

Point-HD VERA

Visual Evidence Retrieval & Analysis

Quick Start Guide

Using the

Point-HD VERA Software



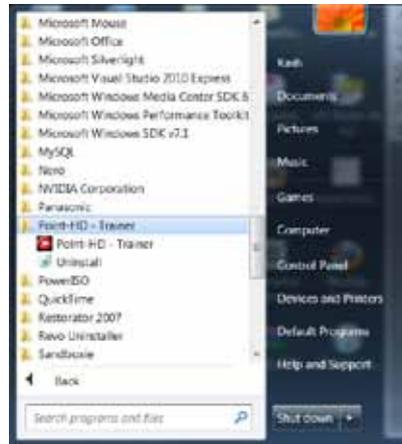
e-mediavision Ltd
19 Park Avenue
Hounslow
Middlesex
London TW3 2NA
Tel: +44(0)208 755 2014 email: info@e-mediavision.com www.pointhd-trainer.com

Start the Point-HD VERA application

Double click on the Point-HD shortcut Icon on the desktop to launch the Point-HD VERA application. You can also start the application by going to Start > All Programs > Point-HD Trainer and selecting the Point-HD trainer.



Double click the desktop shortcut.



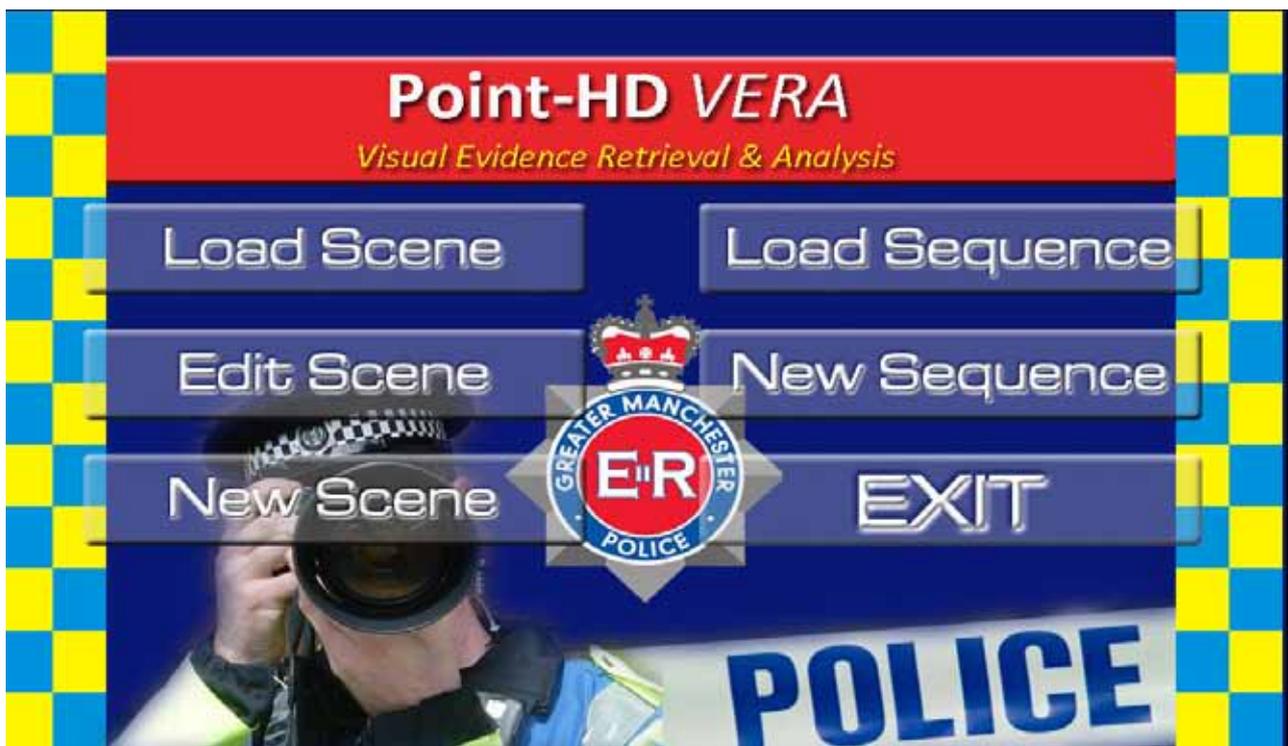
Launch the application using Start and all programs, Point-HD Trainer.

Point-HD VERA Main Menu

When the Point-HD VERA application launches, the initial screen displayed is the Main Menu as shown below. The main menu screen presents a number of options, essentially for live / presentation use, either Load Scene or Load Sequence options are chosen.

To modify an existing Scene use Edit Scene option and for creating a Scene file, the New Scene option is used.

To create a Sequence of Scenes, use the New Sequence option and to close the Point-HD VERA application click on the Exit button to return to the desktop.



Main Menu

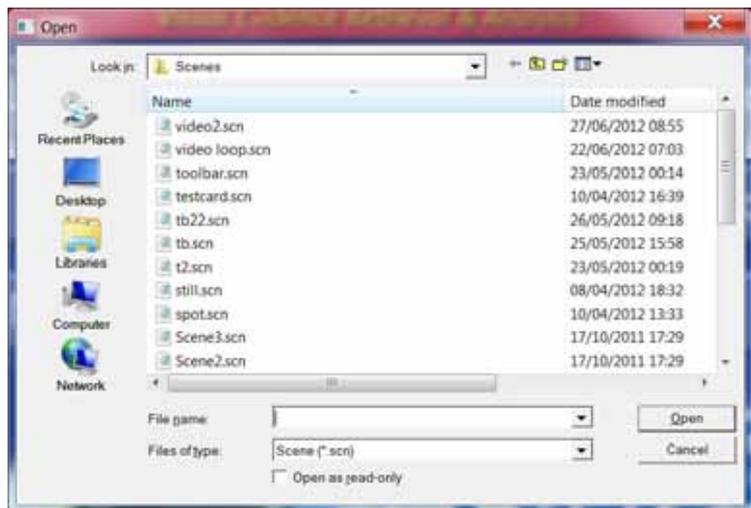
Load Scene - Live Presentation

When you want to use the system for live presentations, you should choose the Load Scene option. In Load Scene, the user can only use the tools as they have been previously defined when the scene file was created / edited, in Load Scene mode the tool settings can not be modified.

Click on Load scene and the file open dialogue box will open, normally the Scene files are located in the Scenes folder, select the Scene that you wish to load and click on Open. For the purpose of this guide we will use the demonstration scene file called "Police".



Click on Load Scene Button



Select the Scene file in the File Open dialogue and then click on open.



Police Scene in Load Scene Mode

Load Scene - Tools & Buttons

When a Scene file is opened in Load Scene mode, it will display a common set of control buttons such as Clear, Undo, Redo, Live, Zoom, Graphic Lock and Close.

The Scene file will also display as the background whatever the source chosen when the Scene was created or edited, in the example scene below we have used the sample video file provided with Windows 7. When a video file is chosen as the source background the Video Player control bar is also displayed.

Below the video control bar, the main tool bar is displayed which is loaded with a custom set of tools that were chosen and set when the scene file was created.



Scene in Load Scene Mode



Click on Close to exit the scene and return back to the main menu. The Close button may also have been moved into the top left corner, in which case you will need to use the mouse to click on it. The button can be moved when in New or Edit scene modes, moving the button helps prevent users accidentally closing the scene.



The Live button toggles the output window display between Live and Preview, normally the button will remain in the Live state, however if you wish to hide the output display then clicking on the Live button will toggle to Preview mode and the output window will be Black.



The Clear button is used to clear all annotations and graphics in a single click. Once graphics have been cleared using the Clear button they can not be replaced using the Undo or Redo buttons



The Undo button is used to remove the last placed graphic or annotation, you can successively click on the button to remove graphics.



If you Undo a graphic using the Undo button you can also replace it by pressing the Redo button. Both Undo and Redo buttons will function with graphics before the Clear button is used. Once Clear is used both Undo and Redo will not function until new annotations are made.



The Graphic Lock button is used to freeze any placed graphics that would normally be movable, such as a Circle, by using the Graphic Lock and freezing the annotations in place you can then use other tools to draw over the placed graphics. Note that the graphics will be locked until you unlock them by clicking once more on the Graphic Lock button to deactivate it.



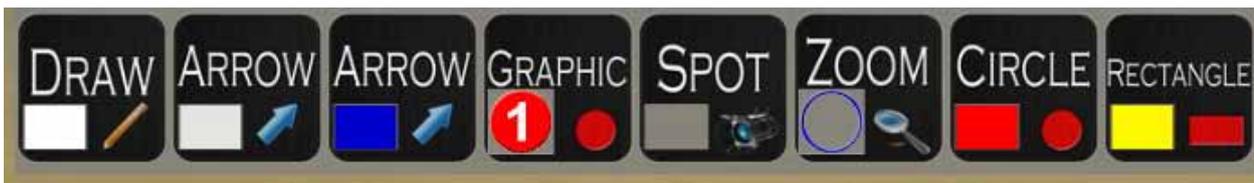
The Zoom button allows the user to draw a rectangle selection on the background, once drawn, the background will zoom up to fill the screen with the selected area of interest. Using this Zoom tool (full screen zoom) will fill the screen with the zoomed up image. The zoom tool in the tool bar only zooms up inside the tool area.



The video player control bar shown above is displayed whenever a video clip is chosen to be the background source. The player control has buttons that allow the user to Stop, Forward rewind and go forward or back frame by frame (will depend if the video file encoding will allow frame forward / back). The Scroll bar can be used to quickly jump to selections of the video clip.

If you wish to load up a different video clip during a presentation, you can click on the video button and select a clip for playback. However you should normally premake a scene file with the video that you want to playback, if you have multiple scenes each with a different video clip you can create a Sequence which is a better way to use the system during a live presentation.

The video player can also be controlled via the keyboard, Spacebar will toggle between Play / Pause, the Left & Right Arrow keys control Frame Forward / Back and the Up and Down arrows control playback speed.



The Tool bar loaded with the custom set of tools in the Police scene is shown above, to use any tool, first select the tool and then draw on the background. When a tool is selected, the button will be highlighted to show which tool is active at that time, for some tools the rectangle in the Tool button will also show the colour or graphic that the tool is setup with.

Edit Scene

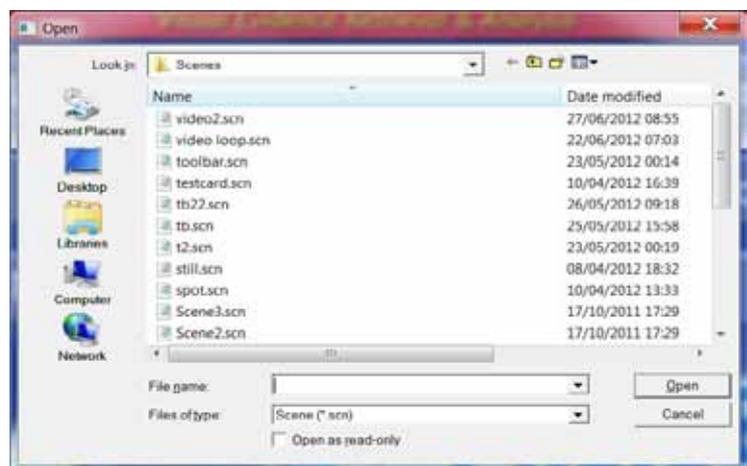
If you want to make changes to an existing scene then the Edit Scene mode should be used. When you make changes to an existing scene file in Edit Scene, you have the option of either overwriting the original Scene or creating a new scene by entering a different filename. Note: once you overwrite a scene you can not undo the changes. If particular scene files are important to you, then you should make a back up copy of the scene files in case they get overwritten by mistake.

To edit an existing scene, first click on the Edit Scene button in the main menu screen, when the file open dialogue box opens, select the Scene file that you wish to edit and click on open, the scene will then open for editing.

In the example below we will edit the existing Police scene and add a curved arrow tool to the tool bar and change the colour of the Draw tool, we will then save this as a new scene called Police2.



Click on the Edit Scene button



Choose the scene file that you want to edit and click open.



Scene File open in Edit Mode

Let's start by adding an additional tool to the tool bar, the Curved Arrow tool.

Click on the TOOLS button in the top right corner which will display the available list of tools as shown in the picture below.



Tool List Panel

Click once on the Curved Arrow button in Tools menu and then click on the red X to close the Tools list menu.

The Curved Arrow tool will now be displayed in the tool bar at the bottom as shown in the picture below, notice that there is also a new blue arrow to the left of the tool bar. Whenever you see a blue arrow either side of the tool bar, this indicates that there are more available tools which can be scrolled by clicking on either arrow. The tool bar can display a maximum of 12 tools at any one time, so adding more than 12 tools will result in blue scroll arrows appearing either side of the tool bar.



Tool bar with Blue Scroll Arrow

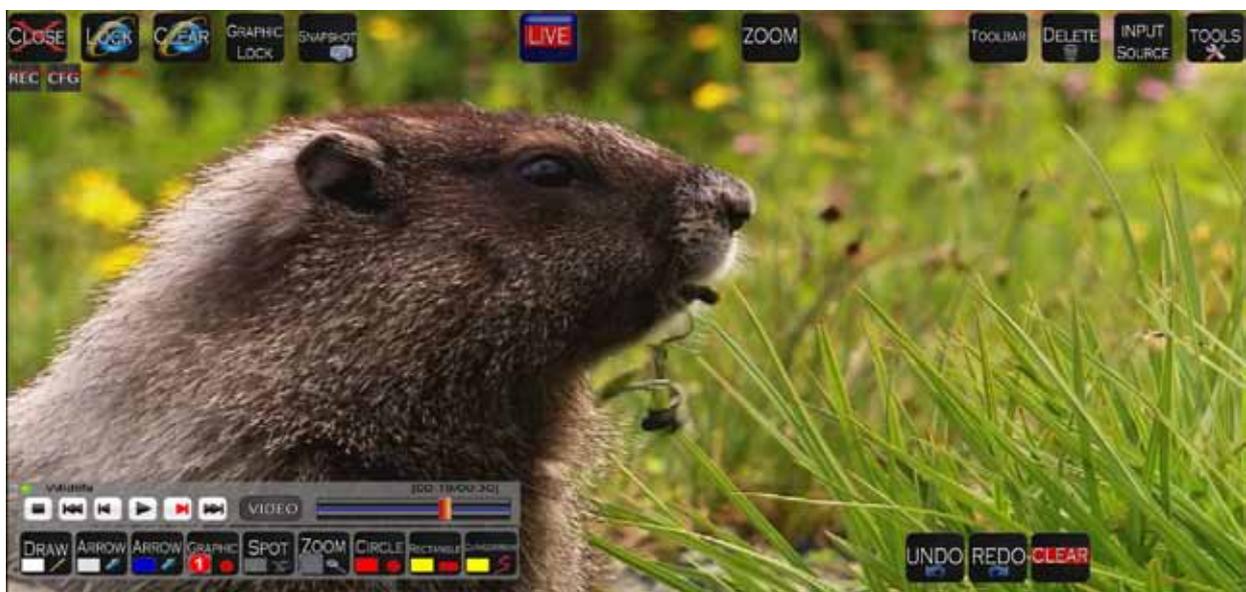
Since we have less than 12 tools in total in our tool bar, we can adjust the tool bar settings to display all the tools in our tool bar without having to use the blue scroll arrows. Whenever possible try and keep the tool bar so that it displays all the tools without having the user to click on the blue scroll arrows. Also consider making a separate scene if possible if you need more than 12 tools, you can always use the Sequence function if you want to have more than one scene available whilst in live presentation mode.

Click on the Tool bar button to display the Tool bar settings as shown in the Picture below.



Tool bar Configuration Menu

Within the Tool bar menu, set the value for the Number of tools to 9, then click on the green tick mark to accept the changes and close the tool bar menu. Notice now that the tool bar displays all 9 tools without the scroll arrows.



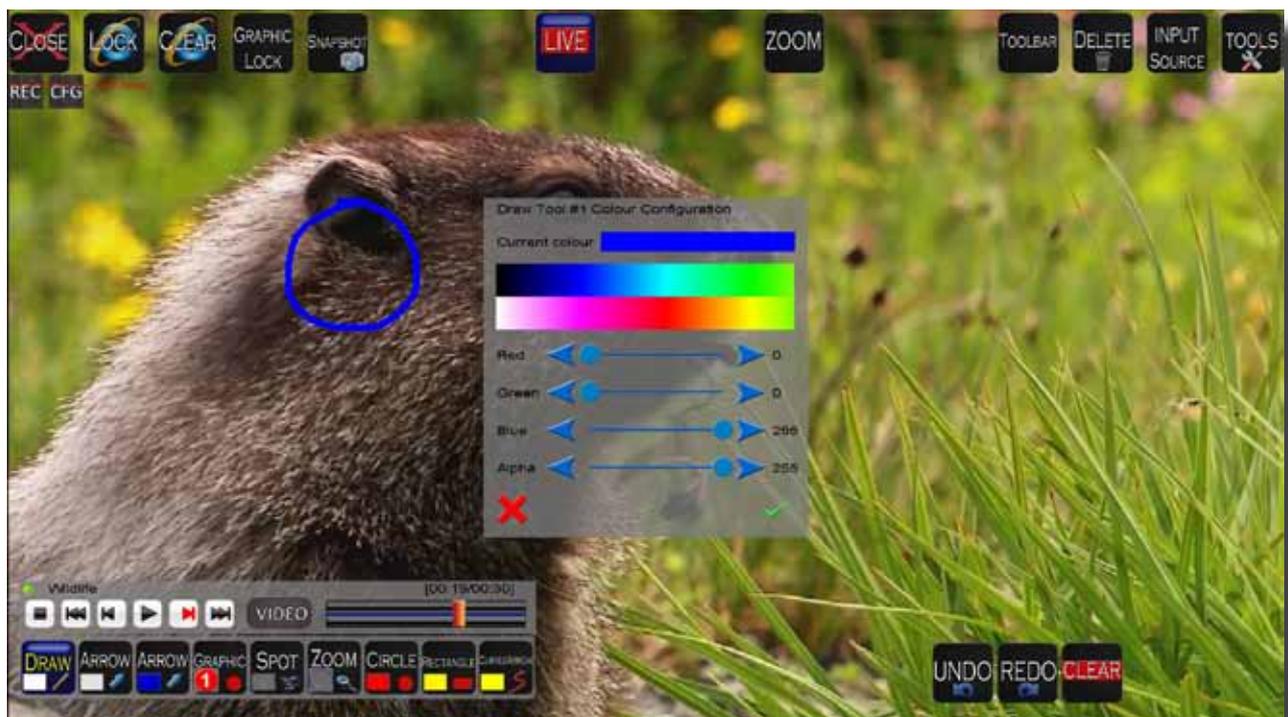
Tool bar set to display 9 tools and no scroll arrows

Next, we want to change the colour of the Draw tool. To display any of the tools settings for the tools displayed in the tool bar, click and hold for 2 seconds or more on the tool in the bar and the tools menu will display as shown in the picture below.



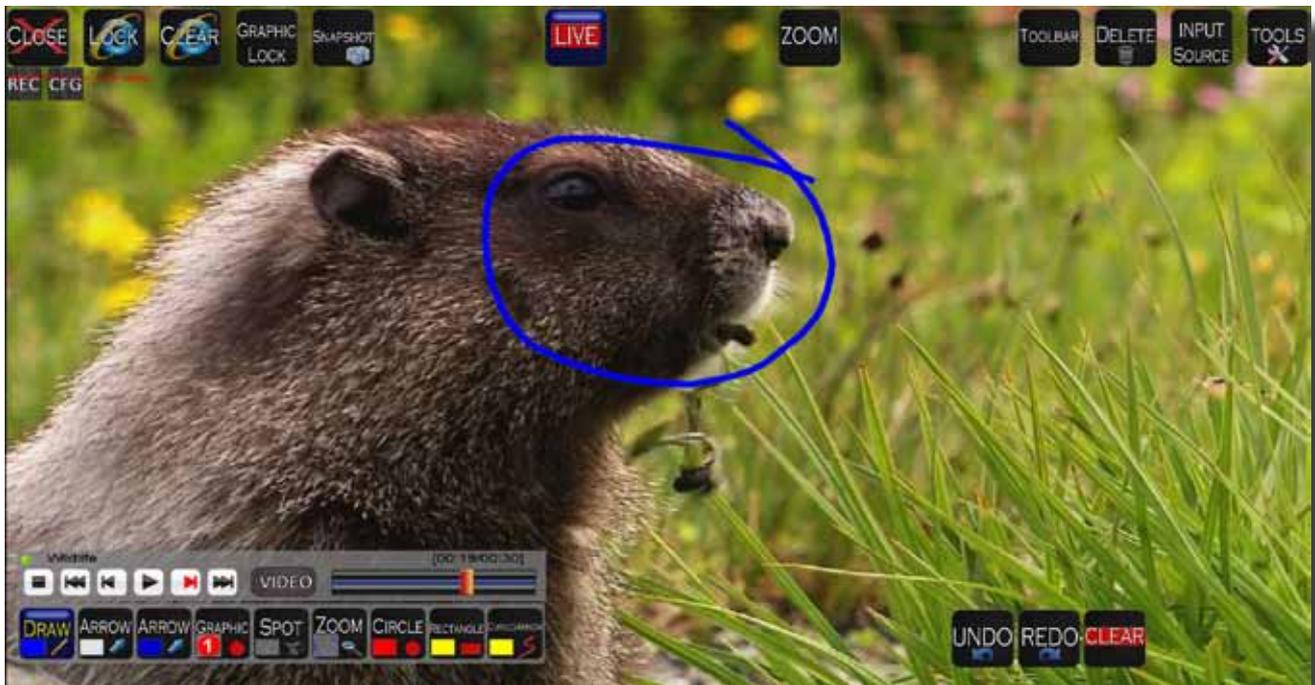
Draw Tool Configuration Menu

To adjust the colour, click on the color panel next to the label Colour and the colour menu will open as shown below.



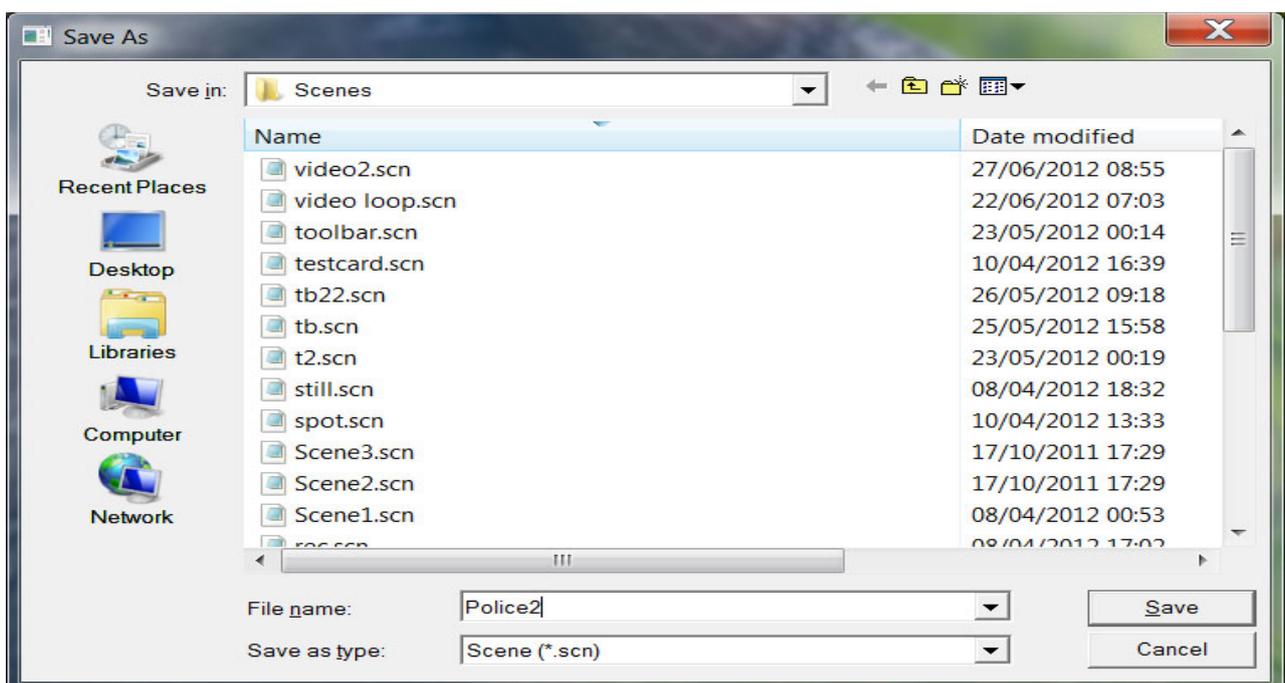
Draw Tool Colour Configuration Menu

To adjust the colour you can either click on any colour within the displayed colour swatch or you can use the RGB sliders to set a precise value. For this example we will set the Blue to 255 and the rest to 0. The Alpha value controls the transparency of the colour. When you have finished making the adjustment, click on the tick mark to set the changes and revert back to the main tool menu. You need to click on the Tick mark once more to close the main tool menu and accept the changes. Notice how the rectangle in the Draw Tool button now also changes to a Blue, this helps the user find the right colour tool to use when there are more than one of the same tools within the tool bar.



Draw Tool Button updates Colour Change

Now that we have made the changes required to the original scene file, all that remains is to save the file with a new filename. Click on the Close button in the top left and the Save dialogue box will display, enter a new file name - Police 2 and click on Save to exit back to the main menu.



File Save As Dialogue

Create New Sequence

Using a Sequence during live presentations enables the user to switch between different Scene's, this allows each Scene to be created with just the tools required for each part of the presentation which will leave the interface clean and tidy.

When you create a New Sequence you are basically making a playlist of existing scenes, that you can toggle back and forth in the order as they have been added when the Sequence was created.

Now that you have two scene's, let's create a New Sequence using these files as an example.

From the main menu, click on Create New Sequence, a file open dialogue box will display, now select the first Scene file Police 1 and click on open, the dialogue box will open again, now select Police 2 and click on Open, when the dialogue opens for the third time click cancel and a File Save As dialogue will display, enter a name for your sequence - call it Police Seq1 and then click on Save.

Now you have made your sequence.

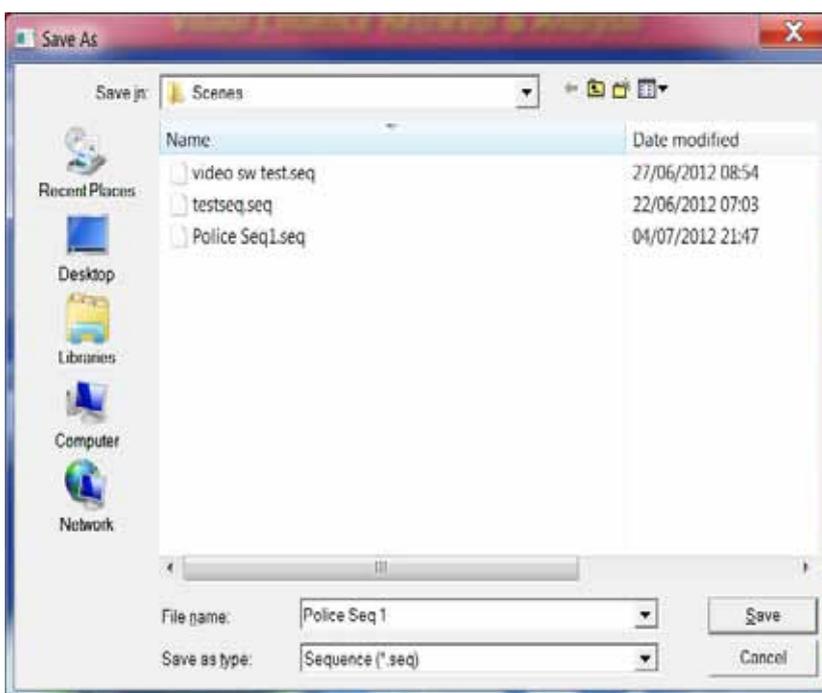
New Sequence
Click New Sequence



Select First Scene File



Select second Scene file and click on close when 3rd dialogue opens



Enter a name for the sequence in the File Save As box and click save.

Load Sequence

The Load Sequence function enables a set of Scene Files to be loaded in a single click, this function is useful when switching Scene's live during a presentation. With Load Scene, we only use one scene at a time, so if we wanted to switch scenes we would need to exit out of the present scene and load the next scene, this can be cumbersome during live events, therefore with the Load Sequence function the user can easily toggle between various scenes that have been previously defined within the sequence file.

Click on Load Sequence from the main menu, when the File Open Dialogue opens select the Sequence file (previously made), (if at first you dont see any sequence files, make sure you are looking in the Sequence folder and not the scene folder), then click on open.

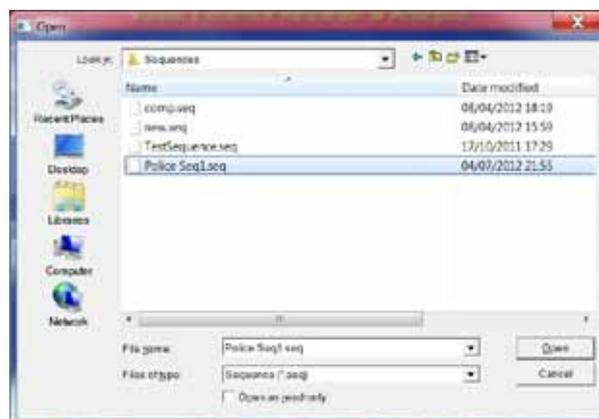
When the sequence intially loads up, you will see the screen will have a blue cast and a pair of left/right arrow buttons and a OK button. Before you can use the sequence you need to position the Arrow buttons to a desired position on screen, these arrow buttons will be used to switch back and forth between the scenes, after you have positioned the arrow buttons, click on the OK button to set thier position.

Once you have clicked the OK button the position of the navigational arrows is set, if you need to reposition the arrows then simply exit out of the current scene and back to the main menu and repeat the above steps to load a sequence.

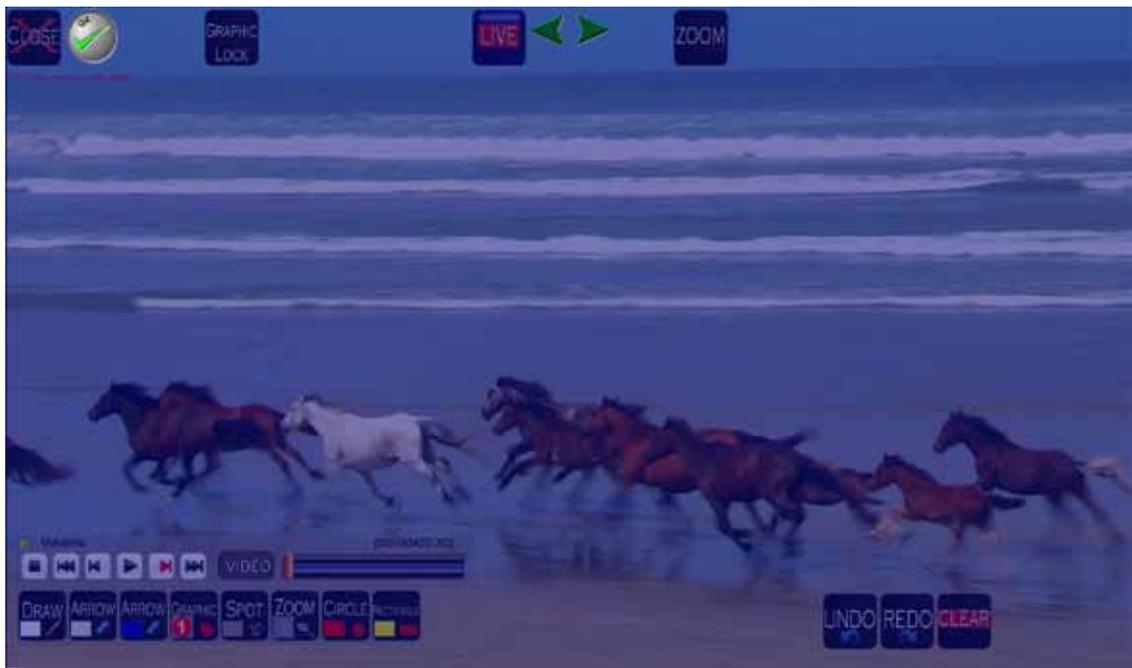
Once the sequence has loaded you can click on the arrows to move back and forth between the scenes, the order of scenes is set when you intially make the Sequence file.



Click on Load Sequence



Select the sequence file and click on open



Position the Scene navigation arrows and then click OK



First scene loaded with scene navigational buttons in position



Use Left / Right arrows to toggle between Scene files

New Scene

The New Scene function is used when you want to create a new custom scene file from a blank template, if you have a previously made scene file that you wish to change a few tools etc, then you should use the Edit Scene function.

To create a new scene, click on new Scene from the main menu, a file save as dialogue will open, enter a file name for your scene and click save. Note, if you select a filename from an existing list of scenes then that scene will be overwritten as a blank template, always make sure you enter a new name for your file.

Once you have entered the file name and clicked save a blank scene template will open as shown below.



New Scene Blank Template

New Scene - Set the Background

Each Scene can have a single background source, if you need to have different background sources in your presentation, such as video clips or still images then you will need to make separate scenes for each source. A quick method to make new scenes in this case would be to define a single scene and then use the Edit Scene function to change the background and save the scene with a new file name, this will save adding and setting up the tool bar on each new scene.

You can have one of the following set as the background (Input Source) per scene:

None - This will be just a blank (normally a Black coloured background)

Still Image - Picture file

Capture Device - this can be the DVI (option input), web cam etc.

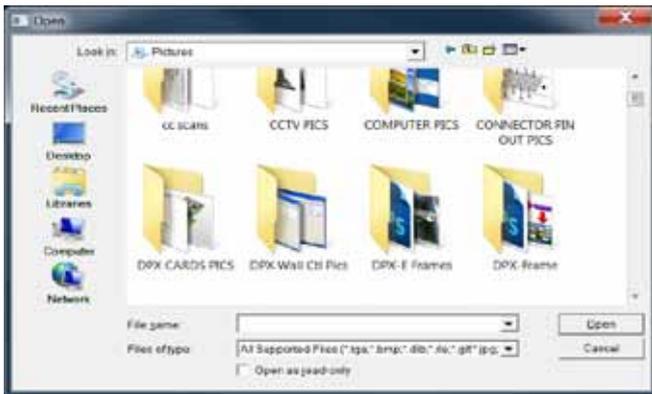
AVI Player - video clip

RTSP streaming Input - for video streams

To define the background source, click on Input Source button, which will display the Background List menu. For this example we will set up a still image as the background source, so click on the Still Image button.



Click on Input Source to display the Background List menu



Select the still image file and click Open

After clicking on the Still Image button in the background list menu, the file open dialogue will display, locate the image file that you want to use and then click on Open.

The Bitmap size list menu will be displayed, the options in this menu allow you to choose how you wish the image to be displayed in the background, this will also depend upon the resolution of your desktop / touch screen and the resolution / size of the still image.

Actual - this will display the image in its full resolution and size, if your desktop resolution is larger than the image size then the whole image will be displayed, if your desktop is smaller than the image size then you will only see a portion of the image.

Fit - this will try to fit the image whilst keeping the aspect ratio intact, the application will automatically choose best fit by width or height and desktop resolution.

Full - this fills the entire background screen with the selected image.

Choose one of the options and then click the red X in the Bitmap size list menu to close and set the source input.

Bitmap Size List Menu

The pictures below show the effect of using the options in the Bitmap size list, Actual, Fit or Full.

The images shown were based on a desktop size / resolution setting of 1920 x 1080 and the image size dimensions of 2592 x 1728.

Actual Setting



Fit Setting



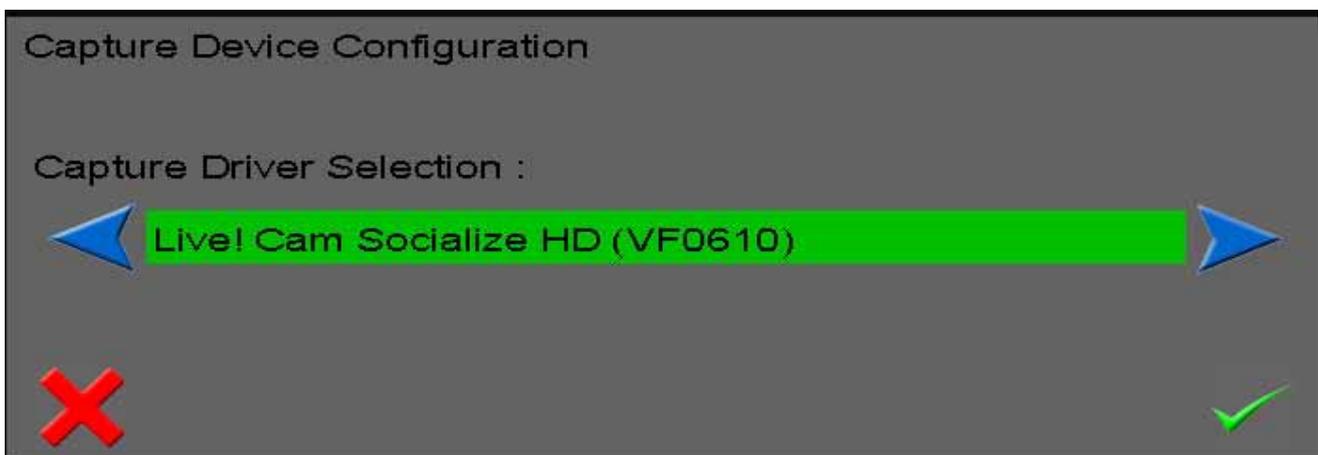
Full Setting



Capture Device - Input Source

If you have the DVI/VGA/HDMI input capture option installed or a web cam or camera, then you can select one of these as the background source. Make sure you have your device connected to the computer before you start the application. When setting sources for the Scene, the source must be connected and available before you can set it as the background in the scene.

Click on Input Source button and from the displayed list choose Capture device, this will then display the Capture Device Configuration menu as shown below, depending upon what sources you have connected, you can select one of them by clicking on either the Left or Right blue arrows. Once you have selected the source click on the tick mark to accept and set the source background, the background list menu will display once more in case you want to change the source, click on the red X to close this menu.



Capture Device Configuration Menu

AVI Player - Input Source

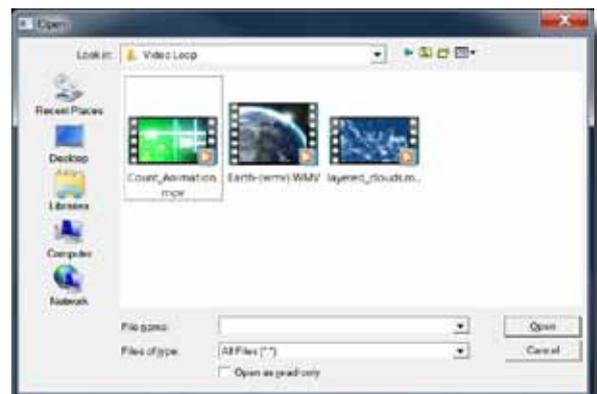
If you want to use a video clip as the background source for your scene, click on Input Source and from the background list select AVI Player option.

The file open dialogue will display, browse to the video file you wish to use, select it and click Open.

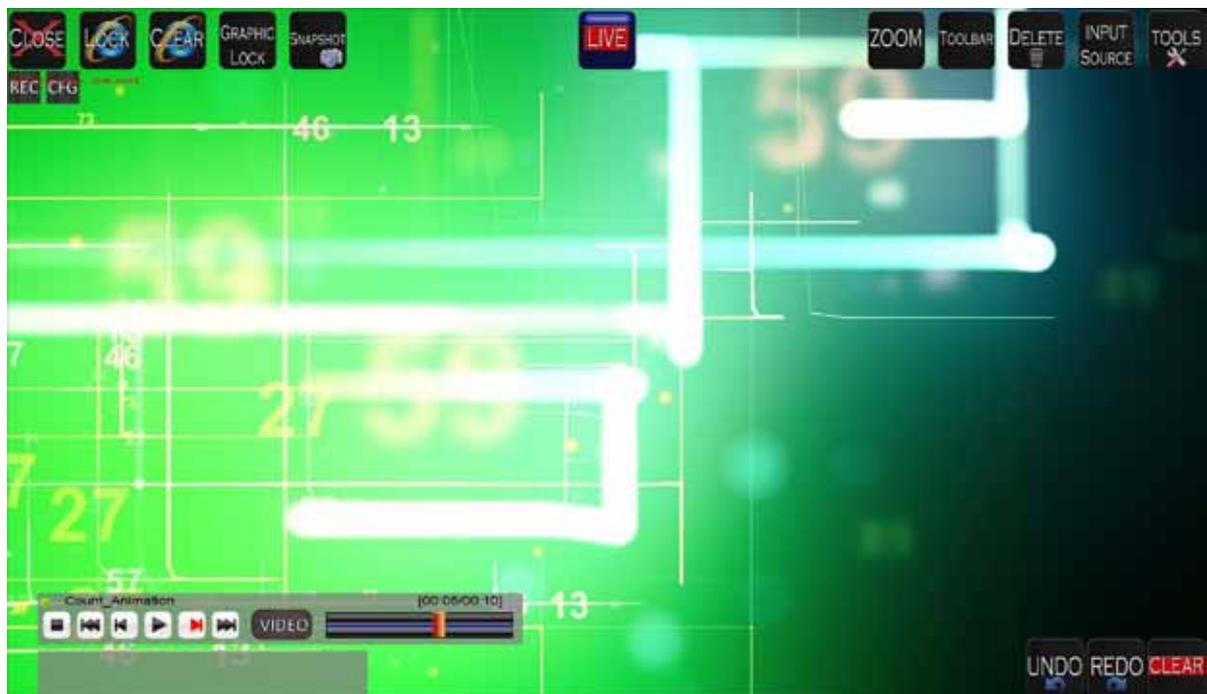
The video file will load up in the background and the video player control bar will be displayed. You can move the Video player control bar if you want to reposition it. If you get an error message after selecting a video file, this means that the required video CODEC (decoder) has not been installed on the system and the application can not find a way to playback the video.



Select AVI Player from List



Select Video File



Video file loaded into background and video player control bar repositioned towards bottom of screen.

Adding Tools to the Tool bar

To add tool buttons into the tool bar area, first click on TOOLS button which will display a list of available tools, next click on the required tool and it will be added to the tool bar.

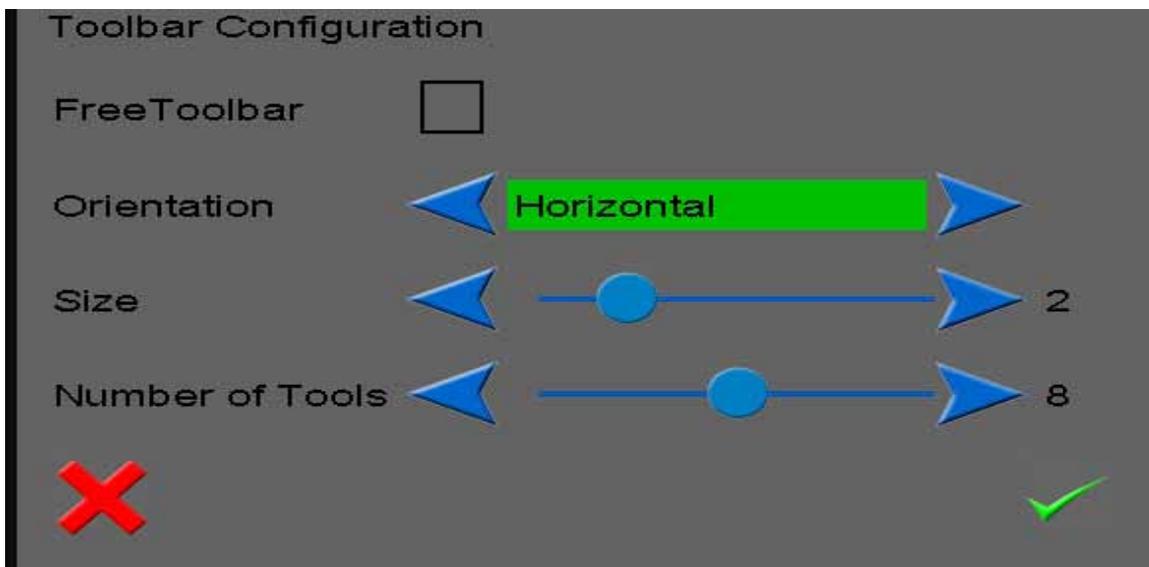
Once you have finished adding the required number of tools for your scene, click the red X to close the list.



Tool List Panel

Tool bar Settings

Whilst in New or Edit Scene modes, you can adjust the Tool bar settings by clicking on the Tool bar button at the top, this will display the Tool bar configuration menu as shown below.



Tool bar Configuration

The default orientation for the Tool bar is Horizontal, however you can set this to Vertical, note that if you are going to use the List Tool then a vertical tool bar may overlap the list buttons, you can reposition the Tool bar by using the mouse to drag it into a new location.

The size option allows you to set the size of the tool bar and buttons within it, normally you should try and use the largest size appropriate for your desktop resolution, this will make it easier for users to click on the buttons when using a touch screen device.

The number of tools option, sets the number of tools that will be visible in the tool bar at any given time, if you have more tools in your tool bar than the number of tool setting, you will see blue navigational arrows either side of the tool bar which will allow the tools to be scrolled.

The Free tool bar option allows you to freely place buttons on the screen without the constraint of the tool bar, to activate the Free toolbar mode, click on the square to place a tick, the normal tool bar will now be hidden, if you now add tools from the tool list they will be placed on screen, you can then simply drag these to any position desired.

You can also have a setup which uses both Tool bar and FreeToolbar modes, first use the normal tool bar and add your tools, then select free tool bar, add the tools required and position the buttons on the screen, after you have done this you can go back to the tool bar settings and untick the free tool bar option, you will now see both the tool bar and the free tool bar buttons displayed, as shown in the example below.



Example above, shows both Free and standard tool bar modes used in the Scene

Tool Settings

For specific information regarding each tools setup and options please refer to the detailed Tool setup section.

To access a tools configuration menu, you need to be in either Edit or New scene mode, click and hold for two seconds or more on the tool that you wish to adjust and a configuration menu will be displayed.



Draw Tool Configuration Panel



Draw Tool Colour Configuration Panel

Removing Tools from the Scene or Tool bar

If you need to remove tools from a scene or tool bar, then you need to be in either Edit Scene or New Scene modes.

To remove a tool, first click on the Delete button to highlight it, next, click on the tool that you want to remove and it will be removed.

Note: the Delete button remains active until you deselect it, so be careful that you do not click on any other tool button otherwise it will be deleted. Once tools have been deleted they can only be replaced by adding them via the Tools list menu, note also that any previous settings will not be recalled and the added tool will have default settings.

Snapshot Settings

The Snapshot button allows users to capture still images of the background and any annotations or graphics that have been placed on screen. The Snapshot button is not displayed by default, to display the button in a Scene you need to click and hold for two or more seconds on the Snapshot button and the configuration menu will be displayed, shown below.



Snapshot Settings Panel

To show the Snapshot button when the Scene is loaded click on the Display in Load Scene square to place a tick mark. This will show the button when the scene is loaded and upon each click of the button it will capture and store the image in the Snapshots folder, which you can find under shared documents / Point-HD Trainer Documents.

Below this option is the setting to Recall Snapshots, if you set this option to be active by placing a tick mark then you will see displayed additional left and right arrows, these arrows will allow you to recall snapshots that are located inside the snapshot folder during a presentation.

You can reposition the arrows if required, note that the arrows are similar to the ones used with Load Sequence mode, so place them in a location which will not confuse the user as to which are snapshot related and scene related.

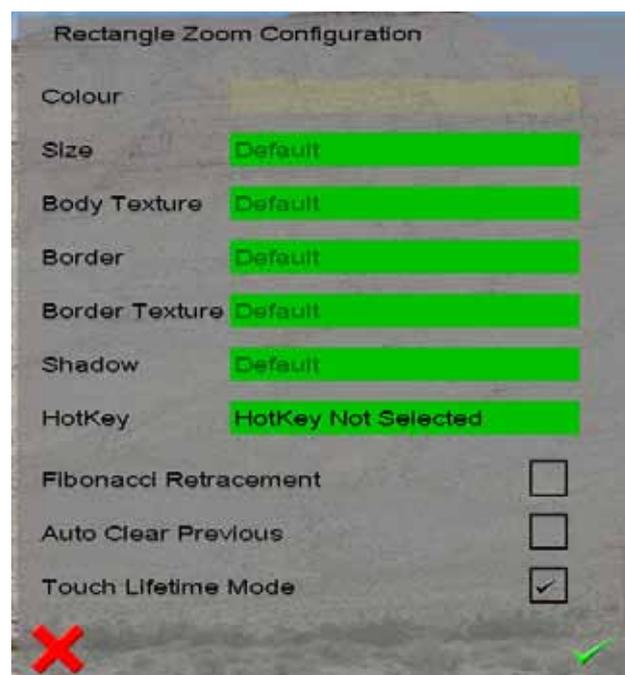
In the final option you can choose the file format to save the snapshots, by default Jpeg is set, however you can choose any of the available listed formats.

Note that the Snapshot setting is on a per Scene basis and is not a Global setting, therefore if you need Snapshot tool in each of your scene files then you will need to set this accordingly for each scene.

Zoom Tool

This section describes the functionality of the zoom tool which is also referred to as the Full screen zoom. This zoom button when selected allows the user to define an area of the background which is zoomed up full screen. The zoom tool works with any input or background source, still image, video clip, live video etc.

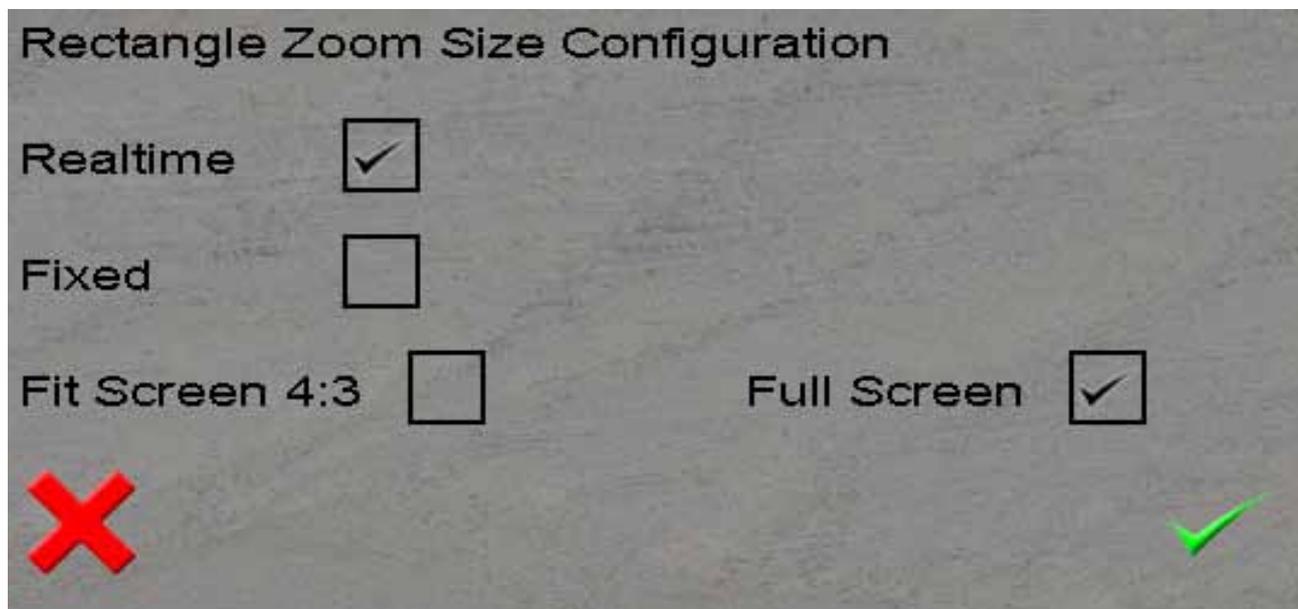
This zoom tool has a number of configuration options, to open the configuration panel, click and hold on the zoom button for two or more seconds and the configuration panel shown below will display.



Rectangle Zoom Configuration Panel

Within the zoom configuration panel the main settings are the colour, border and size. The other settings have no effect.

Click on the size option to open the settings page as shown below.



Rectangle Zoom Size Panel

By default the Realtime mode is selected, which allows the user to define the rectangle area for the zoom, you can also select a Fixed and adjust the width and height of a preset rectangle area to zoom to.

The Full screen setting is also selected by default, which means that the zoomed portion will fill the entire background screen area, if however you would like to have a centered image in a 4:3 aspect ratio as the zoom setting then you can select that within this configuration panel.



Centered & 4:3 zoom

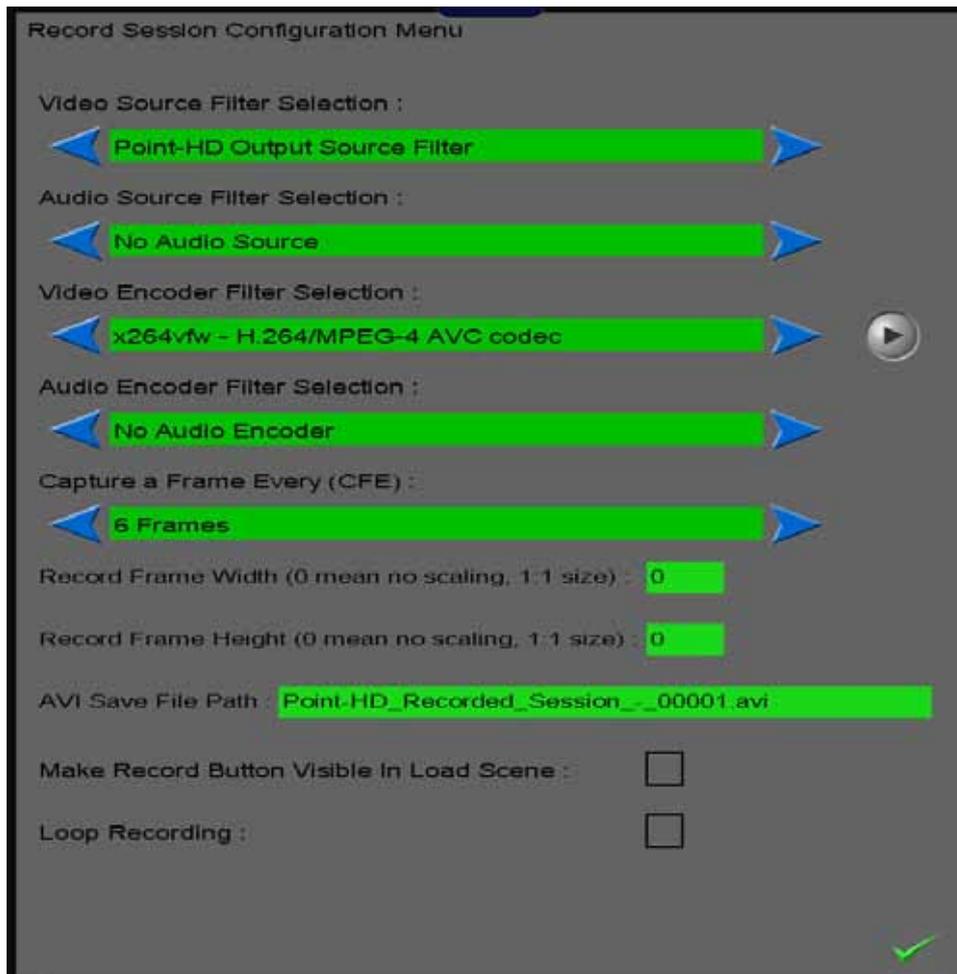


Full screen zoom

Record Configuration and Setup

The Point-HD application features the ability to record a video file of the onscreen annotations with audio. This section covers how to configure the recording parameters and setup the record button to display in a scene file.

Whilst in New Scene or Edit Scene modes click on the button marked CFG (Configuration), you will see a message which says "Acquiring Codecs, this might take a moment", click OK and wait until this message disappears and then the main configuration panel will display, as shown below.



Record Settings Panel

Video Source Filter Selection - this should normally be set to Point-HD Output Source Filter - this filter setting will record the background and annotations as seen on the output display (without any of the GUI buttons), the other filter choice is Point-HD Desktop Source Filter, choosing this option will record the output from the touch screen which will also show all of the GUI tools and buttons.

Audio Source Filter Selection - this will normally display the available audio sources connected to the system, such as microphone. The source must be connected to the system before the Point-HD application has been started.

Video Encoder Selection - this should normally be set to x264vfw - H264/MPEG4, there are other choices available, to record in other formats if required. Note that next to this selection is a button (looks like the Play button) to open the configuration of the Video Encoder.

Audio Encoder Filter Selection - this is to choose the audio encoder required, which in general should be Microsoft ADPCM. If you don't want to record audio then leave this set to No audio encoder.

Capture a Frame Every (CFE) - This setting is used to try to capture at a frame rate which is close to video frame rates (between 20 to 30 frames per second), since we are capturing from a computer whose refresh is typically 60 frames per second which is too high for most video editing systems, we need to reach a lower rate. On most systems leaving this at 6 frames will provide good frame rate and system performance.

Record Frame Width and Height settings, leaving both at 0 value will result in the system trying to capture at full resolution and if your desktop is set for 1920 x 1080 this will greatly impact performance. Typically if the recordings are to be viewed via DVD etc then you can set this for 640 x 480, if viewing on other computers then you could set this to say 800 x 600 or 1024 x 768.

If you want a close to HD recording as possible then setting the values to 1280 x 720 will give good results as well.

AVI Save File Path - By default the system will record to the Recordings folder located in shared documents/ point-hd trainer documents / recordings on the main (C) drive. This will be ok for most short recordings as long as the drive has the available space. If you are going to make long recordings or you are using the PHD-2112 system then you should use a secondary disk to make your recordings to. Set the path and folder to save the recordings in this configuration panel.

Make Record Button Visible in Load Scene - set this with a tick mark so that the button is visible during load scene, note that this setting is Global, meaning it will be displayed in all scenes.

Loop Recording - leave this unticked, its functionality will be covered in the next section.

Once you have set up the required configuration, click on the tick mark to accept the changes and exit the configuration menu.

When you want to make a recording click on the REC button and the recording will be started, to stop the recording click on the Rec button once more.

Note: if you are in Sequence mode, you should stop the recording before you change the scene.

Loop Record Configuration and Setup

The Loop Recording feature is used when you have a live input, for example from a Video confering system, in which case you would be vieweing the video from a remote source. With Loop recording enabled, the system will cache the incomming video which can then allow the user to rewind back on the live feed. Note that this function will introduce a delay between the incomming feed and the displayed output.

If you have Loop recording enabled you cannot use the normal record function of the system.

To setup the Loop record, go into the record configuration panel by clicking on CFG button and then set the following values for the items listed below:

Video Source Filter - set this to XV-RGB-E1S

Audio source - Microphone or Line In

Video Encoder - set to no video encoder

Audio encoder - set to ADPCM

Record Frame Height & Width - set to both 0

AVI file path - leave as default or secondary record disk.

Make Record Button Visible - set to ON

Loop Record - set to ON

Record Clip Duration - leave as 300

Click tick mark to save changes and exit the menu.

To start the Loop recording, click the REC button and a samller movie window will open, let it open and close and then the video player control bar will be displayed along with the background video.

As the recording progresses, the scroll bar on the video player control will move, if you want to pause the live input then click on the pause button and use the scroll bar to wind back to review or wind forward to catch up with the live input.

Click the REC button to stop the loop recording when done and also before you switch scenes when in Sequence Mode.

