



Quick Glance

Software User's Manual

Software Version: 6.2

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1.0 Introduction & Contact Information

Quick Glance is a powerful tool, which gives complete access to computers. Our philosophy in designing this product was to give you the ability to operate a computer using only your eyes.

With Quick Glance and an on-screen keyboard you are able to:

Type words, phrases, and documents
Access menus, scroll bars, icons, and buttons
Surf the Web
Create designs, drawings, and artwork with CAD software
Perform any other task that requires a mouse

We hope that Quick Glance will meet your needs and create new opportunities for you. If you have suggestions or comments regarding this product please contact us (see below).

This manual covers software version 6.2.

Contact Information:

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2.0 Safety Information



Eye trackers emit infrared light which may interfere with infrared controlled devices. Do not use an eye tracker in the same room with any infrared controlled device if device failure could affect the safety or health of anyone.



Prolonged use of an eye tracker as a pointing device may strain eye muscles. The user should take frequent breaks and rest if eye fatigue is noticed.



An eye tracker can be a great tool for controlling a computer, but errors are common. Do not use an eye tracker to control any equipment which might affect the safety or health of anyone.

2.1 Avoiding Strain Injuries

Our experience at EyeTech Digital Systems has shown that there are two types of strain that can occur from using eye-tracking devices: neck strain and eye strain. If you notice discomfort, pain, or fatigue in either of these areas, stop using Quick Glance and rest until you feel well again.

The length of time that a person can use Quick Glance before feeling strain or fatigue varies from person to person. You need to listen to your body and rest when it tells you.

2.2 Other Warnings

Quick Glance can be a great tool for controlling your computer, but you may make errors. Do not use Quick Glance to control any equipment which might affect the health or safety of anyone.

Eye trackers emit infrared light which may interfere with infrared controlled devices. Do not use an eye tracker in the same room with any infrared controlled device if device failure could affect the safety or health of anyone.

2.3 Information on Infrared (IR) Lights

The hardware associated with Quick Glance uses IR lights to illuminate the eyes and provide reference points for the eye tracker. The IR light is produced by LED's at a wavelength of 880 nanometers. This type of IR light occurs naturally in sunlight and in light from incandescent lamps.

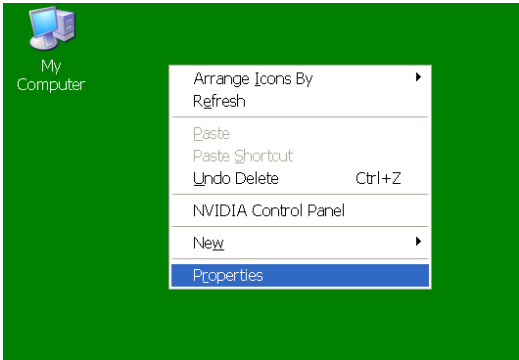
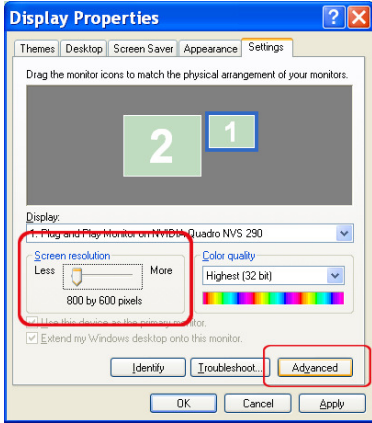
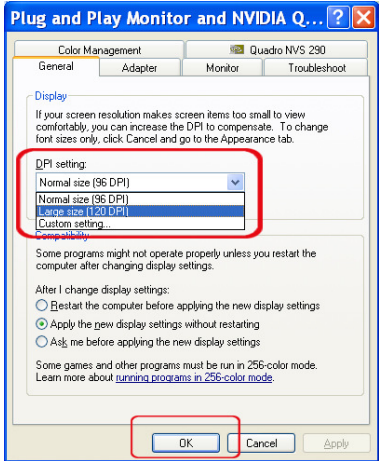
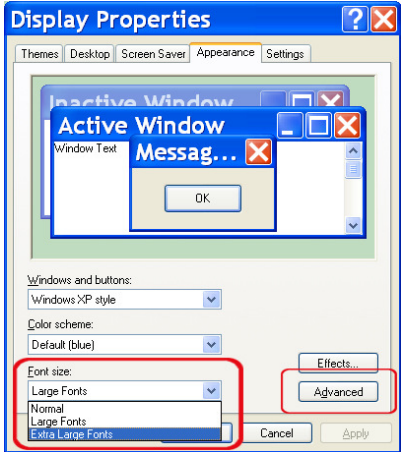
The IR output levels are well within the safety guidelines given in the book *2007 TLVs and BEIs* by the American Conference of Governmental Industrial Hygienists.

3.0 Installing Quick Glance

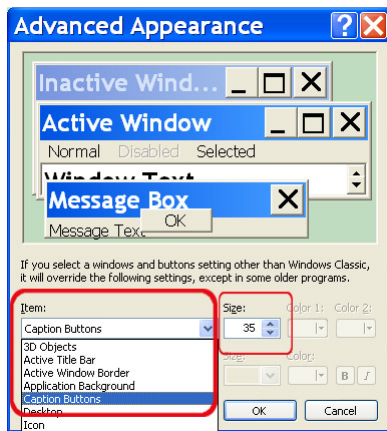
This section will explain how to configure your computer and install the Quick Glance software.

3.1 Configuring Your Display

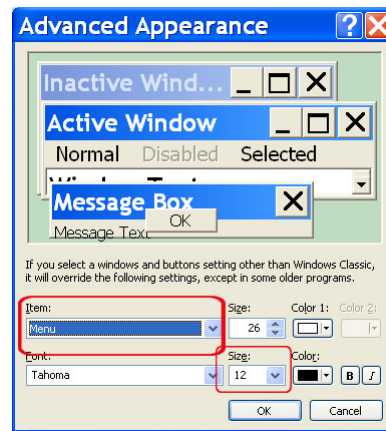
Adjusting your display options while you are learning Quick Glance can often make it easier to use because larger icons are easier to click than smaller ones.

<p>1 Right click anywhere on the desktop and select Properties.</p> 	<p>2 Select the Settings tab. Slide the Screen Resolution slider to set the resolution. Click the Advanced button.</p> 
<p>3 Select the General tab. Change the DPI settings to Large Size. Click OK.</p> 	<p>4 Click on the Appearance tab. Change the font size to Large Fonts or Extra Large Fonts. Click on the Advanced button.</p> 

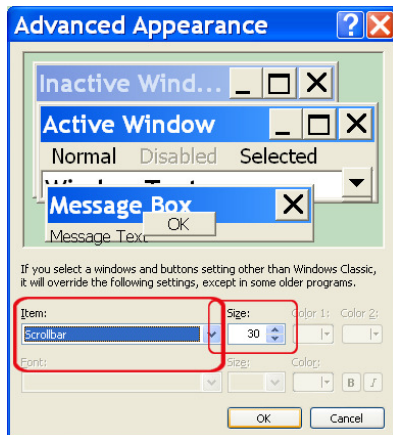
- 5 Select **Caption Buttons** and set **Size** to about 35.



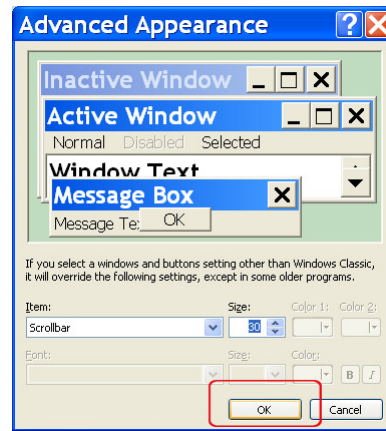
- 6 Select **Menu** and set the font **Size** to about 12.



- 7 Select **Scrollbar** and set **Size** to about 30.



- 8 Click **OK** to save the changes.



3.2 Installing the Quick Glance Software

- 1 Open the Quick Glance installation CD using **My Computer**, and then double-click **Setup** to start the installation.
- 2 Follow the on-screen instructions to complete the Quick Glance installation.

The installation will create an icon for Quick Glance. You can access this by clicking **Start** then **Programs** then **EyeTechDS**. You can use your mouse to drag the Quick Glance icon from this menu to the desktop if you want an icon there as well.

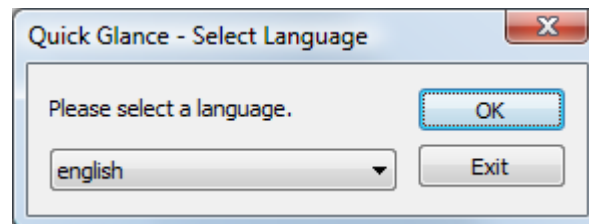
4.0 Setting Up Quick Glance

This section will explain how to configure the Quick Glance software for the first time.

The first time you run Quick Glance it will require that you select a language, enter a password, and configure your video hardware. To begin using the software, you will also need to adjust the hardware and calibrate.

4.1 Language Selection

The first time you run Quick Glance it will bring up the **Select Language** window. On later sessions of Quick Glance this window will not appear.

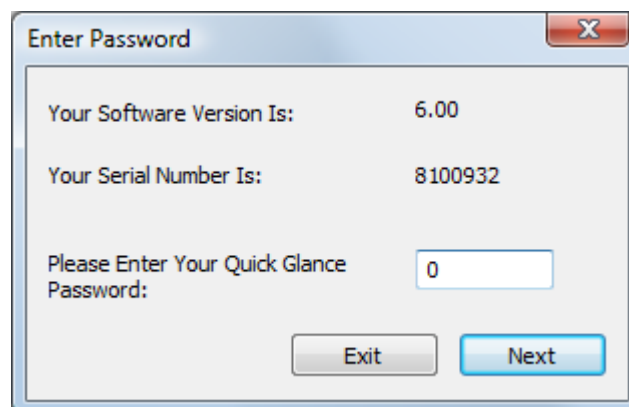


Select the appropriate language from the drop-down box and click on **OK**.

4.2 Password

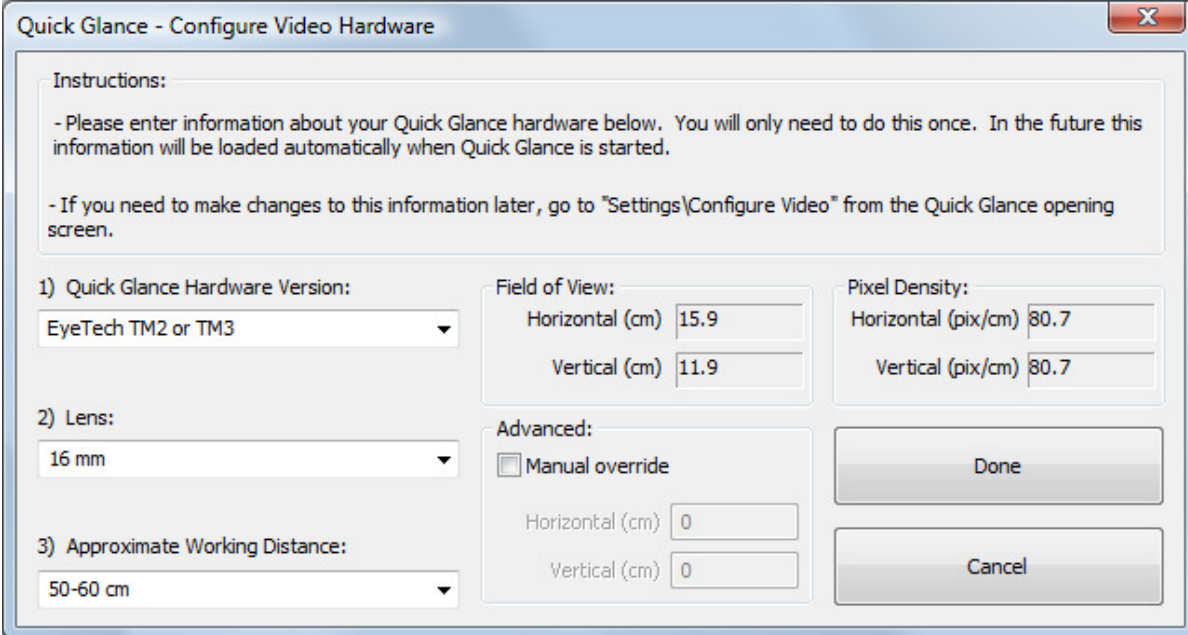
Next, you will be asked for a password which is supplied to you by us. On later sessions of Quick Glance this window will not appear.

The password is printed on the back of the camera housing. If you have any problems with your password, you can send an email request to info@etmail.net. Include your serial number, and software version when requesting a password.



4.3 Configure Video Hardware

After entering your password, the **Configure Video Hardware** window appears. This configuration only needs to be done once. On later sessions of Quick Glance this window will not appear.



Quick Glance - Configure Video Hardware

Instructions:

- Please enter information about your Quick Glance hardware below. You will only need to do this once. In the future this information will be loaded automatically when Quick Glance is started.
- If you need to make changes to this information later, go to "Settings\Configure Video" from the Quick Glance opening screen.

1) Quick Glance Hardware Version: EyeTech TM2 or TM3

2) Lens: 16 mm

3) Approximate Working Distance: 50-60 cm

Field of View:

Horizontal (cm) 15.9
Vertical (cm) 11.9

Pixel Density:

Horizontal (pix/cm) 80.7
Vertical (pix/cm) 80.7

Advanced:

Manual override

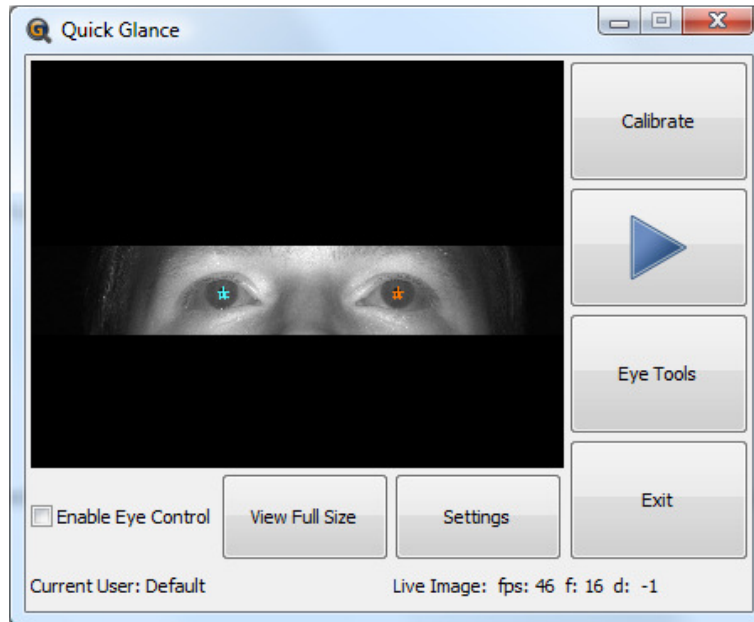
Horizontal (cm) 0
Vertical (cm) 0

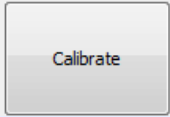

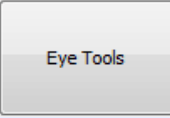
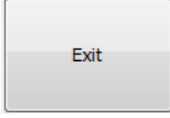

Buttons: Done, Cancel

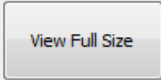

1	Quick Glance Hardware Version	Select the camera you are using from the drop down menu. For most users there will only be one option.
2	Lens	Select the camera lens size. This is printed on the camera lens. If your lens size is not listed then select Other and manually type in the lens size.
3	Approximate Working Distance	Select the approximate distance you are from the camera, measured in centimeters. If your distance does not fall in the predefined ranges then select Other , and manually type in your distance.
4	Done	Click Done to finish the configuration, save changes, and go to the Quick Glance startup screen. This button will be disabled until you have properly selected the camera, lens, and working distance.
5	Cancel	Click Cancel if you need to exit the configuration without saving the changes. This will exit Quick Glance completely.
6	Manual Override	Select Manual Override to insert your own field-of-view values. The default values are fine for most users.

4.4 Startup Window Overview

Below is the Quick Glance Startup Window with a description of each of the buttons.



	<p>Click Calibrate to start the calibration process for the current user. If no user is selected it will calibrate the default user with all of the default settings.</p>
	<p>Selecting Play/Pause starts and pauses eye control. When eye control is paused the cursor will not respond to eye gaze, blink, or dwell movements except on the Play/Pause button. This is useful when reading a lot of text or any other time cursor control is not needed.</p>
	<p>Click Eye Tools to launch the Eye Tools toolbar. The Eye Tools toolbar contains all mouse functions (right click, double click, etc.) and clicking methods (blink and dwell click).</p>
	<p>Click Exit to close Quick Glance.</p>
	<p>Click Settings to modify user settings and options.</p>

	<p>Click View Full Size to bring up a full size view from the camera.</p>
<input type="checkbox"/> Enable Eye Control	<p>Check Enable Eye Control to allow the user to control the cursor with their eyes.</p>
	<p>The information section displays feedback regarding the image.</p> <p>The 'fps' number is the number of frames per second the camera is processing. This number is affected by the Bandwidth and Image Height settings on the Camera tab in the settings (See section 6.5)</p> <p>The 'f' represents the focus level. This number can range from 0 to 25. It usually ranges from 10 to 20. It represents a measurement of the focus on the eyes. A value higher than 15 is considered a good value and will produce good eye tracking results. Vary the focus of the lens (either by turning the focus ring on the lens or by moving the system forward or backward) until the number will not increase any more. Then the image will be focused the best it can be.</p> <p>The 'd' represents the distance the user is from the camera. This value is calculated by Quick Glance and does not translate to a physical distance. It updates based on the focus value and represents the distance at which the image has the best focus. A value of 0 indicates that the user is at the distance with the best focus. Negative values indicate that the user is too close. Positive values indicate that the user is too far away.</p>

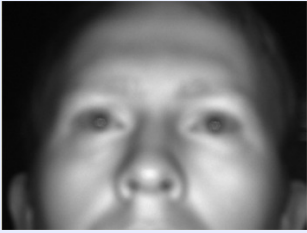



4.5 Hardware Adjustments

Click on **View Full Size** in the Quick Glance startup window. With the full-size image on the screen make the following adjustments:

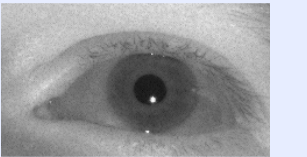
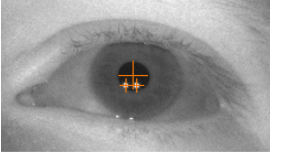
1	Adjust camera position	Adjust the camera position so your eyes are about in the center of the screen.
2	Adjust focus	Adjust the camera focus so the image is clear.
3	Adjust lights	Adjust the lights so they are pointed at your face. If you are using a system with integrated lights, then you do not need to adjust the lights.

Having the Quick Glance hardware adjusted correctly is critical for proper operation of Quick Glance.

When the hardware is adjusted properly the image should be clear and there should be crosshairs on your eyes.

Incorrect		Adjust the focus so the image is clear.
Incorrect		Adjust the camera so your eyes are in the center of the image.
Incorrect		Adjust the lights so that both the left and right are pointed at your face. This step is not necessary for users of systems with integrated lights.
Correct		When you have an image similar to this, you are ready to continue with the setup. Notice the crosshairs on each eye. The hardware is properly adjusted when both eyes have the crosshairs.

By looking at your eyes you can tell if the hardware is adjusted correctly. An image with properly adjusted hardware will have three crosshairs on both eyes; one in each pupil and one in each of the two bright spots created by the lights.

Incorrect		Notice how the eye in this image does not have any crosshairs.
Correct		Correct positioning will create one large crosshair and two smaller crosshairs as shown.

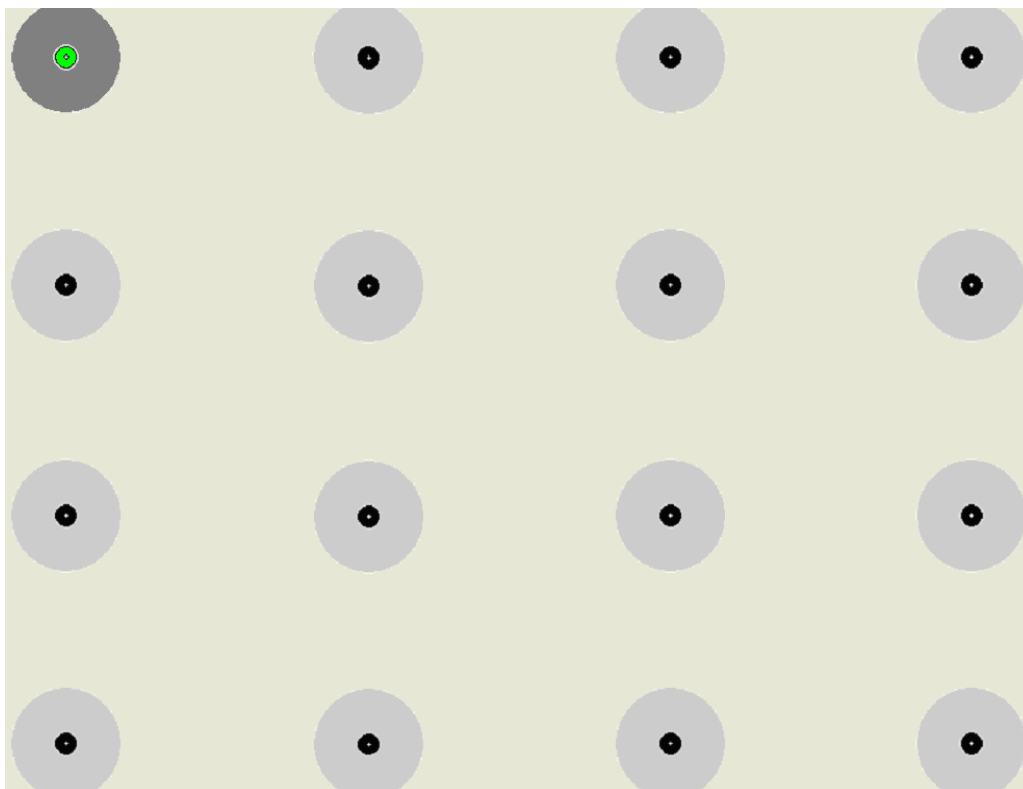
4.6 Calibration

To calibrate Quick Glance to your eyes, complete the following:

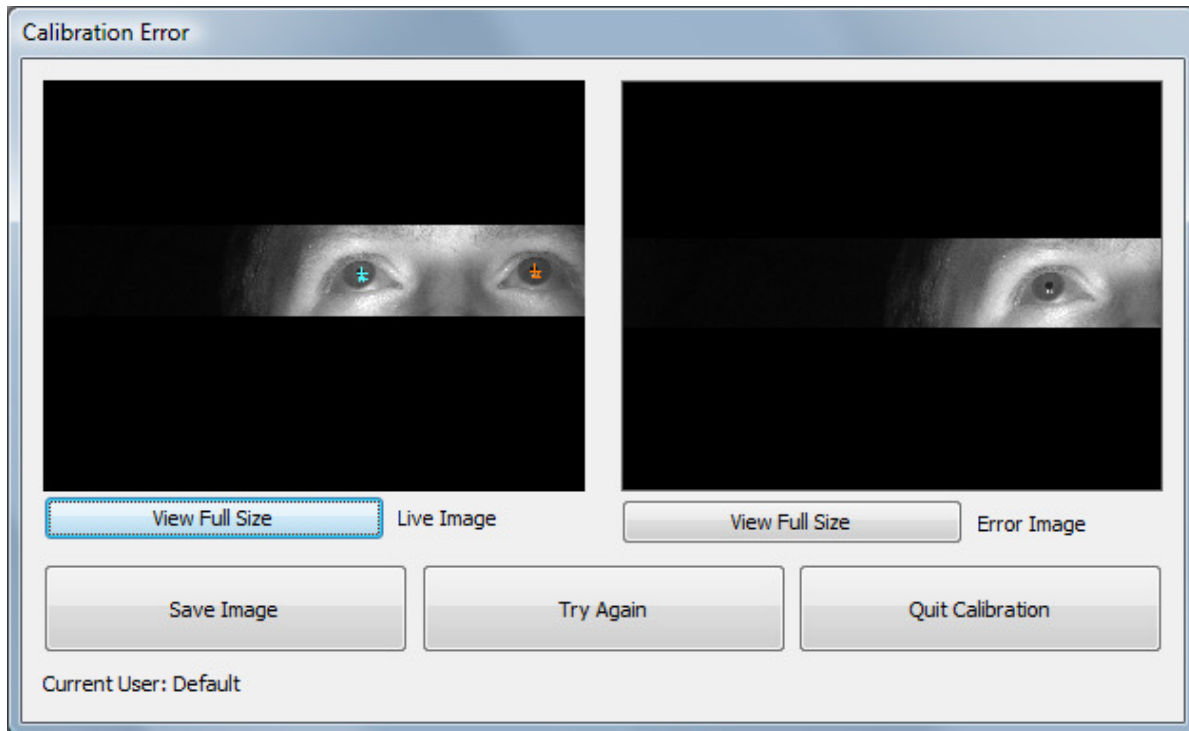
1	Adjust the hardware as described in section 4.5.
2	Click Calibrate (on the Quick Glance startup window).
3	Look at the center of each target that is highlighted. It will turn green and then the highlighting will move to the next target.
4	Follow the highlighting as it moves. It will move from left to right, top to bottom.

NOTE:

If you would like to change the amount of time each target displays, you can adjust this using the **Target Time** controls in the **Calibrate Tab** of the **Settings** window (see section 6.1).

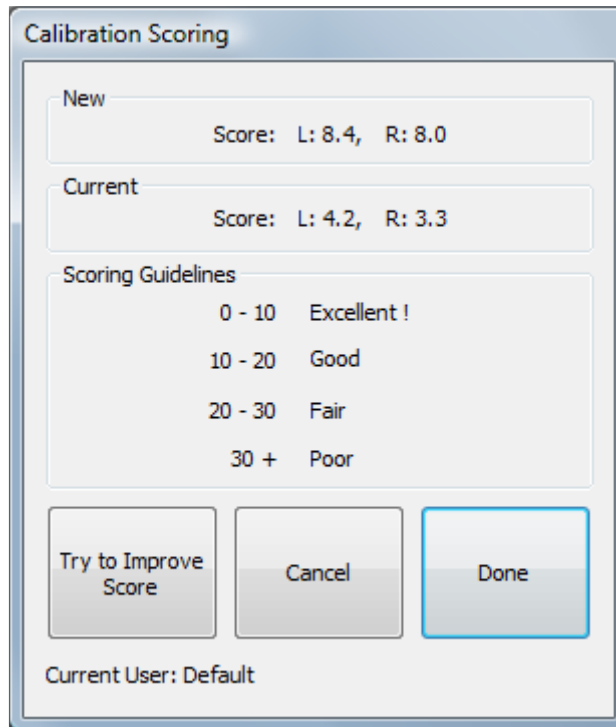


The **Calibration Error** window will come up if there is an error during calibration.



View Full Size	Click View Full Size to bring up a full size image of either the error image or the live image. This allows for accurate adjustment of the camera and the lights.
Try Again	Click Try Again to retry the last target.
Save Image	Click Save Image to save the error image.
Quit Calibration	Click Quit Calibration if you would like to exit without finishing.

Once each target has successfully calibrated, the Calibration Scoring window will appear.



The **New** calibration scores are those achieved during this calibration session. This calibration will replace the **Current** calibration when you click **Done**. If you click **Cancel**, the calibration represented by the **Current** scores will be in effect.

Try to Improve Score	Click Try to Improve Score to re-calibrate trouble targets.
Cancel	Click Cancel if you want to quit the calibration without saving.
Done	Click Done to save the new calibration score and exit the calibration.



If you have difficulties calibrating, first make sure the hardware is adjusted properly (see section 4.5), and try calibrating again.

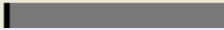








5.0 Eye Tools





When you click **Eye Tools** on the Quick Glance startup screen, the following window appears:

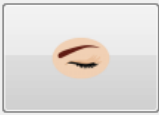










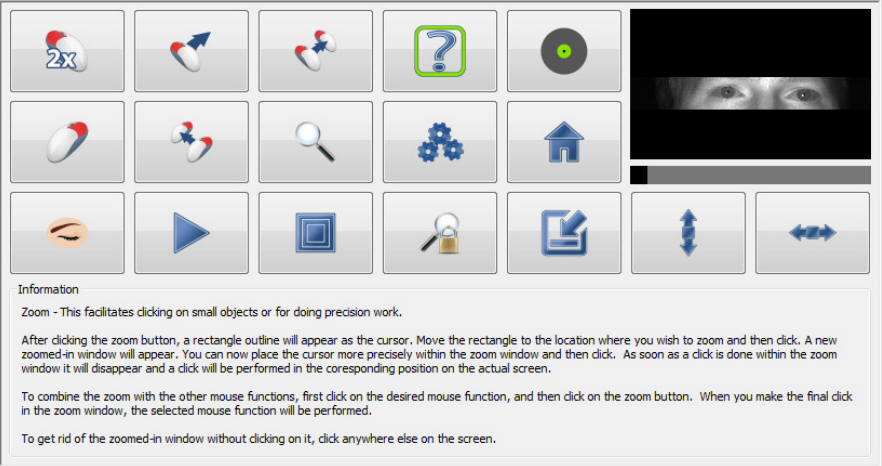
The tables below describe each of the functions in the **Eye Tools** window. The size of this window and its buttons can be set to any practical value (see **Toolbar Settings** section 6.3).

Indicator Functions	
<p>Live Image</p>  <p style="text-align: center;"><i>or</i></p>  <p>Eye Position Indicators</p>	<p>The area on the top right shows either a live video image or the Eye Position indicator, depending on the state of the Enable Live Image option in the Toolbar tab of the Settings window. The user's eyes (or the black position indicators) must be visible in the window for Quick Glance to track properly.</p> <p>Clicking on this area causes the Eye Tool buttons to appear or disappear.</p>

 <p>CPU Usage</p>	<p>The bar graph under the Eye Position indicator gives a rough measure of how much CPU power is being used by Quick Glance. This is useful to determine how to adjust the Bandwidth and Image Height in the Camera tab of the Settings window.</p> <p>Quick Glance will yield to other applications when they temporarily need most of the computing resources. It is normal for the bar graph to indicate 100% at these times.</p> <p>If you would like to regulate the amount of CPU power that is being used by Quick Glance, you can change the Bandwidth (%) in the Camera tab of the Settings window.</p>
<p>Mouse Functions</p>	
 <p>Zoom</p>	<p>Zoom is useful for clicking on small objects or for doing precision work such as CAD.</p> <p>Click  and a zoom rectangle outline will appear as the new cursor. Move the rectangle to the location where you wish to zoom in and click. A new "zoomed in" window will appear. You can now place the cursor more precisely within the zoom window and click. As soon as a click is registered, the zoom window disappears.</p> <p>To combine the zoom with the other mouse functions, first click on the desired mouse function, and then click on the zoom button. When you click in the zoom window, the selected mouse function will be performed.</p>
 <p>Left Double Click</p>	<p>Left Double Click is useful for starting programs or opening folders.</p> <p>Click  then click where you want the left double click to be performed.</p>
 <p>Left Drag</p>	<p>Left Drag is useful for moving and re-sizing windows, dragging items to the trash or other folders, etc.</p> <p>Click  then click the item you wish to drag. The item will then follow your gaze point until you click again.</p>
 <p>Left Select</p>	<p>Left Select is useful for selecting groups of items or text.</p> <p>Click  then click the point where you want to start the selection. Finally click the point where you want to end the selection.</p>

 <p>Right Click</p>	<p>Right Click has various uses depending on the software being used.</p> <p>Click  then click where you want the right click to be performed.</p>
 <p>Right Select</p>	<p>Right Select is useful for selecting multiple items (such as files in My Computer). In many applications a menu will appear allowing the user to select, copy, move, or create a shortcut.</p> <p>Click  then click the point where you want to start the selection. Finally click the point where you want to end the selection. The right click menu will then appear.</p>

Clicking Methods	
 <p>Blink Clicking</p>	<p>Blink Clicking allows you to perform a click by closing your eyes for a pre-set time. This time can be adjusted in the Clicking tab of the Settings window (see section 6.2). You can blink click on this button when no clicking method is selected to turn it on.</p>
 <p>Dwell Clicking</p>	<p>Dwell Clicking allows you to perform a click by looking at a fixed point on the screen for a pre-set amount of time. This time can also be adjusted in the Clicking tab of the Settings window. After clicking once, you must look away before you can click in the same spot again. You can dwell on this button when no clicking method is selected to turn it on.</p>
 <p>Zoom Lock</p>	<p>When Zoom Lock is enabled every click is followed by a zoom window which must be clicked on for the intended task to be performed. Clicking outside the zoom window will make it disappear, and no click will be performed. It is similar to the zoom function except that it stays activated after a click is performed.</p> <p>This option is useful for avoiding accidental clicks or for someone who has poor accuracy. It is also useful with programs where great accuracy is needed such as CAD.</p>

Window Position	
 Toggle Up/Down	<p>Toggle Up/Down moves the position of the Eye Tools window to the top or bottom of the screen.</p>
 Toggle Left/Right	<p>Toggle Left/Right moves the position of the Eye Tools window to the left or right of the screen.</p>
 Minimize	<p>Minimize minimizes Quick Glance to the taskbar.</p>
 Settings	<p>Settings provides access to the Settings window. All Quick Glance options can be accessed through the Settings window.</p>
 Home Screen	<p>Home Screen returns Quick Glance to the startup window.</p>
 Help	<p>Help shows an information window. Clicking on an item in the Eye Tools bar will show it's description in the information section:</p> <div style="border: 1px solid gray; padding: 5px;">  <p>The screenshot shows a grid of icons in the Eye Tools bar, including a '2x' zoom icon, a question mark icon, a home icon, and a help icon. To the right is a preview window showing a person's eyes. Below the icons is an 'Information' section with text describing the zoom function.</p> <p>Information Zoom - This facilitates clicking on small objects or for doing precision work.</p> <p>After clicking the zoom button, a rectangle outline will appear as the cursor. Move the rectangle to the location where you wish to zoom and then click. A new zoomed-in window will appear. You can now place the cursor more precisely within the zoom window and then click. As soon as a click is done within the zoom window it will disappear and a click will be performed in the corresponding position on the actual screen.</p> <p>To combine the zoom with the other mouse functions, first click on the desired mouse function, and then click on the zoom button. When you make the final click in the zoom window, the selected mouse function will be performed.</p> <p>To get rid of the zoomed-in window without clicking on it, click anywhere else on the screen.</p> </div>

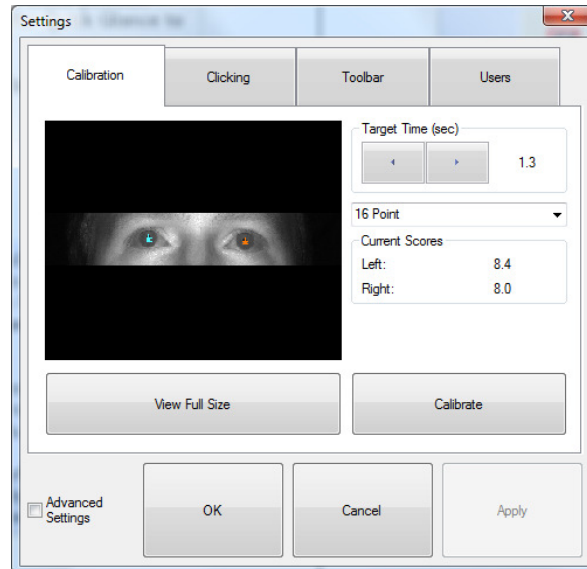
6.0 Settings

From the **Settings** window you can change many options in the Quick Glance software. Settings are pre-set with default values that will work best for most users. This section describes each of the settings and how to adjust them.

To get to the **Settings** window, click on the **Settings** button in the Quick Glance startup window.

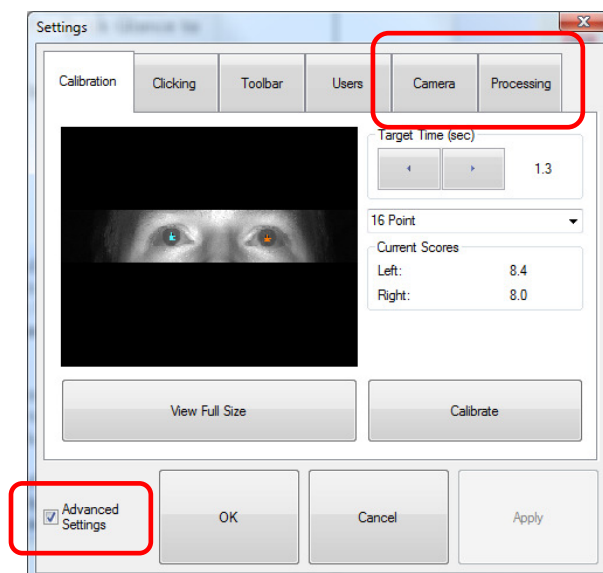
There are four primary tabs:

Calibration
Clicking
Toolbar
Users



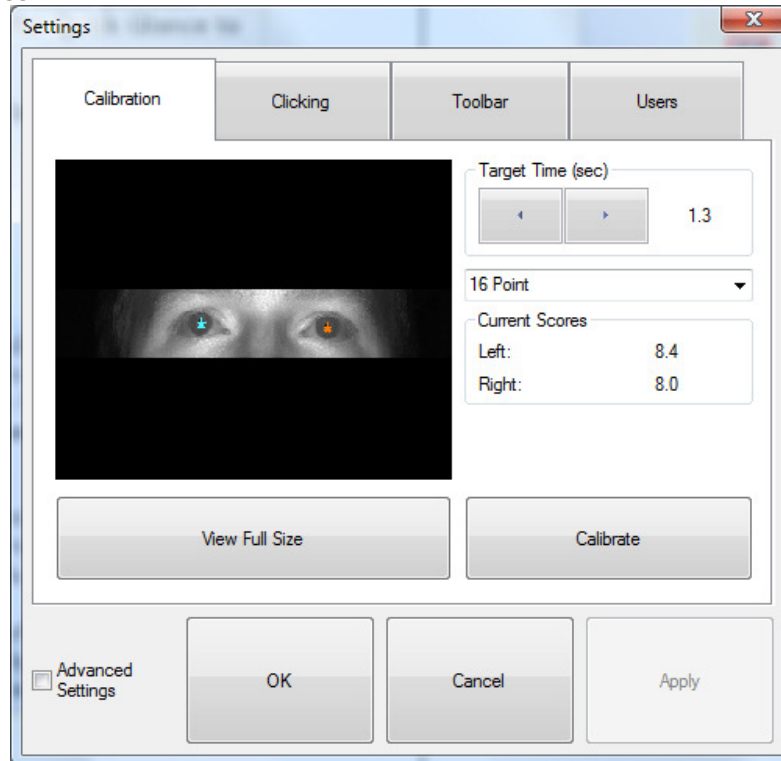
Clicking the **Advanced Settings** checkbox (in the lower-left) will display additional options within each tab and will also bring up two additional tabs:


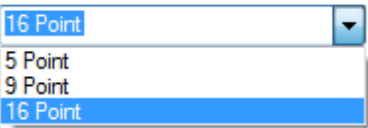
Camera
Processing



6.1 Calibration Settings

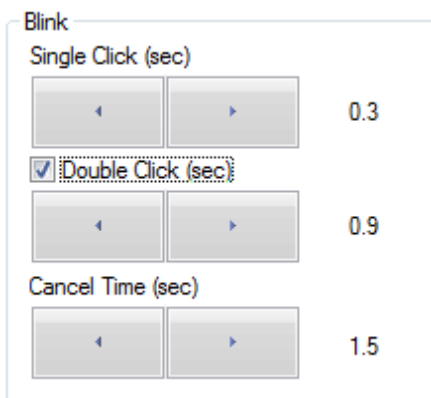
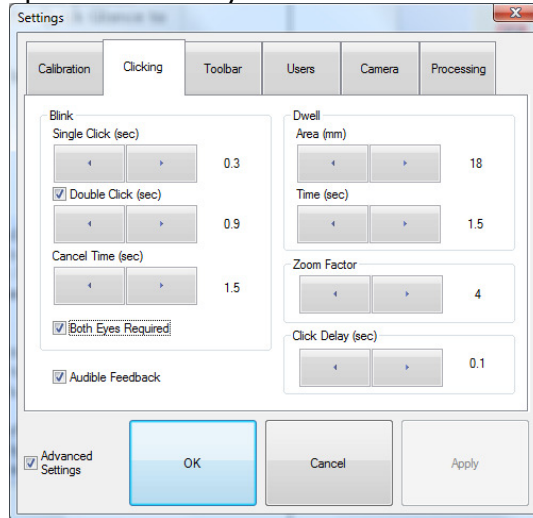
The **Calibration** tab is used to choose your desired calibration settings and initiate the calibration process.



<p>Target Time (sec)</p> 	<p>The Target Time is measured in seconds and is used to change the amount of time that each target will display while calibrating. The time can be increased by clicking the right arrow or decreased by clicking the left arrow</p>
	<p>The Point drop-down box is used to choose how many targets are used during the calibration. Using more targets increases calibration accuracy.</p>
<p>Current Scores</p> <p>Left: 8.4</p> <p>Right: 8.0</p>	<p>The Current Scores section displays scores based on the existing calibration for the left and right eyes.</p>
<p>View Full Size</p>	<p>The View Fullsize button will display the camera image in full-screen mode.</p>

6.2 Clicking Settings

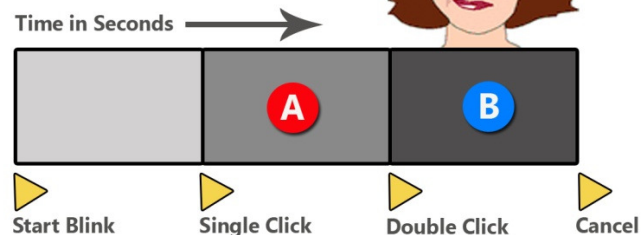
The **Clicking** tab displays options for how you control mouse click functions with your eyes.



The **Blink** section includes controls for adjusting the amount of time you need to close your eyes to perform a single or double click.

Clicking the right buttons will increase the amount of time and clicking the left buttons will decrease the amount of time.

Blink to Click!



A If eyes are opened within this time frame, then a single click will be performed.

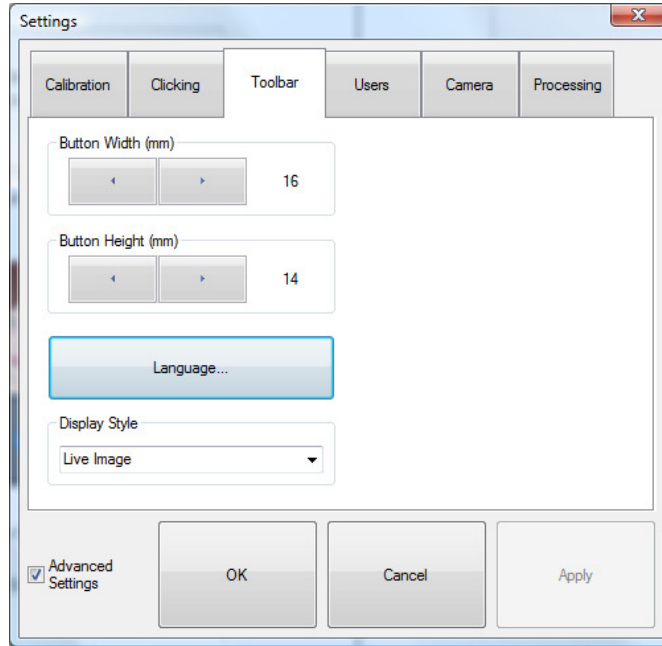
B If eyes are opened within this time frame, then a double click will be performed.

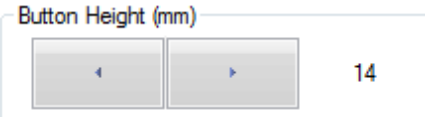
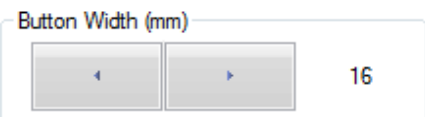
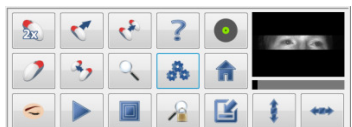
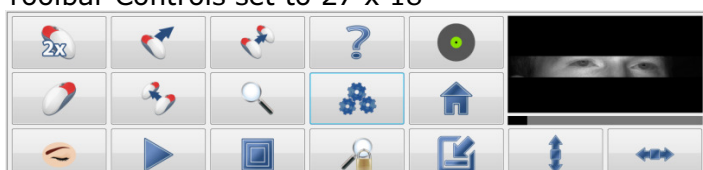
If eyes are opened before the single click time or after the cancel time then no click will be performed.

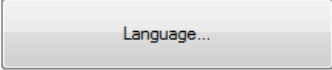
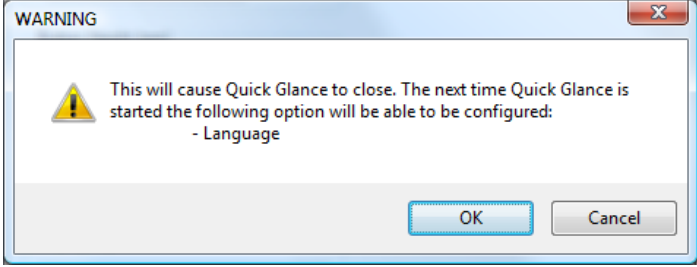
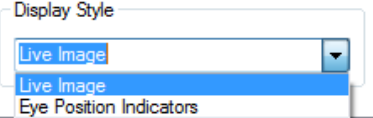

<p>Dwell</p> <p>Area (mm)</p> <p>18</p> <p>Time (sec)</p> <p>1.5</p>	<p>The Dwell section includes controls for how Quick Glance recognizes a dwell click.</p> <p>Clicking the right Area button will increase the size of the area within which your eyes must dwell on the screen for the system to recognize a desired click. Clicking the left button will decrease this area.</p> <p>Clicking the right Time button will increase the amount of time you must dwell within the defined area for the system to recognize a desired click. Clicking the left button will decrease the amount of time required.</p>
<p>Zoom Factor</p> <p>4</p>	<p>The Zoom Factor allows you to adjust the magnification power used when the zoom tool or the zoom lock tool are being used.</p>
<p><input checked="" type="checkbox"/> Both Eyes Required</p>	<p>Checking the Both Eyes Required box sets the software to recognize a click only when both eyes blink at the same time. Leaving this box unchecked will allow you to click with one or both eyes. Requiring both eyes can reduce the amount of false clicks.</p> <p>(Note that this setting appears only when the Advanced Settings box is checked.)</p>
<p><input checked="" type="checkbox"/> Audible Feedback</p>	<p>Checking the Audible Feedback box causes an audible clicking noise to be played through the computer speakers when either a blink or dwell click is performed.</p> <p>(Note that this setting appears only when the Advanced Settings box is checked.)</p>
<p>Click Delay (sec)</p> <p>0.1</p>	<p>The Click Delay is the amount of time between when a blink or dwell click is initiated and when Quick Glance actually performs the click. This is used mostly on older slower computers.</p> <p>(Note that this setting appears only when the Advanced Settings box is checked.)</p>

6.3 Toolbar Settings

The **Toolbar** tab displays options for how the **Eye Tools** window looks and operates.

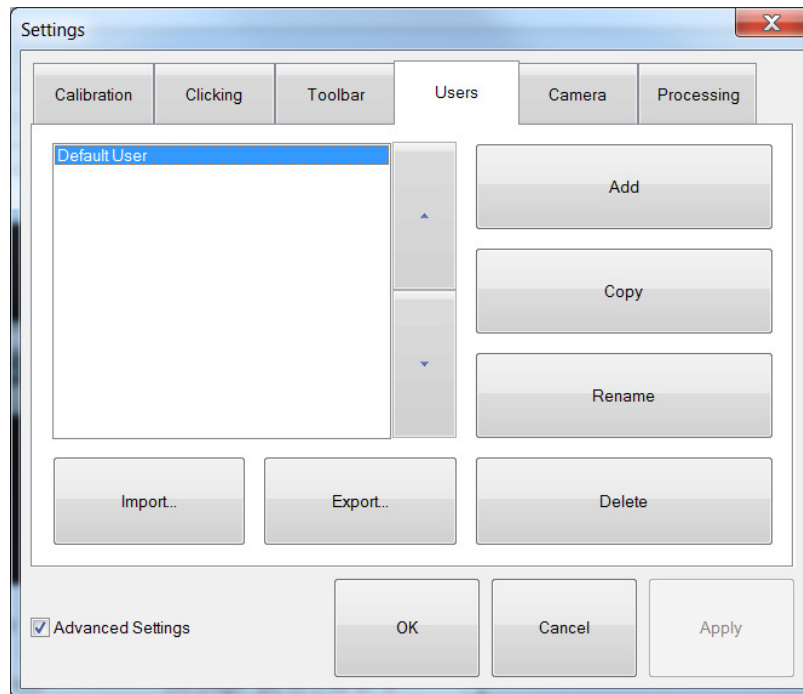


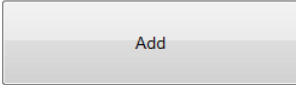
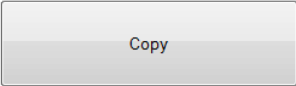
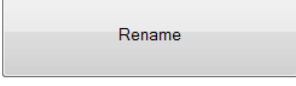
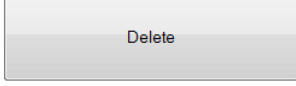

	<p>The Button Height controls are used to increase or decrease the height of the Eye Tools buttons. Click the right arrow button to increase the size, or the left arrow button to decrease the size.</p>
	<p>The Button Width controls are used to increase or decrease the width of the Eye Tools buttons. Click the right arrow button to increase the size, or the left arrow button to decrease the size.</p>
<p>This is an illustration of how you can customize the size of the Eye Tools buttons using the Toolbar controls:</p>	<p>Toolbar Controls set to 12 x 12</p>  <p>Toolbar Controls set to 27 x 18</p> 

	<p>Clicking the Language button will bring up the following dialog box:</p>  <p>If you choose "OK", Quick Glance will close and the next time it is opened you will be able to choose a different language.</p> <p>(Note that this setting appears only when the Advanced Settings box is checked.)</p>
	<p>In the Display Style section, you have the option of choosing to view a live image of your eyes or eye position indicators. The indicators represent the tracking of your eyes with two circles as shown below:</p>  <p>This setting only changes how the image is displayed in the Eye Tools window.</p> <p>(Note that this setting appears only when the Advanced Settings box is checked.)</p>

6.4 User Settings

The **Users** tab allows you to add, copy, rename, and delete users within Quick Glance. By adding additional users to the software, each person who uses Quick Glance will be able to keep their own preferences, settings, and calibration data.



	<p>Click the Add button and type in a name to add an additional user.</p>
	<p>Click the Copy button to create a new user by copying and existing user. NOTE: the calibration is not copied.</p>
	<p>Click the Rename button to change the name of the selected user.</p>
	<p>Click the Delete button to delete the selected user.</p>
	<p>For advanced users: the Import/Export buttons retrieve/save settings files from/to a user-specified directory. NOTE: This does not change the default location Quick Glance uses for storing user settings.</p>

Note for advanced users: User settings are read from three possible places. The first file that is read is **QGSettings_Default.txt**. Then, if there is one, the camera-specific default settings file is read and overrides the generic default settings. Finally, the user's settings file is read and overrides any settings from the default or camera specific file.

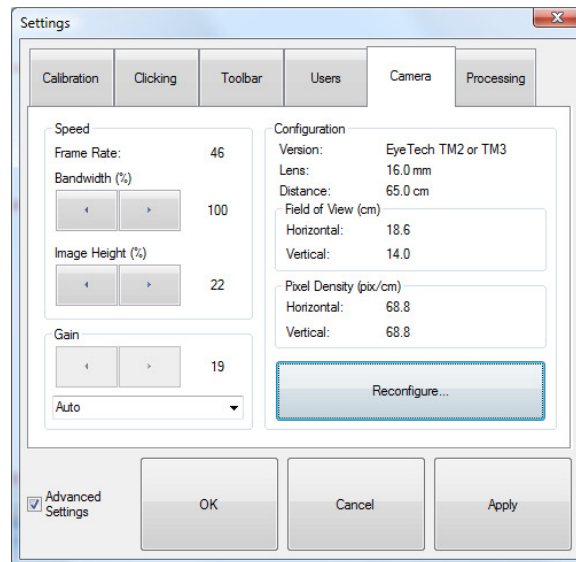
You can modify the settings files directly with a text editor. The files are located in
(Vista and 7) "C:\Users\ *Windows username* \AppData\Local\EyeTech\Quick Glance"
(XP) "C:\Documents and Settings*Windows username*\Local Settings\Application Data\EyeTech\Quick Glance"

If different general default settings are desired then modify **QGSettings_Default.txt**. If different default settings are desired for a specific camera type then modify the camera specific default file. To modify settings for a specific user then modify the specific user's file.

For more information read the documentation inside the file **QGSettings_Default.txt** that is located in the directory mentioned above.

6.5 Camera Settings

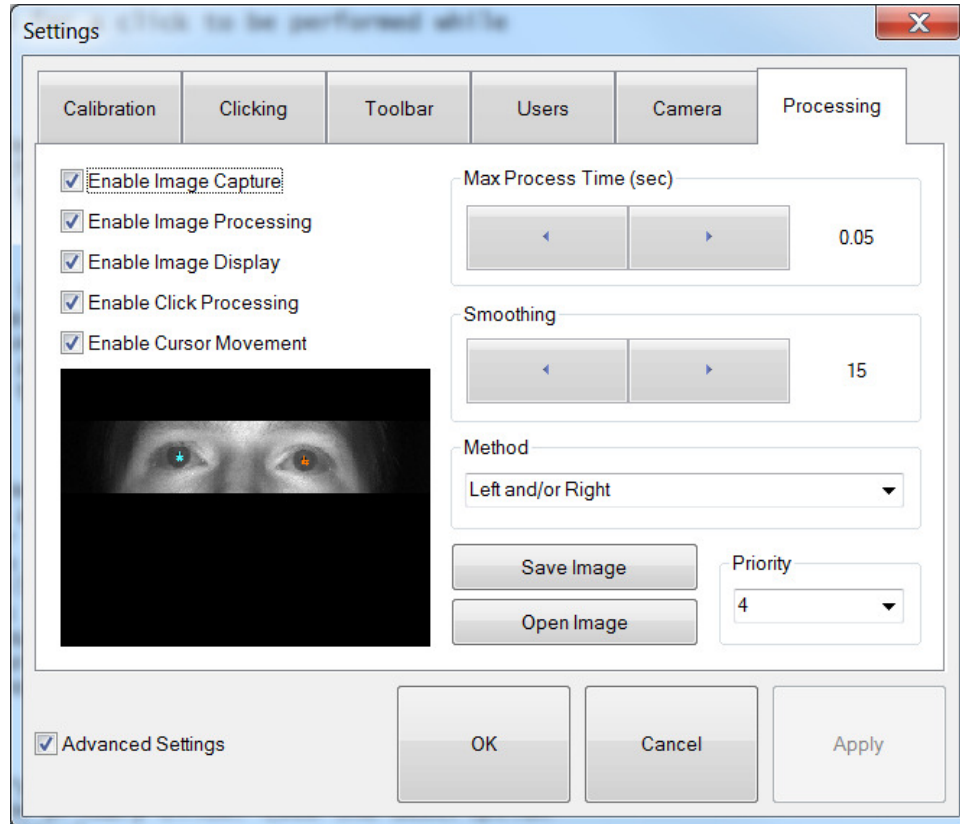
The **Camera** tab displays only when the **Advanced Settings** box is checked and is used to adjust a number of settings such as the speed, gain, and configuration of the camera.



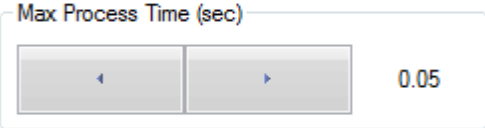
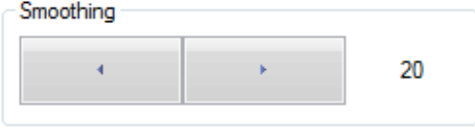
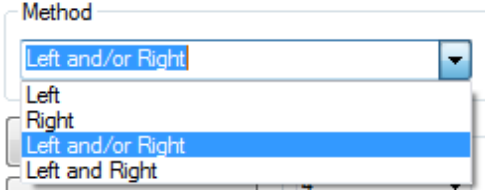
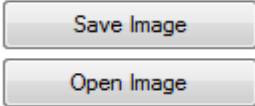
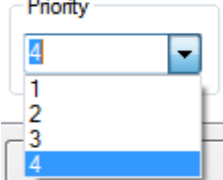
<p>Speed</p> <p>Frame Rate: 46</p> <p>Bandwidth (%)</p> <p>Image Height (%)</p>	<p>The Frame Rate is the measured frames per second with the current Bandwidth and Image Height settings.</p> <p>The Bandwidth is the percentage of communication bus bandwidth used by the camera. The larger this number is, the greater the Frame Rate will be.</p> <p>The Image Height is the percentage of the image height used for processing when the eyes are being tracked. The smaller this number is, the greater the Frame Rate will be.</p>
<p>Gain</p> <p>19</p> <p>Auto</p>	<p>Gain should normally be set to Auto. This will cause it to automatically adjust the camera for optimal image clarity. The Manual option allows you to manually set the camera gain threshold.</p>
<p>Configuration</p> <p>Version: EyeTech TM2 or TM3</p> <p>Lens: 16.0 mm</p> <p>Distance: 65.0 cm</p> <p>Field of View (cm)</p> <p>Horizontal: 18.6</p> <p>Vertical: 14.0</p> <p>Pixel Density (pix/cm)</p> <p>Horizontal: 68.8</p> <p>Vertical: 68.8</p>	<p>The Configuration section of the Camera Tab shows the settings set by the user upon initial startup of the software.</p>
<p>Reconfigure...</p>	<p>Clicking on the Reconfigure button will allow the user to change the configuration settings including the Lens Size and the Distance from the Camera to the Eyes.</p>

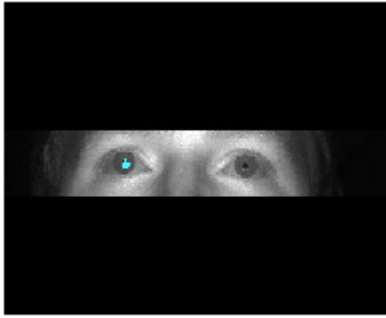
6.6 Processing Settings

The **Processing** tab displays only when the **Advanced Settings** box is checked and is used to adjust a number of settings related to how images are processed.



<input checked="" type="checkbox"/> Enable Image Capture	Un-checking the Enable Image Capture box will disable Quick Glance from acquiring images from the camera.
<input checked="" type="checkbox"/> Enable Image Processing	Un-checking the Enable Image Processing box will disable the processing of acquired images.
<input checked="" type="checkbox"/> Enable Image Display	Un-checking the Enable Image Display will prevent the image from being displayed throughout Quick Glance.
<input checked="" type="checkbox"/> Enable Click Processing	Un-checking the Enable Click Processing box will disable the ability to click with your eyes.
<input checked="" type="checkbox"/> Enable Cursor Movement	Un-checking the Enable Cursor Movement box will disable gaze-controlled cursor movement. If Enable Cursor Movement value is unchecked (false), then checking and un-checking the Enable Eye Control check box in the Quick Glance Startup Window will have no effect. The Enable Cursor Movement check box takes precedence over the Enable Eye Control check box.

	<p>This is the maximum amount of time in seconds the program process will use without giving up some of its time slice to other processes. This is mostly useful on slower machines where the eye tracker is a processing burden. On slower machines this value should be set lower.</p>
	<p>Adjusting the Smoothing will help if you experience “jumpiness” in the cursor as it tracks your eyes. Increase the smoothing by clicking on the right arrow, and decrease by clicking on the left arrow. The higher the number, the smoother the mouse pointer will follow your eyes.</p> <p>The effectiveness of this value is affected by the frame rate of the camera. Higher numbers produce less jitter, but also introduce more lag.</p>
	<p>The Method dropdown box allows you to adjust which eye(s) Quick Glance will track. You may select to track just one eye individually (either Left or Right) or choose the Left and/or Right option to set the system to track either eye simultaneously. The final option, Left and Right, lets you set the system to only track when it has both eyes in the image.</p> <p>These functions can be useful for users who have problems in one eye, or for research purposes where tracking both eyes is essential.</p>
	<p>The Save Image and Open Image buttons are made available for situations where the user needs to save or recall an image. It can also be useful for sending error images to us for troubleshooting purposes.</p>
	<p>The Priority dropdown menu provides the user with the ability to adjust the CPU Processing priority. The higher the number, the higher the priority the system will be placed in the CPU’s processing queue.</p>



View Fullsize

Click the **View Fullsize** button to see a full-screen view of the eye-tracking image. This is helpful when you need to check your positioning in relation to the camera to be sure that your eyes are properly placed.

7.0 Troubleshooting

Problem:	Try this:
<p><i>I have tried to calibrate Quick Glance, but I cannot get a low score.</i></p>	<p>It is likely that Quick Glance is not tracking your eyes properly in some parts of the screen. You will need another person to help you diagnose this problem.</p> <ul style="list-style-type: none"> • Click View Full Size to display the large image. • In succession, look at each corner of the screen while the other person is looking at the image of your eyes. • Verify that the three crosshairs are in their proper places on the pupil and on the two bright spots on each eye. • If Quick Glance is not tracking correctly, here are some things you can try. <ul style="list-style-type: none"> • Change the lens F-stop. • Eliminate extraneous sources of IR light. Sunlight or incandescent lights can be a problem especially if they are located behind the monitor or behind the user. Fluorescent lights are never a problem. • Cover both IR lights with your hands. If you see some bright reflections near the pupil, these may be caused by room lighting. • Adjust the monitor position (Forward, Backward, Up, Down)
<p><i>I am wearing glasses and have trouble getting Quick Glance to calibrate or track properly.</i></p>	<p>This may be due to bright reflections from the lights on the glasses, which are close enough to the pupil to confuse Quick Glance. Try tilting your glasses until the bright reflections move away from the pupil area.</p>
<p><i>I am wearing contact lenses while using Quick Glance and I am having trouble getting good accuracy.</i></p>	<p>Some contact lenses (especially hard lenses) cause the tracker to “drift” each time you blink because of the lens floating on your eye. Switching to glasses is the best solution, but periodically using the calibration update function will also help.</p>

<p>When I first start Quick Glance I do not see a live video image.</p>	<p>Check all connections and verify that the red LED light on the side or bottom of the camera is on. Open the lens aperture all the way. This means setting the F-stop to its lowest setting. For TM3 systems, this requires you to unscrew the lens to access the aperture.</p> <p>If there is still no video image then select:</p> <ul style="list-style-type: none"> • Start • Control Panel • Display • Settings • Advanced • Troubleshoot <p>Slide the Hardware Acceleration bar to the left a couple of notches, click OK, and then restart Quick Glance.</p>
<p>I have a good calibration score, but when I try to click using blink clicking, sometimes the click doesn't register or the cursor jumps erratically.</p>	<p>You will need another person to help you diagnose this problem.</p> <ul style="list-style-type: none"> • Return to the home screen so that you have the large image displayed. • Close your eyes and have your helper look for any crosshairs. If you see crosshairs in the image then Quick Glance is mistakenly thinking that your eye is open. • While keeping your eyes closed, try changing lens aperture (increase the F-stop) until the crosshairs disappear. Usually setting the F-stop to about 3 or 4 will fix this problem.
<p>The cursor is following my gaze, but it is constantly blinking.</p>	<p>This often happens if you are using one of the non-standard Windows cursors. Quick Glance will still work normally if your cursor is blinking, but if it is bothersome you may select:</p> <ul style="list-style-type: none"> • Start • Control Panel • Mouse • Pointers <p>Then change your cursor to the standard Windows cursor.</p>
<p>For other technical issues, contact our technical support team.</p>	<p>Phone: (480)704-3158 or Toll-Free 1-888-539-3832 E-mail: support@etmail.net Web: www.eyetechds.com (For additional contact information, see section 1.0)</p> <p>Please have your camera serial number and model (found on the back of the camera), and software version ready when contacting us for assistance.</p>