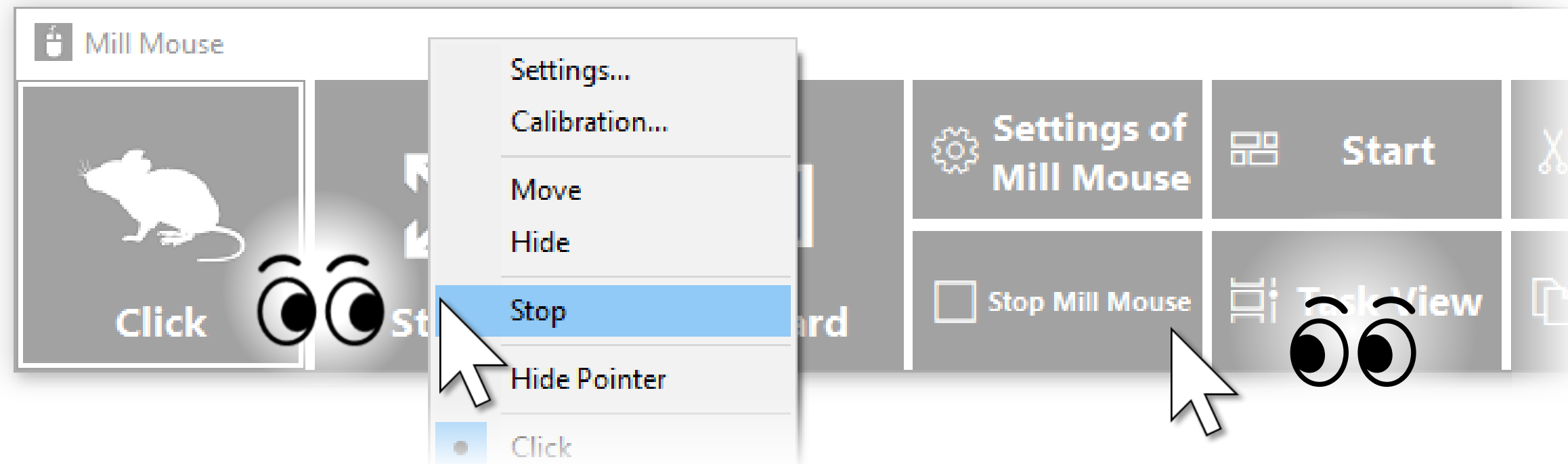


# Others - Stop eye tracking



If you do not need eye tracking for a long time, such as for watching movies, you can stop eye tracking.

To stop eye tracking, look at 'Stop Mill Mouse' shortcut or Stop on the menu displayed when you keep gazing at the title bar of the window. Then the window will be hidden.



Unlike the physical mouse operation described above, the stop will not be canceled automatically.

You can cancel the stop by looking at the upper left corner of the desktop screen and re-displaying the window.

# Others - Stop eye tracking



If you press Alt + Shift + M, eye tracking will be stopped.

The stop will not be canceled automatically.

To cancel the stop which was done by the above keys, press Alt + Shift + M again.

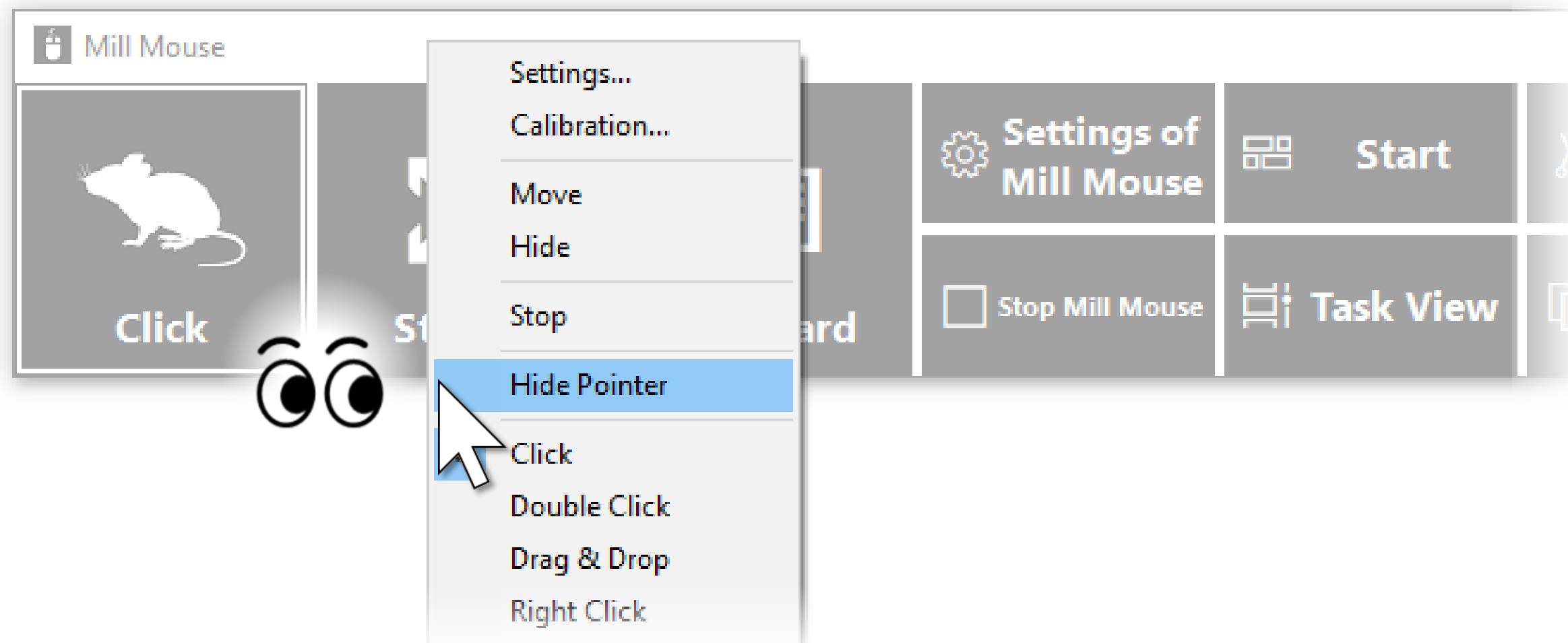
# Others - Hide mouse pointer



If you do not need the mouse pointer but need click action, such as for reading e-books, you can hide the mouse pointer.

To hide the mouse pointer, select 'Hide Pointer' on the menu displayed when you keep gazing at the title bar of the window.

To unhide it, select 'Hide Pointer' again.



# Others - Mill Mouse specific shortcut keys



You can adjust the speeds with the following shortcut keys.

## ► Speed of the mouse pointer

Alt + Shift + 1	Slow
Alt + Shift + 2	Fast

## ► Interval between starting to gaze and doing click operation

Alt + Shift + 3	Long
Alt + Shift + 4	Short

# Others - Supported languages



Besides English, Mill Mouse supports the following languages.

The words in the window of Mill Mouse are displayed according to the language settings of Windows.

- ▶ Arabic
- ▶ Bangla
- ▶ Simplified Chinese
- ▶ Traditional Chinese
- ▶ French
- ▶ German
- ▶ Hindi
- ▶ Japanese
- ▶ Korean
- ▶ Portuguese
- ▶ Russian
- ▶ Spanish
- ▶ Swedish



- ✂ In the Arabic environment, the window is appeared at the top right or the bottom left of the desktop screen.
- ✂ In the Spanish or Portuguese environment, some shortcut keys are changed, such as using Ctrl + G instead of Ctrl + S.

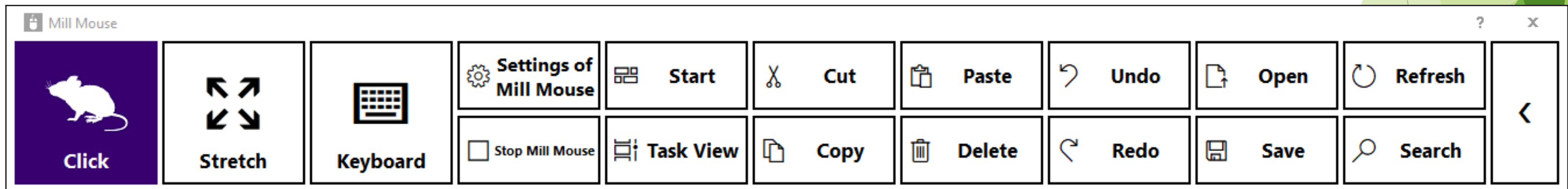
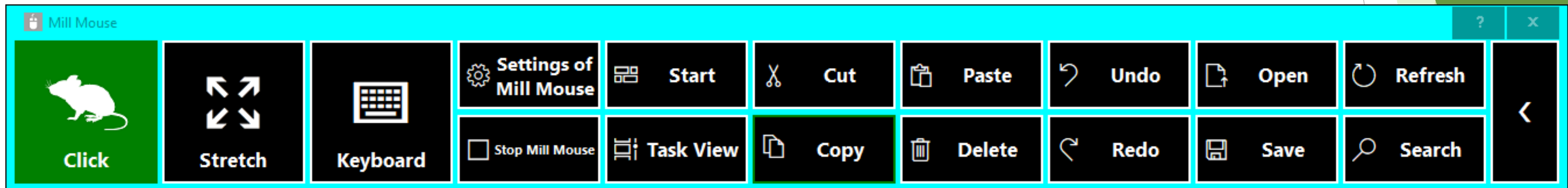


# Others - High contrast



Mill Mouse supports high contrast.


The color scheme of the window of Mill Mouse follows the high contrast settings of Windows.



# Tips - To enlarge buttons



If buttons are too small to operate, please change the settings with the following steps.

1. From the Start menu of Windows 10, click the Settings icon. 
2. System > Display > Change 'Scale and layout' to 125%.
3. If it is still too small, set a larger size as 'Custom scaling' in 'Advanced scaling settings'. (In order to reflect custom scaling, you need to sign out from Windows 10 and sign in again.)

※ On Windows 8.1 or Windows 7, please change the settings by the following steps.

1. Right click on the desktop screen > Click 'Screen resolution'.
2. Click 'Make text and other items larger or smaller'.
3. Change it to a larger size and click Apply.
4. Sign out from Windows and sign in again.

# Tips - To operate touch/on-screen keyboard



Mill Mouse that launched in the normal steps can not perform click operation for the buttons on the on-screen keyboard even if you gaze at them. The touch keyboard in Windows 8.1 or Windows 7 can not be clicked as well.

If you want to make them clickable, please launch Mill Mouse with the following steps.

1. If Mill Mouse is already running, please close it.
2. Right click on mm.exe and select 'Run as administrator' to launch it.

# Tips - To operate administrative apps



Mill Mouse that launched in the normal steps can not operate applications that requires administrator privileges such as Task Manager.

If you need to operate such applications, please launch Mill Mouse with the following steps.

1. If Mill Mouse is already running, please close it.
2. Right click on mm.exe and select 'Run as administrator' to launch it.

# Tips - Upgrading Tobii Core Software



If you face a problem after upgrading Tobii Eye Tracking Core Software to a new version, please try the clean installation as follows. (※The following steps are for people familiar with Windows. Calibration profiles for the eye tracking will be deleted.)

1. Uninstall the Tobii Eye Tracking software from 'Programs and Features' in Control Panel.
2. With Tobii Eye Tracker 4C connected to your PC, open Device Manager and uninstall EyeChip in 'Universal Serial Bus devices'.
3. Open Registry Editor and delete the following keys:
  - HKEY\_CURRENT\_USER¥Software¥Tobii
  - HKEY\_LOCAL\_MACHINE¥SOFTWARE¥WOW6432Node¥Tobii
4. Open File Explorer and delete the following folders:
  - %localappdata%¥Tobii
  - %programdata%¥Tobii
  - %programdata%¥TetServer
5. Restart Windows.
6. Install a new version of Tobii Eye Tracking Core Software.
7. Calibrate the eye tracking.


# Uninstallation



To uninstall Mill Mouse, delete the Mill Mouse folder.

# Known issues



- ▶ When other applications are displayed in full screen by , the window of Mill Mouse can not be displayed.
- ▶ Mill Mouse can not operate the secure desktop when prompting for elevation by User Account Control.



# Restrictions



- ▶ Mill Mouse is a free software. Author topolo-Z is not responsible for any situation resulting from the use of this application software.
- ▶ The bundled tobii\_stream\_engine.dll was developed by Tobii AB.  
<http://developer.tobii.com/license-agreement/>
- ▶ The copyright of the silhouettes of mouse belongs to FLOP DESIGN.  
Author topolo-Z uses silhouette materials purchased from FLOP DESIGN.  
<https://www.flopdesign.com/>

# Contacts to author



- ▶ Author: topolo-Z
- ▶ Mail: topolo-z@outlook.jp
- ▶ Home page: <https://millmouse.wordpress.com/>  
<https://mill-mouse.blogspot.com/>

# Appendix - Shortcuts



The following 64 types of shortcut keys are available in Mill Mouse.

- ▶ Start (Windows logo key)
- ▶ Action Center (Windows logo key+A)
- ▶ Show Desktop (Windows logo key+D)
- ▶ File Explorer (Windows logo key+E)
- ▶ Settings (Windows logo key+I)
- ▶ Connect (Windows logo key+K)
- ▶ Lock (Windows logo key+L)
- ▶ Rotation Lock (Windows logo key+O)
- ▶ Project (Windows logo key+P)
- ▶ Search Everywhere (Windows logo key+S)
- ▶ Ease of Access (Windows logo key+U)
- ▶ Windows Ink Workspace (Windows logo key+W)
- ▶ System (Windows logo key+Pause)
- ▶ Task View (Windows logo key+Tab)
- ▶ Maximize (Windows logo key+Up)
- ▶ Minimize (Windows logo key+Down)
- ▶ Snap Left (Windows logo key+Left)
- ▶ Snap Right (Windows logo key+Right)
- ▶ Narrator (Windows logo key+Ctrl+Enter)
- ▶ Date & Time (Windows logo key+Alt+D)

# Appendix - Shortcuts



(Continuation from the previous page)

- ▶ Screen Clipping (Windows logo key+Shift+S)
- ▶ Select All (Ctrl+A)
- ▶ Copy (Ctrl+C)
- ▶ New (Ctrl+N)
- ▶ Open (Ctrl+O)
- ▶ Print (Ctrl+P)
- ▶ Save (Ctrl+S)
- ▶ Paste (Ctrl+V)
- ▶ Cut (Ctrl+X)
- ▶ Redo (Ctrl+Y)
- ▶ Undo (Ctrl+Z)
- ▶ Switch Apps (Ctrl+Alt+Tab)
- ▶ Close (Alt+F4)
- ▶ Home (Alt+Home)
- ▶ Back (Alt+Left)
- ▶ Forward (Alt+Right)
- ▶ Help (F1)
- ▶ Rename (F2)
- ▶ Search (F3)
- ▶ Refresh (F5)

# Appendix - Shortcuts



(Continuation from the previous page)

- ▶ Full Screen (F11)
- ▶ Backspace Key (Backspace)
- ▶ Context Menu
- ▶ Delete (Del)
- ▶ Enter Key (Enter)
- ▶ Esc Key (Esc)
- ▶ Screenshot (Print Screen)
- ▶ Space Key (Space)
- ▶ Tab Key (Tab)
- ▶ Up Arrow (Up)
- ▶ Down Arrow (Down)
- ▶ Left Arrow (Left)
- ▶ Right Arrow (Right)
- ▶ Email
- ▶ Web Browser
- ▶ Play/Pause
- ▶ Stop
- ▶ Previous Track
- ▶ Next Track
- ▶ Mute

# Appendix - Shortcuts



(Continuation from the previous page)

- ▶ Volume Up
- ▶ Volume Down
- ▶ Brighten
- ▶ Dim

# Appendix - Shortcuts



- ✂ Action Center (Windows logo key+A) is only available on Windows 10. Charms (Windows logo key+C) on Windows 8.1 is available instead. No alternative shortcut keys are available on Windows 7.
- ✂ Settings (Windows logo key+I), Connect (Windows logo key+K), Rotation Lock (Windows logo key+O) and Search Everywhere (Windows logo key+S) are only available on Windows 10 or Windows 8.1. No alternative shortcut keys are available on Windows 7.
- ✂ Windows Ink Workspace (Windows logo key+W), Date & Time (Windows logo key+Alt+D) and Screen Clipping (Windows logo key+Shift+S) are only available on Windows 10. No alternative shortcut keys are available on Windows 8.1 and Windows 7.
- ✂ Maximize (Windows logo key+Up) and Minimize (Windows logo key+Down) do not work if 'Prevent windows from being automatically arranged when moved to the edge of the screen' is enabled in Ease of Access Center on Windows 8.1 or Windows 7. (Excluding store apps on Windows 8.1)
- ✂ Snap Left (Windows logo key+Left) and Snap Right (Windows logo key+Right) do not work if 'Prevent windows from being automatically arranged when moved to the edge of the screen' is enabled in Ease of Access Center. (Excluding store apps on Windows 8.1)
- ✂ Task View (Windows logo key+Tab) is only available on Windows 10. Recent Apps (Windows logo key+Ctrl+Tab) on Windows 8.1 or Flip 3D (Windows logo key+Ctrl+Tab) on Windows 7 is available instead.



# Appendix - Shortcuts



- ✂ Narrator (Windows logo key+Ctrl+Enter) is only available on Windows 10. On Windows 8.1, it is available by Windows logo key+Enter instead. No alternative shortcut keys are available on Windows 7.
- ✂ Switch Apps (Ctrl+Alt+Tab) does not work while using Windows Classic theme or High Contrast theme on Windows 7.
- ✂ Rotation Lock (Windows logo key+O), Brighten and Dim may not work on your PC.