Stop Motion Pro 7 help
# Stop Motion Pro 7 help

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Part I
1 Welcome to Stop Motion Pro v7

1.1 Introduction

Stop Motion Pro has brought stop motion animation into the digital era.

Creative freedom
Taking full advantage of computer technology, animators will experience new heights of control and creative freedom. Using a computer, video capture card and a video camera, Stop Motion Pro will transform the way you work and the results you can achieve. Both professionals and students of animation will work faster and produce superior results than ever before.

Trial edition
The Stop Motion Pro trial edition can be used for 20 times for three hours. Once you have tried the Stop Motion Pro trial edition, and would like a fully functioning, unlimited edition you need to purchase a copy.

You can purchase from a reseller or directly from our secure online shop. The price and ordering details are available on our website, www.stopmotionpro.com

Installation
For information on how to install Stop Motion Pro click here.

Camera compatibility
To get the maximum benefit of using Stop Motion Pro, you will need a camera. Information on how to connect your camera is here.

Registration
Once you have purchased the product you will still need to register it so you can unlock the software. Click here for more information on registering.

Quick start guide
To get up and running quickly use the Quick start guide that is located under the Stop Motion Pro installation directory. It shows how to perform the most used tasks. A link to the Quick start guide is on the Help menu.

Information in this Help
Each edition of Stop Motion Pro has a specially selected range of features designed for animators with different skill levels and requirements.

Therefore some of the items described in this help file may not be applicable to the version you have purchased. Check our website for more details on what is included in each version.
2 Installation, registering and unlocking

2.1 Installation

Stop Motion Pro can be delivered via Internet download or CDROM.

Uninstall any existing versions of Stop Motion Pro, including the trial edition before installing a purchased edition.

Internet download
You will have received a Stop Motion Pro serial number via email or from your reseller. Use the serial number to download your edition from www.stopmotionpro.com.

CDROM
Insert the Stop Motion Pro CDROM into your CDROM drive and the Stop Motion Pro installation select window will be displayed.

It is important to install the correct edition of Stop Motion Pro. Your edition information is located with your serial number on the inside of the CD case.

Install Action! / Action! Plus single
Install Action! HD
Install Studio HD / Studio HD Plus
Install Action! / Action! Plus Network
Install Tutorials
View teaching kit
Close

Create your own animated films!
www.stopmotionpro.com

Identify the edition you have purchased and click the appropriate button. The setup wizard for the selected edition will then be displayed.

If the installation select window is not displayed, run the application setup_stopmotionpro.exe on the CDROM.

2.2 Hardware requirements

You will need the following to install and run Stop Motion Pro:
• Windows XP, Vista 32 bit, Vista 64 bit, Windows 7 32 bit, Windows 7 64 bit
• Either a firewire or analogue video capture card, webcam or digital still camera (see Video compatibility).
• Pentium 2.8+ Ghz (recommended)
• 512+ meg RAM (recommended)
• DirectX 9 or later version. More information about DirectX is available from Microsoft. www.microsoft.com/directx

You can also run Stop Motion Pro

2.3 Registration and unlocking

After installation you need to register Stop Motion Pro

The registration process occurs the first time you run Stop Motion Pro.

• Each copy of Stop Motion Pro comes with a Serial number. This is attached to the CDROM if purchased via a reseller, or sent by email if purchased on line.

• A Computer ID is generated by Stop Motion Pro.

• Using the Serial number and the Computer ID, an unlock code is obtained from our website, www.stopmotionpro.com

• Stop Motion Pro needs to be registered on each machine for ongoing use.

Running the software the first time
Once you have downloaded your copy of Stop Motion Pro, install it on the computer you want to run Stop Motion Pro.

Run Stop Motion Pro and the following dialog box will be displayed.

Select your language then click OK. The following dialog box will be displayed.
Every computer will have a unique Computer ID, you must follow these steps when installing Stop Motion Pro on different computers.

Unlocking Stop Motion Pro
Now you have your Computer ID, the next step is to create an unlock code which will unlock your copy of Stop Motion Pro.

Enter your serial number, name and email.

If your machine is connected to the Internet, click Register Direct Online and the unlock code will be automatically calculated.

You can obtain your unlock code manually from the Unlock section of www.stopmotionpro.com. You will be emailed your unlock code. It is recommended that you use copy + paste to enter the various codes.

Enter all the registration information fields, then click OK. The Save options dialog box will be displayed.

A registration text file can be used to save and reapply your registration information. It has the following format:

[SMP REGISTER]
name=
email=
serial=
unlock=

To open a registration text file, click **Open Unlock file**.

To Save your registration information in a text file, click **Save Unlock file**.

### 2.4 Save options

This dialog box sets the initial Stop Motion Pro home directory. All created Productions will be listed below the home directory in separate sub directories.

Select the option then click **OK**. The Welcome dialog box will be displayed.

The default directory for **specific Windows login** option is your default documents directory \SMP_v7_projects.

The default directory for **all Windows users** option is c:\My documents\SMP_v7_projects.

If the **all Windows users** option is selected, click here for information on how to set Windows security.
Part III
3 Configuring Windows

3.1 Windows Vista color scheme

When using Stop Motion Pro on Windows Vista or Windows 7, a number of the display parameters need to be changed to enable high speed operation when playing the stored frames.

Stop Motion Pro changes these parameters automatically, and reset them to their previous value when closing.

When Stop Motion Pro starts, the following balloon message is displayed by VISTA.

Click the balloon and the following message is displayed:

Tick **Don’t show me this again** then click **OK**.

3.2 Windows security

Every Window’s user of Stop Motion Pro must have read/write/delete permissions for the Stop Motion Pro home directory and Production/Shot subdirectories.
The security settings for these directories may have to be changed on your machine to allow all users to have full control over the contents of the directory and subdirectories.

The process for setting permissions on XP click here.

The process for setting permissions on Vista and Windows 7 click here.

### 3.3 Windows security XP

Use the following process to check the permissions.

Start Windows Explorer.

Select menu **Tools|Folder options**

Scroll down the list and ensure **Use simple file sharing** is NOT ticked.

![Folder Options](image)

Click **OK**.

Right click on the Stop Motion Pro Production/Shot home directory and select **Properties** from popup menu
The following dialog box is displayed.
Select **Users** from the Group or User name list then tick **Full control** in the Allow column.

Click OK

To ensure the permissions are set correctly, run Stop Motion Pro with a Windows Administrator login, then repeat for a Windows User login. Perform the following tasks:
1. Create a new Production/Shot
2. Capture some frames
3. Close the Production/Shot
4. Reopen the Production/Shot and Click Play
5. Close Stop Motion Pro

### 3.4 Windows 64 bit

Stop Motion Pro v7 can appear to run sluggish under some installations of Windows 64 bit.

The solution to this problem is described below:
Install Stop Motion Pro in the standard way.

Register Stop Motion Pro and obtain the unlock code

Close Stop Motion Pro

After registration, right click on the Stop Motion Pro desktop icon. The following is displayed:

Select Properties and the following dialog box is displayed:
Configuring Windows

· Select the Compatibility Tab
· Tick Run this program in compatibility for
· Select Windows XP from the drop down list.

Then click OK and start Stop Motion Pro v7 by double clicking the desktop icon.

3.5 Windows security Vista, Windows 7

Use the following process to check the permissions.

Right click on the Stop Motion Pro Production/Shot home directory and select Properties from popup menu
The following dialog box is displayed.
Select the **Sharing** tab.
Click Advanced Sharing and the following dialog box is displayed.
Tick **Share this folder**, then click **Permissions**.

The following dialog box is displayed.
Select the Group or User name

Tick **Full control** in the **Allow** column

Click OK

To ensure the permissions are set correctly, run Stop Motion Pro with a Windows Administrator login and a Windows User login. Perform the following tasks:

1. Create a new Production/Shot
2. Capture some frames
3. Close the Production/Shot
4. Reopen the Production/Shot and Click Play

### 3.6 Audio recording on Vista, Windows 7

A typical problem with sound recording in Windows Vista is that the required mixer devices are **disabled** by default. Normally Vista only allows you to select between Microphone and Line In inputs, neither of them being very good ways to get your in-game audio recorded to videos. This typical situation causes the Stop Motion Pro Audio recorder to not display the full set of inputs.

However, most sound hardware drivers actually allow you to enable mixer devices that can be used to directly record the sound you hear from your speakers, i.e. your game sounds. To be able to use these in Stop Motion Pro you need to first enable them.

**Step 1:** Access **Control Panel** from the **Windows Start** menu.

**Step 2:** Switch to **Classic View** and double click on the **Sound** icon.

**Step 3:** Select the **Recording** tab and right click anywhere in the **blank white area** of the window to display the Show Disabled Devices context menu and select **Show Disabled Devices** from the popup menu.
Step 4: You should now see all the sound devices the system can provide. Right click on the disabled device you want to enable and choose **Enable** from the popup menu.
To minimize problems with Stop Motion Pro, try setting the selected device to be the default mixer by clicking on it and then selecting **Set as Default device** from the popup menu.
Click **OK** to save the settings.

You need to close and re-open the Stop Motion Pro Audio recorder to show the changes made in Control Panel.
Part IV
4 Camera compatibility

4.1 Camera compatibility

To get the maximum advantage using Stop Motion Pro, a camera should be used and connect at all times. A range of cameras can be used.

DV (Digital Video, using IEEE 1394, Firewire or iLink)
If you have a digital video (DV) camera, you'll need either a FireWire card (also known as IEEE 1394). FireWire is recommended for the best quality results. Many new PC's come with a FireWire card already installed. If not, there are a number of manufacturers that make a card that will work with your PC, any generic Firewire card will work with Stop Motion Pro.
**DV cameras should not have video tapes in them to avoid going into standby mode. Some cameras come from the factory with demo mode set. This must be turned off.**

HDV (Digital Video, using IEEE 1394, Firewire or iLink)
If you have a digital video (HDV) camera, you'll need either a FireWire card (also known as IEEE 1394) capture card.
**HDV cameras should not have video tapes in them to avoid going into standby mode. Some cameras come from the factory with demo mode set. This must be turned off.**
When using a HDV camera with Stop Motion Pro, an MPEG decoder must be installed.

Analogue video devices
If you have an analog camcorder, or a VCR, you will need an analog video capture device that converts the video signal into USB. The cards we recommend are the Osprey series from Viewcast If you have a different analogue capture card then we suggest you test your capture card with the free trial of Stop Motion Pro before purchase.

Webcams
Stop Motion pro should work with most webcams.

Canon compact cameras
Some Canon compact camera will provide a live video feed from the USB connector on the camera. If your camera comes with Canon remote shooting software, it will probably work with Stop Motion Pro. We suggest you test your webcam with the free trial of Stop Motion Pro before purchase.

Canon DSLR cameras
Some Canon DSLRs will provide a live video feed from the USB connector on the camera. Other models can be used with a video assist.

Nikon DSLR cameras
Some Nikon DSLRs will provide a live video feed from the USB connector on the camera. Other models can be used with a video assist.

HD Blackmagic capture cards
Stop Motion Pro works with the Blackmagic capture cards to capture in uncompressed HD. However we suggest you test your Blackmagic capture card with the free trial of Stop Motion Pro before purchase.

Other digital still cameras.
Nikon, Olympus and Leica cameras that support "remote capture" via a PC connection and software can be used with Stop Motion Pro in directory scan mode

4.2 Using HDV

We have found using HDV directly into the PC can be quite problematic with various artifacts embedded in the video signal. This varies from PC to PC and unfortunately it is out of our control to fix.
We recommend using a Blackmagic Intensity card available from http://www.blackmagic-design.com/products/intensity/ and connecting to your camera using the Component connection from the camera.

With HDV there is a delay for the image to refresh in Stop Motion Pro after your model has been moved. This is normal and is a result of the HDV codec in the camera.

If you want to use a HDV camera directly with Stop Motion Pro, an MPEG decoder must be installed. FFdshow is free and has a good reputation for quality. Google FFdshow for more information.

It can also be downloaded from: www.stopmotionpro.com/downloads/ffdshow.exe

Download the file, then click Run. The following dialog box will be displayed.

Click **Next** to continue.
Click **Next** to continue.

Click **Next** to continue.
Click Next to continue.

Scroll down the list until MPEG-2 is displayed. Tick MPEG-2 and select libmpeg2
Click **Next** to continue.

Click **Next** to continue.
Click Install.

**Windows 7 additional steps**

Windows 7 uses its own codecs for decoding several audio and video formats. Using third party DirectShow filters instead of the native filters is not possible without making difficult changes to the Windows Registry.

The Win7DSFilterTweaker tool allows you to configure your preferred DirectShow decoders with just a few mouse clicks. It is quick, easy, and changes can always be undone.

Download the tool from here: [www.codecguide.com/windows7_preferred_filter_tweaker.htm](http://www.codecguide.com/windows7_preferred_filter_tweaker.htm)

Download the file, then click Run. The following dialog box will be displayed.
Scroll the 32 bit decoders to MPEG2 and change from Microsoft to ffdshow.

Now you have installed a MPEG decoder so you can film animation using HDV with Stop Motion Pro.

- Connect your HDV camera to the computer using a Firewire (iLink) lead
• Turn the camera on so you have a live view in the camera viewfinder
• Start Stop Motion Pro
• Create a new Production/Shot
• On the Capture Settings dialog select Video/Webcam from the Capture type drop down list
• Select HDV camera. from the Device drop down list
Part V
5 Toolbar

5.1 Introduction

The Stop Motion Pro main toolbar is the control center for operating the program.

Stop Motion Pro operates in 3 main modes:
- Live/Capture
- Stored Play and Loop
- Editor

In addition you can change many of the Advanced settings.

**Live**
When a live video source is available, Stop Motion Pro will enable live video mode and the live button on the toolbar will become enabled.
A frame is captured from the live video by clicking the capture button. More information can be found here.

**Stored**
These are your captured frames, or frames that you have added to your film sequence. This button becomes enabled after a frame has been captured.
Stored frames can be stepped thru, played or looped. More information can be found here.

**Editor**
The Editor mode is available anytime you are using Stop Motion Pro. More information can be found here.

**Frame counter**
Displays the current stored frame number and the total number of frames. The display can be switched between sequential numbers and timecode in the Advanced Setup dialog box.

**Frames per second**
The play rate (how fast or slow the animation plays back) is visible in the fps (frames per second) window. The higher the number, the faster the animation plays back.

**Advanced setup**
To modify the various functions of the toolbar (eg, frames per second playback, number of frames per capture, onionskin parameters, looping etc) click the Advanced Setup icon.
5.2 Live mode

When a live video source is available, the live and capture button and onionskin transparency slider on the toolbar will become enabled. A live video source can be from a wide range of sources.

Live video is used as a guide for positioning figures, cameras etc. It is also required for advanced features of Stop Motion Pro including onionskinning, rotoscoping and the Chroma key tools.

To capture a frame from a video camera, click Capture on the main toolbar.

After a frame is captured, the frame counter will increment.

You can see the difference between the previous captured frames and the current live video by using the Onionskin function.

Move the Onionskin slider to the left to increase the visibility of the previous frame.

You can quickly toggle between live and Stored mode by clicking Stored and Live, or using the Live/Stored toggle shortcut key. (Default is the space bar).

Right clicking on the capture button lets you capture a number of multiple frames (saving multiple clicks).

Select Shoot ones or Shoot twos to set the default number of frames captured when you click capture.

Select any of the Capture options to capture that number of frames once.

Changes to capture settings can be made on the Capture settings dialog box or the Advanced settings dialog box.
5.3 Stored mode

These are your captured frames, or frames that you have added to your film sequence.

The stored button becomes enabled after a frame has been captured from the live video by pressing the capture button. You can quickly toggle between live and Stored mode by clicking Stored and Live, or using the Live/Stored toggle shortcut key. (Default is the space bar).

Play button
Click Play to play your animation. This button toggles between play and pause. When your animation is paused, the button becomes a play button. When your animation is playing, the button becomes a pause button. The play rate for the animation is visible in the fps window. Right click on the fps window and a list of fps options is displayed. Select the required fps from the menu. The fps can also be set on the Advanced settings dialog.

Frame indicator / slider
Use the frame indicator / slider to move quickly to any frame within your animation. More information is here.

Back one frame
Clicking this button moves the currently displayed frame of your animation back one frame. Right clicking on this button displays the following menu.
**Forward one frame**
Clicking this button moves the currently displayed frame of your animation forward one frame.
Right clicking on this button displays the following menu.

<table>
<thead>
<tr>
<th>Move to last frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move 1 second forward</td>
</tr>
<tr>
<td>Move to frame 1</td>
</tr>
<tr>
<td>Move 1 second back</td>
</tr>
</tbody>
</table>

**Looping**
When a loop is specified in the frame / loop indicator (see below) pressing the loop button makes the loop play continuously.
The zoom start and end is shown as light grey frames.

When your animation is paused, the button becomes a **loop** button.
When your animation is looping, the button becomes a **pause** button.

Right clicking on this button displays the following menu.

<table>
<thead>
<tr>
<th>● Loop range</th>
</tr>
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<tbody>
<tr>
<td>Loop from last</td>
</tr>
<tr>
<td>Loop single</td>
</tr>
</tbody>
</table>

Changes to Stored and loop settings can be made on the Advanced settings dialog box.

### 5.4 Frame indicator /slider

The frame indicator / slider tool lets you zoom in, out and navigate through your frames. This is useful for navigating (and setting loops) in long sequences of frames. It adapts to any number of stored frames.

**Zooming into a specific range of frames**
Move the **Resize handles** to zoom in on a range of frames.
Right clicking on the frame indications on the frame indicator / slider tool will display a popup menu.

It is possible to set the start and end points of the looping sequence using this feature. The loop can also be removed. The looping frames are indicated by light grey.

Moving the mouse over this area displays the frame number on the frame indicator panel.

Holding the mouse left button down and moving the mouse left and right quickly moves through the stored frames. If the Audio sync tool is being used and **Audio scrub** is ticked, the audio will be played for each frame.
Part VI
6 Sidebar

6.1 Sidebar introduction

The Sidebar gives quick access to the main actions and settings in Stop Motion Pro.

**Showing / Hiding the sidebar**

The sidebar can be shown or hidden by clicking the thumb.

To open or close a tab click the Caption for that tab.

Click *Advance settings* to display the Advanced settings dialog box.
7 Menus

7.1 File menu

New Production/Shot
Create a new Production/Shot. Displays the New Production/Shot dialog box or the New Production/Episode/Shot/Type/Take dialog box.

Open Production/Shot
Opens, copy, rename or delete an existing Production/Shot. Displays the Open Production/Shot dialog box or the Open Production/Episode/Shot/Type/Take dialog box.

Close Production/Shot
Save the setup parameters and close the current Production/Shot. All your frames and edits are saved as you work in Stop Motion Pro.

Save Production/Shot
Save the setup parameters for the current Production/Shot. This happens automatically when a Production/Shot is closed.

Import individual image
Import individual image files and add to the end of your animation. Displays the Import Individual files dialog box.

Import an AVI
Import an AVI file and add to the end of your animation. Displays the Import AVI file dialog box.

Make movie
Creates an AVI, MOV or WMV file of your animation. Displays the Make movie dialog box.
**Export as individual frames**  
Creates individual files for each frame of your animation.  
Displays the Export files dialog box.

**Export as flipbook**  
Prints a flipbook of your animation.  
Displays the Export flipbook dialog box.

**Export as Youtube**  
Sends your animation directly to Youtube.  
Displays the Export Youtube dialog box.

**Export frame list**  
Creates a list of the frame number in the play order and the filename. The filenames may be different than the play order if the Editor was used to move frames around or hide frames.  
Displays the Export frames list dialog box.

**Export RAW frames**  
If RAW files were captured in Canon or Nikon DSLR mode, creates a copy of the RAW files ignoring any hidden frames.  
Displays the Export RAW frames dialog box.

**Export multiple exposure**  
If multiple exposure was set in Capture settings, provides options to export to post production software ignoring any hidden frames.  
Displays the Export Multiple Exposure dialog box.

**Exit**  
Close Stop Motion Pro.  
Everything is saved as you work in Stop Motion Pro, there is no need to Save your Production/Shot.

### 7.2 View menu

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<td>● Video assist</td>
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<td>Full resolution viewer</td>
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<td></td>
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<td>Output to second monitor</td>
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<td>Video 100% size</td>
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<td>16:9 Format</td>
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<td>Mask to Safe zone aspect ratio</td>
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<tr>
<td>Reset Main toolbar</td>
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<tr>
<td>Show markers</td>
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<tr>
<td>Show safe zone</td>
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<tr>
<td>Show frame counter</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Show stored / live indicator</td>
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<td>Show crosshair</td>
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<tr>
<td>Show rule of thirds</td>
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</table>
Captured frames
"Captured frames" (also referred to as "Stored frames") are the high quality frames that make up the animation. This is the default viewing mode when using Stop Motion Pro.

Video assist
In some Capture type modes (with the term assist in them) video assist frames are captured at the same time as when frames are added to the Stop Motion Pro Production/Shot. By toggling between "Captured frames" and "Video assist", it is possible to use the video assist live video image as a reference for onionskinning, rotoscoping and the chroma key tool.

Video assist and captured frames are always linked together, changes to the captured frames in the editor are reflected in the video assist frame sequence.

This menu option is only available when a capture type mode with assist is being used.

Full resolution viewer
Stop Motion Pro allows viewing of captured frames at their full resolution. This is important if a 1:1 pixel view of the captured frames is required.
Displays the Full resolution viewer window with the frame visible.

Output to second monitor
Stop Motion Pro can display the captured frames and live view on a second monitor.
A dual head card is required to do this.

Video 100% size
Used in stored mode and live mode to set the resizable display window equal to the dimensions of the actual live video source.

16:9 format
Used in stored mode and live mode to set the resizable display window to a ratio of 16:9.

Mask to Safe zone aspect ratio
Mask the display to match the current Safe zone settings. The Safe zone is set on the Advanced settings dialog box or main Sidebar

Black screen during capture
During capture all Tool windows and the main display window are hidden to stop light spill from the computer monitor onto the animation set.

Reset main toolbar
Places the toolbar in the middle of the screen.

Show Markers
Toggle the display of markers on and off. For information on markers click here

Show Safe zone
Toggle the display of a safe zone on and off. Setup parameters are made on the setup overlay.

Show frame counter
Displays a frame counter over the video image on the stage. This is for reference only, and is not recorded on your actual animation. Setup parameters are from the setup overlay.

Show Stored live indicator
Displays a red light when you are in Live mode. This is for reference only, and is not recorded on your actual animation. Setup parameters are from the setup overlay.

Show crosshair
Place a cross in the middle of the frame.
Show rule of thirds
The rule of thirds is a compositional rule of thumb in photography. The rule states that an image should be imagined as divided into nine equal parts by two equally-spaced horizontal lines and two equally-spaced vertical lines, and that important compositional elements should be placed along these lines or their intersections.

This option is only available if Show Safe zone is enabled.

7.3 Settings menu

Capture settings
Change settings for frame capture (DV, Canon compact camera, DSLR, Directory scan and No capture card). Displays the Capture settings dialog box.

Advanced settings
Displays the Advanced settings dialog box.

System settings
Control of multiple users, modify the directory that Stop Motion Pro stores Production/Shots and other system parameters. Displays the System settings dialog box.

7.4 Tools menu

Audio sync
Audio record
Chroma key
Rotoscope
DOP control
Frame painter
Rig Removal
Time lapse
Preview player
Video player
Slate
Notes
Timeline
Worktime
Audio sync
Displays the audio sync tool.

Audio record
Displays the audio record tool.

Chroma key
Displays the chroma key tool.

Rotoscope
Displays the rotoscope tool.

DOP control
Displays the DOP control tool.

Frame painter
Displays the Frame painter tool.

Rig removal
Displays the Rig removal tool.

Time lapse
Displays the timelapse tool.

Preview player
Displays the Preview player tool.

Video player
Displays the Video player tool.

Slate
Displays the Slate tool.

Notes
Displays the Notes tool.

Timeline
Displays the Timeline tool.

Worktime
Displays the worktime tool.

7.5 Help menu

Contents
Quickstart guide
Video tutorials
Stop Motion Pro website
About
Opens this help file.

**Quickstart guide**
Open the Stop Motion Pro Quickstart guide pdf.

**Stop Motion Pro online tutorials**
A link to the Stop Motion Pro website online tutorials.

**Stop Motion Pro website**
A link to the Stop Motion Pro website

**About**
Opens a window with the current version build information and registered owner name.
Part VIII
8 Advanced settings

8.1 Advanced settings overview

The Setup dialog box is available from the main toolbar and main menu Settings|Advanced settings. Click the button on the left side to select the required settings group.

After making the appropriate changes click **Apply** or **OK**.

If you click **Apply** the dialog box remains displayed.
If you click **OK** the dialog box is closed.

### 8.2 Loop

The Setup dialog box is available from the main toolbar and main menu Settings|Advanced settings. Click **Loop** on the left side to select the required settings group.

There are three modes for looping.

The loop start and end frame are displayed in light grey on the main toolbar.
The looping mode can be selected by:
- clicking the option at the top left corner of the required looping mode
- using a pop up menu on the Loop button on the main toolbar
- assigning a shortcut key

To trigger a loop sequence use the loop button on the main toolbar. Stop the loop playback by clicking the pause button or loop button.

**Loop specific frames**
This option will set a loop of specific frames using this option. Any start frame or any end frame can be set.

Set the frame to start looping in the From spinedit.

Set the frame to end looping in the To spinedit. If Last frame is ticked the end looping frame will increase as frames are captured.

If Play once is ticked the looping will only occur once.

When there is a live video source, Include live mode is enabled. If this is ticked, the live video source image will be displayed at the end of the stored frames, for the mount of time set the Pause on live spinedit.

**Loop from last frame**
This option will set a loop of a set number of frames from the last frame. As frames are captured the start frame of the loop will increase.

Set the number of frames to loop in the Number of frames to loop spinedit.

If Play once is ticked the looping will only occur once.

When there is a live video source, Include live mode is enabled. If this is ticked, the live video source image will be displayed at the end of the stored frames, for the mount of time set the Pause on live spinedit.

**Loop from the Last/Current frame with fade to live**
This option will set continuous loop from the current or last stored frame to live video, with an option of a dissolve between.

Select Use current frame to loop the current frame and live.

Select Use last frame to loop the last frame and live. As frames are captured the frame of the loop will increase.
Set the time the stored frame will be displayed in **Stored frame hold time** spinedit.

If a instant toggle is required between the stored frame and the live, deselect **Auto blend**.

If a dissolve is required between the stored frame and the live, select **Auto blend**.

Set the time the live view will be displayed in **Live hold time** spinedit.

### 8.3 Play

The Setup dialog box is available from the **main toolbar** and main menu **Settings|Advanced settings**.

Click **Play** on the left side to select the required settings group.
**Stored frames play rate**

Refers to the speed (frames per second) that Stop Motion Pro plays back your animation. If you are going to output onto DVD or tape remember that NTSC is 30 frames per second, PAL is 25.

If you are experiencing choppy playback of your animation, you can experiment setting the play rate to **Play all frames** or **Optimize play for accurate fps**. Optimizing for accurate fps will mean frames are dropped if your system cannot keep up with playing back the animation, however you will get an accurate idea of timing. The **Preview player** can also be used to give an accurate idea of the animation at an exact fps rate.

If you have a high performance computer and graphic display card, tick **High performance machine**. This will display the frames in playback and looping with higher resolution.

To determine what settings to use, select **Play all frames** and tick **High performance machine**. Use a stop watch to evaluate the playback rate over a 20 second animation sequence to determine if your system can playback in this high quality realtime playback mode.

**Second monitor width** sets the width of the live and stored frames. The height is calculated to keep the same aspect ratio as the Capture settings frame width and frame height.

**Maximum Proxy size** sets the width of the proxy frame used for Stop Motion Pro display. The height is calculated to keep the same aspect ratio as the Capture settings frame width and frame height. We recommend leaving this at 800 pixels, unless an advanced PC is used. This must be set before any frames are captured.

**Frame Counter**

This switches the display of Timecode or simple sequential frame numbering. Changes here are reflected in both the toolbar and the editor.

### 8.4 Capture

The Setup dialog box is available from the main toolbar and main menu Settings|Advanced settings.

Click **Capture** on the left side to select the required settings group.
Select **Click sound when capturing** to enabled a hear a click through speakers or headphones when capturing has commenced and completed.

Enter the **Number of frames to capture for each capture** each time the capture button is clicked on the main toolbar. A capture process is activated by the remote control or keyboard shortcut keys.

It is also possible to right click on the capture button on the main toolbar to display a drop down menu, with multiple frame capture options.
Set the **Number of frames to show in the onionskin** for the Onionskin slider on the main Sidebar.

Set the speed and quality for RAW conversion using the **RAW conversion type** drop down list.

Set the file format for string HD frames using the **Save HD frame as** drop down list.

Stop Motion Pro can be synchronised with motion control equipment. If using HDV, Canon DLSR, Nikon DSLR or Blackmagic, the following process is used:

- When the Capture button is clicked, a low resolution (assist) image is captured immediately
- A pin is set on the Parallel port indicating capture has commenced. This can be used to control a motion control rig
- A delay as set by **Preroll time** is commenced. This can be the time a motion control rig rolls, back then commences its action
- The Stop Motion Pro high resolution image is captured

When pictures are downloaded from Canon, Nikon DSLR they can be cropped or stretched to match the set **Frame width** and **Frame height**.

With some Nikon cameras extra pixels are added that to the frame. For these cameras we suggest setting the **Frame width** and **Frame height** to be slightly smaller and setting the **DSLR Stretch/Crop** to **Crop**.

### 8.5 Overlay

The Setup dialog box is available from the main toolbar and main menu Settings|Advanced settings.

Click **Overlay** on the left side to select the required settings group.
The overlay settings in Stop Motion Pro do not appear in the final Make movie or exported files.

**Frame counter**

A frame counter can be shown over the top of your animation to assist in navigation through frames.

Set the size of the frame counter text using the **Size** spinedit.

Set the position of the frame counter using the **Position Top** and **Position Left** spinedit. The Stored Live indicator is also placed at this location.

Set the text color and background color of the frame counter text by clicking **Text color** and **Background color**. Setting background color to Black (RGB 0,0,0) displays as a transparent background.
**Safe zone**

A Safe zone can also be shown over the top of your animation to assist knowing what are the boundaries are of your animation.

In some cases the aspect ratio of the capturing device may not match the required output size. Presets representing different output formats and aspect ratios are included, making it possible to frame shots appropriately. For example a DLSR format is 4:3, but the result may be used for a feature film where the requirements are 1.85:1.

Select the required aspect ration from the Aspect ratio drop down list.

The percentage of the frame size can be set using Action safe spinedit and Title safe spinedit.

The opacity of the area outside the Action safe area can changed using the Mask Opacity spinedit. The color of the mask can be set by clicking Mask color.

Markers and guides can also be overlayed.

### 8.6 Shortcut keys

The Setup dialog box is available from the main toolbar and main menu Settings|Advanced settings.

Click Shortcut keys on the left side to select the required settings group.
More efficient animation can be achieved by using shortcut keys, rather than the mouse.

You can allocate a wide range of Stop Motion pro actions to specific keyboard keys.

Default shortcut keys have been set up for Stop Motion Pro, however these can be easily changed.

Select the required function listed in the **Function** column, then click in the **Short key** cell for that row. A list of keys is displayed on a drop down list.

Only **one** Function can be allocated to a specific key. If multiple functions are allocated to the same key, a warning will be show when **OK**, or **Apply** is clicked. The duplicate allocation is shown with a red back ground color.

The speed of key repeat can be set by **Maximum key repeat speed**.

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<table>
<thead>
<tr>
<th>Function</th>
<th>Shortcut key</th>
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<tbody>
<tr>
<td>View live</td>
<td>Function key 2</td>
</tr>
<tr>
<td>View stored frames</td>
<td>Function key 3</td>
</tr>
<tr>
<td>Toggle view live/stored frames</td>
<td>Space</td>
</tr>
<tr>
<td>Capture (Append after last frame)</td>
<td>Enter / Return</td>
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<tr>
<td>Play</td>
<td>Function key 4</td>
</tr>
<tr>
<td>Stop</td>
<td>Function key 5</td>
</tr>
<tr>
<td>Stop all</td>
<td>Function key 9</td>
</tr>
<tr>
<td>Play/Pause</td>
<td>Function key 7</td>
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<tr>
<td>Play then live</td>
<td>Function key 10</td>
</tr>
<tr>
<td>Step forward frame</td>
<td>Cursor right</td>
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<tr>
<td>Step forward repeat</td>
<td>5</td>
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<tr>
<td>Step forward, then Live</td>
<td>6</td>
</tr>
<tr>
<td>Step forward repeat, then Live</td>
<td>7</td>
</tr>
<tr>
<td>Step forward repeat Low res</td>
<td>J</td>
</tr>
<tr>
<td>Step forward repeat Low res, then Live</td>
<td>K</td>
</tr>
<tr>
<td>Step back frame</td>
<td>Cursor left</td>
</tr>
<tr>
<td>Step back repeat</td>
<td>1</td>
</tr>
<tr>
<td>Step back repeat Low res</td>
<td>L</td>
</tr>
<tr>
<td>Go to first frame</td>
<td>Home</td>
</tr>
<tr>
<td>Go to last frame</td>
<td>End</td>
</tr>
</tbody>
</table>

**Maximum key repeat speed:**

15 **fps**
Key testing
If you need to match a key with a key function, use the Key tester. Select the Check key being pressed tick box, then press your key to test. The key title will appear to the right of this area. You can then assign that shortcut key to a function as described above.

Click Print list to print a list of the functions and key allocation.

To transfer standard shortcut settings to another machine, click Save list to save a copy of the list as a text file.

To import standard shortcut settings from another machine, click Open list to open a text file.

Stop Motion Pro is compatible with Numeric only keypads. Simply plug in the keypad and set up the shortcut keys as you wish to work. This is a great way to animate and highly recommended.

8.7 Remote control

The Setup dialog box is available from the main toolbar and main menu Settings|Advanced settings.

Click Remote control on the left side to select the required settings group.
Stop Motion Pro can be controlled by external hardware using the parallel port. This can be used for motion device controllers or a simple four button remote.
Set the parallel printer port of remote control.

**Input 1 .. 4**
Up to four inputs can be allocated to perform Stop Motion Pro tasks.

Use the drop down lists to select the required function for each input.

Refer to our website for more information on the hardware interface specifications.
Part IX
9 Capture Settings

9.1 Capture settings overview

The capture settings dialog box allows you to select the relevant capture method for a Production/Shot.

The capture settings dialog box is displayed when you create a new Production/Shot or open an existing Production/Shot, or select main menu Settings|Capture.

One of the major benefits of using Stop Motion Pro is being able to immediately see any changes from a live view of your animation compared to the last frames captured.

A live video source can be in the form of a Canon compact digital still camera, Canon DSLR, Nikon DSLR, DV camera, webcam or analogue video adapter. Please read our compatibility guide here.

If you have a live video source, plug it into your computer and ensure it is turned on before starting Stop Motion Pro.

DV cameras should not have video tapes in them to avoid going into standby mode. Some cameras come from the factory with demo mode set. This must be turned off.

Depending on what devices you have connected to your computer and which version of Stop Motion Pro you have, you will see a list of options on the Capture type drop down list.
Select the option that best suits how you are working.

**No capture type**
No live video
More details can be found at *No capture type*.

**Video / webcam**
Use for webcams, DV cameras, analogue capture adapters, Blackmagic Design interface cards for HD video capture or HDV cameras.
More details can be found at *Analogue capture or webcam*.

**Directory scan**
Use for DSLRs, scanners etc.
The capture button on the main toolbar is not active in this mode.
More details can be found at *Directory scan*.

**Directory scan Video assist**
Directory scan can also be used with DV and analogue assist. See the individual entries for Video / webcam capture for information on setting up the specific assist processes.
More details can be found at *Directory scan*.

When a frame is added to the directory that is being scanned, Stop Motion Pro captures a frame from the live video source. It is possible to toggle between the directory frame and the assist frame footage using the View menu.
**Canon digital compact camera**

Some Canon compact cameras will provide a live video feed from the USB connector on the camera. If your camera comes with Canon remote shooting software, it will probably work with Stop Motion Pro. More details can be found at Canon digital compact camera.

**Canon DSLR No assist**

Use for Canon DSLR cameras. More details can be found at Canon DSLR.

**Canon DSLR assist**

Use for Canon DSLR cameras. Canon DSLR can also be used with DV and analogue assist. See the individual entries for Video / webcam capture for information on setting up the specific capture processes. More details can be found at Canon DSLR.

When a frame is captured, Stop Motion Pro captures a frame from DSLR and the live video source. It is possible to toggle between the DSLR frame and the assist frame using the View menu option.

**Canon DSLR EVF assist**

Use for Canon DSLR cameras that are enabled with Canon live view. More details can be found at Canon DSLR.

When a frame is captured, Stop Motion Pro captures a frame and assist from the DSLR. It is possible to toggle between the DSLR frame and the assist frame using the View menu option.

**Nikon DSLR No assist**

Use for Canon DSLR cameras. More details can be found at Nikon DSLR.

**Nikon DSLR assist**

Use for Canon DSLR cameras. Canon DSLR can also be used with DV and analogue assist. See the individual entries for Video / webcam capture for information on setting up the specific capture processes. More details can be found at Nikon DSLR.

When a frame is captured, Stop Motion Pro captures a frame from DSLR and the live video source. It is possible to toggle between the DSLR frame and the assist frame using the View menu option.

**Nikon DSLR EVF assist**

Use for Nikon DSLR cameras that are enabled with Nikon live view. More details can be found at Nikon DSLR.

When a frame is captured, Stop Motion Pro captures a frame and assist from the DSLR. It is possible to toggle between the DSLR frame and the assist frame using the View menu option.

After making the appropriate changes click Apply or OK.

If you click Apply the dialog box remains displayed.

If you click OK the dialog box is closed.

### 9.2 No capture type set

A tab available on the Capture settings dialog box.
Frame resolution width and height
Set as required

This can be used when importing files into a Production/Shot. See Import individual frames and Import AVI files.

9.3 Directory scan

A tab available on the Capture settings dialog box.

Directory scan
If you do not have a live video source, then you can continuously scan a directory (folder) looking for new files. For example, using a scanner or Digital still camera capturing to your computer directly.

This is useful if you have a non Canon DSLR (or a scanner) and wish to automatically add newly captured frames to a Stop Motion Pro Production/Shot for preview and editing.

Most DSLRs and many digital compact cameras include capture software that allows remote capture directly onto a computers hard drive. Use this software to specify a location on your computer.

The capture button on the main toolbar is not active in this mode.

Click Browse to locate this folder where the source files will be placed by the camera software.
Frame resolution width and height
Set as required

Flip images
It is possible to flip the image vertical, horizontal (or both)

File size Min
If you are finding thumbnails appearing in your Production/Shot, set the File size min to avoid these (Note the Kb size of these thumbnail files by looking at their properties in a Windows Explorer window, and set Kb size to a greater number).

File suffix
Select the file type to search for from the File suffix drop down list.

Assist mode
Directory scan can also be used with DV and analogue assist. See Video / webcam capture for information on setting up the specific capture processes.

When a frame is added to the directory that is being scanned, Stop Motion Pro captures a frame from the live video source. It is possible to toggle between the directory footage and the Assist frames using the View menu option

The capture button on the main toolbar is not active in this mode.

9.4 Video / webcam

A tab available on the Capture settings dialog box.
The appearance of this tab will vary depending on your actual hardware. There should be some basic settings common to all hardware.

**Device**
Displays a list of compatible video devices.

These can be DV, HDV, analogue capture adapters, Blackmagic Devices capture card or webcam.

Blackmagic devices are used to capture SD (standard definition) and HD (high definition) video. Blackmagic devices such as the Decklink series are compatible with Stop Motion Pro. Using a Blackmagic capture device it is possible to capture at resolutions of 1920 x 1080 via component video (RGB).

The type of camera output will determine which resolution you need to set.

**Size**
Set the resolution of the captured frames and live video source. These options are provided by the capture device.

**Input**
Depending on your hardware and how you have connected your camera, it is possible to set how the camera is connected (S-Video or composite RCA connector or component multiple connections). An analogue capture card may also require setting for NTSC or PAL source video, this will depend on
your camera, please refer to the documentation.

The **Format** button also has options that are specific to your hardware, and you should experiment with settings as appropriate.

**Flip image**
Ticks in these boxes will flip the image vertically, horizontally or both.

**Screen Refresh rate**
How often the video image is refreshed on the stage. Lower figures are recommended for older systems.
The Dropped samples indicates if your refresh rate is too high after **OK** or **Apply** is clicked.

**Frame averaging**
Reduce CCD chip noise and other artefacts using the frame averaging tool. Stop Motion Pro will sample the number of frames you specify and average each pixel to remove noise. Effects such as motion blur can be created with this tool. Click here for more details.

Click **Apply** to reflect the changes on the Stop Motion Pro display. This is useful when setting exposure and focus.

### 9.5 Canon digital compact camera

A tab available on the Capture settings dialog box.

Some Canon compact camera will provide a live video feed from the USB connector on the camera. If your camera comes with Canon remote shooting software, it will probably work with Stop Motion Pro.

Two tabs are displayed, Canon and **Canon advanced**
Frame size
Because Canon cameras are locked to a 4:3 ratio, it is possible to set the width, with the height automatically added. Stop Motion Pro will automatically resize images if the actual images are not identical.

Flip image
Ticks in these boxes will flip the image vertically, horizontally or both.

Exposure mode
"Program" usually refers to an automatic exposure. This is not ideal for stop motion animation (the result is flicker), a manual setting is better, we recommend experimenting with TV, AV or manual if available.

TV
The camera shutter speed.

AV
The camera aperture value.

AF distance
Macro or normal zoom ranges can be specified here.

Focus lock
When ticked, the focus is locked. To unlock focus remove the tick.
Tip: If you frame an image with your subject not in the center of the image, it may not focus correctly. To fix this, unlock the focus and reframe your image with the subject you wish to be in focus in the center of the image. Wait for the camera to focus, then lock the focus. Reframe your subject and it will remain focused correctly.

**Zoom**
This slider allows control of the optical zoom capabilities of your camera.

If you are experiencing issues connecting to your Canon camera that worked in the past, ensure you have deleted the old camera configuration information.

Ensure you camera is connected to mains power. If you camera is not visible to Stop Motion Pro then remove the USB connection and then reconnect. The settings on the tab itself are set by your specific camera.

### 9.6 Canon DSLR

A tab available on the Capture settings dialog box.

Two tabs are displayed, Canon and Canon advanced.

![Capture settings dialog box for Canon EOS 450D](image)

**Canon EOS 450D**

Camera settings:
- **Frame width:** 800
- **Frame height:** 600
- **Flip image:**
  - Vertical
  - Horizontal
- **Screen refresh:** 5
- **TV:**
- **AV:**
- **Live view exposure offset:** 0
Frame size
Specify the frame height and width as appropriate.

After a frame has been captured in this session, the actual size of the frame created by the camera is displayed. The Camera setting height and width should usually equal the set Frame height and Frame width.

Screen Refresh rate
How often the video image is refreshed on the stage. Lower figures are recommended for older systems.

Flip image
Ticks in these boxes will flip the image vertically, horizontally or both. Flipped images remain flipped.

Exposure mode
"Program" usually refers to an automatic exposure. This is not ideal for stop motion animation (the result is flicker), a manual setting is better, we recommend experimenting with TV, AV or manual if available.

TV
The camera shutter speed.

AV
The camera aperture value.

Live view exposure offset (Canon, EVF Assist)
This can be used to increase the brightness of the live view image when non Canon manual iris lenses are used.
On some Canon DSLR cameras there is a Camera settings option to control the live view brightness. (refer to your camera manual).
However on other cameras (usually the more economical ones in the range) the live view brightness gets 'confused' when the manual iris lenses are used. In this situation the live view image is much darker than the actual captured frame.
Increase the value of Live view exposure offset to increase the brightness of live view to match the captured frame exposure.

Canon, Assist
It is possible to use a Canon DSLR with video assist. Using this mode Stop Motion Pro can both control the connection to the cameras and the capturing of frames from the DSLR and the assist.

When a frame is captured using the Stop Motion Pro capture button on the main toolbar, Stop Motion Pro captures a frame from the DV live video source and the Canon DSLR. It is possible to toggle between the Canon DSLR stored frames and the Assist frames using the View menu option.

Canon, EVF Assist
Use for Canon DSLR cameras that are enabled with Canon live view. The assist is received using the USB lead.

When a frame is captured using the Stop Motion Pro capture button on the main toolbar, Stop Motion Pro captures a frame from the DV live video source and the Canon DSLR. It is possible to toggle between the Canon DSLR stored frames and the Assist frames using the View menu option.

Ensure you camera is connected to mains power. If you camera is not visible to Stop Motion Pro then remove the USB connection and then reconnect. The settings on the tab itself are set by your specific camera.
9.7 **Canon advanced**

A tab available on the Capture settings dialog box.

Displayed when Canon digital compact camera or Canon DSLR is chosen as the capture source.

The exact settings will vary for your particular camera. The Canon advanced tab is always presented in conjunction with either the Canon digital compact camera tab or the Canon DSLR tab.

**ISO**
The speed of the camera sensor. Higher values allow filming in lower light levels with the payoff being a noisier image.

**White balance**
Auto is not recommended because it may change during shot. Choose an option from the drop down list.
If your camera has a Kelvin option, and it is selected, a Kelvin temperature white balance can be set.

**Size, Quality**
Depends on camera, refer to camera documentation. Set to your requirements. Stop Motion Pro is compatible with the JPEG and some RAW images.

With some cameras the Size and Quality settings maybe combined into a single drop down list.
Ensure your camera is connected to mains power. If your camera is not visible to Stop Motion Pro then remove the USB connection and then reconnect. The settings on the tab itself are set by your specific camera.

9.8 Nikon DSLR

A tab available on the Capture settings dialog box.

Two tabs are displayed, Nikon and Nikon advanced.

Frame size

Specify the frame height and width as appropriate.

After a frame has been captured in this session, the actual size of the frame created by the camera is displayed. The Camera setting height and width should usually equal the set Frame height and Frame width.

However with some Nikon cameras extra pixels are added that to the frame. For these cameras we suggest setting the Frame width and Frame height to be slightly smaller and setting the DSLR Stretch /Crop on the Settings dialog to Crop.
Flip image
Ticks in these boxes will flip the image vertically, horizontally or both. Flipped images remain flipped.

Exposure mode
"Program" usually refers to an automatic exposure. This is not ideal for stop motion animation (the result is flicker), a manual setting is better, we recommend experimenting with TV, AV or manual if available.

TV
The camera shutter speed.

AV
The camera aperture value.

Nikon, Assist
It is possible to use a Nikon DSLR with video assist. Using this mode Stop Motion Pro can both control the connection to the cameras and the capturing of frames from the DSLR and the assist.

When a frame is captured using the Stop Motion Pro capture button on the main toolbar, Stop Motion Pro captures a frame from the DV live video source and the Nikon DSLR. It is possible to toggle between the Nikon DSLR stored frames and the Assist frames using the View menu option.

Nikon, EVF Assist
Use for Nikon DSLR cameras that are enabled with Canon live view. The assist is received using the USB lead.

When a frame is captured using the Stop Motion Pro capture button on the main toolbar, Stop Motion Pro captures a frame from the DV live video source and the Nikon DSLR. It is possible to toggle between the Nikon DSLR stored frames and the Assist frames using the View menu option.

Ensure you camera is connected to mains power. If you camera is not visible to Stop Motion Pro then remove the USB connection and then reconnect. The settings on the tab itself are set by your specific camera.

9.9 Nikon advanced

A tab available on the Capture settings dialog box.

Displayed when Nikon DSLR is chosen as the capture source.
ISO
The speed of the camera sensor. Higher values allow filming in lower light levels with the payoff being a noisier image.

White balance
Auto is not recommended because it may change during shot. Choose an option from the drop down list.

Size, Quality
Depends on camera, refer to camera documentation. Set to your requirements. Stop Motion Pro is compatible with the JPEG and some RAW images.

EVF timeout
With some Nikon camera, they can overheat if the EVF is left on for too long. Change this setting to get the required EVF time.

Ensure you camera is connected to mains power. If you camera is not visible to Stop Motion Pro then remove the USB connection and then reconnect. The settings on the tab itself are set by your specific camera.
9.10 Video assist

**Video assist** is a method of checking positioning, framing and lighting while filming with a device that does not have video out.

Stop Motion Pro allows the connection of high quality Digital Still Reflex Lens (DSLR) cameras and a video camera (DV, HDV, Blackmagic or analogue) at the same time. The live Assist image is not used in the final animation, rather it is used during filming as a guide for onionskinning, rotoscoping and other tools.

Effectively using a video assist you get the best of both worlds, the high quality of a DSLR for your final output, with the live video feedback giving the animators control while filming.

Information on Video assist and associated advanced capture techniques in the tutorial section of our website.

An additional option on the Video / webcam tab allows control over the aspect ratio the video assist footage is viewed at.

![Assist display settings](image)

Selecting **Assist height = full res height** means the DV footage is not stretched to compensate for the differing aspect ratios between digital still cameras and video cameras. Black bars will appear on the right and left of the video footage. This is normal.

The **Pixel ratio** of the assist source can be set. The following a standard values:

- 1 Square
- 0.9091 NTSC DV
- 1.2121 NTSC DV Widescreen
- 1.0926 (PAL DV)
- 1.4568 (PAL DV Widescreen)
- 1.3333 (HDV 1080)

9.11 Averaging

**Frame averaging** can significantly improve image quality especially with low light conditions and webcams.

A setting of 5 or above will greatly contribute to removing video noise, while smoothing gradients.
9.12 Multiple exposure

A tab available on the Capture settings dialog box.

Multiple exposure mode is used to capture multiple frames for the same frame number. This can be used for Checkerboard, High Dynamic Range, Motion control, stereoscopic or special effects shots.

For example:
Exposure 1 is a worklight
Exposure 2 is foreground exposed correctly
Exposure 3 is foreground exposed to be used as a special effect mask
To use Multiple exposure tick **Use Multiple exposure**.
Set the Number of exposures to be taken each frame.

Select either Manual or Automatic Multiple exposures.
If Manual is selected, a dialog box with a capture button is displayed between each exposure. Click the Capture button to capture the exposure.

If Automatic is selected, each exposure will be taken with a delay between exposure set by Delay.

Each exposure is given a Description and the exposure time is set by the TV value.

When using Multiple exposure TV values on the camera tab are ignored.

Each multiple exposure can be considered a completely separate set of frames. Each exposure can be played. To select the multiple exposure to be played select the View menu.

To export multiple exposure, select the Export multiple dialog box.

Stop Motion Pro can also control the Mark Roberts S3 Stereoscopic Stepper. More information is here.

9.13 Multiple Exposure Mark Roberts Stepper

The easiest way to create a 3D stop motion film is to use a single camera and lens and move the
camera between the 'left' and 'right' eye position.

This method has the following advantages:
- makes the camera package smaller by needing only one camera and lens
- eliminates differences in the image due to two lenses having different lens distortions
- allows the inter-ocular distance to be as small as needed without problems due to camera and lens sizes

The Mark Roberts S3 Stereoscopic Stepper module is an intelligent, low-cost, portable unit that can accurately control the position of the camera. It is designed to carry a variety of DSLR and filming cameras.

Follow the instructions from Mark Roberts on installing the driver software and note the communication port name displayed in Windows Control Panel.

You must use Stepper firmware version 2.6 and above.

To control the position of the stepper, use the Multiple exposure tab on the Capture settings dialog box.

Tick Use MR stepper, and a list of communication ports will be displayed in the Port drop down list. Select the port noted from the Windows Control Panel.

Click the Zero set button next to the Port drop down list to reset the stepper zero point.
Enter the appropriate stepper distances for each exposure in the **Step dist** column.

Stop Motion Pro will wait for the Stepper to reach the correct distance before allowing the next exposure to be taken.
10 Importing into Stop Motion Pro

10.1 Import individual files

This option lets you import still image files into Stop Motion Pro. You are able to reorder the images as appropriate during the import process. Note that frames will automatically be resized to the frame size (resolution) that you have specified for your Production/Shot.

Select main menu File|Import individual files (BMP, JPG, TGA, TIF).

A Windows file browser window will appear.

Locate the directory where the still images are that you wish to import. Stop Motion Pro can also import CRW and NEF formatted image files.

If you select a single frame, the frame is brought into Stop Motion Pro as a stored frame.

If you have selected multiple images to import (by using Shift+click and/or Ctrl+click to select multiple images) the Reorder Import Files dialog will be displayed.

Click Open to import the files.

10.2 Import individual files - multiple exposure

This option lets you import still image files into Stop Motion Pro if Multiple exposures are set. You are able to reorder the images as appropriate during the import process. Note that frames will
Importing into Stop Motion Pro

automatically be resized to the frame size (resolution) that you have specified for your Production/Shot.

Select main menu File|Import individual files (BMP, JPG, TGA, TIF) and the following dialog is displayed.

Select the required exposure from the Exposure drop down list. Click Open and a Windows file browser window will appear. Locate the directory where the still images are that you wish to import. Stop Motion Pro can also import CRW and NEF formatted image files. Select multiple images by using Shift+click and/or Ctrl+click.

The files will be displayed in alphabetical order. Select a file, then click Move up and Move Down to change the import order.

Click Delete to remove a file from the import list. This does not delete the file off the hard drive.

The number of files for each Exposure must be the same.

Click OK to import the files.

10.3 Reorder Import Files

This dialog lets you reorder the way individual image files are brought into Stop Motion Pro.
It is displayed when multiple images have been selected to import with File|Import individual files.

The imported frame file names are displayed as a list on the left hand side. The frame at the top of the list will be the first frame imported into the Production/Shot, the file name in the list below the first file name will be the next frame and so on.

While you can reorder frames in the Stop Motion Pro editor, it may be desirable to reorder the frames here.

Simply select the file name you wish to move up or down. When a file name is selected the Move up and Move down buttons become enabled. Use these buttons to reorder your frames as appropriate.

To import the files, click OK.

## 10.4 Import AVI file

This option imports AVI video files into Stop Motion Pro as individual frames.

Select main menu File|Import AVI file.
Importing into Stop Motion Pro

AVI files will automatically be resized to the frame size that you have specified for your Production/Shot.

Ideally, Stop Motion Pro should be used to import uncompressed AVI files, most video editing software allows exporting with this option.

If you have difficulties importing AVI files into Stop Motion Pro, consider using another application to convert them to uncompressed AVI files.

Click **Open** to import the file.
11 Exporting from Stop Motion Pro

11.1 Make movie

Make movie is an option to output your animation from Stop Motion Pro.

Select main menu File|Make movie. The following dialog box will be displayed.

Select the frames to be exported using the Make movie using drop down list.

If Multiple exposure is set, select the Exposure from the drop down list.
The whole animation, or a selection of frames can be exported.

- To export all frames, select All frames
- To export a range of frames, select Frame range. A range of frames can be entered in the text box. The format is first frame - last frame. eg 1-50 will export frame 1 to frame 50.

Set the aspect ratio of the movie by selecting from the drop down list.

Tick Include slate frame to insert a Slate as the first frame. Click Slate to view or edit the Slate information.

The exported frame size can be changed, by entering a new width and height.

If the height and width are different from the captured size, the exported movie can be stretched to fit the new size or cropped. The captured images are not altered.

Set the frame rate of the movie file using the Frame rate spinedit.

To use the audio file in the Audio sync tool, tick Include Audio Sync file.

Select the required video format, AVI uncompressed, AVI lossless compression, MOV or WMV then click OK and select the destination directory.

Always use MOV or AVI Uncompressed export for editing on a MAC.

**Export as AVI**

Use AVI Uncompressed if you wish to use your animation for importing into a video editing program. Uncompressed is the highest possible quality, but it creates very large files.

Use AVI lossless compression if you wish to use your animation for importing into a video editing program. Stop Motion Pro uses the Lagarith compressor for the highest possible quality, but with much smaller files than uncompressed. If you want to edit the exported AVI on another PC, you must install the Lagarith compressor on that PC.

**Export as WMV**

Use WMV for computer playback or sharing your animations on CD.

If WMV is selected the following parameters can be set:

- Video codec
- Video quality
- Audio codec
- Audio quality

We suggest Video codec Windows media V9, HD quality.

For audio select 192kb

**Export as MOV**

Use MOV if you wish to use your animation for importing into a video editing program on Apple MAC.

If MOV is selected the following parameters can be set:

- Video codec
- Video quality

Some of the MOV export codecs such as Animation, BMP and Jpeg are only viewable on the destination MAC if Quicktime Pro is installed on the MAC.

**11.2 Export as individual frames**

Exporting individual frames is an option to output your animation from Stop Motion Pro.
If multiple exposure is set use the Export Multiple exposure dialog box.

Select main menu File|Export individual frames. The following dialog box will be displayed.

- To export all frames, select All frames
- To export the current frame only, select Current frame
- To export a range of frames, select Frame range. A range of frames can be entered in the text box. The format is first frame - last frame. eg 1-50 will export frame 1 to frame 50.

Tick Include slate frame to insert a Slate as the first frame. Click Slate to view or edit the Slate information.

The exported frame size of the individual bitmaps can be changed, by entering the new width and height. The captured aspect ratio is kept if Keep aspect ratio is ticked. The captured images are not altered.

Stop Motion Pro will automatically sequence the bitmaps by adding a 4 digit number to the file name. You can add a prefix to each filename. Enter the required prefix in the File name prefix text box.

e.g. if you enter rg_1.bmp as the file name prefix in the file dialog, the actual files created will be rg_1001.bmp, rg_10002.bmp etc.

If the Current frame is exported, the frame number will be automatically added. e.g. if you enter rg1.bmp as the filename in the file dialog, and the current frame is 18, the actual file created will be rg1_0018.bmp.

The animation can be exported as a sequence of individual images. Either BMP, TIF, TGA or JPEG format can be saved. JPEG images are compressed, and will take up less storage space, however there is a loss of quality.

If JPG or Jpeg2000 is selected as the file type, the Quality of the images can be set using the Quality
Click **OK** and select the destination directory.

### 11.3 Export as flipbook

Export as flipbook is an option to output your animation from Stop Motion Pro.

This allow you to create a printed form of your animation. A flip book is a book with a series of pictures that vary gradually from one page to the next, so that when the pages are turned rapidly, the pictures appear to animate by simulating motion or some other change.

Rather than "reading" left to right, a viewer simply stares at the same location of the pictures in the flip book as the pages turn. The book must also be flipped with enough speed for the illusion to work, so the standard way to "read" a flip book is to hold the book with one hand and flip through its pages with the thumb of the other hand.

You can print onto normal paper, however you will get a much better flipping by using thicker paper.

We recommend using precut business cards such as these. They have a number of advantages including:

- easily obtainable
- standard sizes without requiring scissors to cut the paper
- suitable thickness for flipping

Select main menu File|Export as flipbook. The following dialog box will be displayed.
The whole animation, or a selection of frames can be exported.

- To export all frames, select **All frames**
- To export the current frame only, select **Current frame**
- To export a range of frames, select **Frame range**. A range of frames can be entered in the text box. The format is first frame - last frame. eg 1-50 will export frame 1 to frame 50.

A range of parameters can be set for printing. A sample of the printout is shown so you can see the result of the settings.

Select your preferred measurement **Units** from the drop down list. Set the appropriate dimensions using the spin edit controls.
Tick **Draw label outlines** to include lines showing the position of each label to enable easier cutting out of the frames.

Tick **Draw frame number** to include the frame number in the top left of the label to ensure the correct sequence.

Select the **Aspect ratio** of the frame.

To reduce the size of the frame on the label, increase the **Gutter** size.

Click **OK** to print the flipbook.

### 11.4 Export to Youtube

Export to Youtube is an option to output your animation from Stop Motion Pro.

You can publish directly to the Youtube website using your existing Youtube account.

Select main menu File|Export to Youtube. The following dialog box will be displayed.
The whole animation, or a selection of frames can be exported.

- To export all frames, select **All frames**
- To export a range of frames, select **Frame range**. A range of frames can be entered in the text box. The format is first frame - last frame. eg 1-50 will export frame 1 to frame 50.

Set the frame rate of the movie file using the **Frame rate** spinedit.

To use the audio file in the Audio sync tool, tick **Include Audio Sync file**.

Select the audio parameters. We recommend Audio codec = Windows media V9, Audio quality = 192kb.

Enter your existing Youtube account details, then click **Verify** to check the connection. Stop Motion Pro can remember you login details if you tick **Remember password**. You can also set the Youtube login details on the System settings dialog box.

You must include a Youtube **Title**, **Description** and **Keywords**. The keywords are used by other Youtube users to find your animation.

Select **Private** or **Public** Youtube access.
11.5 Export frame list

This option creates a list of the frame number in the sequence and the filename in the Production\Shot\frame and Production\Shot\frame_HD directory. The filenames may be different than the frame order if the Editor was used to move frames around or hide frames.

Select main menu File|Export Frame list The following dialog box will be displayed.

![Frame List](image)

This feature is especially useful for line testing.

Click **Print** to print the list

Click **Save** to save as CSV (Comma Delimited, CSV text file format) or as XLS (Microsoft Excel) format.

11.6 Export RAW

Export RAW is an option to output your animation from Stop Motion Pro.

It is only available if RAW files were captured in Canon or Nikon DSLR mode. This option creates a copy of the RAW files ignoring any hidden frames.

If multiple exposure is set use the Export Multiple exposure dialog box.

Select main menu File|Export RAW frames. The following dialog box will be displayed.
The whole animation, or a selection of frames can be exported.

- To export all frames, select **All frames**
- To export a range of frames, select **Frame range**. A range of frames can be entered in the text box. The format is first frame - last frame. eg 1-50 will export frame 1 to frame 50.

Tick **Include slate frame** to insert a Slate as the first frame. Click **Slate** to view or edit the Slate information.

A prefix can be added to each of the RAW files when they are copied using the **Frame prefix** textbox. This could include shot information.

A notes file is also created in the destination directory. This is a standard Windows text file and any relevant information can be included.

Click **OK** to copy the RAW files.

### 11.7 Export Multiple exposure

Export Multiple exposure is an option to output your animation from Stop Motion Pro.
It is only available if Multiple Exposure was set in Canon or Nikon DSLR mode.
This option creates a copy of the TIF, JPG and RAW files in the frame_hd directories ignoring any hidden frames.

Select main menu File|Export Export multiple Exposure. The following dialog box will be displayed.

The whole animation, or a selection of frames can be exported.
- To export all frames, select **All frames**
- To export a range of frames, select **Frame range**. A range of frames can be entered in the text box. The format is first frame - last frame. eg 1-50 will export frame 1 to frame 50.

Tick **Include slate frame** to insert a Slate as the first frame. Click **Slate** to view or edit the Slate.
A prefix can be added to each of the Multiple Exposure files when they are copied using the **Frame prefix** textbox. This could include shot information.

The order the exposures are exported can be set by selecting a row then click **Move up** or **Move down**. The order selected is influenced by the requirements of the application use to apply post processing to the frames.

There may be a situation where an exposure is not to be included in export. All rows with a tick in the **Export** column will be exported.

The exposures can be exported in one of the following formats:

**Separate directory per frame**
This format is compatible with Adobe After Effects. Each filename is renamed and a suffix automatically added depending on the row. The exposure in the top row of the grid has suffix `a`, second row suffix `b` etc. eg 00001a.tif would be the left eye frame, 00001b.tif would be the right eye frame.

**Separate directory per exposure**
A directory will be created for each exposure and all the frames for the exposure be placed in that directory. Stop Motion Pro will automatically sequence the frames by adding a 4 digit number to the file name.

RAW files will follow the same format, but a separate directory will be created.

A notes file is also created in the destination directory. This is a standard Windows text file and any relevant information can be included.

Click **OK** to copy the Multiple Exposure files.
Stop Motion Pro™

Part XII
12 Editor

12.1 Editor overview

The editor provides editing functionality especially designed for stop motion animation. Editing is performed using thumbnail images representing each frame of the animation, and the Action options. The editor is available when a Production/Shot has stored frames.

To display the editor, click editor on the main toolbar.

Selecting frames
Left click on a frame to select it. Selected frames are indicated by a red border and are displayed in the Sidebar - Preview tool.

Select multiple frames by holding down the Ctrl key and clicking on the individual frames, or click on the first frame you wish to select, hold down the Shift key and click on the last frame of the sequence.

If you double click a frame Stop Motion Pro closes the Editor window, with that particular frame selected on the main screen.

Frame information
The following information is displayed for each frame:
Frame number: the order they shown in your animation
ID: the order the frames were added to the animation. This cannot be changed.
Description: description can be added to each frame.

These options can be changed on the Settings Sidebar tool.

**Editing frames**

The actual editing of frames is performed on the Action Sidebar tab.

You can also right click on the selected frames and the following popup is displayed:

- Hide
- Unhide
- Copy
- Cut
- Paste After
- Paste before

**Sidebar tab - Display**

Use this tab to set which frames are displayed in the editor.

Select the required frame display from the drop down lists.

Any editing actions will apply to all Exposures and frame types.

**Sidebar tab - Preview**

Use this tab to play the frames displayed in the editor.
Click **Play** the animation.

Tick **Output to second monitor** if the Preview is to be displayed on a second monitor.

**Sidebar tab - Group hide**
Use this tab to add a description to an individual frame. Frames with the same Description can be Hidden/Unhidden as a group.

A color bar is placed under all the frames of the same description.

- Enter the required text in the **Description** text box
- Click the **Identification color** box to select the required color to identify the Description group.
- Click **Apply**.

The Description and Identification color are shown in the list. Tick the checkbox to Hide all the frames with the Description.

**Sidebar tab - Settings**
Use this tab to set the options for the Editor.
To display the frame descriptions, tick **Show Frame description**.

Set the number of lines in frame description in the **Number of description lines** spinedit.

To display the frame ID, tick **Show Frame ID**.

To display the hidden frames, tick **Show hidden frames**.

Set the thumbnail display size using the **Display size** drop down list.

### 12.2 Actions tab

Once the thumbnails are selected a range of editor actions can be performed.

#### Hiding, Unhiding

Hiding frames is like an unlimited Undo. The benefit of this is that you can change your mind about
work you have hidden in a non-linear way.

Hidden frames are indicated by a diagonal yellow line.

Hidden frames do not appear when you play or loop your animation and are not exported.

To Hide selected frames click **Hide**, or select **Hide selected frames** from the **Actions** drop down list then click **Apply**.

To Unhide selected frames click **Unhide**, or select **Unhide selected frames** from the **Actions** drop down list then click **Apply**.

If you find the Hidden frames distracting, the Editor can be set so they are not displayed.

It is possible to hide a frame without being in the Editor. Right click on the stored frame and select **Hide frame**.

**Cut, Copy, Paste**
Like a word processor, you can select individual or multiple frames for cut, copy and paste.

When you **copy** a frame or frames a reference is placed the clipboard. Frames can be pasted by selecting another frame and selecting Action **Paste before current frame** or **Paste after current frame**.

To copy selected frames click **Copy**. To Paste after the selected frames click **Paste after**.

Cut, Copy and Paste options can be selected from the **Actions** drop down list then click **Apply**.

**Copy frame as bitmap, Replace frame with bitmap**
A single frame can be copied to an external image editing application using action **Copy frame as bitmap** then click **Apply**.

After external image editing, the frame is replaced using action **Replace frame with bitmap** then click **Apply**.

**Delete selected hidden frames**
You can delete hidden frames. This will delete the files off the hard drive and they cannot be recovered.

Select **Delete selected hidden frames** from the **Actions** drop down list then click **Apply**.

**Insert blank frames**
Using this tool it is possible to pad out your animation with blank frames.

Select **Insert blank frames** from the **Actions** drop down list, enter the number of frames in the **Count** spinedit then click **Apply**.

**Reverse order of selected frames**
The display order of selected frames can be reversed.

If you select 1,2,3,4,5,6,7,8 becomes 8,7,6,5,4,3,2,1.

Select **Reverse order of selected frames** from the **Actions** drop down list then click **Apply**.

**Repeat selected frames**
Repeats the selected frame the number of times you specify. This feature is useful for extending single frame captures to double frames.

If you select frame 4 and Count=2: 1,2,3,4,5,6,7,8,9,10 becomes 1,2,3,4,4,4,5,6,7,8,9,10

If you select 2,3,4,5 and Count=1: 1,2,3,4,5,6,7,8,9,10 becomes 1,2,3,3,4,4,5,5,6,7,8,9,10
Select **Repeat selected frames** from the **Actions** drop down list, enter the number of frames in the **Count** spin edit then click **Apply**.

**Repeat selected sequence**
Repeats the selected sequence the number of times you specify.

If you select 2,3,4,5 and Count=2: 1,2,3,4,5,6,7,8,9,10 becomes 1,2,3,4,5,6,7,8,9,10,2,3,4,5,2,3,4,5

Select **Repeat selected sequence** from the **Actions** drop down list, enter the number of frames in the **Count** spin edit then click **Apply**.
Stop Motion Pro™

Part XIII
13 Markers

13.1 Markers

Markers and guides are useful reference tools for action, timing and positioning. For example, an arc for a hand to follow, with slow in and out points.

Tick main menu **View|Show markers and lines** to add markers, poly lines, vertical lines and horizontal lines to use as guides over live and stored frames select **This must be ticked for markers to be visible.**

Markers are not exported with the stored frames or made into a movie.

Right clicking on the stored frame or live view will display a popup menu.

Add Crosshair, Add Point, Add Star
Adds individual square marker points over the image. It is possible to add as many points as required by clicking the left mouse button.

Add Polyline
Draw of a line of any shape by clicking the mouse left button and moving the mouse. To end drawing double click the left mouse button.

Add Straight line
Draw of a straight line by clicking the mouse left button and moving the mouse.

Select object
When a line is selected it is possible to resize and scale the polyline. When a point is selected it is possible to resize and move the point.

The **Color and size selected objects** and **Delete selected object** menu options are enabled. Multiple objects can be selected by holding the Ctrl key and clicking with the mouse.

Color and size selected objects
When an item is selected it is possible to adjust the color and size of the selected line or point. More information can be found here.

Delete selected objects
Delete the selected line or point.
Delete all objects
Delete all lines and points.

Hide frame
Selecting this option to hide the current stored frame. The frame appears in the editor with a yellow diagonal line through it.

Duplicate frame
Selecting this option to Duplicated the current stored frame.
Part XIV
14 System settings

14.1 System settings overview

Select main menu Settings|System settings to display the following dialog box.

**System**
Reset your Canon digital still camera settings and set other system parameters here. More details can be found here.

**Home directory**
Change where Stop Motion Pro stores your Production/Shots. More details can be found here.

**Login and Users**
Designed for multiple user environments such as schools and animation studios. More details can be found here.
**Youtube**
Set Youtube login parameters for all users.
More details can be found here.

**Slate**
Set Slate parameters.
More details can be found here.

**Workflow**
Set Workflow parameters.
More details can be found here.

### 14.2 System

Select main menu **Settings|System settings** to display the following dialog box.

Click **System** on the left side to select the required settings group.
Stop Motion Pro can display the dialog boxes, menus and warning messages in a range of languages.

Click **Delete Canon Camera Data** to clear any information Stop Motion Pro has regarding your Canon digital still camera.

All System settings so only authorized users can make changes.

- To create a password, enter a **Password** then click **Apply**.
- To clear a password, enter the existing **Password** then click **Apply**. Click **Clear** to reset the current password.
- To edit a Password, enter the existing **Password** then click **Apply**, Click **Clear** to reset the current password. Then enter the new **Password** and click **Apply**.

Stop Motion Pro can display different levels of information for each Production/Shot.

**Option 1**

```
Home directory
    Production 1
      Shot 1
      Shot 2
      ...
      Shot n
    Production 2
      Shot 1
      ...
      Shot n
```

**Option 2**

```
Home directory
    Production
      Episode/sequence
        Shot
        Type of Shot
        Take
    Production
      Episode/sequence
        Shot
        Type of Shot
        Take
```

Click **OK** to save the settings.

### 14.3 Home directory

Select main menu **Settings|System settings** to display the following dialog box.

Click **Home directory** on the left side to select the required settings group.

The following rules apply to how Stop Motion Pro manages your Production/Shots:

- All Production/Shots are stored under the Stop Motion Pro home directory.
- All assets for a Production/Shot are copied into the Production/Shot directory. This includes files used for Rotoscope, Audio sync and Chroma key.
All frames are stored under the Production/Shot directory.

Store Production/Shots using Windows User My Documents settings allows the home directory for each Windows login to be specified in each Windows User's profile.

Store Production/Shots on this machine allows any home directory to be set.

If Store Production/Shots on a server option is selected the following process occurs:
- When a Production/Shot is opened, all Production/Shot files are copied from the server to the local machine.
- When a Production/Shot is closed, all Production/Shot files are copied from the local machine back to the server.

This results in the advantages of centralized storage of Production/Shots, with no network interaction during the animation process.

Click Set new directory to display the directory selection dialog box.

Click OK to save the settings.

14.4 Login and Users

Select main menu Settings|System settings to display the following dialog box.

Click Login and users on the left side to select the required settings group.

If you are using Stop Motion Pro in an environment with multiple users (a school or studio for instance) you may like to take advantage of the user management tool in Stop Motion Pro. This protects users work and ensures only the owner of Production/Shots can modify their Production/Shots.

Each user needs to login with their own password.

There are two types of users, those who can manage users (administrators) and those who can't. Those who can manage users are able to view and delete other users Production/Shots, create users and reset passwords. Those users who do not have manage users rights can only create, edit and delete their own Production/Shots.

If the manage users password is lost or forgotten, use Windows explorer and delete smp_admin.abs
in the home directory. This will delete **ALL** user data. The Production/Shots will remain.

**How to use the user management tool**
To enable user management, tick **Individual user login**.

**Create a group**
The user management tool requires at least one **group** to be created.

**Adding, deleting and editing groups**
Click **Add** in the **Group** section. Enter the group name, then click **OK**.

The new group name will be added to the tree display.

To add, delete or edit a group firstly select a group, it will be highlighted. The **Edit** and **Delete** buttons will become enabled (see below).

**Add users to a group**
Select a group
Click **Add** in the **User** section and enter the name of the individual.

It is possible to allow any user to have rights to manage other users.

If a user forgets their password, click **Reset password**.

To edit Users information, select that particular user then click **Edit**.

To delete a User, select that particular user then click **Delete**.

Click **OK** to save the settings.

### 14.5 Youtube

Select main menu **Settings|System settings** to display the following dialog box.
Click Youtube on the left side to select the required settings group.

Select **No Youtube allowed** to disable main menu File|Export to Youtube.

Select **Use individual Youtube login** to disable main menu File|Export to Youtube. Each user will enter their Youtube logins on the Export to Youtube dialog box.

Select **Use system Youtube login** to enable all users on this machine to use the same Youtube login details.

Enter your existing Youtube account details, then click Verify to check the connection.

Select **Private** or **Public** Youtube access.

Click OK to save the settings.

### 14.6 Slate

Select main menu Settings|System settings to display the following dialog box.

Click Slate on the left side to select the required settings group.

The Slate tool enables you to create a frame at the start of the animation containing the metadata about the Production/Shot. To enable consistent information that can be used in a content management system, the user selects from a number of drop down lists. The content of the lists is set here.
Select the required category from the **Data** drop down list.

Any existing information for that category will be displayed. To add extra data, click **Add** and enter the data. To edit existing data, select the row, then click **Edit** and enter the data. To delete existing data, select the row, then click **Delete**. To move data, select the row, then click **Move Up** or **Move Down**.

A graphic/logo can be added to the top right of the Slate tool screen. Click **Browse** and select the graphic.

The Slate tool can be displayed at any time while the Production/Shot is open using:
- the main menu Tools|Slate
- button on the main Sidebar
- button on the various Export dialog boxes

Tick **Show Slate at Production/Shot close** to display the Slate tool when the Production/Shot is closed.
To force the user to enter all Slate options tick **No blank data**.

Click **OK** to save the settings.

### 14.7 Workflow

Select main menu **Settings|System settings** to display the following dialog box.

Click **Workflow** on the left side to select the required settings group.

Stop Motion Pro can integrate with your workflow processes and software to ensure a totally integrated content management system. A document specifying all of the Stop Motion Pro protocols can be found at www.stopmotionpro.com in the Download section.

To create a status file after each capture or edit, tick **Save status file after each Capture or Edit**.

The files stores a list of the filenames in the Production\Shot\frame and Production\Shot\frame_HD directory in the frame order. The filenames may be different than the frame order if the Editor was used to move frames around or hide frames.

The filename of the text file is Production/Shot name_create date_create time.txt. It is stored in the
Production/Shot directory.
More information on the file format can be found in the Stop Motion Pro Workflow specification which can be obtained from our website in the Download section.

A metadata text file can be created when the Production\Shot is closed. This contains all of the Slate tool information. To create the metadata file, tick **Save metadata file at close**. More information on the file format can be found in the Stop Motion Pro Workflow specification which can be obtained from our website in the Download section.

A message can be displayed when the Production\Shot is closed prompting the user to confirm if the Production\Shot is completed. If Completed is selected, whenever the Production\Shot is reopened a warning is given. To set the prompt, tick **Show Production\Shot completed message**.

You can configure Stop Motion Pro that only a content management systems can create new Production\ Shots. Tick **User cannot create Production\Shots** so that a Production\Shot cannot be created outside of the content management system. This disables the main menu New Production\Shot, Welcome dialog box New Production\Shot and on the Open Production\Shot dialog Copy and Rename.

Stop Motion Pro exports data to be compatible with content management systems. Select your system from the **CMS format** drop down list.

Set **Pad new Production\Shot numbers** to preset the Episode/Sequence, Shot, Take data on the New Production\Shot Advanced dialog box.

The Notes tool enables information about the Production\Shot to be sent to the animator or other staff to alert them to items with respect to the shot. Any changes to the notes are stored separately.
- To add an extra Notes type, click **Add** and enter the data.
- To edit existing Notes type, select the row, then click **Edit** and enter the data.
- To delete existing Notes type, select the row, then click **Delete**.

A range of color curves can be used in the DOP tool. These can be standardized across a total production and imported onto each workstation. To import a Color curve file, click **Import**. To export Color curves click **Export**.

Click **OK** to save the settings.

Stop Motion Pro can be configured by a standardized system setting text file that can be rolled out on all workstations on a shoot. More information on the file format can be found in the Stop Motion Pro Workflow specification which can be obtained from our website in the Download section.
Stop Motion Pro™

Part XV
15 Tools

15.1 Audio sync

The audio sync tool allows the you to synchronies a single audio track to any stored frame. It is useful for lipsync and matching animated effects with audio.

WAV, MP3, AVI or MOV files can be used.

Select main menu Tools > Audio sync. The following dialog is displayed.

Select the required file then click Open. The following dialog is displayed with the audio file shown as a green waveform.
Playing the audio
Click **Play** to play the audio.

On the audio waveform hold the left mouse down and move the mouse to play the audio for a specific frame. This is called scrubbing.

Use the **audio sync** zoom slider you can get close up views at a frame level of your audio waveform.

If **Scrub Audio** is ticked, hold the left mouse down on the **main toolbar** Frame indicator/slider and move the mouse to play the audio for a specific frame.

Tick **Mute** to play the audio file, but not hear the sound.

You can set a portion of the audio waveform to loop continuously:
- Right click on the audio waveform where the loop is to start and select **Start Loop**.
- Right click on the audio waveform where the loop is to end and select **End Loop**.
- The background of the loop area will change color
- Click **Loop** to start playing the loop section

**Synchronize to the stored frames**
For the audio sync functions to become active you must synchronizes the audio sync file to a stored frame.
- on the main toolbar, select the stored frame where you want the audio sync file to be synchronized
- on the audio file waveform, click where you want the audio sync to be synchronized
- then click **sync**

When synchronised, the locked stored frame number and the corresponding audio sync frame number are displayed.

Click **sync** to unsync.

Accurate setting and nudging of the Sync point can be done using the spinedit controls.
Once the audio sync and stored frames are synchronized, the stored frames are represented in the audio sync window, with a white highlight showing the current stored frame.

Rolling the mouse over the stored frames area displays the stored frame number in a yellow popup.

### Setting the audio out point
You can set the point where the audio stops playing.

Right click on the audio waveform and select Set Audio end point. Accurate setting and nudging of the Audio out point can be done using the spinedit control.

To remove the Audio out point, right click on the audio waveform and select Clear Audio end point.

### Opening a new file
On the audio sync window, click Open file to locate the new file.

#### 15.2 Audio record

The audio record tool allows you to record an audio file while playing your animation.

Select main menu Tools|Audio record. The following dialog is displayed.

Select the audio capture device, required input and recording format from the drop down lists. We recommend a Format of 44Khz, 16bit, Stereo. More information on configuring Vista and Windows 7 for audio recording can be found here.
The **record level VU meter** will show the current audio level for the selected input. The volume can be changed by the **Record level slider**.

To start and stop recording click **Recording Start / Stop**.

To playback your recording, stop recording, then click **Play Start / Stop**.

To play your animation while recording or playing, tick **Play Stored frames while recording and playing**. The start frame in your animation can be set using the **Start playing at frame** spin edit.

When recording is completed, click **Save** and save the audio file to your hard drive.

An option to import the audio file into the audio sync tool is displayed.

Not all sound cards are compatible with the audio recorder. We have found the Soundblaster X-Fi Xtreme Audio card compatible on XP, Vista and Windows 7.

### 15.3 Chromakey

The chroma key tool provides synchronized (locked together) still images or video through a color specific transparency. The reference material could be in the form of a live action set or character, for instance. The chroma key tool could be used to get eye lines between characters correct, or sizes and perspective in proportion.

The Stop Motion Pro Chroma key tool is designed as a reference during filming. Export your animation and use a tool such as Adobe After Effects to remove colors and composite sources together.

The image below shows the Chroma key tool in action, the background blue around “duckman” (top) has been made transparent allowing the sunset chroma key footage to be visible (bottom). TIF, JPG, BMP, TGA, CR2, NEF, AVI or MOV files can be used.
Select main menu **Tools|Chroma key**. The following dialog is displayed.

Select the required file then click **Open**. The following dialog is displayed with the image shown.
AVI and MOV files

Click Play to play the video.

The frame indicator and zoom handles become active. This operates in exactly the same way as in the main toolbar.

Step through the frames by clicking Next frame and Previous frame.

Synchronize to the stored frames

For the Chroma key functions to become active you must synchronize the Chroma key file to a stored frame.

- on the main toolbar, select the stored frame where you want the Chroma key file to be synchronized
- on the frame indicator and zoom, click where you want the Chroma key to be synchronized (AVI or MOV)
- then click sync

When synchronized, the locked stored frame number and the corresponding Chroma key frame number are displayed.

Click sync to unsync.

Accurate setting and nudging of the Sync point can be done using the spinedit controls.

Setting the Chroma key color and tolerance

Use the color picker and tolerance slider to blend the chroma key footage with the main live image.

- Set live mode on the main toolbar
- Click the chroma key color picker tool on the chroma key window
- On the main animation window, select the color you wish to make transparent
- Use the tolerance slider to increase or decrease the sensitivity of the tool

Tick Show to turn the chroma key effect on and off.
The Stop Motion Pro Chroma key tool is designed as a reference during filming. Export your animation and use a tool such as Adobe After Effects to remove colors and composite sources together.

**Opening a new file**

On the chroma key window, click Open file to locate the new file.

15.4 **Rotoscope**

The rotoscope is designed to provide synchronized (locked together) reference material when animating. This material could be in the form of still image or live action footage of an actor talking, for instance. Animators can use this material as a guide while animating.

TIF, JPG, BMP, TGA, CR2, NEF, AVI or MOV files can be used.

Select main menu Tools|Rotoscope. The following dialog is displayed.

Select the required file then click Open. The following dialog is displayed with the image shown.
AVI and MOV files
Click Play to play the video.

The frame indicator and zoom handles become active. This operates in exactly the same way as in the main toolbar.

Step through the frames by clicking Next frame and Previous frame.

Synchronize to the stored frames
For the rotoscope functions to become active you must synchronise the rotoscope file to a stored frame.
• on the main toolbar, select the stored frame where you want the rotoscope file to be synchronised
• on the frame indicator and zoom, click where you want the rotoscope to be synchronised (AVI or MOV)
• then click sync

When synchronised, the locked stored frame number and the corresponding rotoscope frame number are displayed.

Click sync to unsync.

Accurate setting and nudging of the Sync point can be done using the spinedit controls.

Use the rotoscope opacity slider to blend the rotoscope footage with live or stored frames.

Opening a new file
On the rotoscope window, click Open file to locate the new file.
15.5 DOP Control

The DOP control tool allows you to accurately set the camera parameters and lighting on set. The DOP control tool only works with Canon and Nikon cameras with EVF.

Select main menu Tools|DOP control. The following dialog is displayed.

**Display and navigation**
Left click on the image to move, use the mouse trackball to zoom in and out of the image. The scroll bars can also be used to move the image view.
To show the image at a 1:1 pixel match, click **Full Size**.

To show the image so it fits the viewer window area, click **Best Fit**.

**Test frames**
The DOP allows test frames to be taken and analysed for lighting and camera settings. These test frames are kept separate from the animation sequence frames.

Click **Capture** to take a test frame. The new frame is added to the test frame viewer.

Click **Live** to view the live image from the camera.

Left click to select a test frame to display in the main DOP control tool window.

You can delete the currently selected test frame using the Delete key.

**Sidebar tool - Image settings**
Use this tool to view the camera setting of the test frame.

You can also add notes to each test frame. Any notes in the text field are saved automatically.

To use the camera settings of the selected test frame in your animation, click **Update Capture Settings**.

**Sidebar tool - Histogram**
Use this tool to view a histogram of the frame.
The required color channel can be selected from the drop down list.

**Sidebar tool - Zebra and Magnify**
Use this tool to highlight under or over exposure. You can also enlarge a specific part of the frame.

Select the required Zebra value in the spinedit controls. Any **overexposed** areas will be show as **red**.
Any **underexposed** areas will be shown as **blue**.

Tick **Display Zebra** to show the Zebra settings.
Tick **Display Magnifier** To enlarge a specific part of the frame.

Select the magnify box with a left click and it can be moved around the frame.

Change the **Zoom** factor and **Size** of the magnify box using the sliders.

**Sidebar tool - Color and brightness**
Use this tool to adjust the color and brightness of the frame.
Select an existing **Preset** from the drop down list.

To adjust the color balance of the image, choose the channel you want to adjust from the **Edit Channel** drop down list. RGB channel will change the brightness.

To set a point, click on the curve line and the cursor shape will change to a hand.
Drag the curve until the image looks the way you want it.

A number of points can be set on the curve.

![Curve](image)

To adjust the **Brightness**, **Saturation** and **Contrast** move the slider, or enter a value in the spinedit control.

Tick **Display** to show the **Color and brightness** settings in the DOP tool.

The color settings can also be applied to the frames used in your animation. Select which frames to apply the settings from the **Apply to** drop down list.
- Select **Video Assist frames** to apply the Color and Brightness settings to the Assist
- Select **Video plus Stored frames** to apply the Color and Brightness settings to the Proxy frames used in Stop Motion Pro
- Select **Video plus Stored full resolution** to apply the Color and Brightness settings to the high resolution files which can be exported
This does not affect the RAW files.

Click **Save** to save the current preset.

Click **Reset** to set all values to the default value.

**Sidebar tool - Camera settings**

Use this tool to change the camera settings.
**Camera settings**

- **TV**: The camera shutter speed.
- **AV**: The camera aperture value.

**Live view exposure offset**
This can be used to increase the brightness of the live view image when a manual iris lenses are used. On some Canon DSLR cameras there is a Camera settings option to control the live view brightness. (refer to your camera manual). However on other cameras (usually the more economical ones in the range) the live view brightness gets 'confused' when the manual iris lenses are used. In this situation the live view image is much darker than the actual captured frame. Increase the value of **Live view exposure offset** to increase the brightness of live view to match the captured frame exposure.

**Camera zoom**
Select the in camera zoom factor for magnification.

To use the camera settings of the selected test frame in your animation, click **Update Capture Settings**.

**Sidebar tool - Safezone**
Use this tool to overlay the Safezone over the frame.

**Safe zone / masking**

Select the required aspect ration from the **Aspect ratio** drop down list.

The percentage of the frame size can be set using **Action safe** spinedit and **Title safe** spinedit.
Tick **Display** to show the **Safe zone** settings.

Tick **Mask** to set the area outside the Action safe area to black.

Tick **Crosshair** to show a crosshair marker in the middle of the frame.

Tick **Show rule of thirds** to show the Rule of thirds markers.

### 15.6 Frame painter

The Frame painter tool allows you to add any shape or text to your frames. It is a bitmap painter, just like Adobe Photoshop, so you can draw anything you like.

Select main menu **Tools|Frame painter**. The following dialog is displayed.

**Display and navigation**

Left click on the image to move, use the mouse trackball to zoom in and out of the image. The scroll bars can also be used to move the image view.
To show the image at a 1:1 pixel match, click **Full Size**.

To show the image so it fits the viewer window area, click **Best Fit**.

To view the previous frame, click **Previous**.

To view the next frame, click **Next**.

**Sidebar tab - Frame type**

![Sidebar tab - Frame type](image)

Use this tab to select the frame type to paint. The contents of this list is dependant on your capture type.

Select the type depending if you want to export the painting, or just use it as a visual reference while animating. RAW frames cannot have painting added. The following table provides more detail:

<table>
<thead>
<tr>
<th>Stop Motion Pro Edition</th>
<th>Exported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action!, Action! Plus</td>
<td>Stored frame</td>
</tr>
<tr>
<td>Action! HD</td>
<td>Stored frame plus full resolution</td>
</tr>
<tr>
<td>Studio!, Studio! Plus</td>
<td>Stored frame plus full resolution</td>
</tr>
</tbody>
</table>

**Sidebar tab - Color and size**

![Sidebar tab - Color and size](image)

Use this tab to select the size, color, opacity and feathering of your drawing brush.

The existing color is identified by a small circle in the **color box**. Click on the **color box** to select a new color. It will also be shown color display panel.

Move the **Radius** slider to select the size of the brush.
Move the **Feather** slider to select the sharpness of the edges of the brush so it will blend into the background.

Select the **Opacity** slider to select the sharpness of the edges of the brush. Opacity is the amount of transparency that exists in an image. If an image has 100% opacity it is not transparent at all. As you decrease the amount of opacity it becomes more transparent.

**Sidebar tab - Actions**

Select the Action to be performed on the frame:
- **Draw** using the currently selected drawing brush.
- **Erase** any of the drawing you have done
- **Select a color** from the frame and set the color box on the **Sidebar tab**
  - **Color and size**
- **Paste** previous Frame painter actions onto this frame
- **Move** the part of the frame being viewed. This only applies if you have zoomed into the frame
- **Create** an **edit masking** area. Only parts within the mask will be affected by the painting
- **Delete** the **edit masking** area
- **Undo** any painting you have done
- **Redo** any Undo

To compare the current selected frame with the previous frame, more the **Onionskin** slider. This enables you to see the previous location of your painting.

To view the previous frame, click **Previous**. To view the next frame, click **Next**. A warning message will be displayed.

**Warning**

Do you want to save the changes?

- **Yes** to keep the changes
- **No** to lose the changes
- **Cancel** to continue painting on the current frame

Click **Yes** to keep the changes
Click **No** to lose the changes
Click **Cancel** to continue painting on the current frame

Any painted frame will be set to Hidden in the Editor, so that the painting operation can be removed if required.

**Painting the frame process**

To paint on a frame, use this process:
1. Select the Frame type
2. Select the brush size and color
3. Select the Draw action
4. Place the mouse over the frame where you want to commence painting
5. Click the left mouse button to commence drawing and move the mouse
6. Release the left mouse button to stop drawing

15.7 Rig removal

The Rig removal tool allows you to remove any rigging or supports from your frames.

It does this by using a Background plate as a reference point, ie a captured frame or frames with no rig in shot.

Select main menu **Tools|Rig removal**. The following dialog is displayed.

**Display and navigation**
Left click on the image to move, use the mouse trackball to zoom in and out of the image. The scroll bars can also be used to move the image view.

To show the image at a 1:1 pixel match, click **Full Size**.

To show the image so it fits the viewer window area, click **Best Fit**.

To view the previous frame, click **Previous**.

To view the next frame, click **Next**.
Sidebar tab - Background Plate

Use this tab to select the frame type to paint. The contents of this list is dependant on your capture type.

Select the type depending if you want to export the Rig removal changes, or just use it as a visual reference while animating. RAW frames cannot have Rig removal. The following table provides more detail:

<table>
<thead>
<tr>
<th>Stop Motion Pro Edition</th>
<th>Exported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action! Plus</td>
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<tr>
<td>Action! HD</td>
<td>Stored frame plus full resolution</td>
</tr>
<tr>
<td>Studio!, Studio! Plus</td>
<td>Stored frame plus full resolution</td>
</tr>
</tbody>
</table>

Move the slider to locate the frame you wish to reveal when you erase the rig.

Sidebar tab - Brush size

Use this tab to select the size, and feathering of your Rig removal brush.

Move the **Radius** slider to select the size of the brush.

Move the **Feather** slider to select the sharpness of the edges of the brush so it will blend into the background.

Sidebar tab - Actions
Select the Action to be performed on the frame:

- **Erase** any of the drawing using the currently selected drawing brush
- **Move** the part of the frame being viewed. This only applies if you have zoomed into the frame
- **Create** an edit masking area. Only parts within the mask will be affected by the Rig removal brush
- **Delete** the edit masking area
- **Undo** any paining you have done
- **Redo** any Undo

To view the previous frame, click **Previous**. To view the next frame, click **Next**. A warning message will be displayed.

Click **Yes** to keep the changes
Click **No** to lose the changes
Click **Cancel** to continue painting on the current frame

Any painted frame will be set to Hidden in the Editor, so that the painting operation can be removed if required.

**Rig removal process**
To use the Rig removal on a frame, use this process:
1. Select the Background plate frame
2. Select the brush size and feather
3. Select the Erase action
4. Place the mouse over the frame where you want to commence the Rig removal
5. Click the left mouse button to commence the Rig removal and move the mouse
6. Release the left mouse button to stop Rig removal

**15.8 Time lapse**

Stop Motion Pro can automatically capture video images at predefined intervals. This can be used to create time lapse sequences such as growing plants.

Select main menu **Tools**|**Time lapse**. The following dialog is displayed.
Click the **Start** button to commence the time lapse.

Click the **Stop** button to end the time lapse at any time.

The **status window** shows:
- the time and date of the first capture
- the latest capture
- time lapse status

The time between frame capture is set by **Capture interval**.

**To set the start time of the time lapse sequence:**
Select **Immediately** to start the capture immediately the Start button is clicked.
Select **Start at a specified date and time** to set when the time lapse is to commence. The start time is set by the drop down list for the date and the drop down list for the time.
To set the end time of the time lapse sequence:
Select **Capture continuously** to capture until the **Stop** button is clicked
Select **Stop at a specified date and time** to set when the time lapse is to end. The end time is set by the drop down list for the date and the drop down list for the time.

To pause the capture:
Click **Pause capture** and set the **Begin pause at** time and **End pause at** time.

Click **Show label** to show the capture time and date in the captured frame. The following parameters can be set for the label:
The color of the label text by clicking the **Text color** color box to display the **Color select dialog**.
The color of the label background by clicking the **Background color** color box to display the **Color select dialog**.
The label size by the **Size** spinedit.
The label location can be set by the **Location** drop down list.
The format of the label is set in the **Text** entry. Format specifiers may be written in upper case as well as in lower case letters produce the same result. The following specifiers can be used:
15.9  Preview player

Once you have a 40+ frame sequence you can use the Preview player to generate a preview of your animation. The preview player is a good way to test back animation at an accurate speed on slower systems. Use Make movie to output finished animation.

Select main menu Tools|Preview player. The following dialog is displayed.
Playing the audio
Click Play to play the audio.

Use the slider to move to any portion of the preview file.

Select which frames to play from the Preview drop down list.

Tick Mask to Safe zone aspect ratio to view the preview at the Safe zone aspect ratio.

To export the Preview file click Save.

15.10 Preview player stereoscopic

Use the Preview player stereoscopic tool to generate a preview of your animation with both left eye and right eye frames displayed together. Using 3D glasses, an accurate 3D view is created. Recommendations for 3D glasses can be found at www.stopmotionpro.com

Multiple exposure on the Capture settings dialog box must be set to use the Preview player stereoscopic tool.

Select main menu Tools|Preview player stereoscopic. The following dialog is displayed.
One exposure is displayed on the left side and a second exposure on the right side. Using 3D glasses, the 3D effect is revealed.

The toolbar is duplicated so it is easily visible when wearing 3D glasses.

Click **Play** to play your animation. This button toggles between play and pause. When your animation is paused, the button becomes a **play** button. When your animation is playing, the button becomes a **pause** button.

Use the **frame indicator / slider** to move quickly to any frame within your animation. The frame indicator / slider tool lets you zoom in, out and navigate through your frames. This is useful for navigating (and setting loops) in long sequences of frames. It adapts to any number of stored frames.

Moving the mouse over this area displays the frame number on the frame indicator panel. Holding the mouse left button down and moving the mouse left and right quickly moves through the stored frames.
Click the **Previous** button to move the currently displayed frame of your animation back one frame.

Click the **Next** button to move the currently displayed frame of your animation forward one frame.

The **Play from frame** and **To** spinners set the start frame and end frame when **Play** is clicked. Tick **Last frame** if the last frame in the animation is the end of the play.

Tick **Mask to Safe zone aspect ratio** to view the preview at the Safe zone aspect ratio.

Tick **Output to second monitor** if the Preview is to be displayed on a second monitor.

Select the exposure that is to be displayed on the left side of the screen from the **Left exposure** drop down list. Select the exposure that is to be displayed on the right side of the screen from the **Right exposure** drop down list.

### 15.11 Video player

AVI and MOV files can be opened using the Video player tool. These can be used as reference material while animating. The video file is not synched with the stored frames and is not stored with the project data.

Select main menu **Tools|Video player**. The following dialog is displayed.

![Open dialog](image)

Select the required file then click **Open**. The following dialog is displayed with the image shown.
Playing the audio
Click Play to play the audio.

Use the slider to move to any portion of the video file.

15.12 Slate

The Slate tool enables you to create a frame at the start of the animation containing the metadata about the Production/Shot. To enable consistent information that can be used in a content management system, the user selects from a number of drop down lists. The content of the lists is set on the System settings dialog.

Select main menu Tools|Slate. The following dialog is displayed.
Select the appropriate data from the drop down lists.

Click **Print** to print the Slate.

Click **Use last slate** to set the drop down lists and other data to the same used on the last slate.
15.13 Notes

The Notes tool enables information about the Production\Shot to be sent to the animator or other staff to alert them to items with respect to the shot. Any changes to the notes are stored separately. Set up the Notes categories on the System Settings dialog.

Select main menu Tools|Notes. The following dialog is displayed.

Select the Note to view from the drop down list.

After editing the note, click Update to save the changes.

Click Print to print the Note.

15.14 Timeline

The Timeline tool allows the you to synchronies capture your frames and see them in context with the previous and next shots in the production. This is useful when shots flow from one to another smoothly or for getting eyelines correct if the animation is a dialog between 2 characters.

A reference file is imported into the timeline tool. The reference file is created in your video editing
software and has the following format:

<table>
<thead>
<tr>
<th>Previous shot</th>
<th>Current shot</th>
<th>Next shot</th>
</tr>
</thead>
</table>

As frames are captured in Stop Motion Pro, the Current shot part of the reference is replaced by the captured frames.

The content of Previous shot, Current shot and Next shot can be the actual frames of the previous shot, if it has been taken, animatic or storyboard.

AVI or MOV files can be used.

Select the required file then click Open. The following dialog is displayed with the image shown.
Playing the Timeline file
Click Play to play the video.

The frame indicator and zoom handles become active. This operates in exactly the same way as in the main toolbar.

Step through the frames by clicking Next frame and Previous frame.

Synchronize to the stored frames
For the Timeline functions to become active you must synchronise the Timeline file to a stored frame.
- on the main toolbar, select the stored frame where you want the Timeline file to be synchronized
- on the frame indicator and zoom, click where you want the Timeline to be synchronized
- then click sync

When synchronised, the locked Stored In frame number and the corresponding Timeline frame number are displayed.

Set the Stored out frame where you want the Timeline file to be redisplayed.

Click sync to unsync.

Accurate setting and nudging of the Sync point can be done using the spinedit controls.

Use the rotoscope opacity slider to blend the rotoscope footage with live or stored frames.

Opening a new file
On the Timeline window, click Open file to locate the new file.
15.15 Worktime

This feature shows the times and dates a Production/Shot was opened and closed.

Select main menu **Tools**|**Worktime**. The following dialog is displayed.

<table>
<thead>
<tr>
<th>Start date</th>
<th>Start time</th>
<th>End date</th>
<th>End time</th>
<th>User</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 Sep 2009</td>
<td>17:53</td>
<td>28 Sep 2009</td>
<td>17:54</td>
<td>Single user</td>
<td>0.01</td>
</tr>
<tr>
<td>20 Sep 2009</td>
<td>10:02</td>
<td>20 Sep 2009</td>
<td>10:02</td>
<td>Single user</td>
<td>0.00</td>
</tr>
<tr>
<td>29 Sep 2009</td>
<td>09:16</td>
<td>29 Sep 2009</td>
<td>09:16</td>
<td>Single user</td>
<td>0.00</td>
</tr>
<tr>
<td>29 Sep 2009</td>
<td>09:21</td>
<td>29 Sep 2009</td>
<td>09:21</td>
<td>Single user</td>
<td>0.00</td>
</tr>
</tbody>
</table>

To save the data as a CSV (Comma Delimited, CSV text file format) or as XLS (Microsoft Excel) format, click **Save**.

The data can then be used in a spreadsheet or database.
Part XVI
16 Dialogue boxes

16.1 Welcome to Stop Motion Pro

This dialog box allows you to quickly select a start up option.

Create a new Production/Shot
Create a new Production/Shot. This is the same as menu File|New Production/Shot.

Open an existing Production/Shot
Opens the open Production/Shot dialog box. This is the same as menu File|Open Production/Shot.

Open your last Production/Shot
Opens the last Production/Shot you were working on. The name of the last Production/Shot is displayed.

16.2 New Production/Shot

Use this dialog to set the Production/Shot name.

Click main menu File|New Production/Shot or click New Production/Shot on the Welcome dialog.

Stop Motion Pro store projects in a directory hierarchy.
Select an existing Production from the drop down list or enter a Production name. Enter a Shot name, then click OK.

The Production and Shot names can only consist of letters and numbers.

The Production/Shot name creates a directory under the Stop Motion Pro home directory.

16.3 New Production/Episode/Shot/Type/Take

Use this dialog to set the Production/Shot name. The File management option on the System settings dialog box must be set.

Click main menu File|New Production/Shot or click New Production/Shot on the Welcome dialog.

Stop Motion Pro store projects in a directory hierarchy.
For each column, select any option in the list or enter the data directly in the text box at the top of the column.

Stop Motion Pro will automatically calculate the next Episode, Shot or Take.

Slate data entered in the System settings dialog box will be loaded into the drop down lists. If **No Blank data** is ticked, the first item of each of the Slates lists will be displayed.

Click **Use last slate** to set the drop down lists and other data to the same used on the last slate.

Video, audio assets and Notes can be copied to the Take directory.
Click **Add** to add a file to the list to be copied.

Click **Delete** to remove a file from the list to be copied.

Click **Open** to open a file in the list.

Click **OK** to create the Product/Shot.

### 16.4 Open Production/Shot

Use this dialog to open a Production/Shot.

Click main menu **File|Open Production/Shot** or click **Open Production/Shot** on the Welcome dialog.

The display order of the projects can be the following:

- **Production/Shot name**
- **Latest Production/Shot** that has been modified at the top
- **Earliest Production/Shot** that has been modified at the top
Select the display order using the **Display order** drop down list box. Tick **Show last frame** if the Last frame of the animation is to be displayed in the thumbnail.

Filter the Shots displayed using the **Production** drop down list.

Select the Production/Shot using the left mouse button. This is highlighted by the red outline and the first frame is shown in the sample window. If there are more that one frame, it can be played.

**Production/Shot Management**

To copy an existing Production/Shot, click **Copy** and enter a new Production/Shot name.

To rename an existing Production/Shot, click **Rename** and enter a new Production/Shot name.

To delete an existing Production/Shot, select **Delete**. **When you delete a Production/Shot it cannot be recovered**.

Stop Motion Pro locks a **project** if it is opened by one user so it cannot be changed by another. If the Production/Shot was not closed correctly, the lock flag may not be reset. Click **Unlock All** to reset the lock flags.

To open the Production/Shot click **Open**.

**Multi user**

If **Individual login** is set on the System settings dialog box, you are **Allowed to manage users** a extra tab is displayed.
Select the required user within a group and then click the **Projects** tab. All the projects for that user will be displayed.

### 16.5 Open Production/Episode/Shot/Type/Take

Use this dialog to open a Production/Shot. The File management option on the System settings dialog box must be set.

Click main menu **File|Open Production/Shot** or click **Open Production/Shot** on the **Welcome** dialog.

For each column, select any option in the list. Tick **Show last frame** if the Last frame of the animation is to be displayed in Sample. Tick **Output to second monitor** if the Sample is to be displayed on a second monitor.

To open the Production/Shot click **Open**. Tick **Fast open** to not display the Capture settings dialog.
Slate data entered in the System settings dialog box will be loaded into the drop down lists. If **No Blank data** is ticked, the first item of each of the Slates lists will be displayed.

Click **Update** to save and Slate data changes.

**Copying files**

Video, audio assets and Notes can be copied to the Take directory.

Click **Add** to add a file to the list to be copied.

Click **Delete** to remove a file from the list to be copied.

Click **Open** to open a file in the list.

**Notes**

View or edit any notes in the Take directory.

Click **Update** to save any Notes changes.

**Production/Shot Management**

To copy an existing Production/Shot, click **Copy** and enter a new Production/Shot name.

To rename an existing Production/Shot, click **Rename** and enter a new Production/Shot name.

To delete an existing Production/Shot, select **Delete**. **When you delete a Production/Shot it cannot be recovered.**

Stop Motion Pro locks a **project** if it is opened by one user so it cannot be changed by another. If the Production/Shot was not closed correctly, the lock flag may not be reset. Click **Unlock All** to reset the lock flags.

**Multi user**

If **Individual login** is set on the System settings dialog box, you are **Allowed to manage users** a
extra tab is displayed.

Select the required user within a group and then click the Projects tab. All the projects for that user will be displayed.

16.6 Full resolution viewer

You can view your captured frames at the original resolution they were captured.

Select main menu View|Full resolution viewer. The following dialog is displayed.

Display and navigation
Left click on the image to move, use the mouse trackball to zoom in and out of the image. The scroll bars can also be used to move the image view.

To show the image at a 1:1 pixel match, click Full Size.

To show the image so it fits the viewer window area, click Best Fit.
To view the previous frame, click **Previous**.

To view the next frame, click **Next**.

**Sidebar tab - Display**

Use this tab to choose from multiple exposures or display on a second monitor.

If Multiple exposure is set, select the **Exposure** from the drop down list.

Tick **Output to second monitor** if the Preview is to be displayed on a second monitor.

**Sidebar tab - Histogram**

Use this tab to view a histogram of the frame.

The required color channel can be selected from the drop down list.

**Sidebar tab - Color and brightness**

Use this tab to adjust the color and brightness of the frame.
Select an existing **Preset** from the drop down list.

To adjust the color balance of the image, choose the channel you want to adjust from the **Edit Channel** drop down list. RGB channel will change the brightness.

To set a point, click on the curve line and the cursor shape will change to a hand.
Drag the curve until the image looks the way you want it.

A number of points can be set on the curve.

To adjust the **Brightness**, **Saturation** and **Contrast** move the slider, or enter a value in the spinedit control.

Tick **Display** to show the **Color and brightness** settings.

Click **Save** to save the current preset.

Click **Reset** to set all values to the default value.

**Sidebar tab - Zebra**  
Use this tab to highlight under or over exposure.

Select the required value in the spinedit controls. Any **overexposed** areas will be show as **red**. Any **underexposed** areas will be shown as **blue**.

Tick **Display** to show the Zebra settings.

**Sidebar tab - Safezone**  
Use this tab to overlay the Safezone over the frame.
Select the required aspect ration from the **Aspect ratio** drop down list.

The percentage of the frame size can be set using **Action safe** spinedit and **Title safe** spinedit.

Tick **Display** to show the **Safe zone** settings.

Tick **Mask** to set the area outside the Action safe area to black.

Tick **Crosshair** to show a crosshair marker in the middle of the frame.

Tick **Show rule of thirds** to show the Rule of thirds markers.

### 16.7 Colour select

This dialog sets the colors for the Overlay settings on the Setup dialog box.

The existing color is identified by a small circle in the **color box**. The Red, Green and Blue values are listed.

Click on the **color box** or change the **Red**, **Green** and **Blue** values to the required color.
For reference the Web color is also shown.

Enter the required data then click **OK**.

### 16.8 Login

If **Individual user login** has been ticked, each user will need to login. Individual login is set on the System settings dialog box.

The **Login** dialog box is displayed.

![Login dialog box](image)

Enter your **Login name** and **Password** then click **OK**.

You will be notified of your Login name by the system administrator.

If you are logging in to Stop Motion pro for the first time, leave **Password** blank then click **OK**. The New Password dialog box will be displayed.

### 16.9 Overlay parameters

This dialog sets the colors and sizes for the Overlay settings.
The existing color is identified by a small circle in the color box. The Red, Green and Blue values are listed.

Click on the color box or change the Red, Green and Blue values to the required color.

If a line is selected adjust the line width using the Line width spinedit.

If a point is selected adjust the size using the Size spinedit.

Enter the required data then click OK.

16.10 Password

If Individual user login has been ticked, each user will need to login. Information on setting up user accounts can be found here.

The password dialog box is displayed if no password has been set, or has been reset.

Enter the new password in the Password field.
Repeat the password in the Repeat new password field then click OK.

This new password will apply the next time Stop Motion Pro is started.