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Stop motion animation is created by moving or changing subject material in front of a camera, while filming each incremental change. Playing back these images creates the illusion of movement, the very essence of animation.

We have designed our software so you can make your own animated films. You can now distribute your films online, even make flipbooks! Stop Motion Pro will ensure you are at the forefront of animation creation technology.

**About the Stop Motion Pro Quickstart Guide**

This guide is designed so you can create your first animated movie with sound using Stop Motion Pro in around 30 minutes. You will need to use a camera to complete the tasks in this Quickstart Guide. Information about compatible cameras is on our website.

The advanced features of Stop Motion Pro can be explored by clicking on the **Help** button on dialog boxes in the software. Our website also includes tutorials showing the tools in action for different animation techniques.

If you would like more information about animation, and to share your ideas with other animators from around the world, visit our website.

[www.stopmotionpro.com](http://www.stopmotionpro.com)
Connect a camera before starting Stop Motion Pro
The tasks in this Quickstart guide require a live video source; this could be from a Stop Motion Pro Video Adapter, video camera, web cam, or Canon and Nikon DSLRs (Action HD and Studio editions only). Turn on your camera so a live image is seen in the viewfinder.

Please refer to our website for the latest information on connecting cameras.

Hints:
- Remove any DV tapes if using a DV camera.
- A webcam is a great way to experiment with the software
- Provide mains power rather than battery power to cameras if possible.

Registration and unlocking
Stop Motion Pro needs to be registered on each machine. When Stop Motion Pro is registered it becomes “unlocked”, allowing it to be used without restrictions.

Start Stop Motion Pro and the Register dialog is displayed:
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 online.

A Computer ID is generated by Stop Motion Pro.

If your computer is connected to the internet, simply enter in your name, email address and Serial number, then click Register Direct Online. This will automatically unlock the software.

If your computer is not connected to the internet, note down the Computer ID and, with your Serial number, visit our website to obtain an Unlock code, and enter it manually.

**Task 1 – Make your first animation**

In this task you will learn how to create a new project, capture frames, play your animation, use onionskining and be introduced to the editing functions of Stop Motion Pro.

**Creating a new production / shot**

Stop Motion Pro stores your animations in a structured format that makes it easy for you to create, find and manage your work. When you want to create a new animation, you need to create a Production name, then your actual film will be a Shot in that production.

**Hint:**
- In an educational environment, the Production name could be a student name. Shot names could then refer to each animated film being produced by that student.
Start Stop Motion Pro and the **Welcome** dialog is displayed. Choose **Create a new Production/Shot**, then click **OK**.

Enter a **Production** name, then **Shot** name and click **OK**.

Once you create a new production/shot, the **Capture settings** dialog is displayed. This dialog is designed to show you what hardware is available for you to use with Stop Motion Pro when making your animation.

A range of capture methods are displayed depending on the video capture card/camera connected and your particular edition of Stop Motion Pro.

Choose the method that best suits how you are working.

**Note:** Some of the options only appear if you have that type of hardware connected.

Refer to our website for latest camera connection information.

[www.stopmotionpro.com](http://www.stopmotionpro.com)
Set up your camera so you are looking at an object (model) that you can move easily – a toy car, cup, pen, anything you can manipulate. You are going to make your first animation by moving the model in small steps, each time taking a photo (called “capturing”). Playing back these captured images creates the illusion of movement, the very essence of animation! Let’s get started.

To capture frames, you must be in live mode. On the main toolbar, click the live button and it will glow to indicate live mode. If you move your hand in front of the camera you should be able to see it moving on screen.

To capture a frame, click the capture button.
When a frame is captured, the frame counter will increment. Now make a change to the object the camera is looking at.

Click the **live** button. You can see the difference between the previously captured frames and the current live video by using the onionskin function. Move the **onionskin** slider to the left to increase onionskin visibility.

Let’s start to animate the object. Move the object along a straight line, click the capture button to capture a frame after each small move. Do this 10 times, capturing 10 frames.

At this point **leave your hand in shot** and capture a frame; we will remove this frame later. **Capture** another 10 or so frames, moving the object every frame.

**Playing your animation**

To play your animation you must be in stored mode. On the main toolbar, click the **stored** button and it will glow to indicate stored mode.

Click the **play** button to play your animation. Notice your hand appearing in the shot during the playback.

Click the **next** or **previous** buttons to step though your animation.

**Hint:**
- You can quickly toggle between live and stored mode by pressing the space bar on your keyboard.

The play rate (how fast or slow the animation plays back) is visible in the **fps** (frames per second) window on the main toolbar. Let’s change the speed the animation plays by modifying the number of frames played every second.
Use your mouse and click the current **fps**, a pop-up menu will appear.
Select the option **7.5 fps**. Now press the play button on the main toolbar. You can see your animation play back at 7.5 frames per second.

**Hint:**

- The Menu **Settings** | **Advanced settings** | **Play** tab lets you set more specific fps values.

Change the **fps** back to **15 fps** using the same method. Play the animation back, notice your animation plays much faster at 15 fps.

**Editing your animation**

When playing back your animation, your hand clearly appears in shot. Let’s remove your hand from the animation using the inbuilt editing tools.

One way to edit your animation is with the **editor**. On the main toolbar, click the **editor** button.

A thumbnail of each frame is displayed.
Use the windows scroll bar (to the far right of the thumbnail images) to navigate through the thumbnail frames in the editor if needed.

Left click your mouse on the frame you captured with your hand in
it. The frame will become highlighted in red. On the side toolbar, left click on the **Actions**. You can now choose to hide the frame using the **Hide** button on the right hand side of the Editor window. The frame with your hand in it will have a diagonal yellow line, and will not be visible when you playback the frames. To play your edited animation, left click the **Preview** tab on the right hand side toolbar, then click the **play** button.

**Hints:**
- Multiple frames can be selected using the **Shift** and **Ctrl** keys.
- Drag and drop can be used to move the frames.
- Double click on a thumbnail frame to go back to stored frame mode.
A fast way of editing is by left clicking and dragging on the **timeline**. A blue grey line will appear showing which frames have been selected. When dragging, watch the main image area to view the full size selected frames.

Right click to use the editing options available.

**Task 2 - Making an animation with a sound track**

This part of the Quickstart Guide builds on the fundamentals you learned in Task 1. You will create a longer animation that uses a pre-recorded sound track to direct the action. You will output the final animation as a WMV movie clip that you can use in editing applications such as Windows Movie Maker (for adding titles and other effects).

First let’s look and listen to an animation with an audio track. To watch the animation, you need to open Microsoft **Windows Media Player**. Do this by going to your Windows **Start** menu, locate Windows Media Player. In Media Player select **File|Open** and open the movie below:

$$C:\Program Files\Stop Motion Pro v8\assets\Quickstart\quickstart_movie.mpg$$

It is a 3 second animation of a character walking into an object. You are going to use the same audio track to make an animation. Find a character to animate - you could use a plastic figure, toy car, pencil sharpener - whatever you have available. You will also need an object for the character to bump into, this could be a cup, box or telephone, and again, use whatever you have at hand.

Start a **New Production/Shot** in Stop Motion Pro. Name the **Production** *My animation* and the **Shot** *walk crash*, then click **OK**.
Set the capture parameters as you did in **Task 1**. Once you have a live view from your camera, set up the object that is going to be bumped into to the right of the screen. Position your character to the left of the screen, just out of shot.

Check your frames per second rate (fps) on the main toolbar. Ensure the (fps) is set to 15. If you need to adjust it use your mouse and right click the **fps** window, a drop down menu will appear, select **15 fps**.

![Image of Stop Motion Pro](image.png)

**Animating with Audio**
Add music, dialogue and sound effects using the multi-audio track feature. There are two stereo audio tracks, which can have multiple sequential audio clips.
Import a walking sound effect:
Left click on **audio track 1** (it will turn a lighter grey color). Click the **add audio** button. Locate the audio track below:

C:\Program Files\Stop Motion Pro v8\assets\quickstart\walk.wav

![Image of audio tracks](image2.png)
Click **OK**. The file appears in the audio track. Left click and drag the track to the left or right to position the file so it is at frame 0. Press the **play audio tracks** button and you will hear the footsteps sound.

Adding another track:
Add a crash and “ow” sound effect by selecting the **audio track 2**. Click on the **add audio** button, locate the audio track below:

C:\Program Files\Stop Motion Pro v8\assets\quickstart\crash_ow.wav

Move this using the click drag technique, positioning the track similarly to the image above.

**Hints:**
- **Delete / lock an audio file:**
  Left clicking the **padlock icon** so it "locks". When locked the audio clip cannot be accidently moved, volume modified, truncated or deleted from the project. To unlock left click on the locked **padlock icon**.
Now you can start animating your character to the audio track. Capture a couple of frames, move your “person” character into shot slightly. Take another couple of frames and move the character again.

The frames that you have captured are shown in gray, with the current stored frame highlighted in white. This gives you a clear indication what point you are up to in your sound track.

Take a moment to look at what is happening on the audio tracks: The key point is the moment that the character hits the object. This is exactly 2 seconds into the soundtrack. Move your character around the set as you capture each frame, aiming to hit the object at the 2 second mark.

- Adjust position, volume and trim start / end time: Audio files can be moved by left click + drag. Click the blue side bars + drag to trim either the start or end of the audio clip. Volume can be changed by dragging the orange top bar vertically.
- Switching tracks: Simply select, drag and drop audio files between tracks.
If you need to, review the sample video below:

C:\Program Files\Stop Motion Pro v8\assets\Quickstart\quickstart_movie.mpg

**Making a movie**

After creating your animation sequence it can be exported to a wide range of applications. This can be useful if you want to put your animation onto DVD, email or the web, or if you want to add titles, fade in/outs, dissolves music or other sound tracks with video editing software.

Select main menu **File**|**Make movie** to output your animation from Stop Motion Pro. The **Make movie** dialog is displayed. In the **Export format** drop down, select **AVI Compressed (Mjpeg)**. This is a common video format. Select **All frames**. Leave **Size (W x H)** and **Frame rate** the same. Click **OK**.

Give your animation a file name “*my animation.avi*” and save it to your desktop.

Congratulations!! You have made your first animation with audio.

**Hints:**
- **WMV** has a small file size and plays back reliably on a wide range of machines.
- **MOV** compatible with Mac and PC computers.
- **Use AVI Compressed (Mjpeg)** to export the animation to a video editing software application for output to DVD for instance.
Recording an audio track
It is great fun to record your own audio over your animation. With the audio recorder and a microphone, it is easy to add dialogue and sound effects.

Ensure your microphone is connected to your computer. Webcams have microphones inbuilt, with correct drivers installed they should work.

Click the **audio recorder** button (see pg. 12).

To set up your audio recording, use the three drop down menus at the top left (**Device, Input** and **Format**). Press the **Recording Start / Stop** button. When you speak into the microphone you should see movement on the recording level indicator (two green bars). To stop recording simply click the Start/Stop button again. You can save the audio files (for editing later) or have them automatically synchronised to your current animation in the audio sync window.

You can check the box marked **Play Stored frames while recording and playing**, letting you use your already filmed animation as a guide while recording audio.
**Chroma key**
Use chroma key to replace a specific color range in your live video with another image. This is also known as green screen or blue screen.

This is demonstrated in the image below where the background around the character (a blue color), is going to be replaced with an image of a sunset.

![Before chroma key](image1.jpg)  ![After chroma key](image2.jpg)  

The chroma key track is located directly underneath the two audio tracks, below the timeline.

To use the chroma key track:
Click the **add chroma key** button.

Select a video (eg. MOV, AVI) or still image (eg JPG, BMP) to use as the Chroma key file. There are some sample images included with Stop Motion Pro.
The chroma key color picker button is active when you are in live mode. Click the left mouse button on the color picker then click on the color you wish to remove on the live video. Using the tolerance slider it is possible to blend the chroma key footage with the live video image.

The chroma key effect can be made visible or not by checking the Show option.

Hint:
- For Chroma key (blue / green screen) to be effective lighting must be even on the background color. Soft focus, hair and other factors can influence the results.

Other tools
There are some fantastic tools in Stop Motion Pro. They are designed to make your animation experience even more fun and give you the power to push creative boundaries.

Frame Painter - all editions
Paint directly onto frames. Great for adding explosions, flowers, thought bubbles, lightning strikes and even mouths!

Flip book - all editions
Have a printer? You can print out your animation as a flip book and share it with anyone, anywhere!

Time lapse - all editions
Use Time lapse to automatically capture images at predefined intervals. Time lapse is used to condense time, which is great for showing clouds racing across the sky, flowers opening or digging up fossils!

Rotoscope - some editions
Import and sync video and still images to use as a guide for your work. Great for learning the craft of animation.

Rig Removal - some editions
An amazing tool that lets you remove wires, supports and cut out parts of frames to reveal others underneath.
What next?
So, you have made your animation, it is looking good and you want to add animation sequences together, include more audio tracks, titles and further editing. There are other video editing applications for the PC and MAC that will work with Stop Motion Pro, use the **File|Make movie** function to output AVI, WMV or MOV files.

There are many features in Stop Motion Pro you can use to improve the quality of your animation:
- **Overlay and markers** allow markers and lines to be placed over your animation to help with lineup and create smooth motion
- Options allowing you set personal preferences for a wide range of features and functions, including keyboard shortcuts and where projects are stored
- **Multiple users** can each have their individual settings and storage area for projects
- **Free soundtracks** - Stop Motion Pro incluldes free audio files for your films. You are free to use and distribute these audio clips with your animation. You can find these on our website.

![www.stopmotionpro.com](www.stopmotionpro.com)

More information can be found in main menu **Help|Contents**

We look forward to your comments and feedback.