

# Reviews

## Toon Boom Studio

by *Laurell Davenport*



Toon Boom is a program that helps you create animated cartoons that can be uploaded to the Internet or saved as a QuickTime movie. The creators of Toon Boom are also the ones that created USAnimation which is used by film makers, game creators, etc.

Before we proceed, please go to the CD and watch my 9 second cartoon. I will be referring to different aspects of its creation (keep in mind it is very simplistic- but gets the ideas across).

The creators of Toon Boom have tried to electronically imitate the steps that animators use to create their animations:

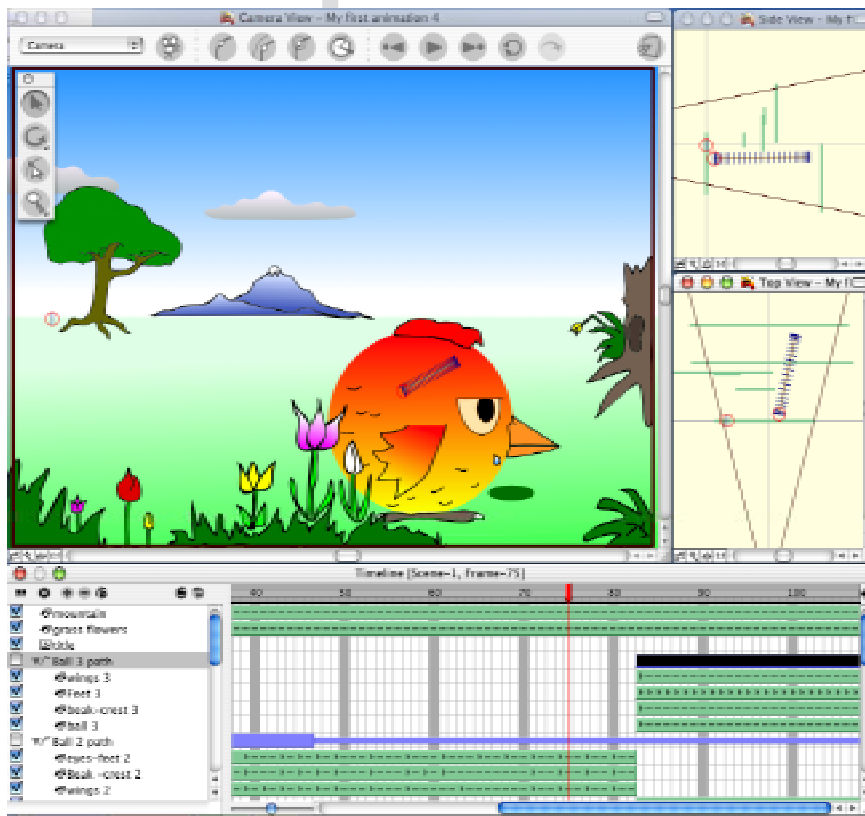
- Onion skinning: If you ever watch animators rough-out their animations, you would see them at a light table with three or four pages of very thin onion paper gripped between their fingers. On the light table is the first frame (cell) they are working on and each consecutive page contains a drawing that is several frames (cells) further into the animation. By flipping back and forth through these pages they can make sure that their person or animal is moving in a lifelike way and is in proportion to the previous page. Toon Boom does the same thing. But instead of flipping the see-through paper pages, it gives you the option of seeing up to three of the previous or next frames at the same time. Like you were looking through tracing paper.

- Exposure sheet: animators use storyboards to coordinate all the animation elements and scenes. Toon Boom's equivalent to storyboards is the Exposure sheet. Every time you create an item for your scene such as the sky, a tree, or an animal, you give it its own element column in the Exposure window. Each square in the Exposure window represents one frame in your movie. It works much like a timeline window where you specify when an item appears and disappears in the movie. If it is a static image such as the ground or sky, you can quickly specify how many frames it is to occupy. For example, my cartoon is 107 frames long and doesn't move locations. I therefore set the sky, ground, trees, and flowers for the full 107 frames. But each of the drawings for the animals were only set for around three frames at a time since they had to move through the scene-changing body positions as they walked. This is a nice feature since you only have to draw the item once for the whole movie or group of frames.

- Draw window: Your elements can either be scanned images or drawn directly within Toon Boom. Scanned images can't be edited so they must come in fully colored or be used as a template for you to trace over and then discard. All drawings are converted to Vector images which hold their form and clarity when resized.

To speed things up, Toon Boom allows you to save animation sequences as templates. This way you can quickly re-use these sequences in other parts of your animation. This preserves all of the scene elements and 3D placement in the screen.

- Ink and Color: Once you have an idea what your animation is going to be about, you can choose from predefined pen styles or create your own pen styles to draw with. You can specify its thickness and whether it will draw smoothly or roughly. Once you have the outlines, you can color it by choosing from predefined color swatches or use a color wheel and create your own color swatches. These colors can be named so that it will be easy to know which colors to use to keep every thing uniformly colored. I didn't do that on my worm color



*ToonBoom's Camera view window, Top and Side views, and the Timeline. The top and side views also show the motion path of the chicken where he starts walking toward the horizon.*

and later when I decided to add more worm animation I had to do trial and error to find the proper brown. I learned my lesson.

A nice added feature is the ability to globally change the color of an item. Say I don't like the color of the worm and want it change it to blue. I just change the brown color swatch to blue. After that, every place the original brown was used would automatically be changed to blue. Quite a time saver.

Besides drawings, you can add sound or media elements into your exposure sheet. Toon Boom supports AIFF, MP3, WAVE, and PCM sounds and SWF movies. These SWF movies can be brought in as a series of animation frames or just linked to so it stays outside the cartoon. This is helpful in keeping the overall size of the Toon Boom animations down.

•Lip sync: When you add a sound track to your movie, Toon Boom can draw it as a wave form in one of the Exposure window columns. This is helpful when you want to synchronize explosions or Lip Sync speech. If you turn on the Voice Track Analyzer, Toon Boom will analyze the talking and draw a column of faces in the Exposure window. Each face will have a mouth position that closely resembles what is being said. You can then match these mouth positions in the face of the character you are animating.

•Timeline/Pegs: As mentioned above, the timeline window shows you when all of your elements appear and



*Onion Skinning lets you see up to three drawings before and after the current drawing.*

would look like it was shuffling its feet and flapping its wings without moving from this location. But when I attach all of its elements to a motion peg, it looks like it is walking across the screen. If I wanted, I could have had it bounce across the screen.

Motion is very simple to implement. When activated, you are given a small line that has a red box at either end. The first box is the current location and the second is its final location. When you drag it across the screen, your bird, car, whatever will move in that direction during playback. You can even drag the movement peg around a tree—thus causing your bird or car to circle the tree. I used a motion peg to slowly move the clouds across the screen. I could have used pegs for the worm and ladybug, but instead I chose to manually draw them as they moved across the screen. It is your choice which to use. But the pegs are easier.

Camera pegs: Though I didn't use fancy camera motions in my animation, you can use multiple cameras to create camera effects such as tucks, pans, and zooms. This really makes you feel like you are in a 3D world.

•3D Scene Planning: Items drawn in Toon Boom are drawn in a 3D space. The Top and Side View windows let you grab a small representation of each element and move it up/down/back or forth. This option lets you quickly move items in front of or behind others. In my cartoon you saw the chicken move in front of the tree, but behind the flowers.

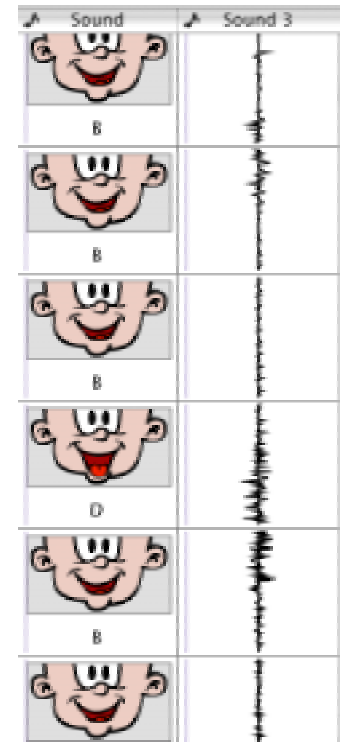
One nice feature of Toon Boom's 3D space is that it keeps your elements in perspective when you move them away from the camera. Both my tree and mountains were drawn a lot larger, but when I dragged them away from the camera, they were redrawn a lot smaller. Likewise with the chicken. As it moved toward the horizon at the end, Toon Boom automatically drew it smaller and smaller. This saves you from having to draw the element over and over as it shrinks.

If your animation is lengthy with many locations and elements, Toon Boom lets you divide it into separate scenes. This makes it easier to keep track of everything or find the frame that you want to modify. For example, even though my animation was only 9 seconds long and was only one scene, I still had over 20 element columns. I had to scroll back and forth looking for the column

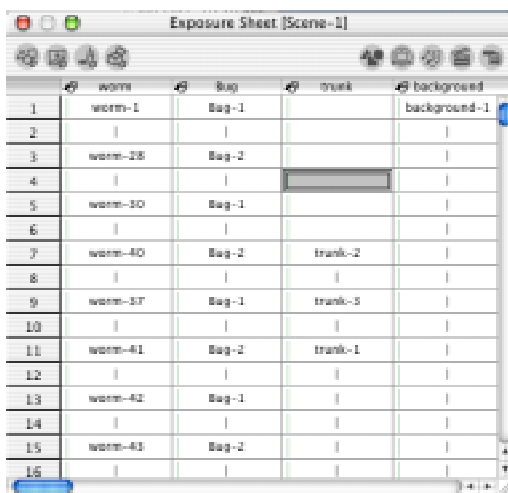
disappears but it also lets you set pegs. Pegs let you plot a path for elements. There are motion pegs and camera pegs.

Motion Pegs: The chicken in my animation was really drawn in one location on my screen.

Without a motion peg it



*In the Exposure window's thumbnail view you can see your audio as a wave form and see Lip Sync mouth representations of your words.*



*The Exposure window shows what cartoon elements appear for each frame. This shows the same background picture appears from frame 1 to 16 whereas the worm and bug pictures change on every other frame.*

### The Skinny

*Evaluation: Toon Boom Studio gives you all the tools necessary to create animated cartoons. It is easy to learn and fun to play with. (Check out Toon Boom's web site. They have many short animations submitted by students and amateur animators.)*

*Requires: Power Mac G3 (G4 recommended), OS X, 128 MB RAM, 100 MB hard drive space, 24 bit color monitor capable of 1024x768 resolution, Wacom Tablet- recommended, (I was able to successfully use a non Wacom graphic tablet, but if you don't have a graphic tablet, you can still use your mouse to draw.)*

*Company: Toon Boom Technologies*

*Web: [www.toonboomstudio.com](http://www.toonboomstudio.com)*

*Street price: \$319*

that contains the beak, then the column containing the feet and so forth. It would be a bear to handle if I had multiple scenes but only one Exposure sheet. But now I can create multiple scenes, each containing a new blank Exposure sheet. When the animation is exported, Toon Boom automatically knows to render scene one first then two and so on.

When you export your animation, you are given the option of setting the frame rate just like with a video program. Since it is saved as a SWF file, the overall size remains fairly small. For example, when I saved my animation as Best quality QuickTime, it took up 4.4 MB of space. At medium quality QuickTime- 972KB and finally as a best quality SWF file- 104KB (Perfect for the Internet).

Though the SWF file was drastically smaller than the QuickTime version, you couldn't tell any difference in appearance. Since it is compatible with the Macromedia Flash program, you can import the SWF file into Flash for further manipulation.