OPTIMIZING YOUR STORYBOARD PROJECT

Introduction

For as long as storytellers have been narrating stories there has been a need to express ideas with images. In early times, this was done using paint on walls and then, later on, with pencil on paper. With the advent of new CGI productions and computer game development, the need to tell a story increased a thousand fold. Storytellers searched for new tools with which they could produce images faster and more efficiently than ever before. In their quest for these tools they came across unspecialized tools such as, Flash, Photoshop, and others. These tools did however, allow them to meet their demands and by providing somewhat better performance, became the standard in the industry.

Toon Boom Animation's Storyboard Pro is the new tool that storytellers have been searching for. From the beginning, it was designed to resolve the problems associated with using unspecialized tools by providing an intuitive, non-intrusive technology. This technology is compatible with any type of production tool and is designed to meet the needs of Movie producers, Cartoonists, Games developers, Broadcasters and CGI developers.

With Toon Boom Storyboard Pro an artist can create a complete storyboard from script to a complete animatic with camera moves, easily and in real-time.

Every artist has different needs and often uses different processes to complete his task, Storyboard Pro was designed to respond to these needs and yet be very easy to use. To get the most out of Storyboard Pro whether you create or revise a storyboard, you need to understand how to optimize the product to ensure peak performance at all times. In this article we describe the following tools so that you will understand their advantages and benefit from their use:

1. Texture vs. Plain Vector Brush
2. Texture Size Optimization
3. WYSIWYG Previewing
4. Drawing Size Optimization
5. Bitmap Integration
6. Project Management

Tools

Texture vs. Plain Vector Brush

In Toon Boom Storyboard Pro, all the elements that you see in the panel (and therefore in the drawing view) are vector elements. There are basically two kinds of vector elements in Toon Boom Storyboard Pro:

- By default, the brush tool creates vector strokes filled with either a colour or a gradient. Vector strokes use a very small amount of memory and can be used rapidly because they don't contain any pixel information, only mathematical functions.
- Toon Boom Storyboard Pro allows you to draw using texture brush. This also uses a vector stroke but is filled with a bitmap texture. It provides you with the ability to have natural media looking brush strokes like an airbrush or crayon.

Because they are using a bitmap image mapped inside vector strokes, texture brushes use much more memory and processing time than brush strokes filled with color.

Texture Size Optimization

Since texture brushes use bitmaps, is it important to use a reasonable size for your texture. In Toon Boom Storyboard Pro, the parameter *Stroke Texture Quality* is used to control the size of the texture bitmap. This parameter can be found in the Preferences dialog, under Drawing tab. There are five levels of quality, ranging from *Very low* to *Very high*. By default the value is set at *Medium*.

To determine the size of the texture, Toon Boom Storyboard Pro uses the resolution of the Drawing view and the parameter *Stroke Texture Quality*. On a computer with a 1280x1024 resolution in the Drawing layout and with a *Stroke Texture Quality* set to Medium, a stroke (hand drawn rectangle) covering the camera view will have a texture with an approximate size of 1200x900 pixels. With a Low value, the texture will have an approximate size of 800x600 pixels. With a Very high value, it can easily reach 4000x2400 pixels!

Once a texture stroke is made, there are no tools available to decrease or increase the texture quality. Therefore, the Stroke Texture Quality parameters won't affect current textures strokes.

The performance of Toon Boom Storyboard Pro will depend a lot on the performance of your graphic card (as well as the amount of graphic memory available). Most of the time, your storyboard panels will print to PDF at 72 dpi and/or be exported to QuickTime for animatic, if this is the case, then a *Stroke Texture Quality* with a Low value is sufficient.

WYSIWYG Previewing

Toon Boom Storyboard Pro offers two drawing display modes. Those modes do not affect the quality or the end result, but only the display while you draw:

- *Fast Preview* is the default mode. While you draw, the stroke is displayed on top of the drawing view, independently of the current layer or the Draw behind parameter. Once the stroke is done, the display is updated after a small delay and the stroke is composite at the correct position.
- *Realistic Preview* provides you a true WYSIWYG preview while you draw; there is no need to end a stroke to see the result. This mode requires more processing time and the speed depends on your graphic card.

There are three ways to switch between each of these modes:

- In the View menu, under ***Advanced Drawing*** entry you can activate it using ***Show Realistic Preview***.
- In the *Preference* dialog, under ***Drawing*** tab, you can activate it using ***Show Brush Strokes in Place*** *while* ***Drawing*** parameter.
- By defining a shortcut for the entry ***Toggle Draw in Place*** in *View Shortcut* Category in *Shortcuts* tab from the *Preference* dialog.

Realistic Preview parameter will affect the drawing experience by providing you an instant preview, but on slower graphic card it might also affect the drawing feedback. You should try by yourself to see if this parameter reduces the responsiveness of the drawing tools or not.

Drawing Size Optimization

Since Toon Boom Storyboard Pro is a vector-based application, strokes inside a layer are independent. This could be seen as "layer-inside-layer". Because the strokes are independent, you are free to select a specific stroke and edit its position, scale, rotation, skew, color and so on, when ever you want.

Because they are independent it also means that when texture strokes overlap there is only one bitmap texture per stroke. This also increases the amount of memory and resources used by Toon Boom Storyboard Pro, especially when you have a lot of strokes in your drawing (which frequently happens when you sketch).
The *Flatten* tool takes all strokes with overlapping areas from a layer and blends them together to create new strokes. The newly-created stroke will have an unique texture rather than one-per-stroke as it used to be.

Flatten reduces the amount of strokes in a layer and the amount of textures. On the other hand, strokes are no longer independent and cannot be edited individually anymore.

Bitmap Integration

Toon Boom Storyboard Pro allows you to create storyboards by importing scanned images or bitmaps drawn in another software. During the import process, images are vectorized and placed as a texture. As we mentioned earlier in this article, the texture resolution can affect the performance depending on your configuration and also increase the size of the storyboard project on your hard drive.

When importing bitmaps into your storyboard there is rarely need to use a high resolution. This will not increase the quality of your PDF or animatic. You should import bitmaps with a resolution close to the project resolution. For example, in an NTSC project, using a bitmap with a 720x480 resolution or a 72dpi quality will be sufficient.

Project Management

As you create a storyboard you will add information which at some point will be no longer relevant. For instance, when you delete panels or layers, update drawings, unlink sounds, etc., Toon Boom Storyboard Pro keeps some files for backup purposes. All of these unused files take up space and increase the size of your project on your hard drive.

Select *Remove Unused File* in *File* menu to clean-up the history, remove backup and unreferenced files. But be warned, this procedure cannot be undone. Check the user documentation for more details.

Further Reading

You can find out more about the subject described in this article by checking these pages in the Toon Boom Storyboard Pro User Guide:
Pen parameters: Page 26
Flatten: Page 38
Import Images: Page 54
Cleaning up storyboard projects: Page 110
Drawing View preferences dialog: Page 125

Storyboard Forum and Contact Information

If you need more information:
Visit our Storyboard Forum here: http://www.toonboom.com/support/forums/storyboard/
Contact sales@toonboom.com for pre-sales questions
Contact support@toonboom.com for technical support questions