COMPARISON OF CLASSIC AND MOTION TWEEN TECHNIQUES IN 2D ANIMATION GLOBAL WARMING

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COMPARISON OF CLASSIC AND MOTION TWEEN TECHNIQUES IN 2D ANIMATION GLOBAL WARMING

MOHAMAD IZZAT AFIFI BIN YASIN

This report is submitted in partial fulfilment of the requirements for the Bachelor of Computer Science (Media Interactive)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
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2013

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DECLARATION

I hereby declare that this project report entitled

COMPARISON OF CLASSIC AND MOTION TWEEN TECHNIQUES IN 2D ANIMATION GLOBAL WARMING

is written by me and is my own effort and that no part has been plagiarized without citations.

STUDENT : _____ Date: 30/8/2013

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SUPERVISOR : _____ Date: 30/8/2013

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DEDICATION

Specially dedicated:

To my beloved parents and family member

For my supervisor, En. Mohd Adili bin Norasikin

For my evaluators, En. Mohd Lutfi bin Dolhalit

To my friends and who have encouraged, guided and inspired me throughout my journey in education

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ABSTRACT

The purpose of this research entitled "COMPARISON OF CLASSIC AND MOTION TWEEN IN 2D ANIMATION GLOBAL WARMING" is to investigate the differences between animation techniques in Adobe Flash. These techniques is classic tween and motion tween. The differences of this techniques can be seen through the same two short animations but has been developed by using different techniques. While providing the knowledge of classic and motion tween techniques, this project also give a lessons to mankind through the animation was developed that the importance of the environment and the consequences of irresponsible people against the environment. Target users for this project is beginner animators which is still lack of knowledge about tweening techniques. Responses received from target users at the end of the development has been show positive effect in further making this project to be successful.

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ABSTRAK

Tujuan penyelidikan ini yang bertajuk “COMPARISON OF CLASSIC AND MOTION TWEEN IN 2D ANIMATION GLOBAL WARMING" adalah untuk mengenalpasti perbezaan antara teknik animasi yang berada dalam Adobe Flash. Teknik tersebut adalah classic motion dan tween motion. Perbezaan teknik ini dapat dilihat melalui dua animasi pendek yang sama tetapi telah dibangunkan dengan menggunakan teknik berbeza. Disamping memberi pengetahuan terhadap teknik classic dan motion tween, projek ini juga memberi pengajaran kepada manusia melalui animasi yang telah dibangunkan bahawa kepentingan menjaga alam sekitar dan akibat daripada pihak yang tidak bertanggungjawab terhadap alam sekitar. Sasaran pengguna untuk projek ini adalah animator baru yang masih kurang pengetahuan tentang teknik tweening. Tindakbalas yang diterima dari sasaran pengguna pada akhir pembangunan telah menunjukkan kesan positif seterusnya dapat menjayakan projek ini.

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LIST OF ABBREVIATIONS

PSM	-	Projek Sarjana Muda
OS	-	Operating System
SDLC	-	System Development Life Cycle
FLA	-	Flash Data File Extension
PSD	-	Photoshop Data File Extension
RAM	-	Random-Access Memory
CPU	-	Central Processing Unit
SWF	-	Shockwave Flash
WAV	-	Waveform Audio File Format
GIF	-	Graphics Interchange Format
JPEG	-	Joint Photographic Experts Group

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CHAPTER I

INRODUCTION

This chapter is a beginning section which states the purpose and goals of the project. The introduction may describes the project background, problem statement, objective and scope of the project and gives the brief explanation and summary of the project.

1.1 Project Background

2D animation in motion pictures actually preceded by many years. It has begun to emerge in the 19th century as parlor games like zoetrope and a flip book. It came with the appearance of the film itself, however, and cannot be withdrawn related with the film medium. Traditional 2D animation using colored cells, each one describes a film frame. Animator change every slightly cell for each new frame and from the illusion of movement its giving the resulting image.

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In traditional cartoon animation, the individual frames the film was initially drawn on thin onionskin paper over the light source. Animators will put previous and next drawings right on the working drawings, so that they can draw 'in between' to provide smooth motion. Now days, 2D animation is booming so much so that a variety of facilities and techniques have been introduced. Among the well-known technique in making animation is tweening techniques. "Tween" is actually an acronym for "in between", and referring to creation of the succession frames of animation between key frames. In computer animation, the term is usually used for Flash is "classic tweening" and "motion tweening" techniques. From this techniques, animators can define at least two key frames and it will automatically create in-between frames, whether morphing one shape to another over set period of time or the other to move the form or shape from point A to point B in a set period of time. In 3D animation programs, they also have their own method of "tweening".

For this project, tweening techniques will be used which is a very effective way to create smooth movement and comparison between two tweening technique which is classic tween and motion tween will be made by two animation with same storyline(Global Warming), same character and same keyframe, but different techniques.

1.2 Problem Statement

Flash Pro is well known software to produced 2D animation especially to 2D animators or 2D artists' which is widely used around the world. Flash Pro supports some techniques for creating animation and techniques that commonly used is classic tween and motion tween which is two different types of tweens.

Problem that faced many users before begin to develop animation is which tween techniques is the best to use. Users also lack of information about the differences

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between classic and motion tween. Both tween techniques have their own advantages and disadvantages. By motion tween, it allows great control over tweened animation while the classic tween, it covers all tweens created in earlier versions of Pro, which is greater complex to create. Although Motion Tweens offers greater control of a tween, classic tween provide particular specific capabilities that some users need.

1.3 Objective

- To develop a 2D animation with tweening techniques.
- To measure user reaction in 2D animation with tweening techniques.
- To investigate the comparison between classic and motion tween in context of content and quality.

1.4 Research Questions

- Which of the two techniques is suitable for developing the 2D animation? Classic tweening or motion tweening?
- How to produce 2D animation with tweening techniques?
- What is the user reaction between 2D animation with classic tweening and motion tweeing techniques?

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1.5 Project Scope

- Developing the 2D animation by applying the classic and motion tween techniques.
- Duration of this animation is 3 minutes
- Software that will be used is Flash Professional CS6
- The target audience is beginner animator.

1.6 Project Framework

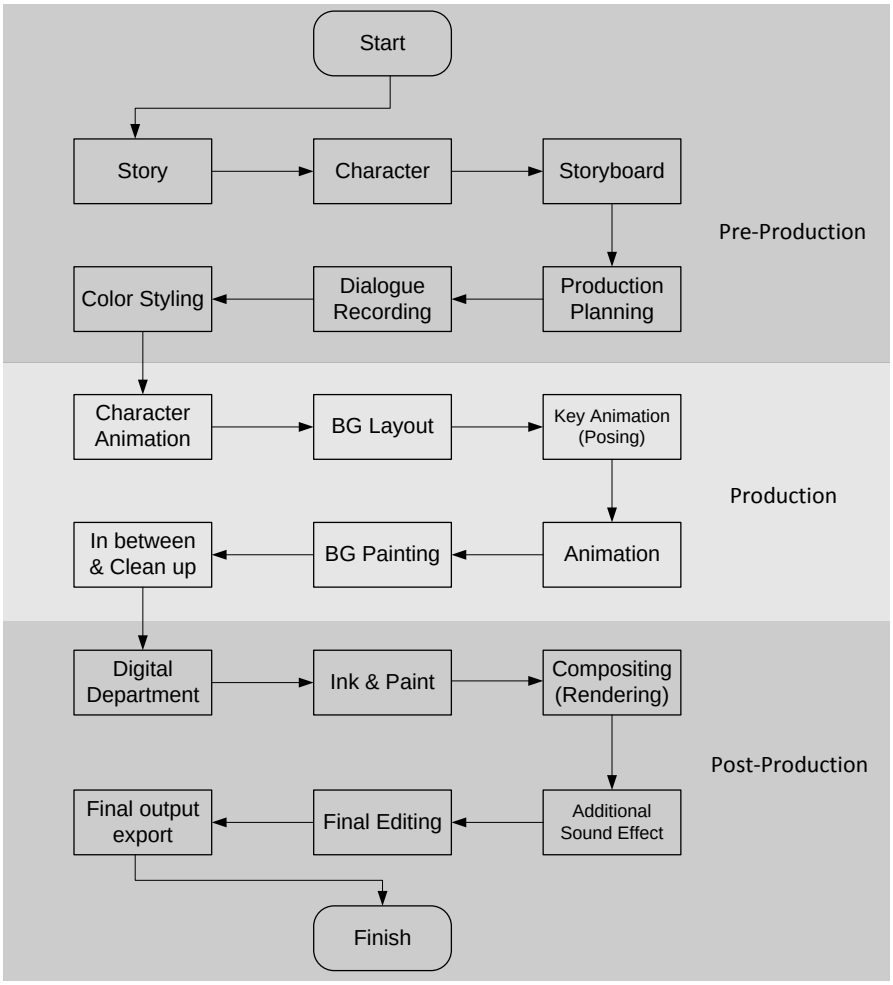

Figure 1.1 Project Framework

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1.7 Project Significance

This project will help the animators in deciding to choose which tween technique is more suitable to be used in animation that will be developed. In addition, this project will also provide a lot of information about the motion tween and the classic tween.

Summary

For a summary of this chapter, tween technique is important in producing 2D animation. Even though it was introduced several years ago, but it is still among the famous technique among animators which is the target user for this project. Basically, the objective of this project is to develop a 2D animation with tweening techniques beside measure user reaction about both classic and motion tween.

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CHAPTER II

LITERATURE REVIEW

The literature review is a summary of the existing literature or published material. It is also to evaluate the information found in the research report of literature related to the study area. It is intended to do research and expanding a particular knowledge on an ongoing basis. Literature that can be used which include journal articles, Internet (electronic journals) books, Newspapers, magazines and thesis. For this project, some literature review that associated with project title will be used.

2.1 Area of Study

In Flash, it does not need to draw every frame of animation. You can set the position and characteristics of your art at the beginning and the end of the frame, and Flash will create all the frames in between where it's called tweening. A motion tween connecting two keyframes, each of them with effects or characteristics that are used and then gradually "morphs" into another different one. Tweening allows to quickly

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move an object, apply fade, and gradually change color, alpha, scale, and any other effects that can be applied to an object symbol, group, or text.

Flash use two different types of motion tweens: classic tween and motion tween. A classic tween uses several instances in keyframes of an object along with property keyframes to create a tween, while a motion tween uses one object instance over the entire span along with property keyframes to create a tween. A property keyframe is a frame within the motion tween where you define a value for a property. A motion tween is known as object based animation.

2.1.1 Tweening Technique

Tanita Suepa (2011), "I prefer tweening. It is powerful animation features that can generate transition images between keyframes. Tweening makes gradual changes to map animation so an animation looks smooth. Furthermore, it is easy for user to detect the change between scenes. Another significant benefit of using tweening is to reduce change blindness. With these characteristics, tweening is more effective than tween less. However, the disadvantage of tweening are time consuming."

Tanita Suepa words strengthened by Steve Johnson (2009), he said that tweens with more frames will be smoother. The more frames add to a tween, the smoother the animation plays, because Flash has more frames to split the motion between. However, if add too many frames the animation may move so slowly that the illusion of movement could be hampered. It is best to experiment with the length of a motion or shape tween and the frame rate of your Flash movie until get the results.

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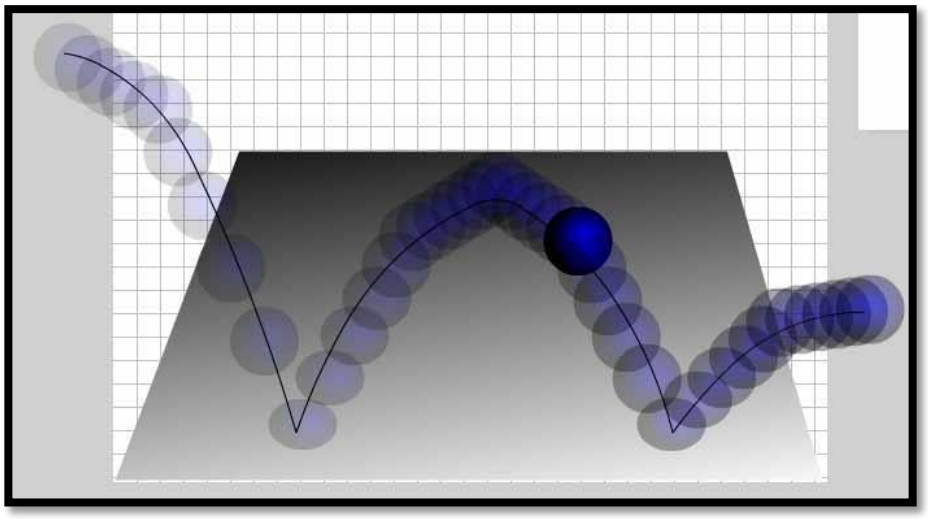

Figure 2.1 Tweening with multiple frames.

However, Tom Green and Jordan L. Chilcott (2010) said, the first thing that catches an animators' attention is the capability in Flash to tween objects. Essentially, a tween is Flash automatically drawing the changes in shape or location of objects on the Stage. Done properly, tweening will be a huge timesaver. If done incorrectly, you will find yourself contending with choppy animation and rather large file sizes.

2.2 Current Systems/Tools/Output

Animation in Malaysia began in 1946 with the setting up of the Malayan Film Unit (now called Filem Negara). Hikayat Sang Kancil (1978) is the first short animation film and was screened in 1983. Other short films appeared and still on air now days is Kampung Boy, Bola Kampung, Supa Strikas and so on.

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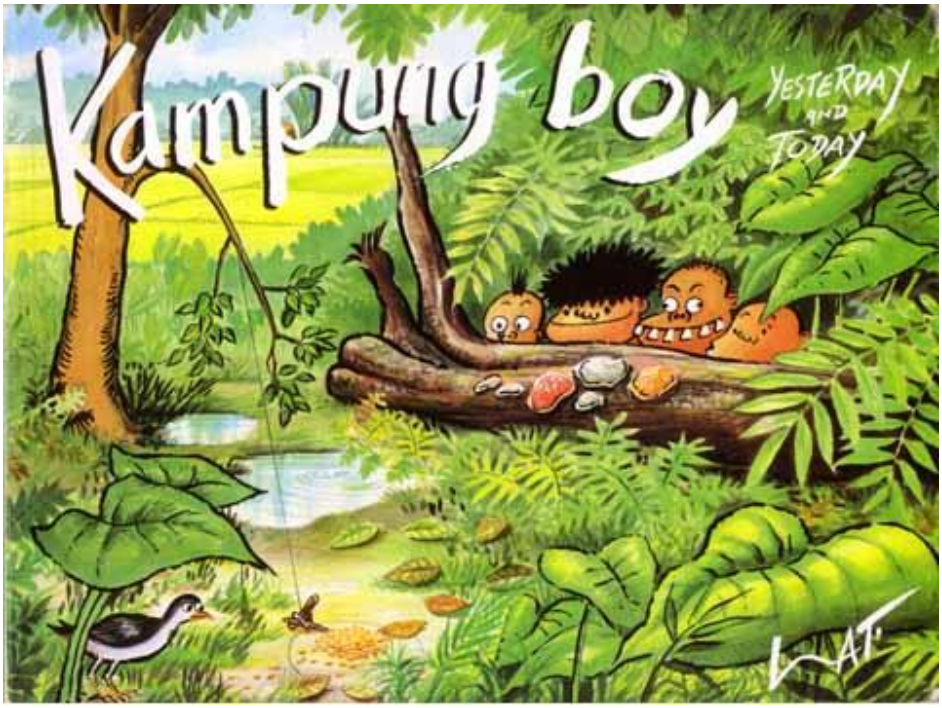

Figure 2.2 Screenshot of Kampung Boy

Kampung Boy, also known as Lat of Kampung Boy or just Kampung Boy, is a graphic novel by Lat on the experiences of a young boy growing up in rural Perak in 1950. This book is an autobiographical account of the artist's life, tells the adventure in the jungle and tin mines, circumcision, family and school life. In 1999, it was also the basis for the eponymous animated series. Began to be published in 1979 by Berita Publishing, The Kampung Boy was a huge success both commercially and critically. The first printing was sold within four months of its release. Narrated in English with Malay smattering of, works have been translated into other languagessuch as Japan and France, and sold overseas.

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