

Reviews



iStopMotion 2

by L. Davenport

I am sure most of you (at least the ones with children) are aware of stop-motion animation. This process is what was used to create TV series like Gumbly or movies like Chicken Run, The Nightmare Before Christmas, Wallace and Gromit or the recently released Caroline. Maybe some of the older generation remember the (1933 version of) King Kong or all of the Ray Harryhausen movies: Jason and the Argonauts (with the classic sword fight between "live-action" men and stop-motion skeletons), The 7th Voyage of Sinbad, the 1980 version of The Clash of the Titans, etc. All of these were created using either clay or rubber models or miniature metal armatures covered in rubber. Each was moved a fraction of an inch between camera frames. When all of these frames are played in sequence it appears as if the figurine is moving about the screen.

This is a laborious task for the animator (since there is typically 30 frames per second), but it does give an interesting video effect. Unfortunately more and more producers are opting for CGI (computer generated imagery) animations. Fortunately, there are ways for budding film-makers (children, college students, etc.) to make their own stop-motion animations and at a fraction of the cost that the big-time producers pay for their stop-motion animations. I am referring to the iStopMotion program from Boinx Software. It comes in three versions: Home, Express, and Pro.

- Home: The Home version is geared towards children and the casual user who have simple needs for their animation projects. Sound is not supported. This version's maximum resolution is 720 x 576 and it outputs to NTSC and PAL.
- Express: The Express version is geared to hobbyist or individuals who make a lot of animations and people who want more control over the animation process. It supports most of the features found in the Pro version including sound (iStopMotion doesn't record sound but will import audio created by programs such as Garageband, etc). This version's maximum resolution is 720 x 576 and it outputs to NTSC or PAL.
- Pro: The Pro version is geared toward professional animators who want to use it in their production workflow. It supports a maximum 10,000 x 10,000 output resolution, HD, and has Final Cut Pro integration (iStopMotion creates a Final Cut Pro Interchange file that transports as much information as possible to FCP).

Now, anyone from a child to professional, with a few toys or figurines and a digital camera can make a stop-motion movie.

How it works;

When you open the iStopMotion application, a dialog box appears asking you to specify the movie name & folder location along with which "Preset" you want to use (this sets the size, the pixel aspect ratio, and frame rate for your new animation). Most of the common film formats are included. The Express/Pro versions allow user defined presets. Afterward the iStopMotion main window (which has several parts) appears. Toward the upper left is the Preview area. When you connect your camcorder to your computer what the camcorder sees is displayed in this window. Off to the right of the Preview area is the Sidebar. This is where you define the Recording, View, and Compositing settings.

- Recording - Here is where you select the input device and whether it is to capture a single frame or (for the Express/Pro versions) multiple frames when you click its record button. Typically you will be taking single frames, but there might be times when you want to capture continuous video such as of a falling object (the Express/Pro versions give you this option).

You can also set iStopMotion to take time lapse frames (you choose the frequency from frames, seconds, minutes, or hours). This is handy if you want to take pictures of a flower blooming, a snail



The iStopMotion document window showing Onion Skinning.



The Export menu

crossing the sidewalk. etc. This way you can show in minutes what took hours to occur.

- **View** - To make a realistic stop-motion video, parts of your figurine needs to flow in one direction and then another. For instance, if you watch a man walk by, you will notice that his legs aren't the only thing moving. He is also swinging his arms and hands back and forth and probably moving his head around to watch what is going on around him. If you want your figurine to look like it is walking, it needs to match these movements, requiring the re-positioning of all these body parts between frames. Problem is, this is a lot to keep track of. It is very easy to lose track of which direction an arm or leg is moving. "Let's see - was I moving the right leg forwards or backwards?" BTW: This happened to me on one of my first attempts.

There are two ways to keep everything straight: Blinking and Onion skinning. Blinking will quickly switch between the live preview and the previously captured image. Onion skinning will place (a user specified amount) of nearly transparent (previously) captured images/frames under the live preview. Now its easy to see that the right leg has been moving forward while the left leg is moving backward. See the first screen dump for a example of onion skinning.

Another feature found in the Express/Pro versions is Rotoscope/lip syncing. In the aforementioned walking man scenario, you could expedite things by recording the man walking, import it in to iStopMotion, and then match his movements in your animation. Or, if your figurine has a movable mouth, you can record yourself speaking and then match the mouth movements. The rotoscope reference movie is placed either next to or overlaid on top of the live feed.

- **Compositing** - iStopMotion lets you use images as foreground objects. It also lets you use images and video as background objects. This way you can place your figurine in a virtual scene. iStopMotion comes with a variety of foreground images: curtain, window frame, jungle, portals, etc. These images will surround your movie. Some of the included background images are: Moon surface, landscape, and universe. FYI: When using backgrounds, iStopMotion uses a process called Chroma Keying to cut away part of the recorded frames. As an added benefit, the Express/Pro versions allow you to import your own foreground and background images and video.



Compositing example

The Toolbar, Timeline, and Status bar sit at the bottom of the iStopMotion Document window. The Timeline can contain up to five tracks for: captured frames, foreground, background, the rotoscope reference movie, and (Express/Pro versions) sound.

I don't know how many people would use this feature, but for those who need it, iStopMotion will let you flip or rotate the incoming source. This would be useful if you have to use your camera up-side-down to get closer to your object.

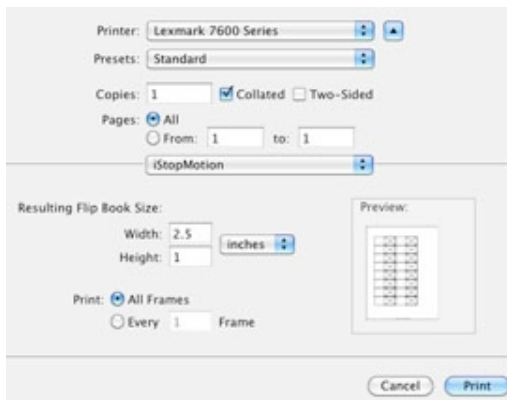
There may be times when your child would want to show-off his/her animation to friends when they are away from a computer. The creators of iStopMotion have thought of this and gave iStopMotion the ability to create (old-fashioned) flip books. This is where the frames of the movie are printed and once cut out and grouped together, can be flipped through to show the animation.

According to Boinx Software, if you want to get really elaborate, you can attach multiple cameras to your computer. For example, you could connect a DV camcorder for controlling your animation and a digital still camera for high image quality. Or you can connect two cameras to take the same shot from two different perspectives.

A nice added feature is the ability to use hot-keys or speech recognition to activate various options - including activating the record button. The latter would be helpful if you're filming area is further than an arm reach away or if you don't want to constantly move your hand back and forth between frames to hit the record button. BTW: When I was reading the manual I missed this fact since I skipped over the ShortCut section (I usually don't use hot-keys). I later discovered this option and I immediately hooked up my camcorder to give this a try. Sure enough it worked.

Make your first stop-motion animation

- 1) Set up your movie studio: find a level surface next to your computer, (optional) place a piece of material over the surface and pin it to the wall (to remove the clutter, etc.) Attach your camcorder to the computer and turn it on.
- 2) Decide where/how you want your movie viewed; is it for the AppleTV, the iPod, or the iPhone? Next, start iStopMotion and choose the appropriate preset (size and frame rate).
- 3) Arrange your figurines for the first shot
- 4) Click the record button from within iStopMotion to capture an image
- 5) Move your figurines a fraction of an inch and take another image. Repeat the process until you are finished with the figurine's movement.
- 6) (Optional) add a foreground and/or background.
- 7) (Express/Pro versions) Add sound.



Printing Flip Books

- 8) Play your movie.
- 9) If you are satisfied with the final movie - export it as an image sequence, or as a self contained movie which can be viewed as-is, or brought in to an application like iMovie or Final Cut Pro for post-processing.
It's that simple. Of course, there is additional tweaking that serious animators can do to improve the finished movie.

My first two movies

For my first attempt, I used an old artist wood figurine of the human body. Without even reading the manual, I was able to figure out how to make a short animation showing the figurine move across the screen and wave goodbye. Of course it wasn't the best animation, but what do you expect for a first try. I was pleased with the outcome.

My next movie was very simplistic - something a child might do. I took a small object and made it scoot all around a desktop. Afterward I decided to import a sound file to test the sound feature. It worked just as expected.

Examples

If you would like to see examples of iStopMotion animations, I suggest you go to the [Boinx software Chronicles](#) or the [Education examples](#) web pages. The Education page has animations using pen and pencil, legos, Ken & Barbie type dolls and clay figures.

You must watch the "Stop Motion cake (Sugar)" animation. It is fascinating. It shows a lady drawing the items needed to make a cake and then proceed to make and bake the cake from these drawn items - removing drawn lids, slicing butter, cracking eggs, etc. As a side note, since her camera was positioned overhead and both of her hands were visible during the whole animation, she must have either been using the time-lapse feature or speech recognition to activate the record button.

The Skinny

Evaluation: I was quit pleased with this program's ease-of-use. It is simple enough for a child or complex enough for the professional (depending of the version). I like that iStopMotion is flexible enough to let you undo frames without having to start all over or having to delete the frames from within an external editing program (this is especially helpful if you move something in the wrong direction). Simply hit the delete button and that frame/frames disappear. I like the ability to see overlays of the previous frames - I used this once or twice to reposition my figurine when it fell over. You couldn't tell there was a mistake in the finished movie.

Being able to activate the record button with speech recognition is a real plus in my book.

I had no trouble using iStopMotion's ability to immediately open and then transfer my animation to Final Cut Pro for further processing.

I only had one problem or inconveniences - but it had anything to do with the program. This inconvenience was with my camcorder. It has an automatic shut-off (to save battery life). Since all the camera is doing is showing what it sees, and iStopMotion was capturing the images, my camcorder kept shutting off after about five minutes (of what it believed was inactivity). I need to see if I can stop this automatic shut off feature.

Requires: PowerPC or Intel Mac running OS 10.4 or higher (including 10.6x), When using additional tracks: PowerPC G5 or Intel Core Duo processor or better, QuickTime 7.1 or higher, 1GB of RAM or more, A supported Video camera; Webcam, i.e. iSight (internal or external) or a Digital Still Camera (iStopMotion can be use with almost any camera that is QuickTime compatible. But it is suggested that you download the demo to be sure your camera is compatible before purchasing the program). BTW: According to Boinx Software's web site, you can connect an HD camcorder to iStopMotion 2 Pro via HDMI with the help of the BlackMagic Intensity card.

Company: [Boinx Software](#)

Street Price:

	Single User	Family Pack (Up to 5 Computers)
Home	\$49	\$89
Express	\$99	\$179
Pro	\$499	Ask Boinx

[Available demo](#)