Design Research Project

"Understanding Motion Comics"

Submitted in partial fulfillment of the requirements of the degree of

Master of Design

by
Submitted by

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Guide:
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Approval Sheet

This report entitled 'Understanding Motion Comics' by Vinayak Pancholi may be accepted for evaluation for Special Project.

Project Guide.....

Date: 24/06/2015

Declaration

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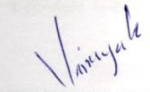

Signature

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Acknowledgement

I would like to thank Prof. Phani Tetali for letting me choose this topic and giving me freedom and guidance to understand hands-on the subject of Motion Comics.

Vinayak Pancholi

Abstract

Stories literally shape our decisions. Stories define how we make sense of our lives and the world around us. For generations comics has dominated the imaginations of children all around the world with sagas of most beloved characters ever created. And now motion comics are enriching this media by narrating the story of these characters in whole new way.

In contrast with traditional typewritten storybooks, comics is far more versatile in terms of storytelling as it uses not only images or illustrations but also speech balloons, captions, and onomatopoeia to indicate dialogue, narration, sound effects, or other information. Motion comics and modern technology has taken traditional comic experience to the next level by combining print comic books with sound effects, voice acting, and animation.

This research project takes a look into the world of motion comics today and different methods for creating interactive motion comics for various platforms like iOS, Android and Windows. Furthermore, this reports briefly covers one specialized software tool SmithMicro's MotionArtist and one online tool 'Narr8 - Storybuilder' for creating motion comics for emerging artists.

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Introduction

In his 1993 book Understanding Comics, Scott McCloud gives his definition of the word "comics":

comics (kom'iks) n. plural in form, used with a singular verb. Juxtaposed pictorial and other images in deliberate sequence, intended to convey information and/or produce an aesthetic response in the viewer.

From comedic exchanges to satirical remarks made behind the veil of cute and cuddly characters, comics has always been most versatile medium of expression. Comic characters as well as superheroes, comic books can vividly portray situations, action scenes, thrilling suspense moments with graphic details which give it a unique personality among all storytelling medium.

With the advent of computers and animation, a new media has risen over the years in the world of visual storytelling; Motion comics.

A motion comics is a form of comics which combines traditional print comic books and computer animation. Panels of traditional comics is managed via animated scenes and later compiled into motion comic either as a video sequence or as data set of a interactive application.

The main purpose of a motion comic is to drive the narrative even further that the traditional static medium. It engages the reader to a much deeper level and fills up the gaps which traditional mediums cannot fill. Computer animation and emerging technology has brought best of both world together and allowed this medium to thrive. With increase in popularity of portable computing

gadgets like mobile phones, computer tablets and exponential growth in networking technologies, visual media is pushed to its highest summit and its distribution was never been so easy.

Technical classification of Motion Comics

Motion comics have grown in popularity in recent years, with popular comic book titles like *X-Men* making the jump to Netflix or YouTube, where they can be watched instead of read. Along with online streaming platforms, we have mobile devices with optimal amount of portable data storage running on operating systems like Android and iOS. These operating systems' API allows programmers to create native interactive applications. These apps could run locally and derive application assets from local storage or connect to a online server and call assets from there.
A motion comic along with its digital assets can be packed into a data set and these data sets can later run via interactive applications mentioned earlier. For example, Narr8-Storybuilder is an online tool for creating motion comics and one can create or submit a motion comics to Narr8 online store. Those published motion books and be viewed on a Android or iOS device via Narr8 application over the internet .

Based on process of creating a motion comic from a technical perspective we can broadly classify motion comic in following categories:-

Interactive Static

This type mainly comprises of simplistic motion with optional sound. Generally, comics in this category is digitized version of traditional comics with static panels and characters but have full interactive controls to browse the comic.

Interactive Dynamic

These comics have more technical aspects to it. Comics are much more interactive from reader's perspective. Artist can control the playback of animation using buttons or other appropriate commands giving the reader an immersive experience. The artist can also exploit other hardware features modern mobile device has to offer like motion sensors, gyroscope, light sensors to give additional interactivity to the comic.

Video Sequential

Comics in these categories are essentially structured on a timeline as a video sequence. Artist has full control over the comic book elements while creating it and even difficult features like special effects or character rigs could be added easily but it offers least amount of interactive controls as these motion comics are video sequences; one can only play, pause or stop the comic.

Creating interactive Motion Comics

Considering all the types of the motion comics and how can we create them efficiently, there is all ways the 'brute force' method of creating a interactive comic for computer platforms. For instance Android API allows manipulation of images and sound at grass-root level, therefore a motion comic can be packed into a android apk file. But this method requires extensive knowledge of programming language and its advance graphic libraries.

HTML 5 and CSS can also be used to create a motion comic. HTML's animation features can create basic movements effortlessly provided the artist has essential knowledge of HTML .

Here in this section, I will discuss dedicated tools already available in the market for making motion comics. These tools eases the work of a comic artist considerably and only require basic computer knowledge. These tools are either entire software packages or online presets which takes images or sounds input elements and allows the artist to manipulate those elements.

Interactive Static

Comics of this type fall somewhere between motion comics and traditional comics. Artist would take static panels and map them onto pre-made image browsing digital platforms.

Online digital magazine stands like yumpu.com and issuu.com are good and easy to use platforms for these categories. Both have free features and payment plans for advance features.

Issuu.com also offers Android and iOS applications for respective platforms which is more advantageous than using web browser to view the comic

issuu.com basic controls while reading on web browsers.

Interactive Dynamic

Animation tools coupled with scripting create these types of motion comics. Specialized tools for creating these comics are Adobe Flash Professional and SmithMicro MotionArtist.

Adobe Flash with its embedded scripting language known as ActionScript allows the artist to have precise control over the animation, sound and all other digital assets. With latest version artist can create scenes in 3D workspace which allows even more dynamism to visual narrative.

Flash can also import extensive image formats and an artist could create the motion comic's animation in any 2D animation software and add interactive controls using ActionScript. Here we will discuss important features of MotionArtist in detail.

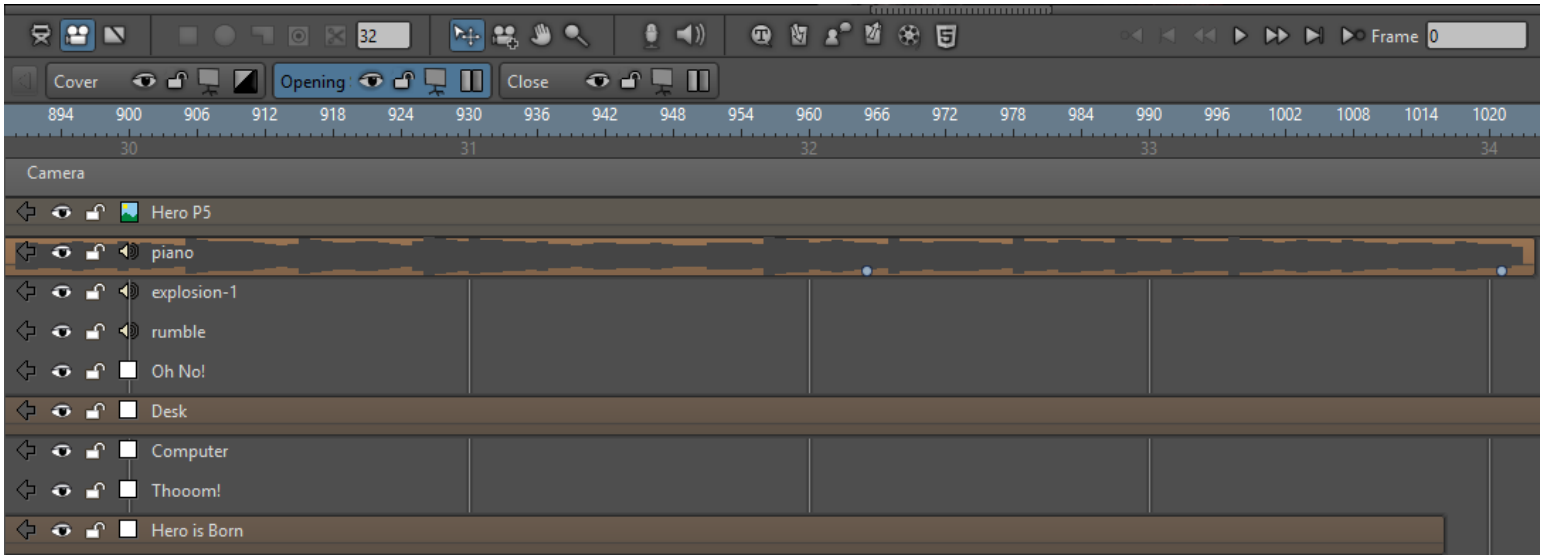
SmithMicro's MotionArtist

MotionArtist is a dedicated tool which simplifies to layout, animation, and interactivity for graphical projects. MotionArtist does not have drawing, inking, or coloring. Once you import your artwork into the MotionArtist library, you are ready to create traditional panel-based comics and add interactive animation to it.

Within MotionArtist's GPU accelerated environment, one can add layered 3D depth to panels, text, images and presentations for a parallax effect. This gives a sense of depth to the comic which immediately induces life within static pages.

Layering

Items imported within MotionArtist are layered in such fashion that the objects at the bottom of the timeline are farther away from you, and the items at the top of the timeline are closer to you.
Apart from artwork, MotionArtist manages camera and sounds using layers itself.



Motion artist layers window

Timeline

The content in your scene is also displayed in time, with items that play first at the left side of the timeline, and items that play later toward the right. Timeline simplifies the scene planning and is an efficient way to manage keyframe animation.

MotionArtist timeline controls

Layout Management

MotionArtist projects are made from one or more scenes. One page of a comic book is equivalent to one digital scene in MotionArtist. If one project has 10 pages of comics then we need to have 10 scenes.

MotionArtist project is subdivided into scenes and scenes are used to manage comic panels. Panels can be rectangular, oval, or irregularly shaped. The Panel tools, which appear above the Timeline, allow you to create panels quickly and easily.

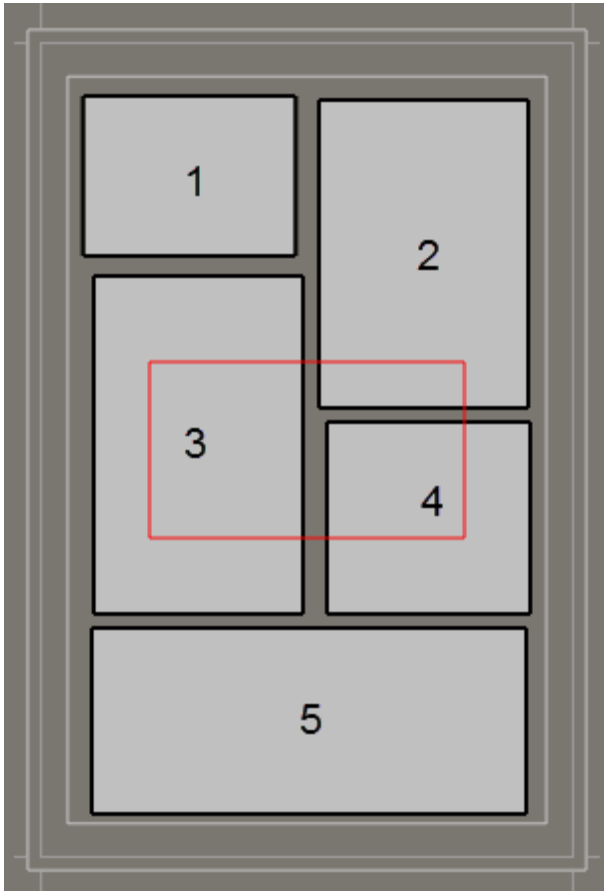
Typical panels in MotionArtist

A panel can be arranged in three-dimensional space. When you arrange the scene appropriately and switch to Camera View and play the animation, you will see the panels increase and decrease in size, depending on the position of the camera and arrangement of panels in 3D space.

Vector Support

MotionArtist supports Adobe illustrator(*.ai) files. After import layer structure of original file is maintained but one cannot edit those graphics in MotionArtist.

Word balloons and dynamic text are vector-based. You can easily add or edit thought bubbles, dialog boxes and text at any time.



Auto-camera mode automatically detecting camera path

Camera Support

MotionArtist has a versatile virtual camera. Artist can choose to have a basic camera setup or have much more control over it. The camera tool can be used to move, scale, or rotate the camera view while assembling your scene.

Presentation Mode - The camera will automatically move from one content item to another during playback.

Advanced Mode - The Camera tool has a motion path. One can edit the motion path, to have custom camera moves or pause points.

Auto Camera - MotionArtist automatically builds a motion path for you, based on the arrangement of items in the timeline.

Audio Support

One can record and edit audio in MotionArtist, and perform simple edits such as volume adjustment, length, and simple cuts. Audio files can be imported into a project and inserted into a scene's timeline.

File support import-export

You can combine images, sounds and movies in virtually any format to create motion comics and presentations. Elements can be imported directly into panels or as floating objects independent of panels. Add content to panels by importing or dropping it into the selected panel, and it will be automatically masked by the panels edges.

Import - MotionArtist can import animated GIF files and image sequences in JPEG, GIF or PNG format and is currently incapable of importing animated files in SWF, MPEG, AVI, or MOV formats.
MotionArtist can retain Photoshop file's original layer structure and layer names after import. Other formats MotionArtist cam import are Anime Studio files and Wavefront OBJ format.

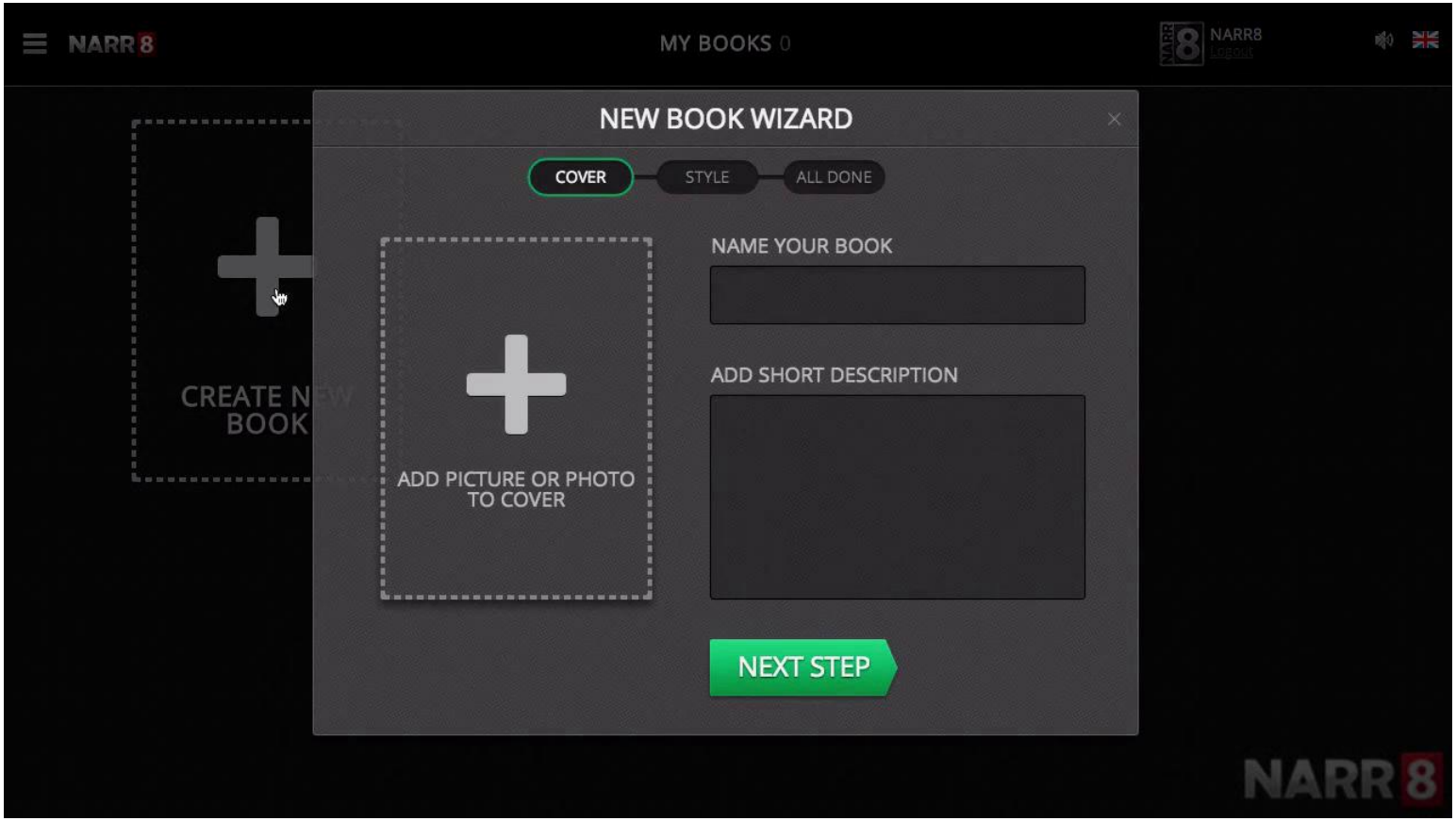
Export - The Export Animation dialog allows you to export your MotionArtist project in several different file formats, including JPEG, BMP, Targa, PNG, PSD, AVI Movie, and QuickTime movie.
MotionArtist allows you to publish your comics to the Internet, so that they can be viewed in web browsers that support HTML5.

The elements of your MotionArtist scene are placed in a CANVAS element inside the HTML5 web page.

There are three buttons that appear beneath the canvas: **Previous** and **Next** allow you to move backward or forward to the previous or next panel in the scene. The **Pause** button allows you to stop playback at the current panel. When you export your project to HTML5, MotionArtist creates a folder that contains one or more html files. The folder will use a name that is similar to the project that you are exporting. The main file in that folder will be named index.html. If you have multiple scenes in your MotionArtist project, Scene 2 will be exported as index2.html, Scene 3 will be exported as index3.html, and so on. Exported images and text balloons will be placed within an images folder, and style sheets (if used) will be placed in a CSS folder.

Narr8 - Storybuilder

A web-based program with supplied graphics, animations, word processor, sound effects, and more. User can upload custom artwork from the local storage and apply custom animations to it.



Narr8 - Storybuilder's start up form while creating new project

Basic tools within Narr8 editor (top to bottom)

play animation;

upload to web server;

upload image;

text tool;

insert audio;

select background image;

page animation controls

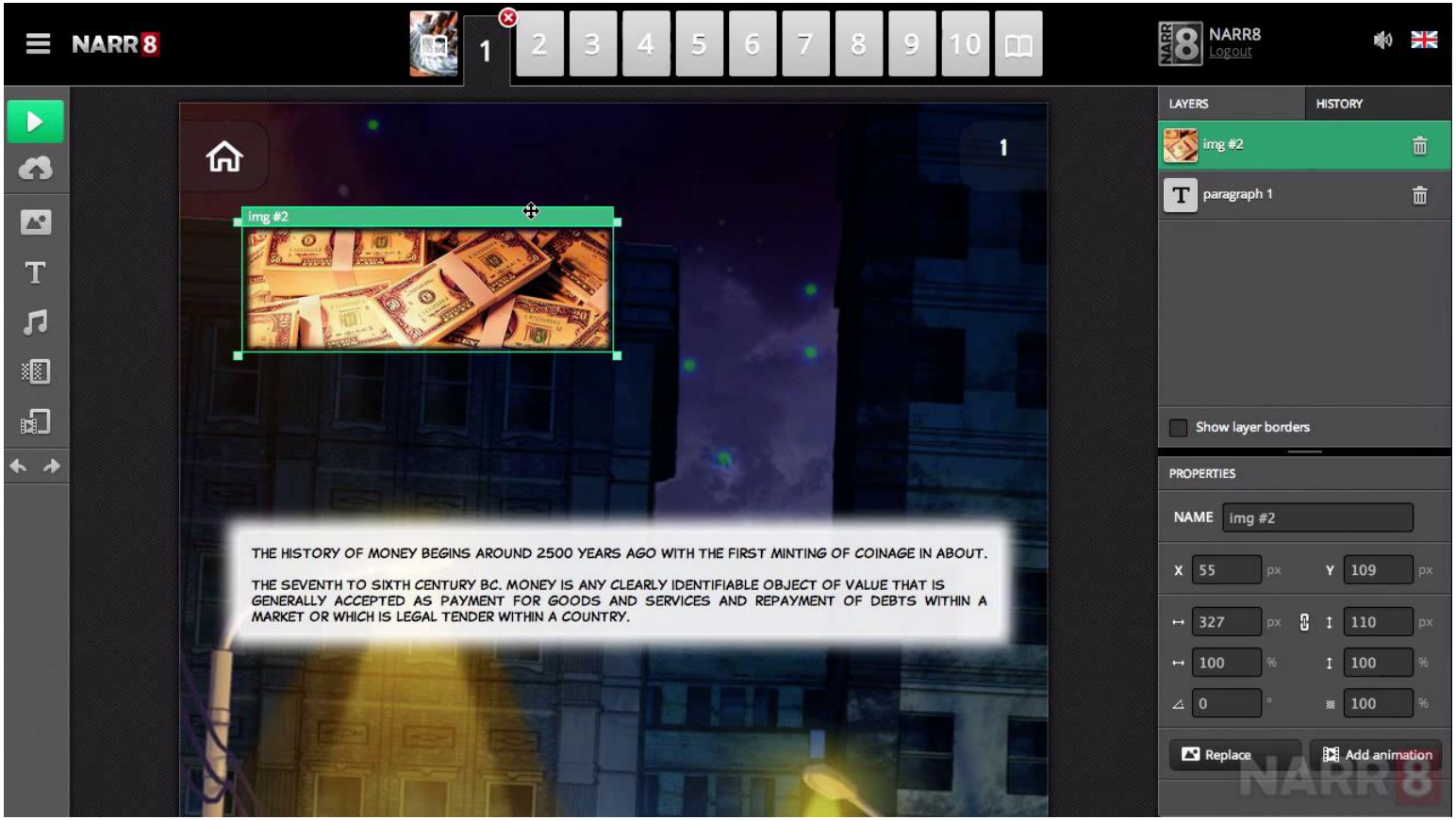
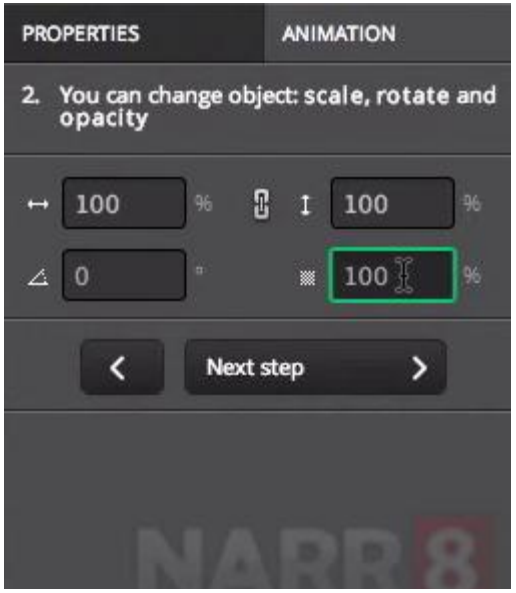


Image and text is managed using layers in Narr8 editor



Animation controls in Narr8 editor

Once published, project will face a review period of up to 72 hours because according to their policies things such as unnecessary profanity, lewd or crude content is not allowed. After successful passing the scrutiny , users creations will be uploaded directly to the NARR8 web platform**.**

StoryBuilder will also include paid features for the user. although user generated content will be available for free, once their stories gain popularity, publishers starts giving creators a cut of the proceeds once monetization of the series begins (monetization will begin if and when the user title reaches over 1,000 downloads).

One drawback of Narr8 is that you can't build your own stories on your iOS device at all. User needs to used desktop web browsers to access the storybuilder, which largely defeats the purpose of having such an app. One can only read stories on the app.

Video Sequential

Essentially these motion comics can be created using any animation software which can process images, sound, and text. Additionally software tool must be capable of exporting project as video sequence. As this research document is focuses primarily on understand and creating interactive motion comic, I will only briefly touch upon features of popular software tools available for creating motion comics.

Comparison Chart for 2D Animation software tools

	AFX	Toon Boom Studio	Anime Studio	MotionArtist	Draw Plus	CarzyTalk Animator	Flip Book
Features							
Timeline							
Sketching							
Layering							
Text							
Vector Support							
Animation Paths							
Camera support							
Templates							
Rigging							
Audio support(edit)							

	AFX	Toon Boom Studio	Anime Studio	MotionArtist	Draw Plus	CarzyTalk Animator	Flip Book
Importing Formats							
PSD							
JPG							
PNG							
Illustrator							
AVI							
MOV							
MP4							
WAV							
MP3							

Export Formats							
AVI							
SWF							
QuickTime							

Platform							
Win							
Mac							

Conclusion

Sketching and animation was always integral part of my life. After doing this research project my knowledge of this incredible medium has grown substantially. Detailed analysis of motion comics both artistically and technically gave a unique insight into the creative of process of bringing comics to life. For the first time I had a deep look into iOS and Android platform as a create tool to create and share interactive stories and the possibilities they provide to an aspiring artist.

Hopefully this research document helps anyone wanting to have preliminary knowledge of motion comics and effective ways to create them.

References

[1] *'Understanding Comics'*, Scott McCloud;1994
[2]http://www.wired.com/2014/11/absolute-zero/
[3]MotionArtist documentation
[4]Narr8 - storybuilder help & support