Quintic Software Tutorial 6g

Quintic Image Recording Platform

V35

1. **Quintic Image Recording Platform**
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1. Quintic Image Recording Platform

The Quintic Image Recording Platform allows users to set a pre/post buffer for recording videos (e.g. 2 seconds before clicking "Record" and 2 seconds after this has been clicked), trim videos before saving and change camera settings more easily than before.

Quintic Sports v35 software is able to record video footage from 1 Quintic Camera.

Quintic Coaching v35 and Quintic Biomechanics v35 software are able to record video footage from 1 to 6 Quintic Cameras.

Once the Quintic Image Recording Platform has been installed and the Quintic Camera has the correct Cam ID (for IDS Cameras) or been configured correctly (for CVB Cameras), you are now ready for the camera to be opened within the Quintic software. Please click on the 'Quintic Image Recording Platform' button within the camera tab which should now load the camera capture program. The camera capture program will only load if a Quintic Camera is plugged in.
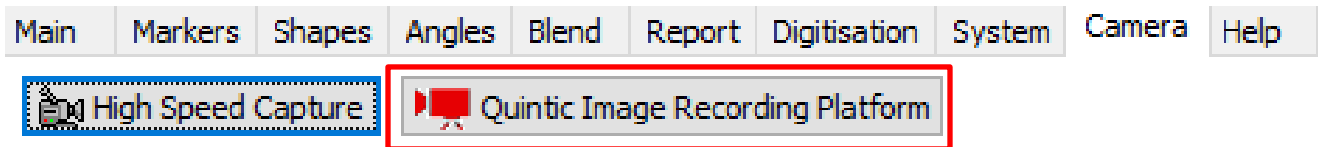
The Quintic Image Recording Platform should then open with a live view of the camera(s) which are plugged into the PC and are configured correctly. The first time the Quintic Image Recording Platform is opened, it will open with 1 camera, regardless of how many you have plugged into the PC. This can be changed by going into the Settings, then Acquisition. Please read on for further information.
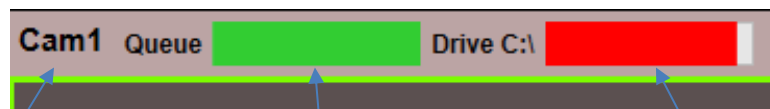
Shows which Camera this window is displaying.

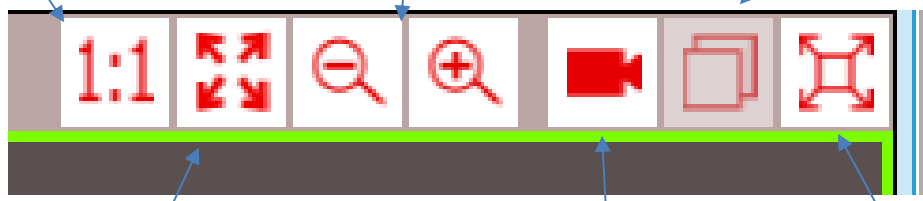Shows how full the camera buffer is.

Shows how much space is available on the C Drive of the machine.

Cam1	Queue		Drive C:\				1:1					

Displays the live view at its original size.

Allows the user to increase or decrease the size of the live view.

Shows all of the other camera views which are currently open.
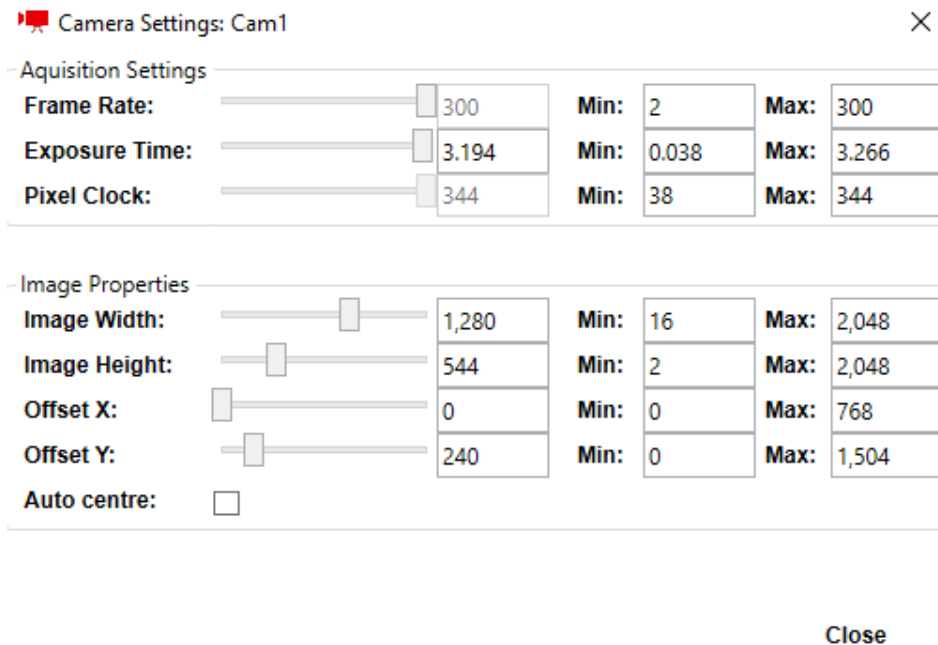
Displays the live view in full screen.

Allows the user to adjust the camera settings for this particular camera. Please see the next page for further information.

Maximises the current camera view so that this view is the only one visible.

When the user clicks on the Camera Settings button, this will bring up the following window, where users can adjust the settings of the camera.

Camera Settings: Cam1   ✕

Aquisition Settings

Frame Rate:	300	**Min:** 2	**Max:** 300
Exposure Time:	3.194	**Min:** 0.038	**Max:** 3.266
Pixel Clock:	344	**Min:** 38	**Max:** 344

Image Properties

Image Width:	1,280	**Min:** 16	**Max:** 2,048
Image Height:	544	**Min:** 2	**Max:** 2,048
Offset X:	0	**Min:** 0	**Max:** 768
Offset Y:	240	**Min:** 0	**Max:** 1,504
Auto centre:	☐		

Close

Frame Rate – This shows the current frame rate the camera is running at. Users are also able to see the minimum and maximum frames per second available for the current image resolution. Users do not set the frames per second for the video here – this is done on the right hand panel of the main software window.

Exposure Time – This shows the current exposure time of the camera. Users can adjust this per camera and also see the minimum and maximum exposure times.

Pixel Clock – This sets the clock rate at which the image data is read from the sensor. We would recommend this being at the maximum to run the camera at its full potential (default is maximum).

Image Width – This shows the current width of the live view, as well as the minimum and maximum widths available. Users are able to adjust this accordingly per camera.

Image Height – This shows the current height of the live view, as well as the minimum and maximum heights available. Users are able to adjust this accordingly per camera.

Offset X – This allows the user to put an offset in the horizontal axis from the left-hand edge on the live view, should they not want the image to be captured from the centre.

Offset Y – This allows the user to put an offset in the vertical axis from the top edge on the live view, should they not want the image to be captured from the centre.

Auto Centre – Selecting this puts the Area of Interest in the centre for both X and Y.

On the right hand side of the Quintic Image Recording Platform are the main controls, where the user is able to control frame rate, pre/post triggers, save/create presets and choose where the recording should be saved as well as the file name.

Preset

300 fps

Frame Rate	300	fps
Pre Trigger	2	s
Post Trigger	2	s

Settings

Sequence

Example

Index   0001   Reset

Target Folder:

C:\Users\User\Desktop

Browse...

Save Preset. This saves the current settings for all the cameras into one preset. Users are able to create presets which are saved in the Quintic Image Recording Platform software.

Add Preset. This allows the user to create a new preset. This should be pressed to start a new preset. Once users have created the preset and adjusted the settings accordingly, this will need saving by pressing the Save Preset button.

Delete Preset. This deletes the current preset.

300 fps   This shows the current preset which is being used in the Quintic Image Recording Platform. Users are also able to use the drop down list to view/use other presets.

Frame Rate – This is the frame rate for all of the cameras which are open in the Quintic Image Recording Platform. Users control this from here. It is important that the user has checked the settings for each individual camera to confirm that they are all able to run at this requested frame rate at their current image resolutions. If the user sets the Frame Rate too high for what the image resolution can cope with, the software will automatically change the Frame Rate to the maximum Frame rate it can cope with.

Pre Trigger – This controls how many seconds are going to be recorded before the user clicks the "Record" button. It is important that the buffer count is big enough to cope with the pre trigger. Buffer count is controlled within the settings tab.

Post Trigger – This controls how many seconds are going to be recorded after the user clicks the "Record" button.

Settings – These allow the user to adjust the settings for the Quintic Image Recording Platform. Please see below for more information on the settings window. Once settings have been changed, the Quintic Image Recording Platform will need to be closed and reopened in order for these changes to come into effect.

Sequence – This is where the user is able to name the video. Users have the option to add video indexes/dates and times to the file name within Settings > Recording.

Target Folder – This is where the user is able to choose the folder in which they would like the video to be saved. We would recommend this to be a folder on the PC (i.e. not on an external hard drive or the cloud). If your PC has an SSD and a standard Hard Drive, we would recommend you use the SSD.

a. Settings

If the user clicks the settings button, this will bring up the following window, where there are 3 tabs across the top.

Users do not currently need to adjust any settings in the "Plug In" tab. This controls the Acquisition and Recording Engine.

Within the "Acquisition" tab, this is where users are able to control the Buffer Count, Number of Cameras, Pixel Clock and whether they would like a Freerun Recording.
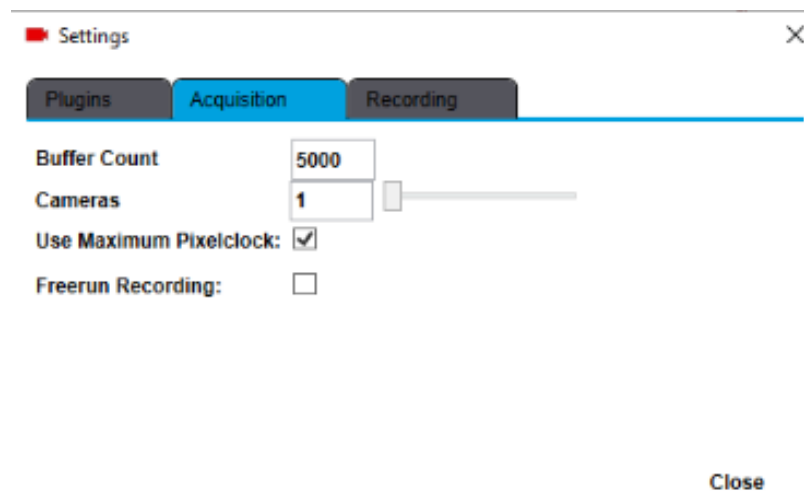

Buffer Count – This controls how many frames are in the buffer (pre trigger). This needs to be big enough for the pre trigger that the user sets. For the example above, the user has 5000 frames in the buffer, which would be more than enough for a video captured at 300 fps with a 2 second pre buffer (600 frames). This buffer count is per camera, not for all cameras which are open. For example a 5000 buffer for 4 cameras would be 20000, not 5000 split across 4 cameras.

Cameras – This is where the user is able to control how many cameras are open at one time within the Quintic Image Recording Platform. Quintic Sports v35 users are limited to 1 camera. Quintic Coaching v35/Quintic Biomechanics v35 users are able to choose between 1 and 6 Quintic cameras. Once the number of cameras has been changed, the Quintic Image Recording Platform will need to be closed and reopened in order for these changes to come into effect.

Use Maximum Pixelclock – This is where users are able to select whether the cameras are using maximum pixelclock or not. Users should only untick this if the Quintic Cameras are required to be scaled back from running at optimum levels.

Freerun Recording – This is where the users are able to select whether the cameras are to capture videos using Freerun, rather than any buffers. Freerun recording is limited to 1 camera and 100fps. When Freerun is active, the record button changes to Start, and the user presses Start when they want the recording to start, then stop when they want the recording to stop. The video has a time limit of 45 minutes. Once a video has been recorded, users still have the option to trim it should this be required.

Within the recording tab, users are able to select the encoder, file name generation and the target folder for the preset.
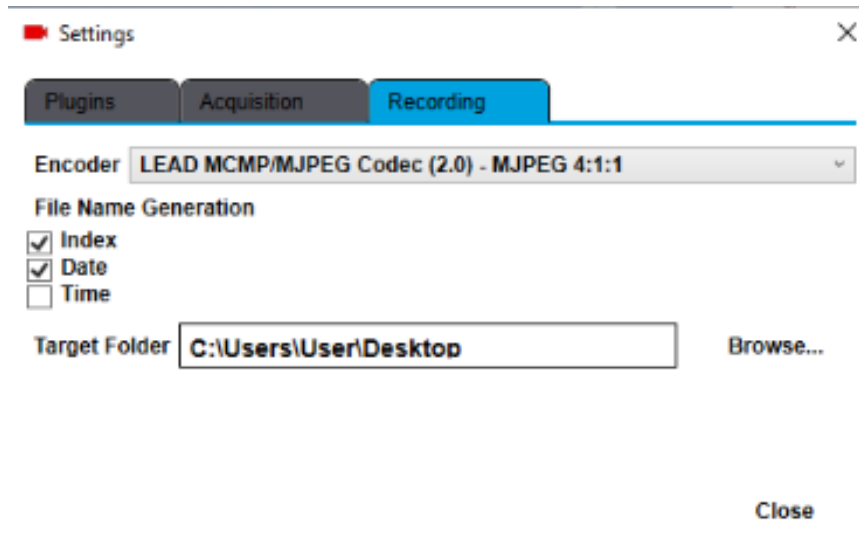

Encoder – This allows the user to control whether the video is captured with compression on or not. We would recommend the users capture with 'Lead MCMP/MJPEG Codec (2.0) – MJPEG 4:1:1' when capturing videos. For example, a 5 second video recording without compression could have a file size of 996MB, whereas with the Lead Codec used, a 5 second video has a file size of around 30MB.

File Name Generation – This is where the users are able to select whether they would like to include an index (number), date and time in the name of each video they record.

Target Folder – This sets the target folder for the Quintic Image Recording Platform.
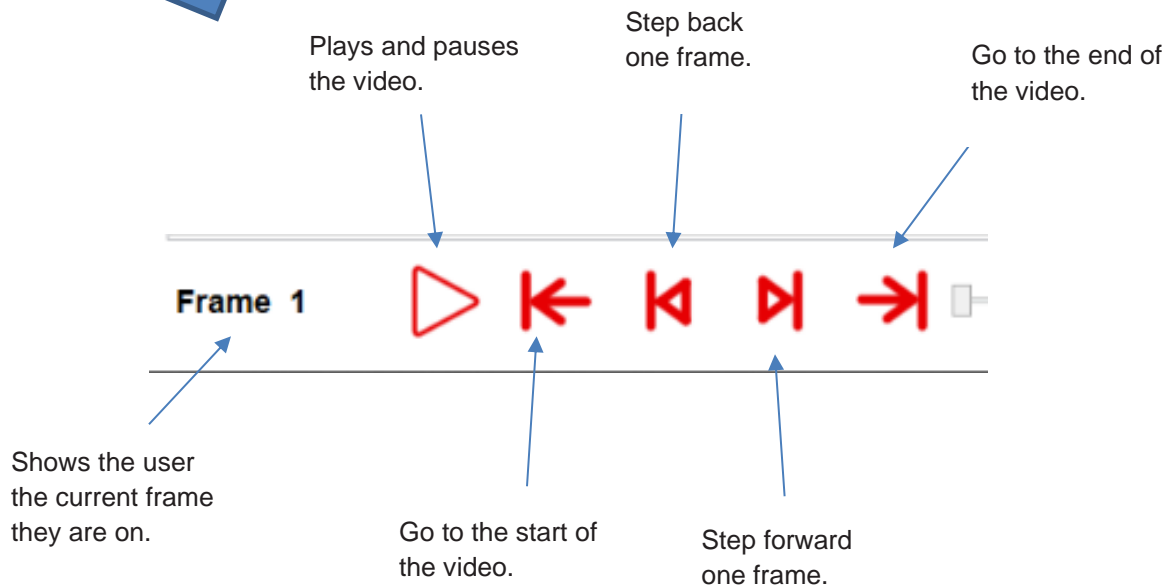
b. Recording Video Footage

Once users are happy with the settings of the camera, they are ready to record video footage. This is done by pressing the 'Record' button on the bottom right-hand side of the Quintic Image Recording Platform software.
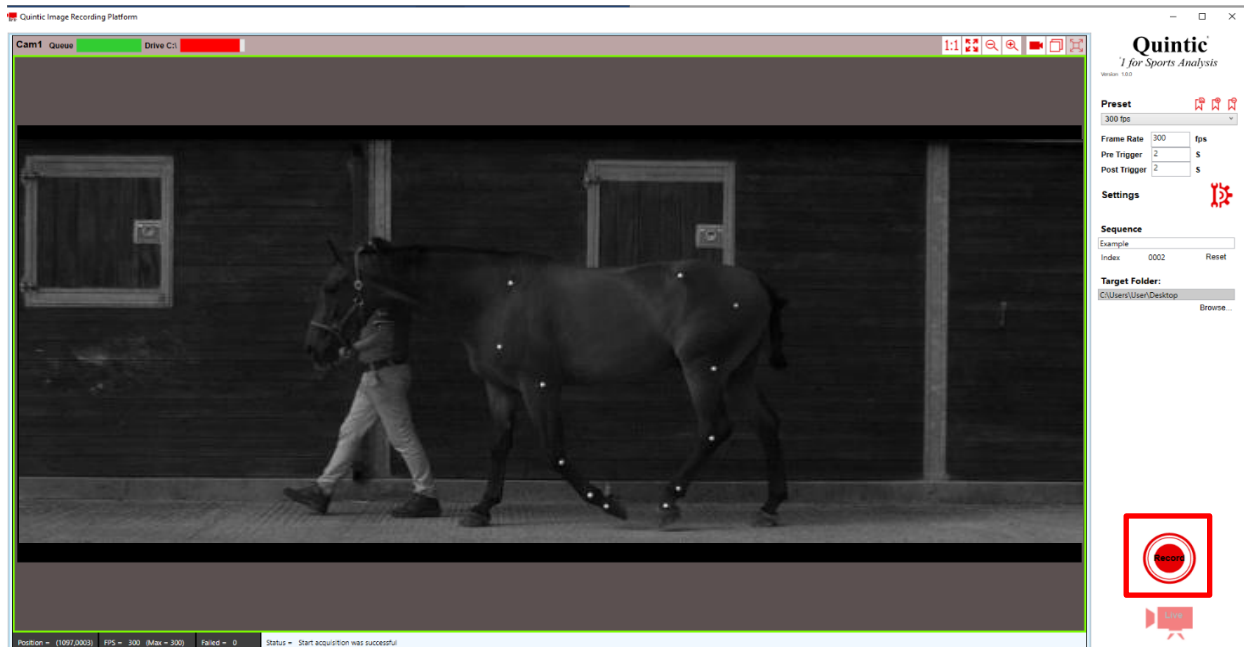
When the video is being captured, a green progress bar will appear to show the progress of the video being recorded. The Record button will turn into an Abort button whilst the video is being captured, which will cancel the recording entirely. (It will not simply stop the recording at its current point).

Once the video has been recorded, this will then load in the Quintic Image Recording Platform. Users are able to play and trim the video before moving onto the next recording.

Plays and pauses the video.

Step back one frame.

Go to the end of the video.

Frame 1

Shows the user the current frame they are on.

Go to the start of the video.

Step forward one frame.

If the users are happy with the video, they are able to press the Live button which will then close off the current video and save this, as well as open the live feed of the camera.

If the video needs trimming to remove excess footage, they can do this by using the trim buttons, illustrated below. Once trimmed, press the Live button to open the live feed of the camera and continue to capture videos should you wish to do so.
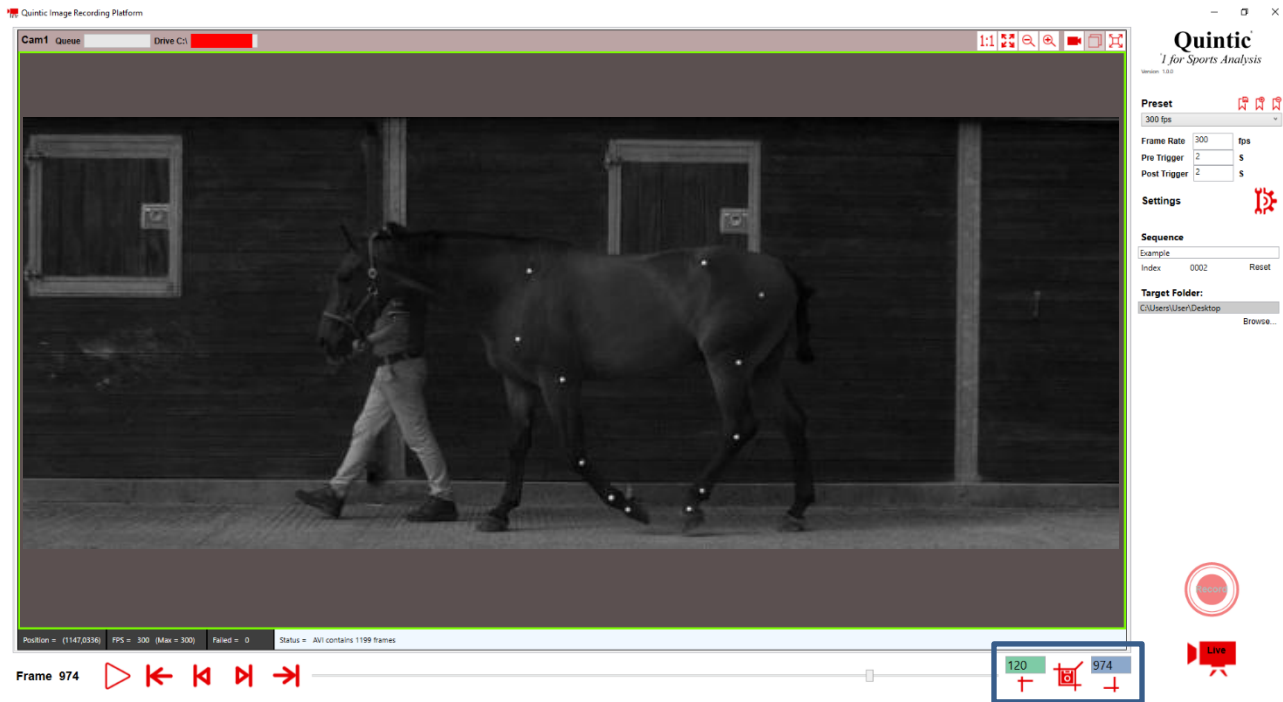
Press this trim button to save the trim. Please bear in mind this will overwrite the original video file.

Use the scrollbar to find the first frame to which you would like to "trim in" and click this button to select the point.

Use the scrollbar to find the last frame to which you would like to "trim out" and click this button to select the point.