Additional Information

Micromedical VisualEyes™ 505 by Interacoustics

Interacoustics

D-0115531 – C – 2018/02

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1 Performing tests

1.1 Moving through VisualEyes™

VisualEyes™ 505 software suite is compatible with both touch capable (Figure 1.1.1) and standard (non-touch) computer systems. Maneuvering through the software can be done by touch, mouse, keyboard, foot pedal and remote control.

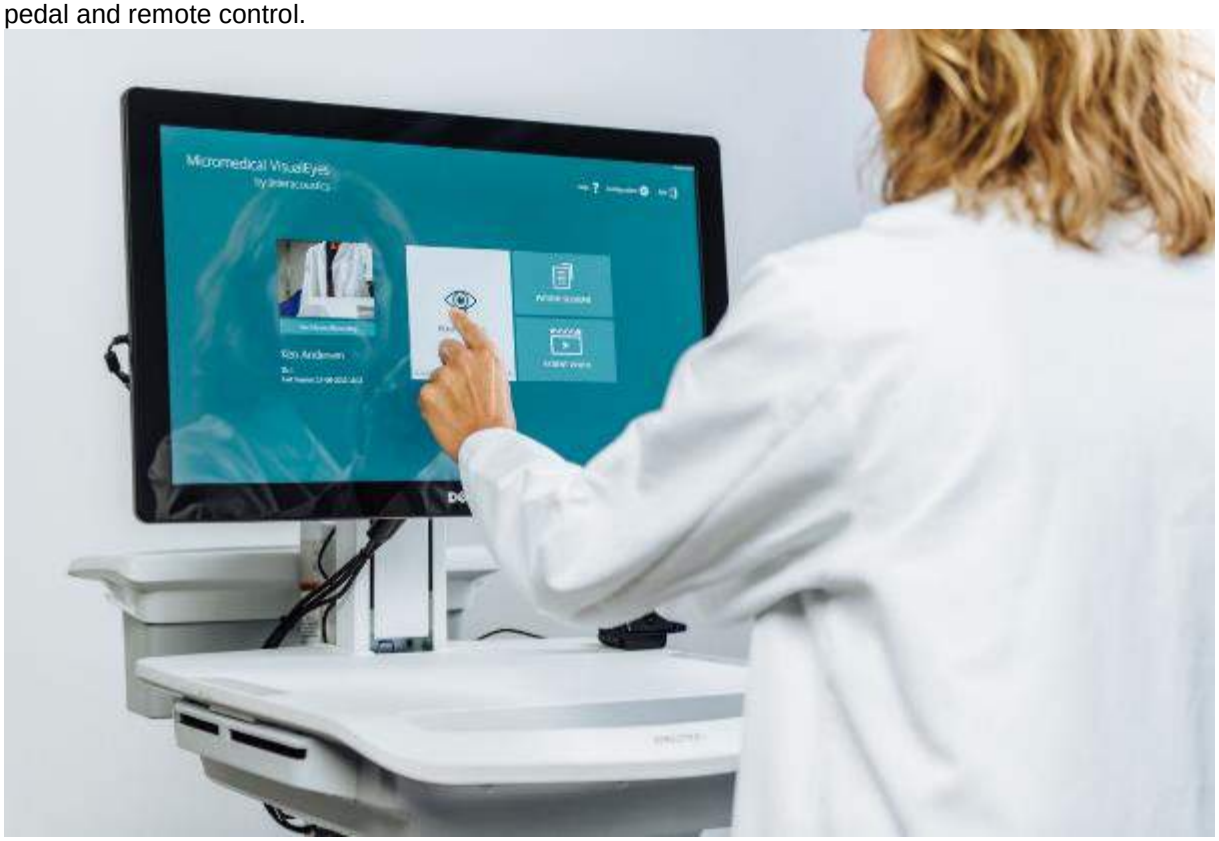


Figure 1.1.1 Touch user interface

1.2 Begin testing

To begin the testing process, from the main screen select the **Begin Testing** button (Figure 1.2.1). The software will enter the first test of the selected protocol. The protocol used can be changed by using the pull down box below the Begin Testing button. VisualEyes™ 505 systems use the default “VisualEyes™ 505” protocol preconfigured with three tests (Dix-Hallpike Left, Dix-Hallpike Right, and Headshake).

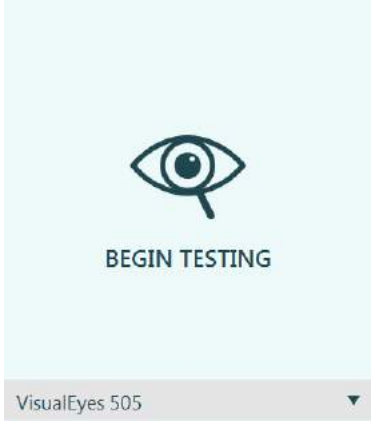


Figure 1.2.1 Begin Testing button with protocol selected

The software further allows creating and customizing other protocols as desired by the clinician and or need for a particular patient. The process of creating custom protocols can be found in Chapter 10 Protocols and Test Settings.

To return to the main screen during testing, click or touch the Home button. This will allow the user to access System Default Settings to change settings (e.g. switch the fixation light side), Protocol Manager for adding tests or change protocols from below the Begin Testing button.

Figure 1.2.2 Home button

1.3 Eye image adjustment

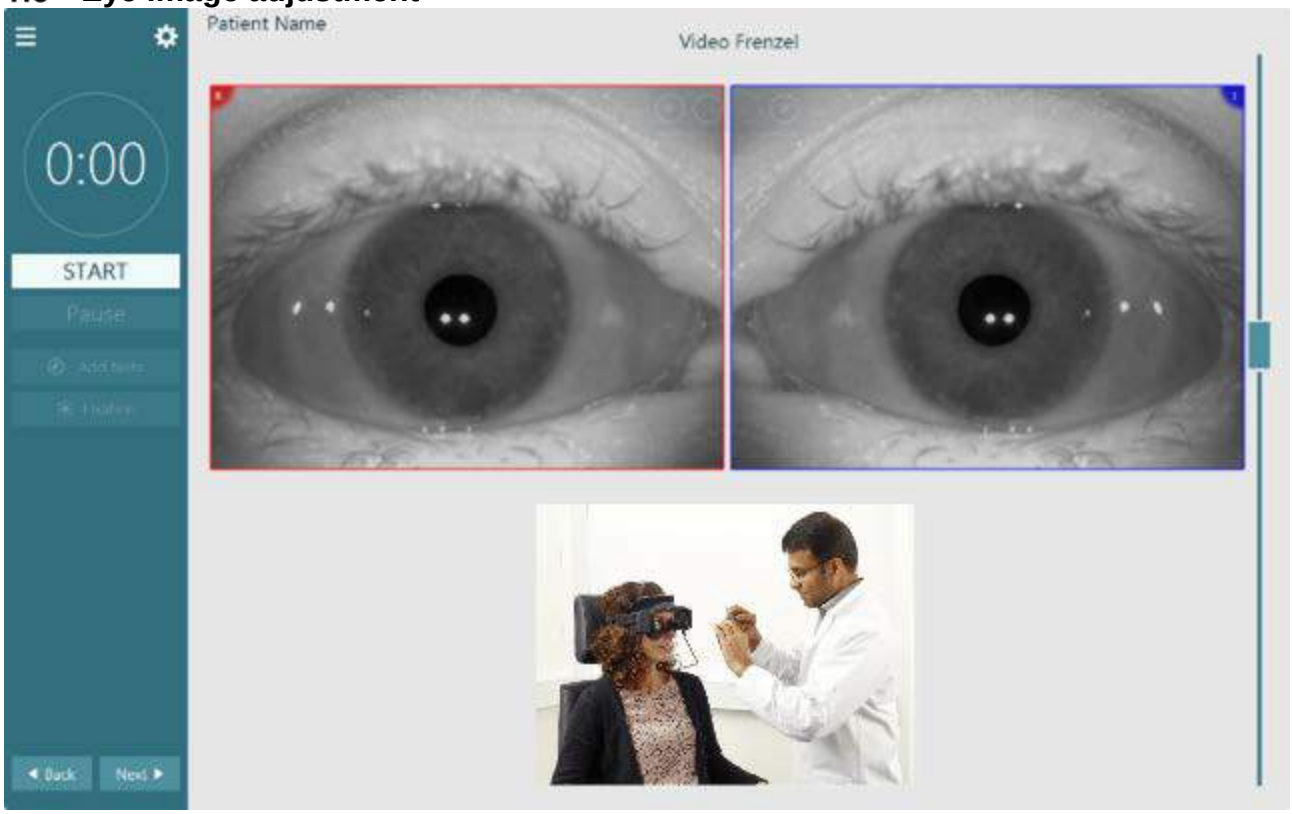


Figure 1.3.1 Test screen display (Video Frenzel)

To see the eye image, select **Begin Testing** from the main menu display. This will open the first test and the image of the patients eyes (Figure 1.3.1) will appear in the upper portion of the user display. Prior to beginning the testing procedure, it is desirable that the eye images are aligned (horizontally/vertically) so that the pupil is centered in the observed eye image.

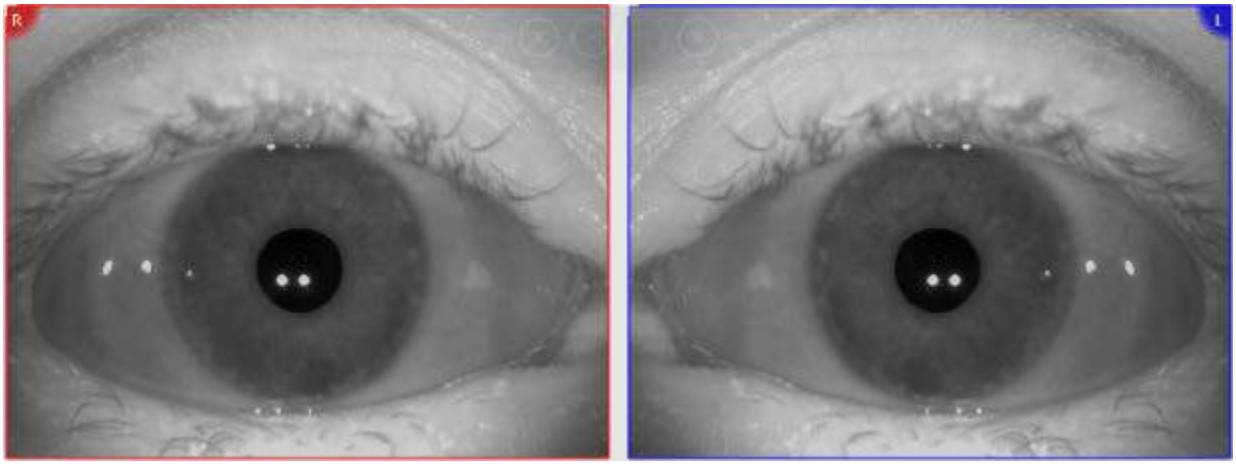


Figure 1.3.2 Image of eyes in the VisualEyes™ software

Looking at the display screen of the eyes, one should be able to see the inner canthus right eye in the right side of the image (red outlined eye image), and the eye corner of the left eye should be immediately next to it (blue outlined eye image). There are also letters in the top corners indicating L- Left and R- Right (Figure 1.3.2).

Prior to launching VisualEyes™ make sure that the cameras are connected. If the cameras are disconnected a warning message will appear:

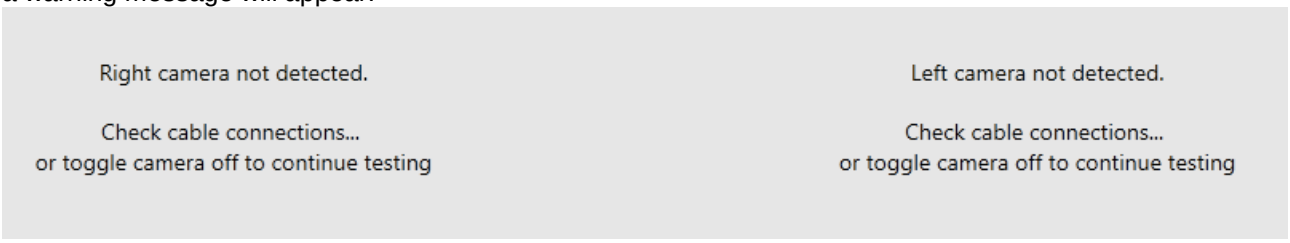


Figure 1.3.3 Disconnected camera/s warning

Should this appear for either camera, check to make sure that there is a firm connection between PC and hardware.

Side-Mounted Camera Goggles
Horizontal and vertical pupil position in the video image can be adjusted by moving the camera within the camera cabinet. To do so, use the knobs fixed to the side of the camera (side-mounted camera goggles) modules (Figure 1.3.4).

Figure 1.3.4 Adjustment knobs for side mount camera for regulating image and focus

1. The upper knob regulates the image in the vertical plane.
2. The left knob adjusts the image in the horizontal plane.
3. The center knob adjusts the focus of the image.

To adjust for small heads and narrow inner canthal spaces (e.g. with children), the mirrors can also be rotated. To do so, gently hold the mirror by its edges and turn it inwards (Figure 1.3.5).

Figure 1.3.5 Mirror adjustment for narrow inner canthal spaces (side mounted camera goggles)

Top-Mounted Camera Goggles

The top mount camera goggles eye image can be centered in the viewing area by clicking on or touching the centering button, which will appear in the top center of the image viewing area when touching the screen or hovering over with the mouse. Once this button is clicked or touched, the eye will be centered in the viewing area.

Figure 1.3.6 Center eyes button (top mount camera goggles)

Front-Mounted Camera Goggles

Position the front mounted camera unit on the viewport with the fixation light at the top center. Use the ball and socket mechanism on the camera unit to aim the camera and center the eye image approximately in the software. Next, with one hand on the back of the patient's head, push in gently on the camera to lock it in place. Lock the cable in the clip on top of the goggles.

Figure 1.3.7 Placement of Front Mount Camera in Goggles

1.4 Focus adjustment

VisualEyes™ 505 requires a focused eye image (Figure 1.4.1) to allow optimal recording of eye movements.

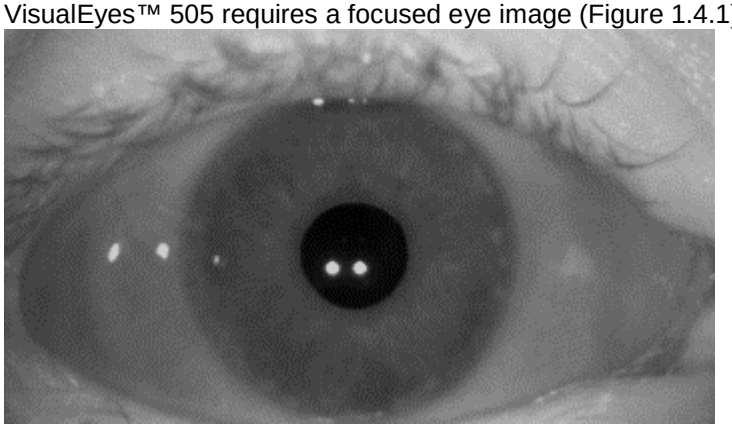


Figure 1.4.1 Focused eye image

The camera image can be focused by adjusting the focus knob on each camera (Figure 1.4.2). Each image must be adjusted separately. Turn the knob clockwise or counterclockwise while watching the image on the screen. Stop turning the knob when the image is clear and the eye appears to be in focus.

Figure 1.4.2 Adjustment control for focusing eye image on each camera

1.5 Eye image contrast adjustment

The VisualEyes™ 505 system automatically adjusts the threshold (contrast), in order to display an optimized eye image. Nevertheless, in some cases it might be necessary to adjust the threshold. In these cases, turn off the automatic threshold adjustment before starting recording or even during recording by clicking the threshold adjustment button (Figure 1.5.1). The button will be shown when the user touches the eye image or places the mouse over the eye images.

Figure 1.5.1 Threshold adjustment button

Scrollbars will appear for left and right eyes. Using these scrollbars, adjust the threshold for better contrast anytime it is required. This is done separately for the left and the right eye (Figure 1.5.2).

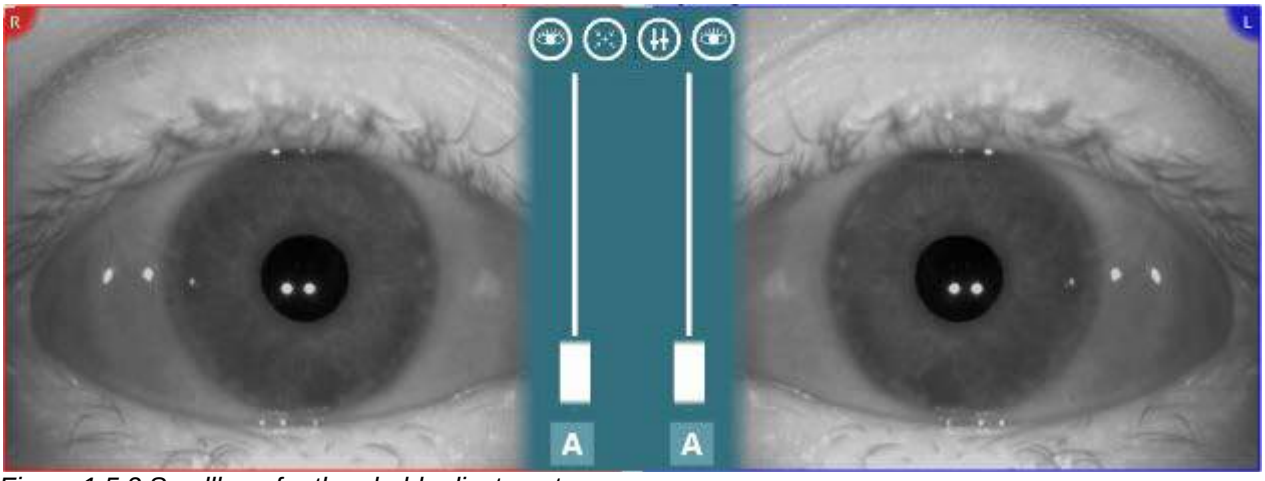


Figure 1.5.2 Scrollbars for threshold adjustment

To reset back to automatic threshold click the  icon below each slider.

1.6 Monocular eye recordings with binocular cameras

VisualEyes™ 505 system can record in either monocular (one camera) or binocular (two cameras) mode. Monocular mode may be beneficial for those occasions where you need to run a single eye test because one eye may be unable to be tested (i.e. artificial eye or severe ptosis). A specific eye can be selected by clicking on the desired right/left eye icon (Figure 1.6.1, Figure 1.6.2, Figure 1.6.3).

Figure 1.6.1 Eye selection menú

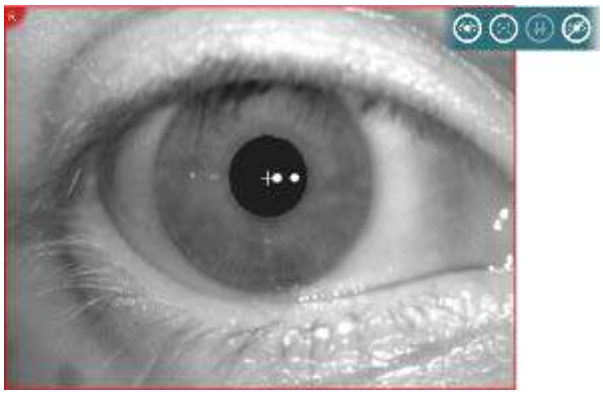


Figure 1.6.2 Right eye selected

Figure 1.6.3 Left eye selected

1.7 Switching eye recorded in monocular systems

VisualEyes™ 505 system can be configured as a monocular system using one camera with the side-mount camera goggles or using the front-mount camera goggles. While the VisualEyes™ 505 system will show the single camera as the left eye, either eye can be recorded.

Front-mount camera goggles require removing the USB cable from the cable clip on top of the goggles, then move the camera to the portal for the eye to record. Press the camera into the portal with the UP label shown on the top of the camera (Figure 1.7.1).

Figure 1.7.1 Front mount camera goggles with camera in right eye portal

Side-mount camera goggles require removing a hex screw using the included hex tool from the bottom of the camera housing. Remove both the camera module and the empty module, then switch the modules and reattach.

Figure 1.7.2 Side-mount camera goggles hex screw for attaching camera module

1.8 Session tree

To start testing click on **Begin Testing** from the main menu. This shall move you into the first test in the chosen protocol. Should you decide to move onto another test within the protocol you can select the test from the session tree using the menu icon: 

This will open the left side panel menu:

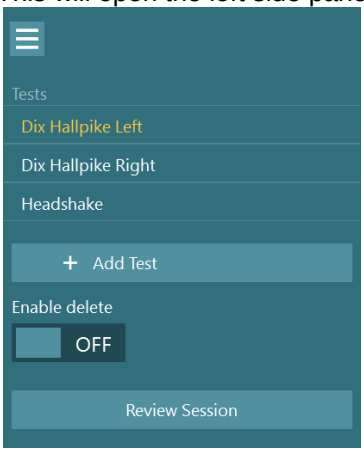


Figure 1.8.1 Session tree

The left side panel displays a session tree, which shows all tests included in the current protocol (Figure 1.8.1). The test listed in yellow is the active test, and tests that have been done are given a green checkmark. If the operator notices an unusual response in the test, the operator can toggle the green checkmark into a red diamond with green pencil by clicking or touching the green checkmark in the menu (Figure 1.8.2). Clicking or touching the test title will navigate to the desired test.

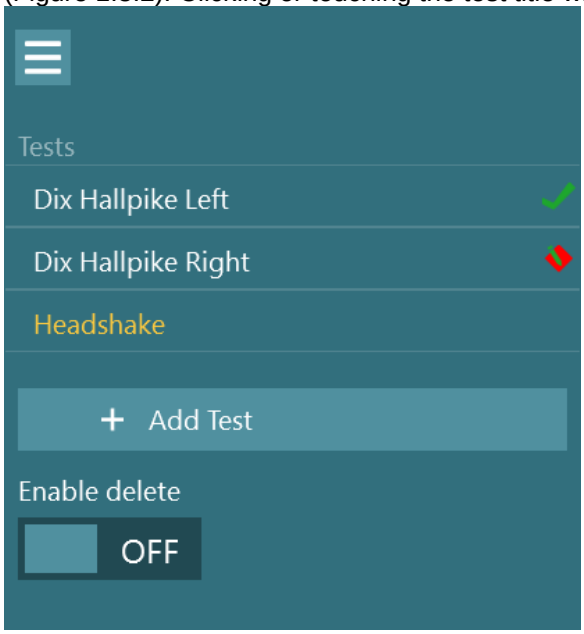


Figure 1.8.2 Session tree displaying tests completed

1.8.1 Add tests

This option allows additional tests to be inserted into the current patient testing session.

Clicking on the **Add Test** button will present a drop down list with available test options. (Figure 1.8.3). In the VisualEyes™ 505 system, this would be a Video Frenzel test.

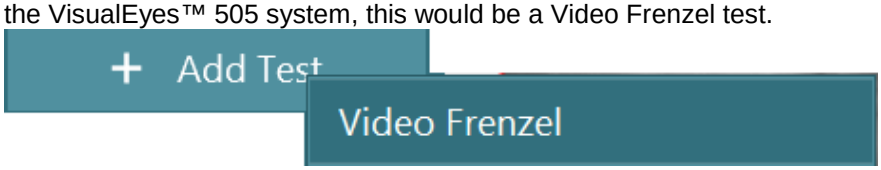


Figure 1.8.3 Selecting new test from the Add Test button

Once the test is selected, it is added to the bottom of the current patient's session tree.
Additional tests will appear in numerical order (Figure 1.8.4).

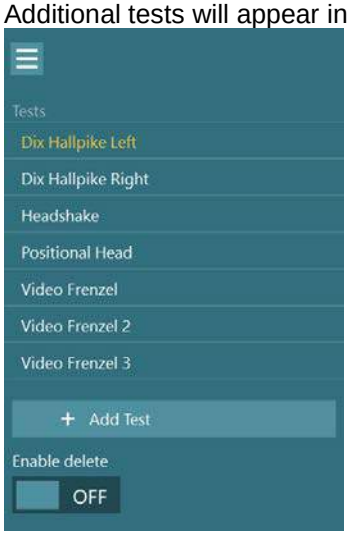


Figure 1.8.4 Session tree with added tests

1.8.2 Delete tests

This option will delete tests from the session tree. If a test has been performed, the software will require the user to confirm deleting the test and data. Activate the Enable delete option under the list of tests. The current test shown in yellow text cannot be deleted. Each of the remaining tests will show a delete symbol at the end of the test name. 

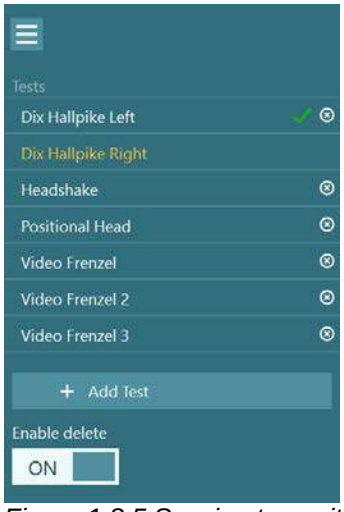


Figure 1.8.5 Session tree with tests available for deletion

1.9 General test display

VisualEyes™ 505 offers an easy way to visualize video eye and room recordings during testing and review. The general display shows the eye images in the top portion of the screen and directly below it the room recording (Figure 1.9.1). The eye images are presented in real time with room recording. The right eye can be viewed in the red box and the left eye can be viewed in the blue box. The room recording is displayed in the box below the eye cameras.

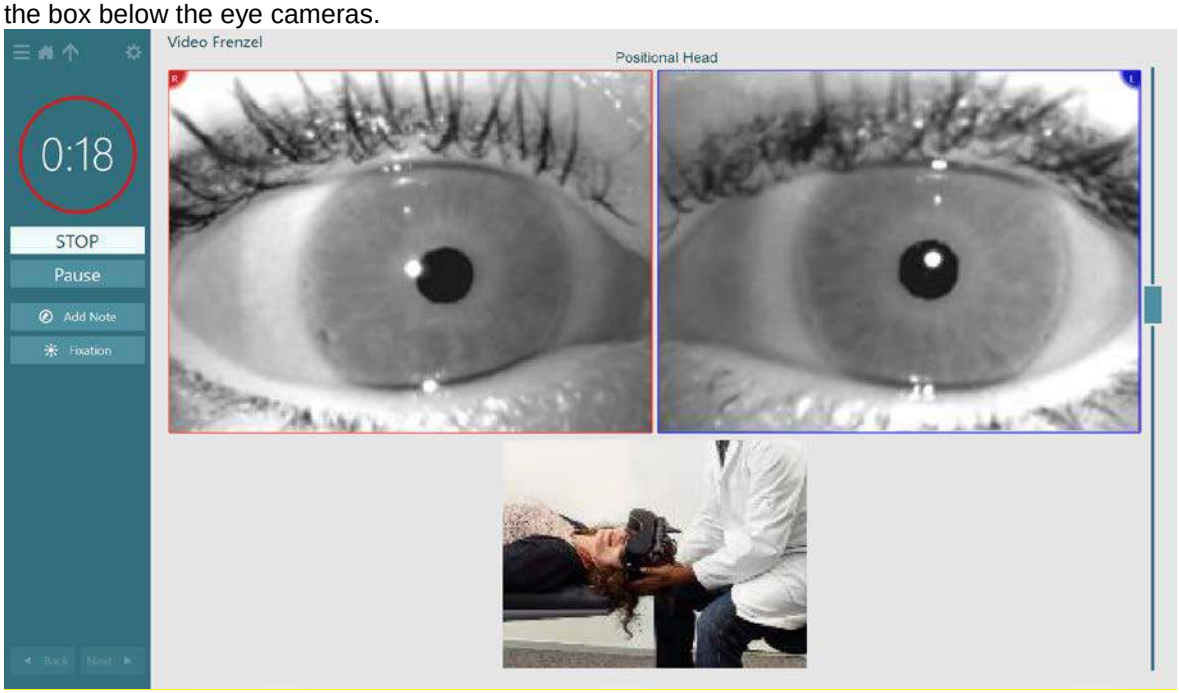


Figure 1.9.1 Example of general video Frenzel display

The test can be renamed if desired, such as for tests added directly to the session tree, by clicking or touching the test name at the top of the screen and entering a new name with the keyboard. When finished, press the Enter key on the keyboard or click outside of the text to complete the change.

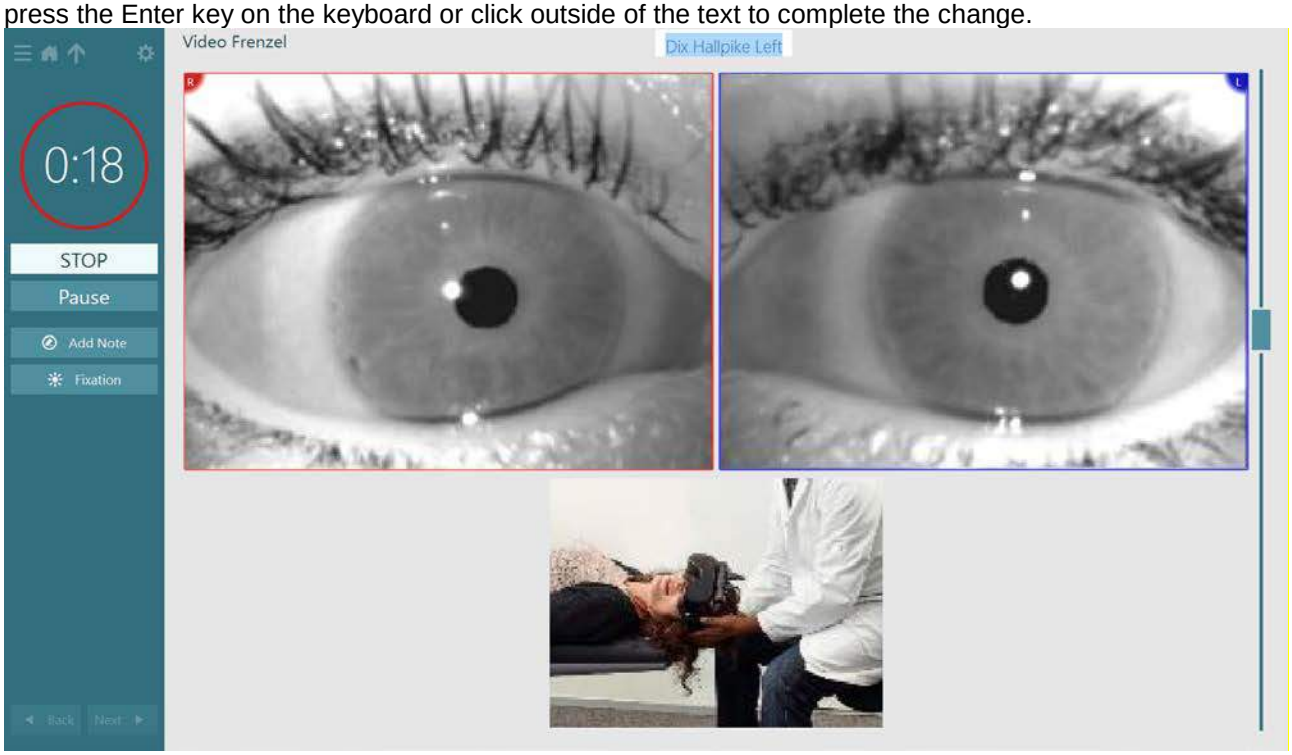


Figure 1.9.2 Changing test name dynamically

Adjustments can be made to the display proportions between eyes and room recording by moving the slider on the vertical scroll bar.

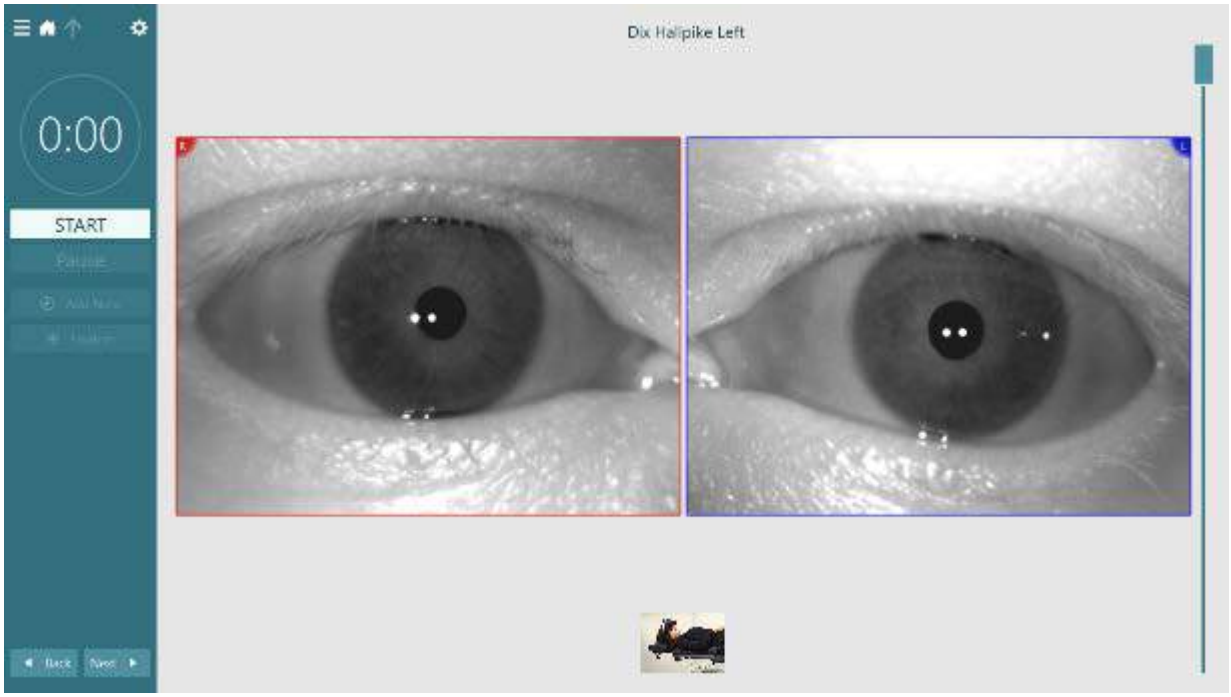


Figure 1.9.3 Eyes enlarged and room display reduced

Move slider upwards to shrink the room recording window and enlarge the eye display (Figure 1.9.3).

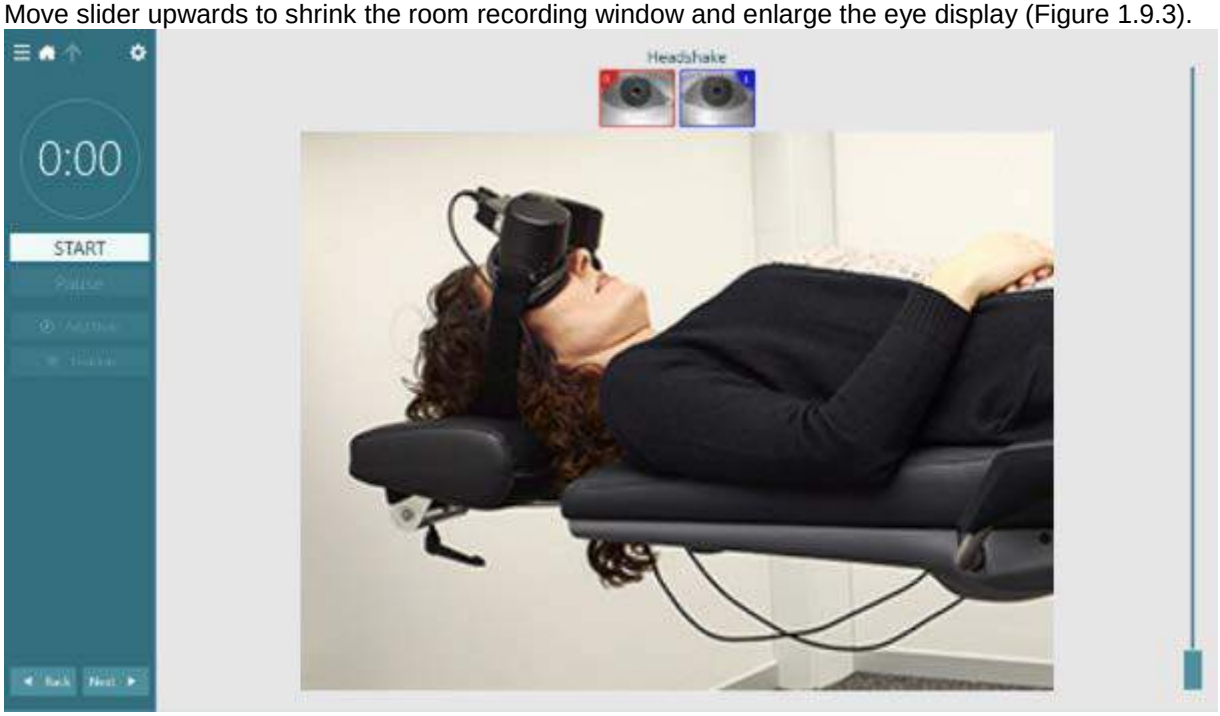


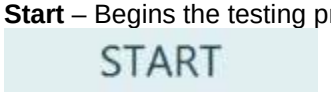
Figure 1.9.4 Eyes reduced and room display enlarged

Move slider downwards to enlarge room recording display and shrink the eye display (Figure 1.9.4).

1.10 Perform video Frenzel Test

There are a number of functions commonly used in Video Frenzel testing:

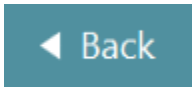
Start – Begins the testing procedure (eye and/ or room video recordings).



Stop – Stops the testing procedure (eye and/ or room video recordings).

Next – Moves onto next test/subtest in the protocol.

Back – Moves back one test/subtest in the protocol.



Timer

During testing the timer (Figure 1.10.1) will flash red and display how much time has elapsed.

Figure 1.10.1 Timer

Audible tones and voice prompts can be setup to indicate time intervals (default 10 seconds). These subtle nuances will ding and or vocally indicate time elapsed (in English). This provides the examiner an easy way to know where they are in the test. These settings can be changed in System Default Settings. For more information, see Chapter 11.4 Timer settings.

Pause – Suspends the testing procedure. Timer displays a pause symbol (Figure 1.10.2).

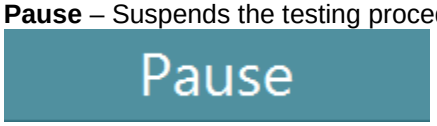


Figure 1.10.2 Timer Paused

Resume - Allows the user to resume the testing procedure and continue form the place the clinician left off.

NOTICE
The duration between pausing and resuming the test is not factored into the time value. The timer resumes where it left off at the pause.

1.11 Fixation suppression

There may be times in certain tests where a fixation light is presented to the patient to differentiate peripheral from central abnormalities.

The fixation light can be turned on manually (Figure 1.11.1) by the examiner by pressing the 'Fixation' button or by using the remote control.

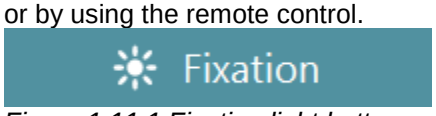


Figure 1.11.1 Fixation light button

The fixation light can also be set to be displayed in either left or right eye (default is left eye). This allows the examiner to select the better eye for fixation, particularly in those patients with visual impairments. This setting can be changed from the System Default Settings screen, see Chapter 11.2 Hardware.

A yellow bar appears in the timeline when reviewing the test to mark the duration of the fixation light (Figure 1.11.2). The length of the bar determines the length of time the fixation light was active.

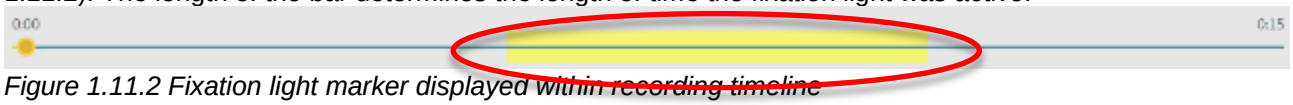


Figure 1.11.2 Fixation light marker displayed within recording timeline

1.12 Add note

Figure 1.12.1 Add Note button

You can insert a note at a specific point in the time line, during or after testing by selecting **Add Note** (Figure 1.12.1). This can also be used as an event marker, to identify a unique event within the recording.

The time at which the note is inserted is shown with the symbol: 

A text box will appear where notes may be inserted. The text for note taking is not character limited.
The note will be uncovered when hovering over or clicking on the symbol. A Delete button will appear under the note, click or touch this button to remove the note (Figure 1.12.2).

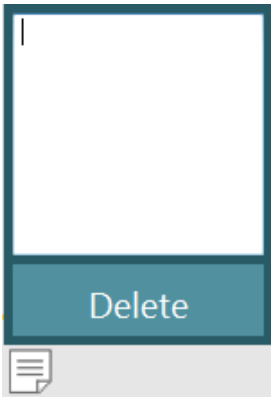


Figure 1.12.2 Note displayed with Delete option available

1.13 Test review

Once the operator has ended the test, the software will allow the operator to review the patient's response during the test. The test review screen contains the playback menu, timeline, eye and room video recordings.

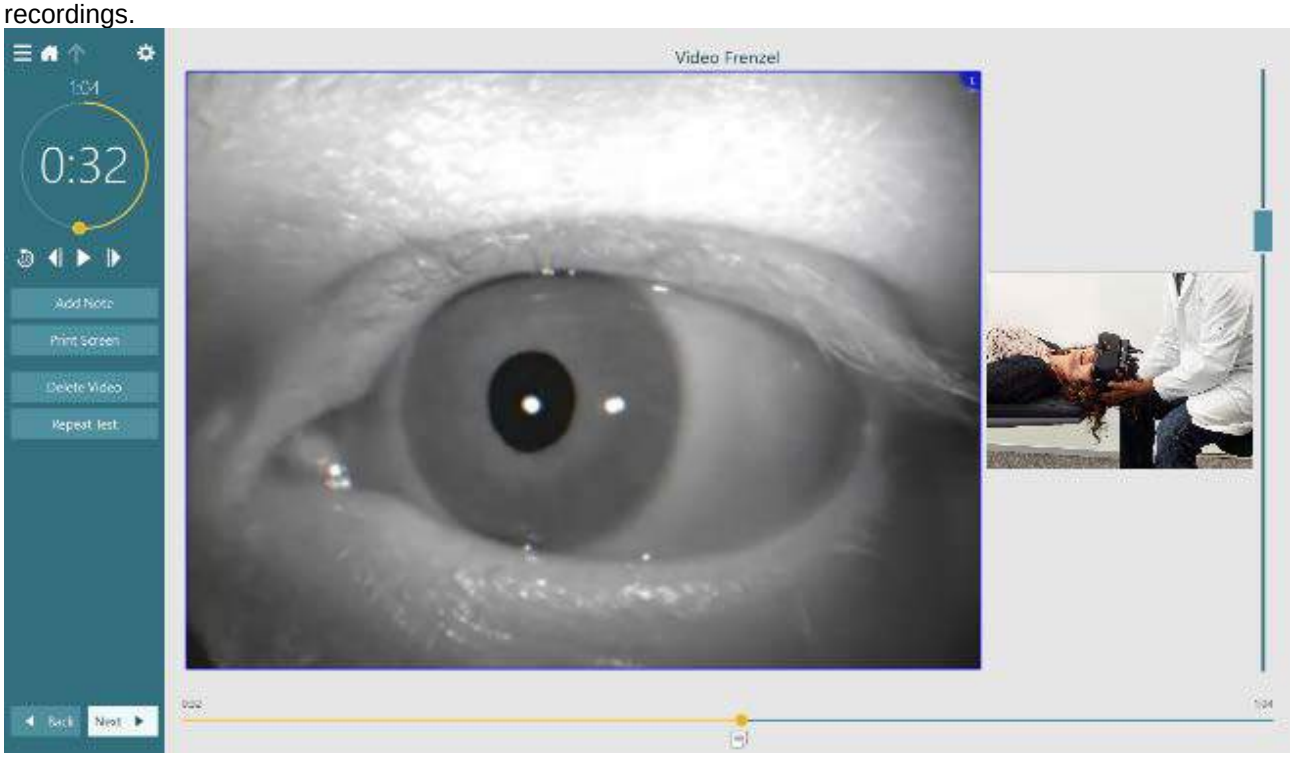


Figure 1.13.1 Test Review screen

The eye videos and room camera video are played synchronously from the Test Review screen. The playback will begin by clicking on the play button in the playback menu. As the test plays back, a yellow circle will show the current position of the video on both the timeline and the playback timer. This circle can be grabbed or dragged with the mouse to jump to a new location in the video playback. The size slider is available during the test review, allowing the user to make the eyes or the room camera video larger dynamically to focus on the selected video during playback.

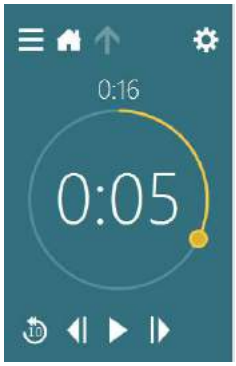


Figure 1.13.2 Video playback timer and menu

Go to previous frame (hold to play backwards in slow motion).

Play/pause.

Go to next frame (hold to play forwards in slow motion).

Go back 10 secs in video playback.

1.14 Repeating tests

A test can be repeated or replaced. After the test is completed, the user can click on the Repeat Test button. The software will ask if the test should be overwritten or a new test instance should be created to repeat the test. If the test is overwritten, the name will remain the same. If the test is repeated, then the name will have a number at the end of the test signifying the repeated status (e.g. Dix-Hallpike 2).

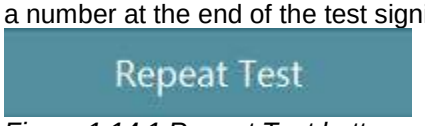


Figure 1.14.1 Repeat Test button

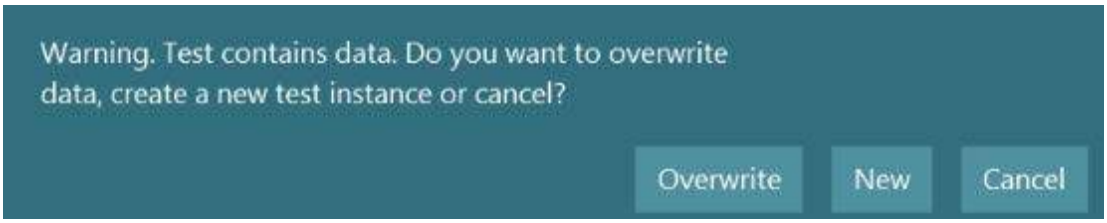


Figure 1.14.2 Overwrite or Repeat Confirmation Prompt.

2 Patient sessions

2.1 Selecting a session

VisualEyes™ 505 software easily allows review of current and or previous sessions for the selected patient. Select the Patient sessions button from the main screen to access these sessions (Figure 2.1.1).

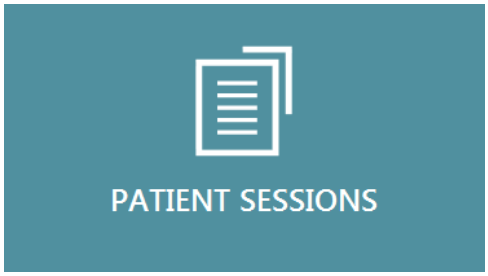


Figure 2.1.1 Patient Sessions button

The Patient Sessions screen lists all of the patient sessions created in VisualEyes™ 505. Each visit is listed by the date and time when the session was created. Selecting this option will allow review and print of previous individual tests based on test type and date the test was completed. Session dates are displayed in the side menu (Figure 2.1.2). Selection of a specific session date will display the tests performed on that day. Clicking on the test title will load the test review screen for that test.

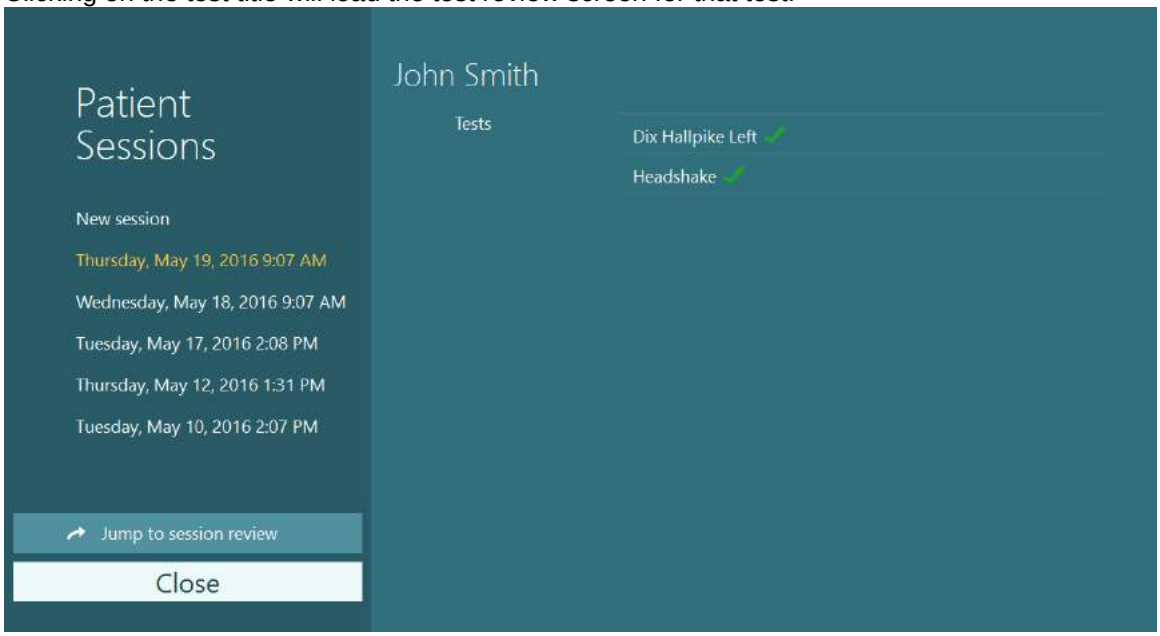


Figure 2.1.2 Patient Sessions Screen

2.2 Reviewing the session

After selecting the patient session from the listing, click on the Jump to session review button to go to the Session Review screen.

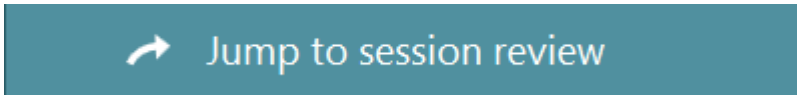


Figure 2.2.1 Jump to session review button

In the current patient's session, the Session Review can be accessed from the Review Session button.

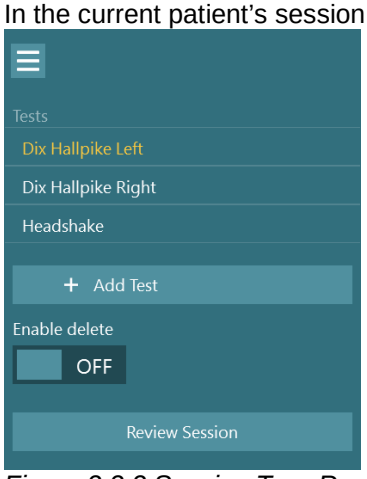


Figure 2.2.2 Session Tree Review menu with Review Session button

Review Session will list the tests within the protocol that have been or are yet to be completed (Figure 2.2.3). A green checkmark will be present next to completed test names.

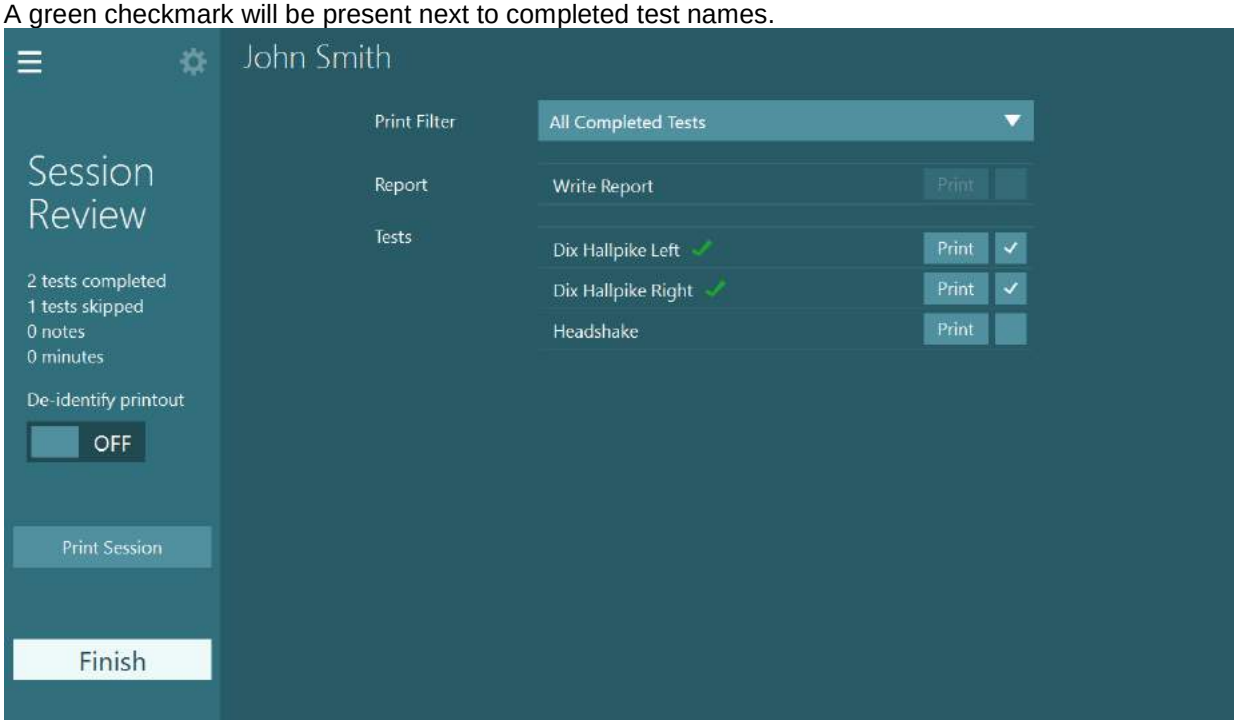


Figure 2.2.3 Session Review screen shows complete and incomplete tests

Selecting a specific test will take you to the results for further analysis.

It is also in the **Session Review** area that the session and or individual tests can be printed (for more information see Chapter 5 Printing).

3 Patient videos

3.1 Patient videos

In addition to reviewing the room camera and eye videos from the test review screen, the videos can be accessed separately from the Patient Videos screen. The Patient Videos screen is accessed by clicking on the Patient Videos button from the main screen.

The video file of interest will be launched in a compatible video player. This option will not display the VisualEyes™ 505 playback interface. It will not permit videos to be played synchronously nor features such as timeline or notes to be displayed.

Figure 3.1.1 Patient Videos button

The patient videos are shown for this patient for all sessions. The videos are categorized by date and test namea (Figure 3.1.2).

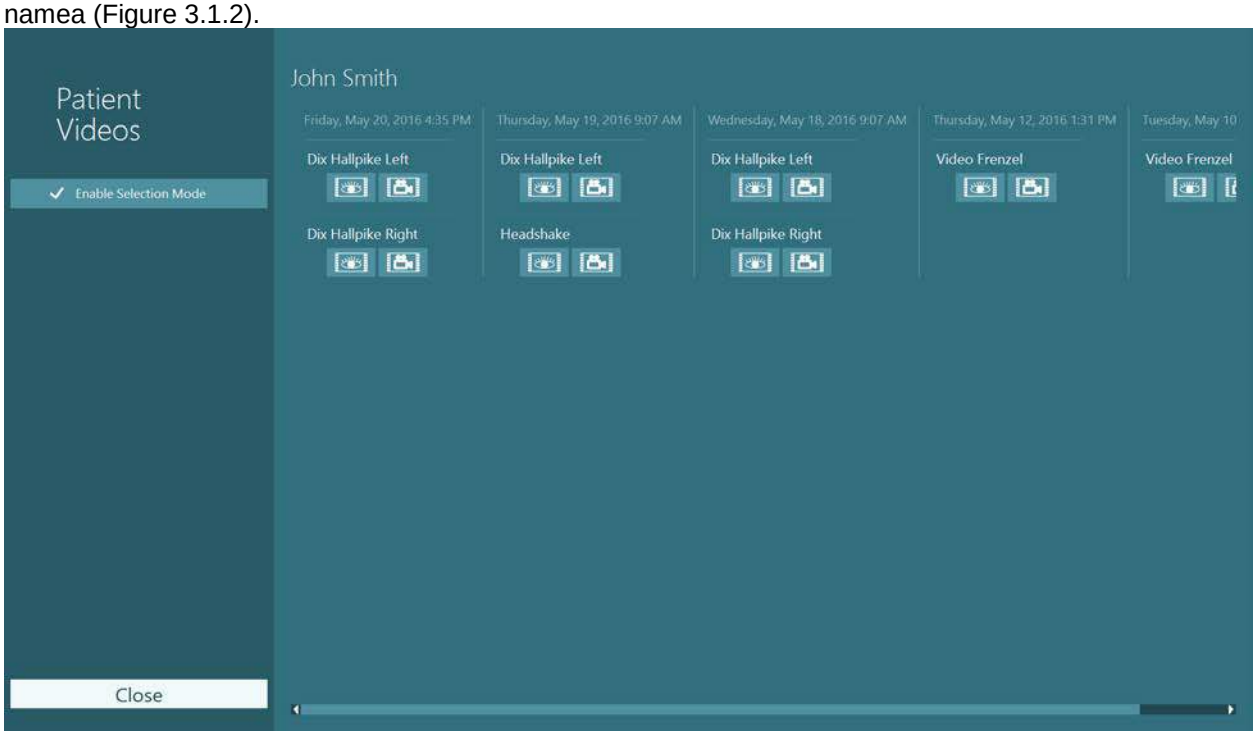
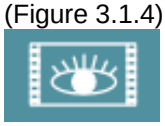


Figure 3.1.2 Patient Videos displayed by session date and test name

To playback the video click on the video file of interest. It will be launched in a compatible video player (Figure 3.1.4).

 Video of eye recordings.

 Video of room recording.

Figure 3.1.3 Icons to select video of eye and or room recordings

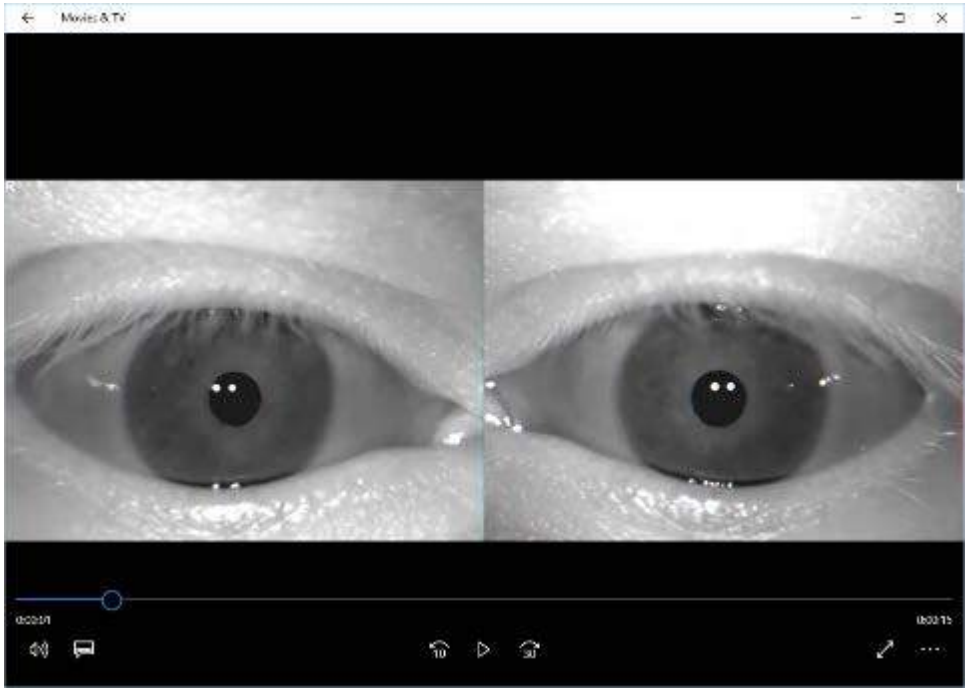


Figure 3.1.4 Video playback within a compatible video player (Movies & TV in this example)

3.2 Delete selected patient videos

Touch or click on the Enable Selection Mode button to activate video selection mode. When the video selection mode is active, multiple videos can be selected. When the selection mode is inactive, clicking or touching the video will play the video.

Figure 3.2.1 Enable Selection Mode button

Touch or click the videos of interest for removal. You can delete both room and eye recordings.
The files will highlight yellow to indicate that these are the chosen files for removal.

Figure 3.2.2 Highlighted selected videos

Select the **Delete Selected Videos** button.

Figure 3.2.3 Delete Selected Videos button

VisualEyes™ 505 will ask to confirm the deletion.

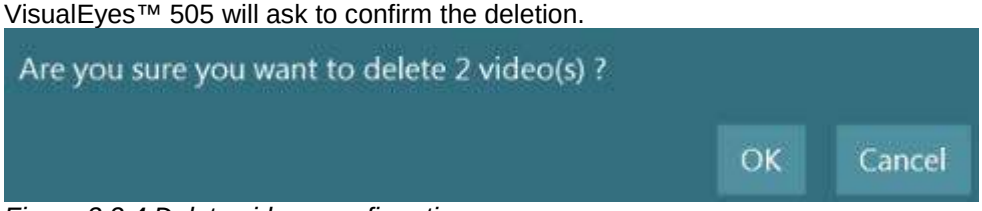


Figure 3.2.4 Delete videos confirmation message

NOTICE
The action to delete the videos cannot be undone. Use this feature with care.

3.3 Exporting patient videos

VisualEyes™ can export videos to another directory or onto an external device. This option is useful should the clinician like to use the recorded video material for teaching purposes or for confirmation of results.

Touch or click on the Enable Selection Mode button to activate video selection mode. When the video selection mode is active, multiple videos can be selected. When the selection mode is inactive, clicking or touching the video will play the video.

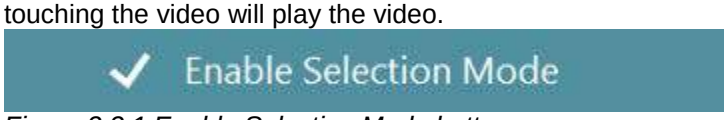


Figure 3.3.1 Enable Selection Mode button

Touch or click the videos of interest for removal. You can delete both room and eye recordings. The files will highlight yellow to indicate that these are the chosen files for export.

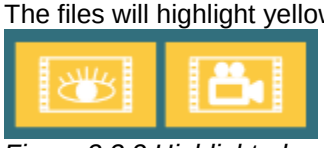


Figure 3.3.2 Highlighted selected videos

Select the **Export Selected Videos** button.

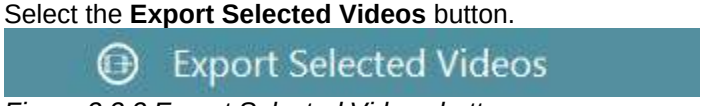


Figure 3.3.3 Export Selected Videos button

The Export Video Files dialog will be displayed. Select the destination directory for exporting the files of interest (Figure 3.3.4). By default the eye and room recordings will be merged together (if both the eye and room recordings are selected) to make it easier to use in presentations. Uncheck the option Combine eye and room videos to export the videos without merging.

Figure 3.3.4 Export Video Files dialog

The export results are shown below the destination folder box. If there are any errors, they will be displayed here as well.

Figure 3.3.5 Exported eye and room recording as a merged video

4 Patient report

4.1 Report editor

A report can be created in the report editor within the VisualEyes™ 505 software. This is a word processor that saves the created document in the patient review sessions for later viewing. The report editor can be accessed from the session review screen by selecting 'Write report' listing (Figure 4.1.1).

Figure 4.1.1 Session Review screen with Write Report circled

Figure 4.1.2 Report Editor

4.2 Text styles

The report can be written as per a normal word processor. There are options within the side menu in the report editor to change the font, size and alignment of the text as well as the font weight of bold, italics, and underline (Figure 4.1.2).

4.3 Templates

The templates section gives the operator an option to customize the patient report using patient information keywords and findings templates. From the Templates selection, choose the predefined template to use in the report. Using a predefined template will erase the currently written report and replace it with the template. Use the Manage Templates item from the Templates selection box on the Report Editor screen (Figure 4.3.1) to enter the Template Editor (Figure 4.3.2).

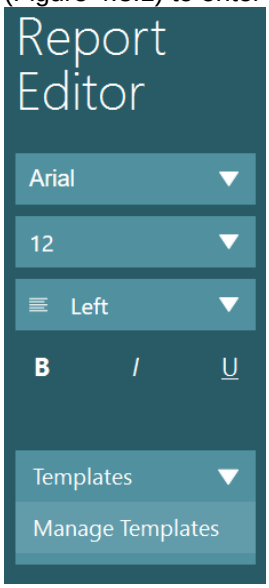


Figure 4.3.1 Manage Templates to access Template Editor

Figure 4.3.2 Template Editor

With a new installation of VisualEyes™ 505, there are no predefined templates included. Click on the New template button to create a report template.

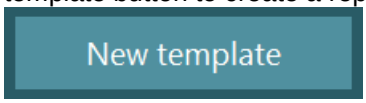


Figure 4.3.3 New template button

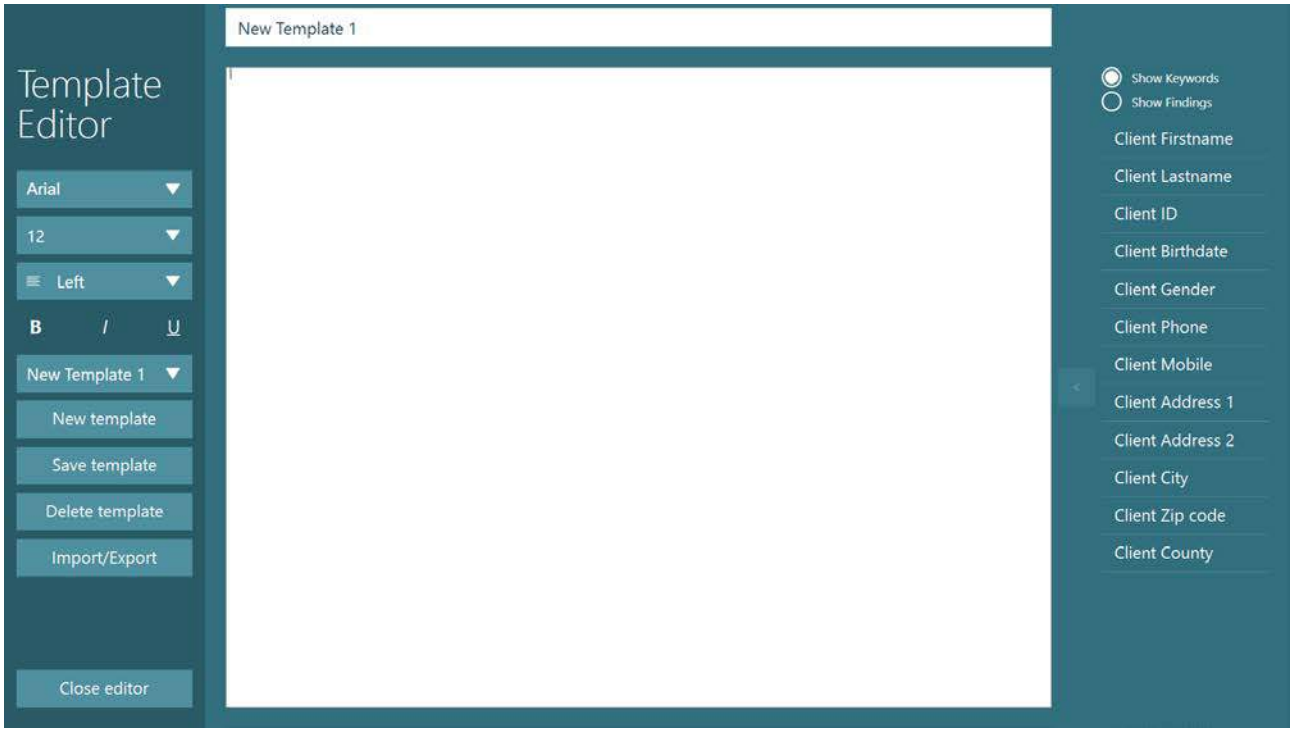


Figure 4.3.4 Template Editor with a new template

By default the name of the template will be New Template 1. This name can be changed at the top of the screen. The report template is then populated with text and can have both keywords and findings added to the template. Select the position in the template report to add the keyword, then select the keyword on the right side of the screen. Click on the add keyword button to add the keyword to the template text. The keyword will be shown with double arrows around the keyword text, e.g. <<Client_FirstName>>. To add a specific finding, click on the Show Findings option in the upper right, then select the appropriate finding from the list and add it with the add finding button.

Figure 4.3.5 Add Keyword or Finding button

Once the template text has been written, click or touch on the Save template button.

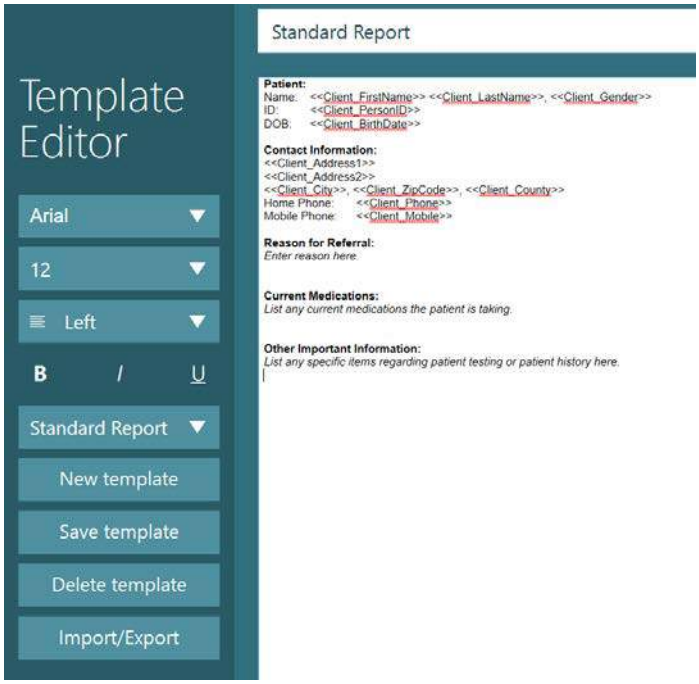


Figure 4.3.6 Template Editor with example template

Report templates can be imported or exported to template files using the Import/Export button. A dialog will be shown for selecting a report template to import or choose a location to export the current report template.

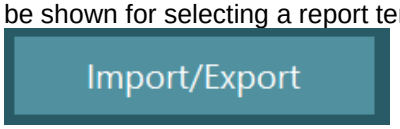


Figure 4.3.7 Import/Export button

Click or touch the Close editor button exit the Template Editor screen and return to the Report Editor screen.

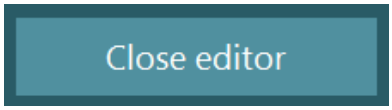


Figure 4.3.8 Close editor button

On the Report Editor screen, use the Templates selection box and select the template that was created. VisualEyes™ 505 will ask to replace the report with selected report template.

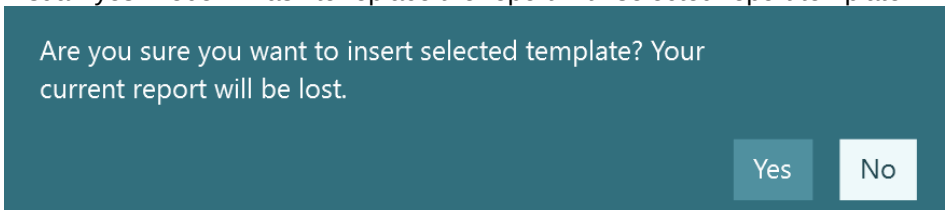


Figure 4.3.9 Confirm using selected template message

When the report template is applied, the keywords will be filled with the information from the patient demographics entered into OtoAccess. Fields that are not filled will be blank in the report.

Figure 4.3.10 Report Editor with example patient using example template

4.4 Findings

Findings are predefined templates for patient testing results. They are used for quickly adding a comment of the patient's test result into the patient report. To use one of the findings in the report, move the cursor to the location in the report to insert the finding, then select the finding from the Findings selection menu.

To add a new finding to the list of findings, choose Manage Findings from the Findings menu. This will launch the Findings Editor screen.

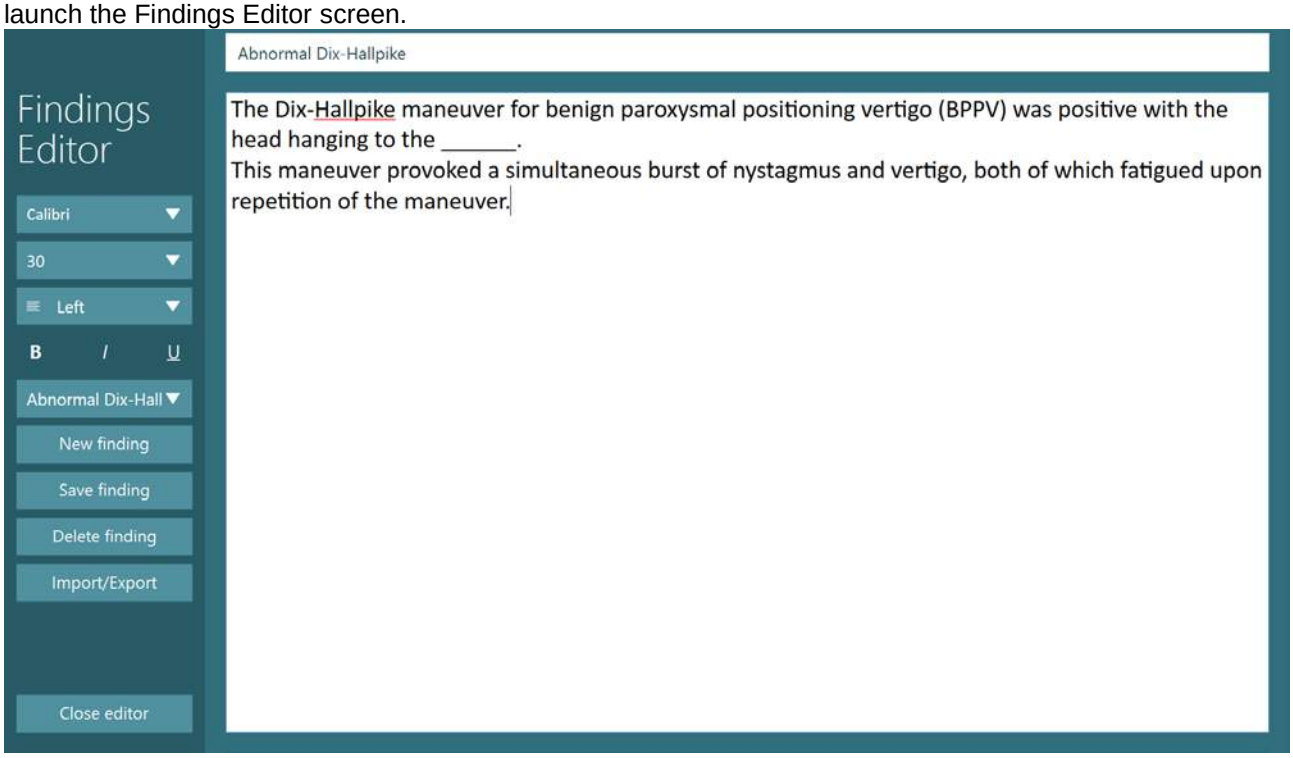


Figure 4.4.1 Findings Editor with Abnormal Dix-Hallpike listed

To create a new finding, click on New finding. A new finding called New Finding 1 will be displayed. Enter the text for the finding. The font name, size, and other style attributes will be kept with the text and will be displayed as such when added to the report. Click on the Save finding button when finished, then click on the Close editor button to return to the Report Editor screen.

4.5 Save report

Once a report is complete, select the Close editor button and this shall save the report with the patient's current session.

Figure 4.5.1 Session saved confirmation

5 Printing

5.1 Printing results

VisualEyes™ 505 gives the option to print a single test or a number of tests from a session.
A written report and individual tests can be printed out from the Session Review screen (Figure 5.1.1).

Figure 5.1.1 Session Review and printing options

The Print Filter will select the tests for printing in the report. The default setting is All Completed Tests, which will select all tests that have been performed with notes written to be printed in the report. Tests can be selected individually with the check boxes. Clicking the 'Print Session' button (Figure 5.1.2) will print the report with the selected tests and the clinical report (if selected).

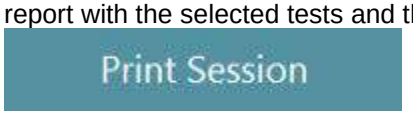


Figure 5.1.2 Print button for the whole session

Once printing commences a status bar will appear to show the progress (Figure 5.1.3).

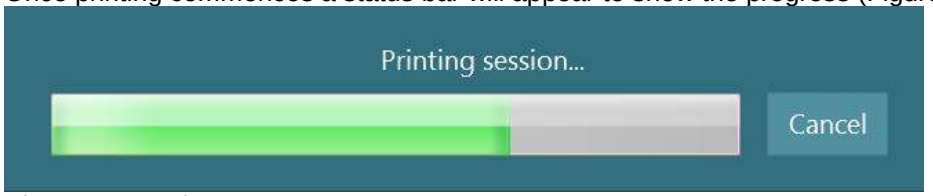


Figure 5.1.3 Print Status

5.2 De-Identify patient name

When a report is printed the demographics of the patient entered into OtoAccess database will automatically be displayed as identifiers on each page of the printout.

Enabling this feature (Figure 5.2.1) will create the results without displaying vital information about the patient in the page headers. This allows for using the patient data without disclosing any identifiers about the particular patient. This will not override the use of the keywords for the patient identifiers in the written report.

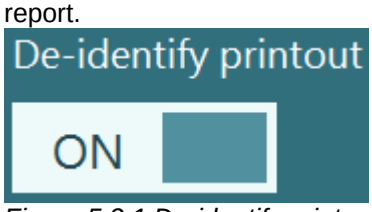


Figure 5.2.1 De-identify printout option

5.3 Printing a single test or clinical report

The clinical report can be printed individually using the Print button next to the Clinical Report.

A single test can be printed by clicking or touching the Print button beside the test name. The printed document will contain the notes for the test only.

Alternatively the test can be printed from the Test Review screen by clicking or touching the Print Screen button.

Figure 5.3.1 Print Screen button from Test Review screen

5.4 Create PDF

Figure 5.4.1 Create PDF button

Clicking or touching the Create PDF button will print the session with the selected tests and the clinical report (if selected) to a PDF file to a predefined data location. For further information refer to Chapter 7.8 Print PDF.

6 Protocols and test settings

6.1 Protocols

Protocols are able to be customized to the desired settings of the end user. They may be composed from a list of tests and designated to be performed in a specific order at the preference of clinician or clinic. The default protocol is the list of tests that will be selected automatically when a new patient is tested in VisualEyes™ 505 and is designated with a star icon. On the main screen, the default protocol is automatically selected and is shown below the Begin Testing button.

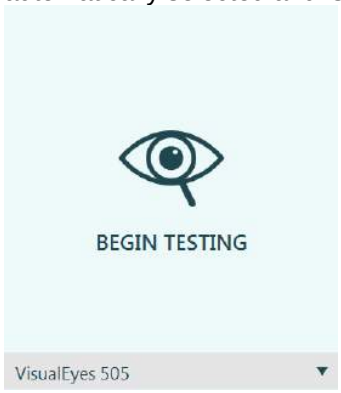


Figure 6.1.1 Begin Testing button with default protocol selected

By selecting the Configuration button and choosing Protocol Manager, the user will be able to access the Protocol Manager screen to modify the existing protocols or create new protocols.

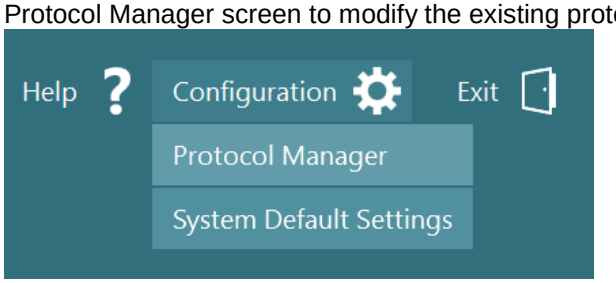


Figure 6.1.2 Protocol Manager from Configuration menu

The Protocol Management screen will be shown listing the available protocols on the left and the tests in the currently selected protocol on the right.

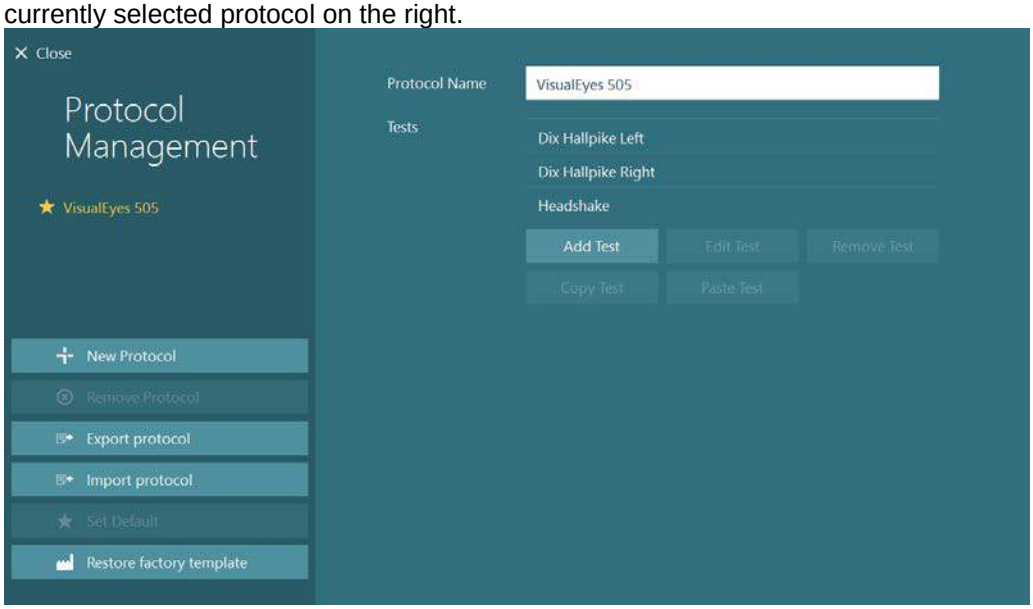


Figure 6.1.3 Protocol Management screen

6.2 Creating a new protocol

Clicking or touching the New Protocol button will create a new empty protocol (Figure 6.2.1).

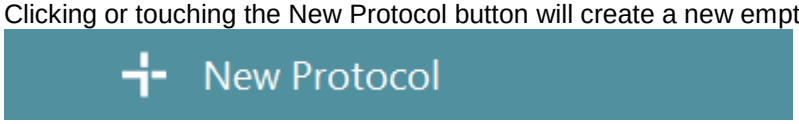


Figure 6.2.1 New Protocol button

The new protocol will be named New Protocol 1 which can be renamed (Figure 6.2.2).

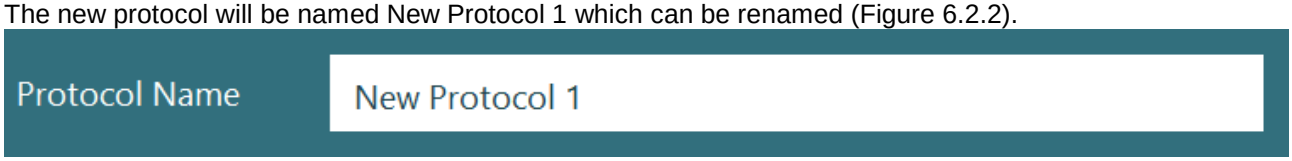


Figure 6.2.2 Protocol Name field with default New Protocol 1 name

Multiple protocols can be created and used to separate testing paradigms, user preferences, or hardware configurations (Figure 6.2.3).

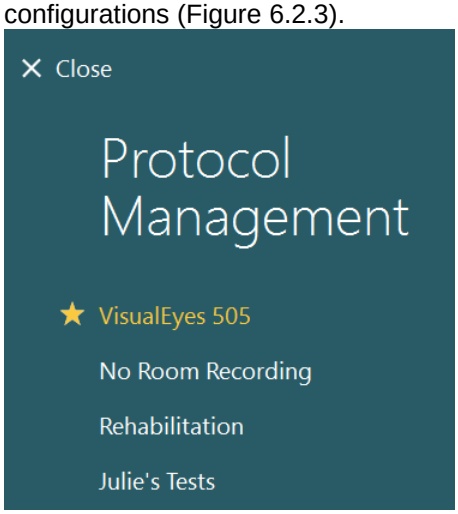


Figure 6.2.3 Protocol Listing

To add tests to the new protocol, click or touch the Add Test button (Figure 6.2.4) and select the Video Frenzel test from the popup list.

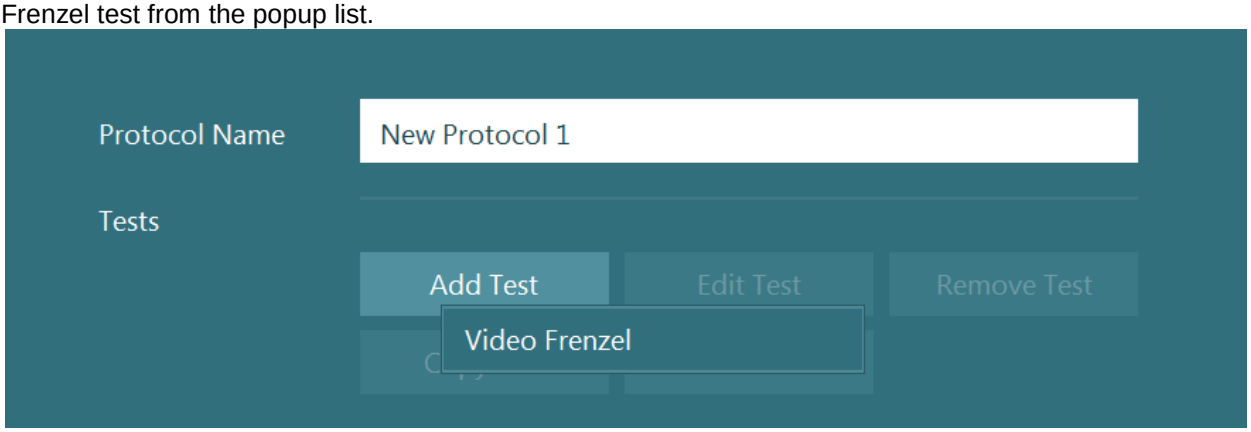


Figure 6.2.4 Add Test button

Additional tests can be created using the Add Test button or select a test, then click on the Copy Test button and Paste Test button to add it to the list. Tests can be renamed by clicking on Edit Test and changing the Test Name.

The tests within the protocol can be changed from their assigned position, by clicking the specific test with the mouse and dragging it up and down the list to the desired position.

6.3 Setting default protocol

The default protocol is the list of tests that will be selected automatically when a new patient is tested in VisualEyes™ 505 and is designated with a star icon. If multiple protocols are available, the first protocol is selected as the default protocol. If a different protocol should be set as the default protocol, select the appropriate protocol in the list, then click on the Set Default protocol button (Figure 6.3.1). A star shall appear next to the protocol name to symbolize the change (Figure 6.3.2).

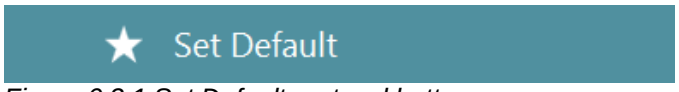


Figure 6.3.1 Set Default protocol button

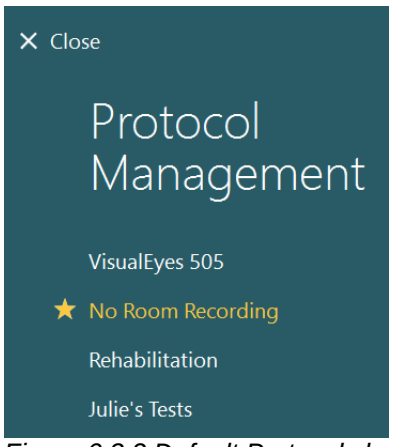


Figure 6.3.2 Default Protocol changed

6.4 Remove protocol

Protocols can be removed from the Protocol Manager if desired. Select the protocol and then click or touch the Remove Protocol button (Figure 6.4.1). VisualEyes™ 505 will require confirmation of the deletion.

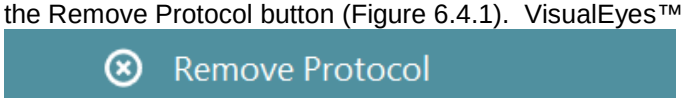


Figure 6.4.1 Remove Protocol button

When Protocol Manager is closed, the software will ask to save the changes to the protocols. By choosing Save, all of the changes made to the protocols, including deleting protocols, will be made permanent (Figure 6.4.2). Choosing Don't Save will undo all changes, including protocol deletion, and revert the protocol settings back to the state before entering Protocol Manager.

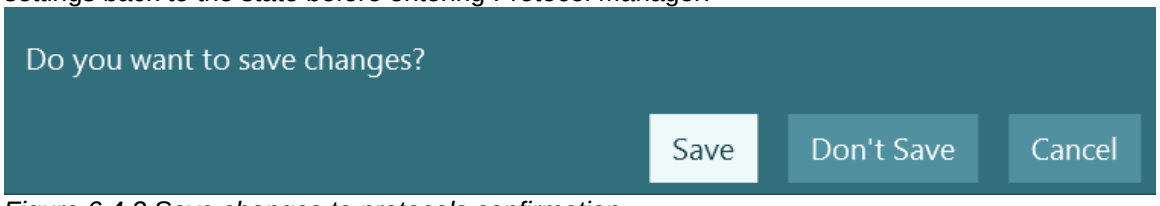


Figure 6.4.2 Save changes to protocols confirmation

6.5 Configuring the tests

All tests within the VisualEyes™ 505 can be configured to the user' preference. The changes can be made from Protocol Manager, where the changes will be available for new patients, or the changes can be made from the test's temporary settings, which will affect the current test if the test has not yet been performed.

By clicking on the Edit Test button or temporary settings button from the test screen, the properties for the current test are displayed.

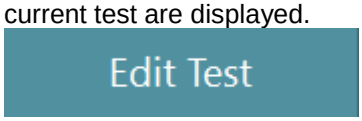


Figure 6.5.1 Edit Test button

Figure 6.5.2 Temporary Settings button (from testing screen)

The Test Parameters page will provide the following options:

- Test Name – name for the test
- Save Eye Recording – option to automatically save the eye recording during testing, default is on
- Save Room Recording – option to automatically save the room recording during testing, default is on

NOTICE

It is not recommended to turn off the Save Eye Recording or Save Room Recording in VisualEyes™ 505.

Figure 6.5.3 Settings screen showing Test Parameters

The Computer Screen and Secondary Screen pages will provide the following options:

- Display Eyes – shows the eyes on the screen, default is on
- Display Room Camera – shows the room camera recording on the screen, default is on
- Eye image size – sets the default size of the eye recordings, filling the remainder of the screen with the room camera recording, default is 61%

NOTICE

If the Display Eyes or Display Room Camera is turned off, the video will not be recorded for the eyes or room camera respectively. If the Display Eyes or Display Room Camera is turned on, verify the Save Eyes or Save Room Recording is turned on as well on the Test Parameters page.

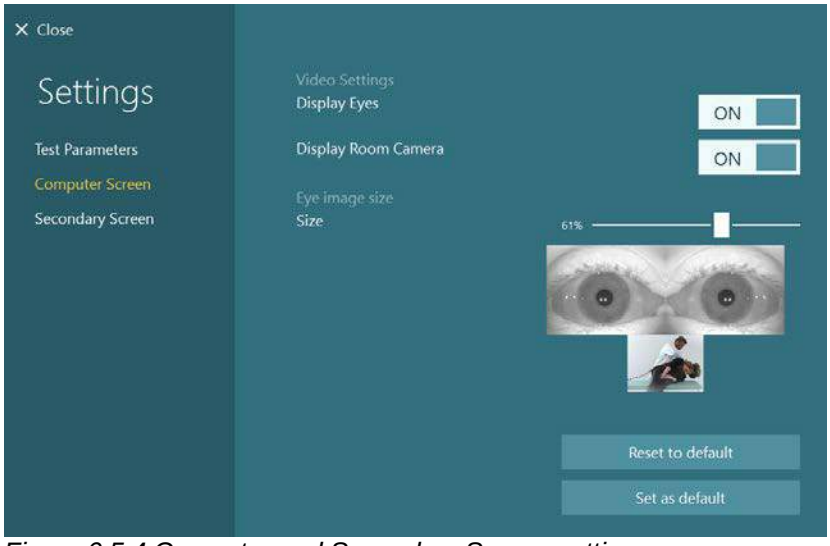


Figure 6.5.4 Computer and Secondary Screen settings

Changes made to the settings of the video Frenzel tests can be used in place of the default settings. For example the size value for the eye image size is set to 61% by default. If all tests should be set to have the eye image size the same width as the room camera recording (33% for binocular recording, 50% for monocular recording), then adjust the size slider and click on the Set as default button (Figure 6.5.5). The software will ask if these settings should apply to all new tests created. Click on Continue to make the settings default (Figure 6.5.6). In order to restore the default settings for the current settings page, click on the Reset to default button (Figure 6.5.7).

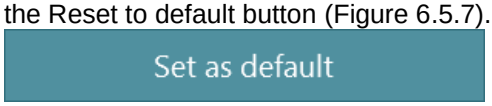


Figure 6.5.5 Set as default button

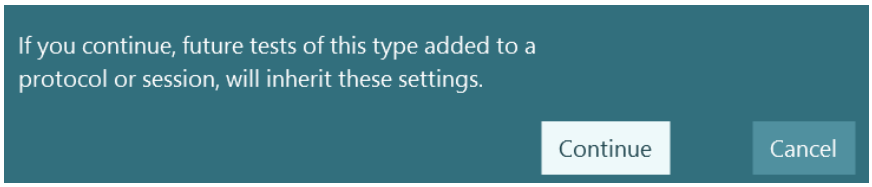


Figure 6.5.6 Confirmation message to save settings as defaults

Figure 6.5.7 Reset to default button

6.6 Restore factory protocol settings

The Set as default button available in the test settings screen allows the user to modify the default settings for creating new tests. In addition to using the Reset to default button to revert one page of settings back to factory defaults, the Restore factory template button will revert all settings back to the factory defaults. This will only affect new tests created; any existing tests in the protocols will not be affected.

Figure 6.6.1 Restore factory template button

6.7 Export and import protocol

VisualEyes™ 505 supports importing and exporting custom protocols of tests. After configuring the protocol as desired, select the protocol and then click or touch the Export protocol button (Figure 6.7.1). A dialog will be presented to select the destination folder for the exported protocol (Figure 6.7.2). Click on the Browse button to select a different folder. Click on the Export button to copy the protocol to the destination folder.

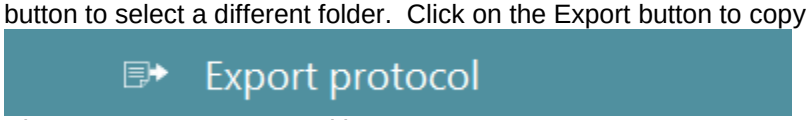


Figure 6.7.1 Export protocol button

Figure 6.7.2 Export protocol dialog

Clicking or touching the Import protocol button will present an Import protocol dialog. Click on the Browse button to locate the protocol file, then click or touch the Import button to add the protocol to the list of protocols. If the protocol already exists in the list, a copy of the protocol will be added. This can be used to copy a standard protocol for different users.

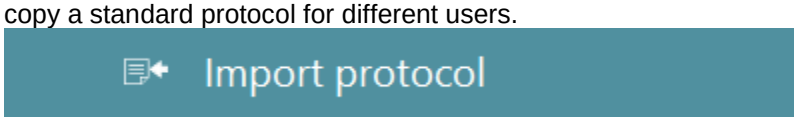


Figure 6.7.3 Import protocol button

Figure 6.7.4 Import protocol dialog

7 System default settings

7.1 System Default Settings

By selecting the Configuration button and choosing System Default Settings, the user will be able to access the various hardware and software settings.

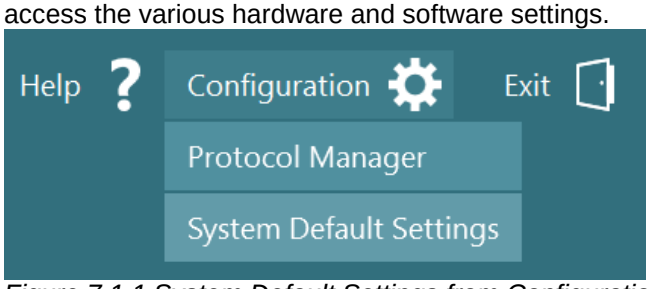


Figure 7.1.1 System Default Settings from Configuration menu

7.2 Hardware

The Hardware settings screen provides access to the cameras and video settings.

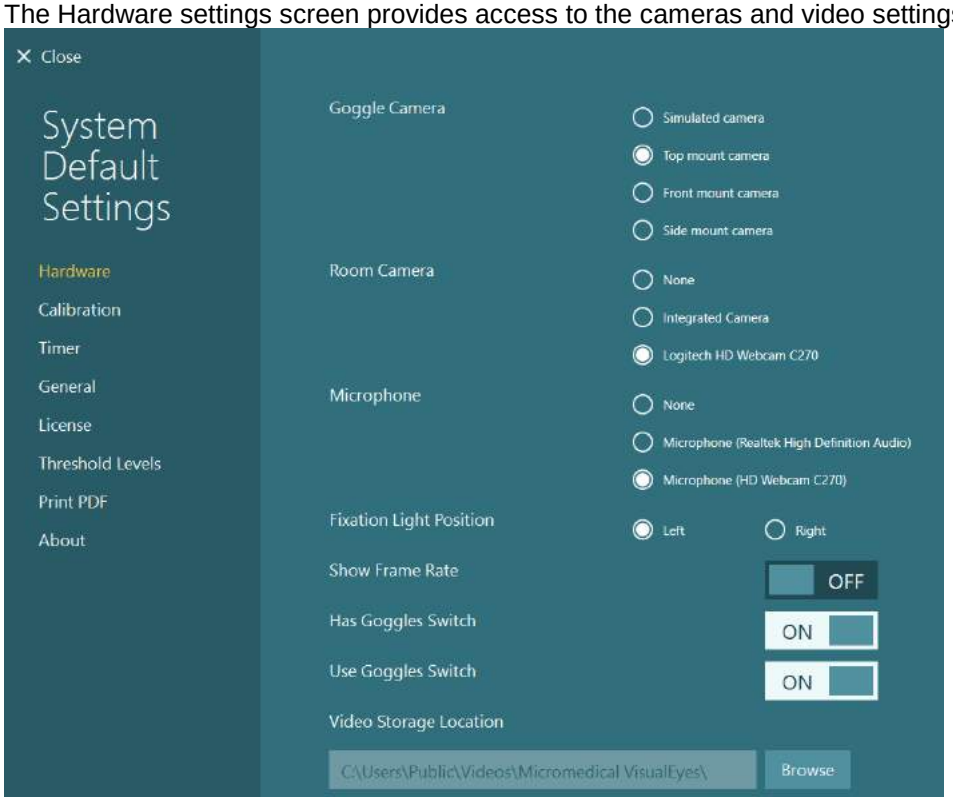


Figure 7.2.1 Hardware settings

The Goggles Camera selection determines which goggles camera is to be used for testing.

- Simulated camera – demonstration option showing only an image of the eyes
- Top mount camera goggles (two cameras)
- Front mount camera goggles (single camera)
- Side mount camera goggles (single or two cameras)

The Room Camera selection will choose the camera for room recording. Choosing none will not initialize any room camera and will prevent the recording of the patient interview.

The Microphone selection will choose the audio recording source combined with the room recording and patient interview. If the Room Camera selection is set to none, the Microphone selection is not used.

The Fixation Light Position selects which fixation light to use in the top mount camera goggles and the side mount camera goggles. The front mount camera goggles will light the fixation light regardless of this setting.

The Show Frame Rate option displays the frame rate of the cameras as they are capturing video. This is a diagnostic tool used to check if the cameras are working correctly with the computer and normally is off.

The Has Goggles Switch option is available only with the top mount camera goggles and defines the goggles type as having the side switch. If the camera model does not have a side switch, this option should be turned off. The default setting is on.

The Use Goggles Switch option is a user preference option available only with the top mount camera goggles. If the camera model has a side switch, but the user does not wish to use the side switch and wants to disable the side switch completely, then this option should be turned off. The default setting is on.

The Video Storage Location sets the location where the videos are stored for the eye recording and the room recording. By default this is set to a Micromedical VisualEyes™ subfolder under the public videos folder. This can be changed to use a network location if desired.

7.3 Calibration

The Calibration settings are not used in the VisualEyes™ 505 system in general, as calibration is not required. However if a TV or second monitor is used in conjunction with the VisualEyes™ 505 system to showcase the eye recordings and room recording on a second screen, then the second screen must be enabled for use in the software.

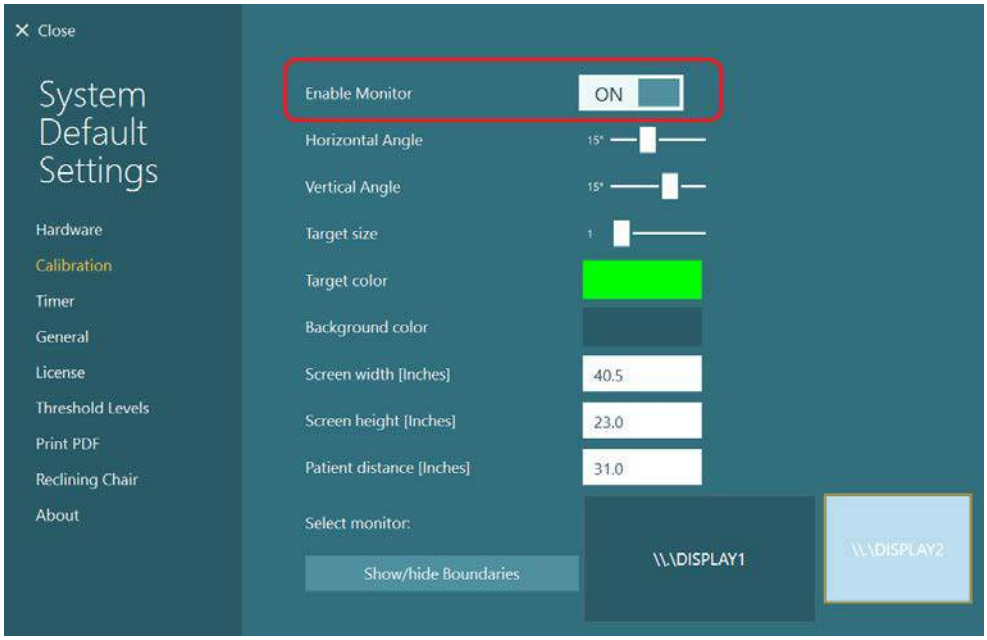


Figure 7.3.1 Calibration settings with Enable Monitor circled

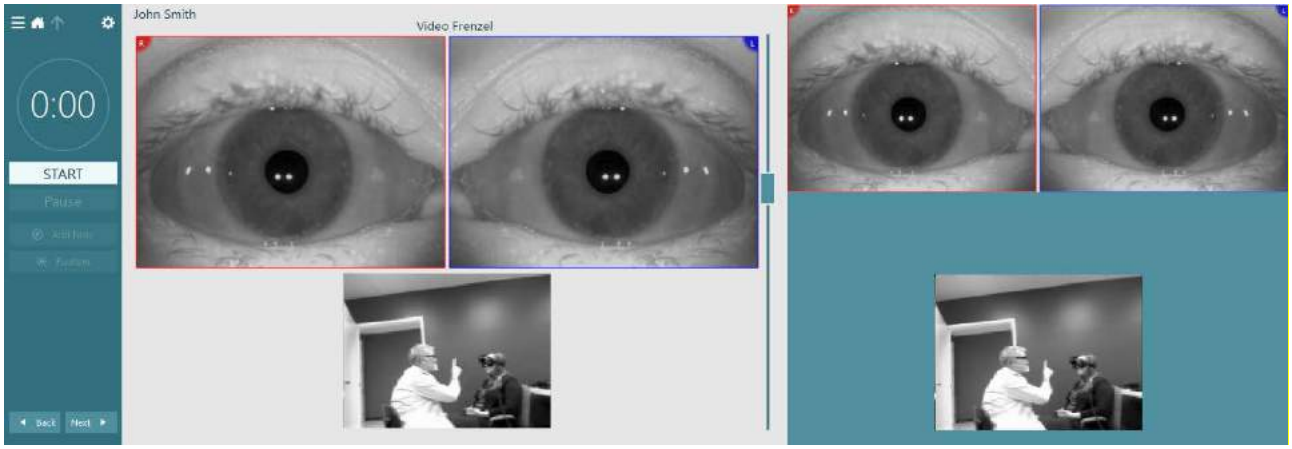


Figure 7.3.2 Test Screen with the second monitor enabled supporting different monitor resolutions

7.4 Timer settings

The timer settings menu (Figure 7.4.1) presents options to customize the timer function.

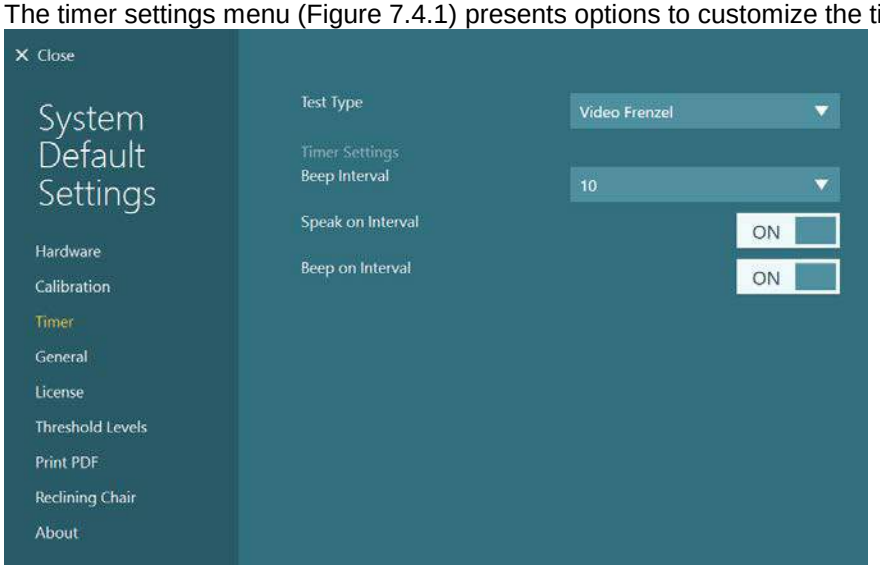


Figure 7.4.1 Timer settings

Beep Interval: Assigns the length of time between presentations of the beep and/or speaker. Selecting the numerical field will provide a drop down menu with interval options of 5, 10, 20 and 30 seconds.

Speak on Interval: Activating this feature will enable a vocal alert in English for each interval. The voice pronounces the time at the interval.

Beep on Interval: Activating this feature will enable a tonal alert to be presented at each specified interval.

7.5 General

The General settings page contains additional program settings. The only applicable option to the VisualEyes™ 505 system is the Language selection. Changing the program language will display the text in the selected language. The software supports English, German, Spanish, Chinese, Russian, Portuguese, Japanese, Korean, French, and Danish. The software will have to be restarted when the program language is changed.

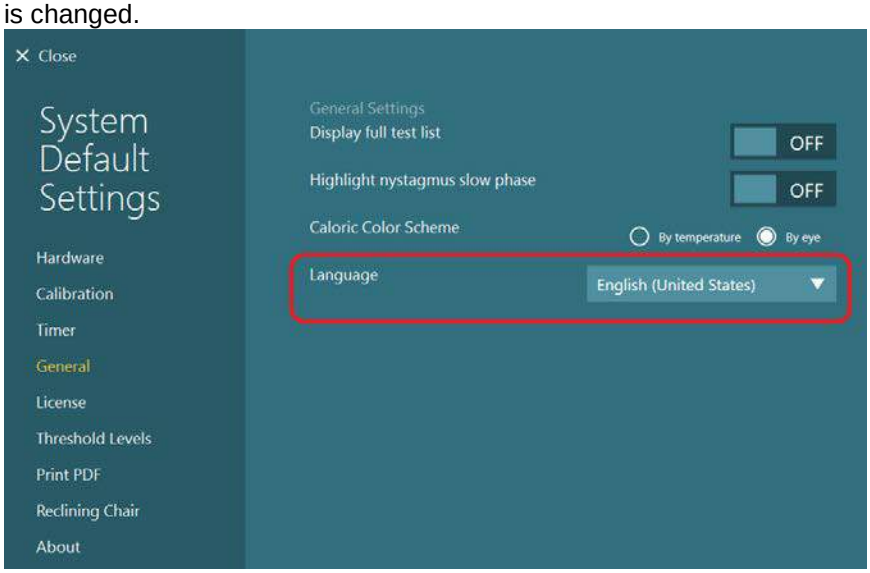


Figure 7.5.1 General settings with Language circled

7.6 License

The License settings screen allows the user to enter the license keys for the eye cameras. Connect the cameras to the computer, then click or touch the Update button. A dialog will appear with the camera serial numbers that are detected. Enter the license key for the appropriate camera serial number. If a camera serial number should be ignored (e.g. EyeSeeCam camera serial number), click or touch the ignore button beside the license key box for that serial number. The ignore button will then change to yellow. To remove all license keys registered, click or touch the Clear button.

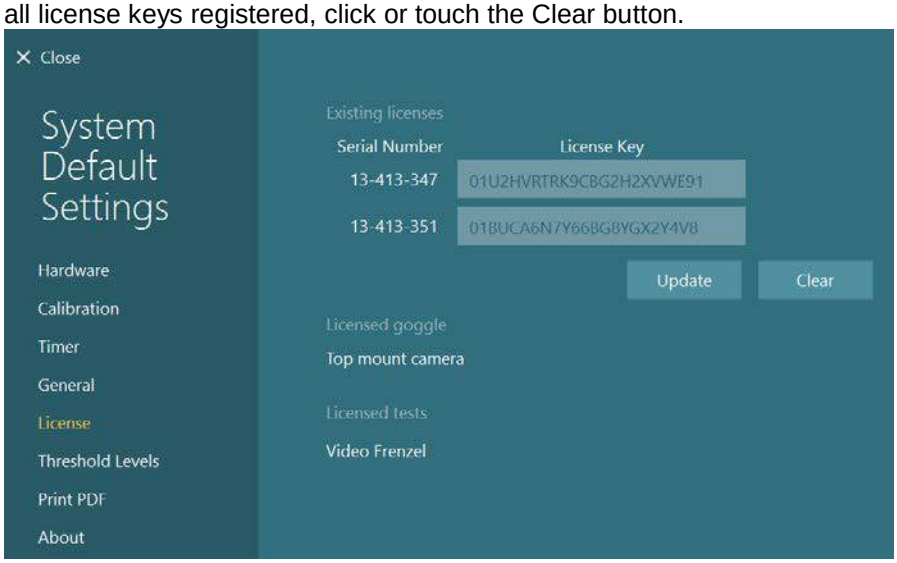


Figure 7.6.1 License settings

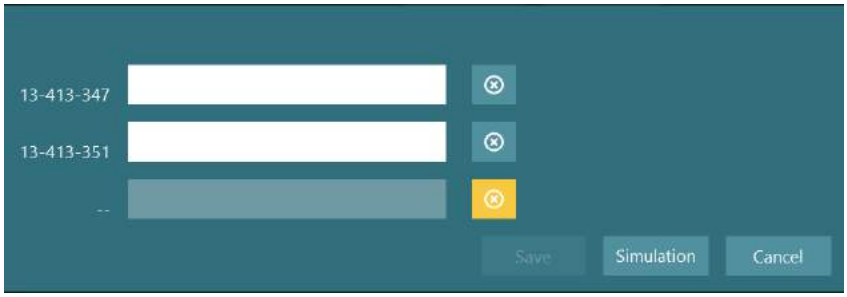


Figure 7.6.2 License dialog

7.7 Threshold levels

The Threshold Levels settings screen contains age-matched thresholds for various VNG tests. These values are not used in VisualEyes™ 505 video frenzel systems and can safely be ignored.

7.8 Print PDF

The Print PDF settings screen provides access to automatic PDF document creation settings (Figure 7.8.1).

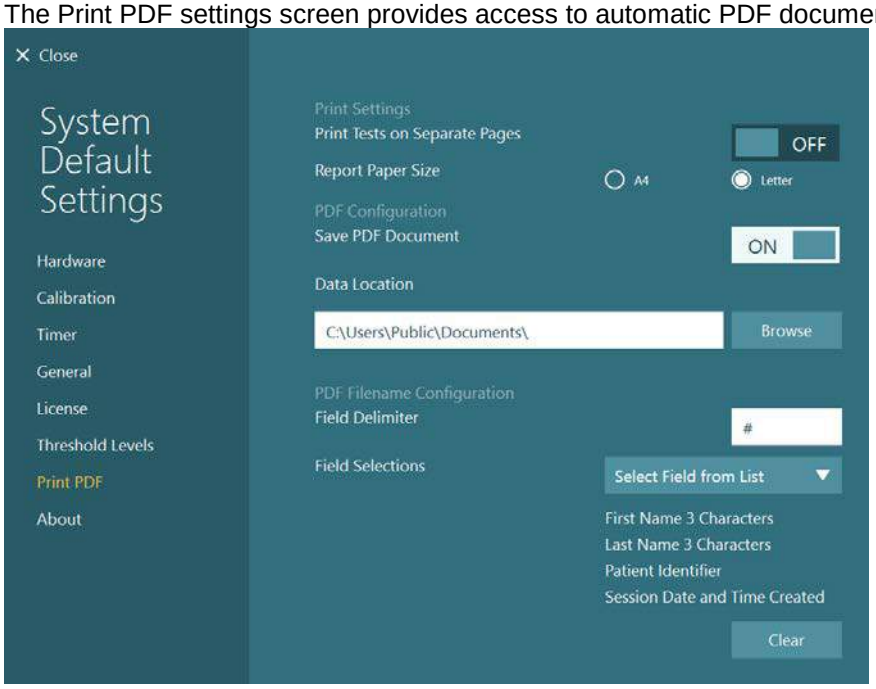


Figure 7.8.1 Print PDF settings

Print Tests on Separate Pages: Selects whether page breaks should be added before each test is printed in the report. This option can be set off in VisualEyes™ 505 systems to reduce the extra space printed between tests, as only the notes are printed for video Frenzel tests.
Report Paper Size: Selects the paper format to print and or save the report to (choice of A4 or letter format)
Save PDF Document: If this option is selected, the Create PDF button is available from the Session Review screen to print the report to PDF to the specified location. For more information see Chapter 5.4 Create PDF.
PDF Data Location: This is the folder where the PDF report is created. Use the Browse button to select the folder.

PDF Filename Configuration: These fields define the naming structure of the PDF report.

- Field Delimiter: Select a character to function as a field delimiter, typically a period, hashtag, or hyphen
- Field Selections: Select what is to be displayed on the report from following list:
    - First Name 3 Characters
    - Last Name 3 Characters
    - Module (Micromedical VisualEyes™)
    - Patient Identifier
    - Report Date and Time Created
    - Session Date and Time Created
    - Session Identifier

7.9 About this software

The About screen lists the software version number and licenses used by the software.

8 Other functions

8.1 Help button

This manual is accessible by clicking or touching the Help button on the main screen or by pressing the F1 key within the software.

Figure 8.1.1 Help button

8.2 Exit button

Press the ‘Exit’ button from the main screen to leave the VisualEyes™ suite and return to OtoAccess™.

Figure 8.2.1 Exit button