

Jan 2010. I've been asked to research and recommend a complete balanced suite of "virtual movie-making" software, that a school might need to buy to serve all aspects of the film-making process from start to finish. This isn't about cameras, lenses and costumes — these movies are entirely computer-generated using videogame-like tools. The suite needs some self-assembly, but should cost less than \$2,000 in total. The purpose here is a semester-long imaginative storytelling project using camera-less digital animation (rather than quick 'all must have prizes' sessions turning out cheesy pop videos), supported by a knowledgeable teacher (or two). The suite would be best used with an organised workflow which can be explained 'at a glance' using a clear wall-chart.

I'm assuming use of pen-and-paper storyboarding and scripting, rather than using [ToonBoom Storyboard](#) with one of the script-editing applications such as [Final Draft](#). Prices are in dollars, because some items are not available in the UK (e.g. Amazon UK only sells iClone v3, not the latest v4) — your school may have to order several items from the internet and from Amazon U.S.

Here's the shopping list. Total cost, including the suggested add-ons and with something added for postage, is around: **\$1,900** (£1,200) all in.

CORE APPLICATION:

\$200. [iClone v4.11](#) as the main core of the suite.



iClone content is all royalty-free, as of Summer 2009. The same is true of iClone content approved for sale at the Reallusion online store.

iCLONE ADD-ONS:

I'm assuming the teacher wants to steer the pupils away from depressing/violent contemporary "urban" settings (e.g.: tediously generic "zombies", "gangsters", "car-chase" city settings, etc), and toward something more fantastic and imaginative:

\$200. [Nature Builder addon](#). Easier to use than Vue, cheaper and less fiddly than [Marlin Trees](#).

\$90. [Dynamic Cloth and Hair System](#).

\$200. [Horses and Dragon pack](#).

\$60. 'Animal World' Vol.1 + Vol.2

\$90. Three selected 'Total Materials' texture packs, such as Vols. 1, 2 and 3.



Other commercial add-on packs of high-quality are: City Elements: Downtown + Character Occupations + Citizen Extras + iCar Body Shop. Medieval Village Vol 1 + World Wilderness Vol 1 & Vol 2 + [Arteria Medieval Castle](#) Vol 1 and Vol 2. Natural Human Base + Masculine Motions Vol 1 + Feminine Motions Vol 1.

ADDITIONAL 3D PROPS:

Free. [iClone 3DXchange 2.0](#) (included in iClone Pro) + free access to the [Google 3D Warehouse](#). Not all 3D Warehouse models will be suitable for iClone — models need to have low levels of complexity (“low poly” or “low face”).



The commercial iClone add-on pack iCar Body Shop has an ‘iCar Mechanic Tool Kit’ component, which turns any Google 3D Warehouse 3D car into an animated car with rolling wheels, suspension, and opening doors.

\$50. The game [Spore](#) + its [Cute & Creepy expansion pack](#), with the game [patched up to patch version 5](#) (this allows easy Collada / Google 3D Warehouse file-type [export of 3D creature models](#) with textures — the bones don’t work in iClone, but that can be worked around with a little movie ‘smoke and mirrors’). Spore’s wonderful Creature Creator should enable even the most educationally-challenged child to contribute a 3D model to the final film.



2D BACKDROPS and TEXTURES:

\$0. Adobe Photoshop Elements or similar, and a good digital camera. I assume the school will already have these items. Note that huge hi-res backgrounds will seriously slow down iClone, so the stage backdrops only need to be fairly small (i.e.: less than 1000 pixels on the longest side) JPG images.

Background props don't always need to be 3D. They can be 2D pictures with a transparency channel ("alpha channel") to indicate where the transparent parts of the picture should be. These are pinned to a 2D "billboard" prop in iClone, and to the eye they will appear to be 3D objects. High-quality commercial but royalty-free packages of pictures with pre-cut alpha channels are: [Hemera PhotoObjects 50,000](#) and [Marlin Studios' Trees and Foliage](#). Apply the photographic image to your iClone billboards' diffuse channel, and the alpha channel image to your iClone billboard's opacity channel.

ACTOR-ANIMATION FILES:

\$300. Drag-and-drop character animations. The [MegaMotions BHV animation library](#) + the BHV Motion Converter 4 (included in iClone Pro) to get the MegaMotions animation scripts into iClone's library.

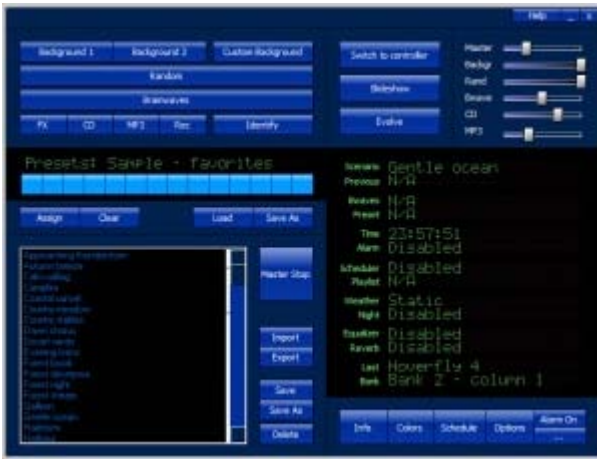
VOICE-CHANGING and AUTO LIP-SYNCH:

\$350. [Crazy Talk Pro v.6.0](#) + the [Morph Vox Pro](#) voice-changing software and its free libraries + a [Samson USB microphone](#) (this is the only item of hardware needed, other than a good Windows 7 PC with a good Nvidia gaming graphics-card). Morph Vox allows use of its "changed voice" output in audio-visual projects.



AMBIENT SOUNDS:

\$40. [Atmosphere Deluxe 7.0](#). Allows use of its excellent authentic natural sound-mixes in audio-visual projects. It's sold online rather as a 'therapy aid', but it quickly and easily generates a wide range of unique royalty-free environmental soundtracks. It exports to MP3 audio files.



Click on the picture for larger screenshot.

SOUND FX:

\$0. See the [Samson USB microphone](#) above. You should be able to have great fun, either i) making inventive studio sounds, or ii) plugging it into a laptop and taking it out for field recordings. Don't forget that before use, the microphone's audio level will need to be boosted to 80% using Windows 7's Control Panel: Hardware and Sound / Sound / Recording / Microphone / Properties / Volume / and boost to 80 percent.



You may want two Samson USB microphones, to keep one in reserve if the first is likely to be stolen or damaged mid-project — this is especially true if students will be using it with a laptop for field recordings.

Simple top and tailing of recorded audio can be done with the free open source [Audacity audio editor](#).

If you're in education in the UK, you *might* be able to get a free copy of the second edition of the BBC Sound Effects library. Worth asking.

MUSIC:

\$200. Less complicated than some software the MIDI fiend in your music technology dept. might suggest (e.g.: [Band-in-a-Box Pro 2009](#)), and arguably much more professional-sounding, is the [SmartSound Film Score series by Richard Band](#) (6 volumes). These are part of a royalty-free music library — the music is exactly adjustable to your scenes through being directly integrated into the Adobe Premiere Elements video-editing application [via a free plugin](#) (SmartSoundForPremiere.exe – which comes with ten free sample tracks). Very cleverly, the music can also be subtly adjusted for uniqueness, and to maintain the exact mood you want. It's incredibly simple to use, once you find where it's located in Premiere...



Where to find the SmartSound plugin in Premiere Elements 4.0 (Go: Media / Project / right-click on the starred page icon / and scroll down at the bottom-item in the menu). Click on the picture for a larger version.

Or you could use your school's orchestra or a reliable school rock band, if you have one. Or even out-of-copyright music from before the 1950s could also be used — 1920s 'tiddly-wink' or 1930s 'big band' music might be considered as vocals-free soundtracks suited to a 20-minute humorous animation, for instance. Or symphonic snippets from the soundtrack of an old 1930s film.

FINAL AUDIO/VIDEO COMPILATION AND EDITING:

\$70. [Adobe Premiere Elements 7.0](#) (although any version from 4.0 onwards will be adequate).



And don't forget to set a talented student to be "the iClone lighting and titling artist" — getting consistent and imaginative lighting in iClone will hugely improve the final film. Never accept iClone's default lighting of a scene, and make sure professional-looking fonts are chosen for titles and credits. See [this YouTube gallery](#) for eight examples of excellence in iClone lighting.

You will also need someone to be in charge of making regular daily backups of files, and general traffic-control and logging of content as it come in. Which probably means the teacher does that.

Enjoy!

