BORANG PENGESAHAN STATUS TESIS^

JUDUL: 2D CARTOON - 'SIMPLE LIFE'

SESI PENGAJIAN: 2005 / 2006

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^ Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

2D CARTOON – "SIMPLE LIFE"

IRZAMIR BIN ISMAIL

This report submitted in partial fulfillment of the requirement for the Bachelor of
Computer Science
(Interactive Media)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA
2005

DECLARATION

I hereby declare that this project report entitled

2D CARTOON – "SIMPLE LIFE"

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

STUDENT : _____ **Date:** 22 / NOV / 2005

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SUPERVISOR : _____ **Date:** 22 / 11 / 2005

(CIK SHAHRUL BADARIAH BT. MAT SAH)

DEDICATION

To my beloved parents and friends...

ACKNOWLEDGEMENT

Firstly, I would like to extend my gratitude to all those who have helped in making my Projek Sarjana Muda (PSM) stint such a rewarding and enriching experience. All the tasks and works really teach me to be more independent and skillful students.

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In addition, I am grateful for the guidance of my friends and relatives, throughout my PSM period. All the support and the advise that been given really help me.

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ABSTRACT

Projek Sarjana Muda (PSM) will give students chances to develop their own project. This will expose students to do some research and analysis regarding to the topic that have been chosen. This report contains several sections that are Introduction, Literature Review and Project Methodology, Analysis, Design, Implementation and Testing. Each of these chapters has several sections to be completed. Developer has decided to make a 2D cartoon named "Simple Life" for his Projek Sarjana Muda (PSM). There are several objectives that have been identified such as to add lip sync and facial expressions to the characters in the cartoon. To make this project successful, researches have been done by using several techniques such as interviews and discussions, research from printed media and Internet and observations. On the other note, the methodology that will be used through completing this project is Video Production Methodology which consists of three phases that are Pre-Production, Production and Post-Production. Gantt chart is used to show the project schedule and milestones while storyboarding that has been sketched are used to show the storyline as well as act as a guide while developing this project. After that, the storyboard will be scanned and computerized before animate it. Then, testing will be conducted to make sure the project meet the objectives that have been identified before. Last but not least, doing this project has given developer chances to develop his own project. Research and analysis that have been conducted will act as guidance to the developer to continue his master level. This will also help to boost his skills in writing reports and presentation skills which will be very useful and will help to make some preparation into real working environments.

ABSTRAK

Projek Sarjana Muda (PSM) merupakan subjek wajib untuk pelajar tahun akhir di Kolej Universiti Teknikal Kebangsaan Malaysia (KUTKM). PSM memberi peluang kepada para pelajar untuk menghasilkan sebuah projek individu. Ini dapat mendedahkan pelajar untuk menjalankan kajian serta analisis kepada topik yang dipilih. PSM boleh dibahagi kepada dua, PSM 1 dan 2. Bab yang terkandung adalah Pengenalan, Kajian Literasi dan Projek Metodologi, Analisis, Reka bentuk, Implementasi dan Pengujian. Setiap bab mempunyai beberapa sub topik yang perlu dilaksanakan. Saya telah memilih untuk membuat kartun 2D yang bertajuk "Simple Life" untuk Projek Sarjana Muda (PSM) saya. Terdapat beberapa objektif yang telah dikenal pasti antaranya gerak mulut dan mimik muka kepada watak utama di dalam kartun ini. Untuk merealisasikan ia, beberapa teknik kajian telah dilakukan seperti temu bual, perbincangan, kajian dari bahan bacaan, Internet dan pemerhatian. Selain itu, metodologi yang digunakan untuk membangunkan projek ini adalah 'Video Production Methodology' yang mempunyai tiga fasa iaitu 'Pre-Production', 'Production' dan 'Post-Production'. Gantt chart digunakan untuk penetapan jadual kerja dan storyboard telah dibangunkan untuk menetapkan jalan cerita dan boleh dijadikan panduan di dalam membangunkan projek ini. Selepas itu barulah proses pembangunan dilakukan di mana storyboard itu akan di imbas dan dimasukkan ke dalam komputer. Selepas itu, pengujigan akan dilakukan supaya projek itu menepati objektif yang telah ditetapkan. Sebagai kesimpulan, pembangunan projek ini telah memberi peluang kepada saya untuk menghasilkan produk saya sendiri. Kajian dan analisis yang dijalankan akan dijadikan panduan kepada saya pada masa hadapan. Ini sedikit sebanyak dapat menambah kemahiran saya di dalam penulisan laporan serta kemahiran persembahan produk yang amat berguna terutamanya ketika di alam pekerjaan.

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PSM1	-	Projek Sarjana Muda 1
KUTKM	-	Kolej Universiti Teknikal Kebangsaan Malaysia
FTMK	-	Fakulti Teknologi Maklumat dan Komunikasi
2D	-	2-Dimension
IT	-	Information Technology
PC	-	Personal computer
HTTP	-	Hyper Text Transfer Protocol
ADSL	-	Asymmetric Digital Subscriber Line
DSL	-	Digital Subscriber Line
Anime	-	Japanese Cartoons
Lip Sync	-	Mouth Movements
CD-Rom	-	Compact Disc Rom
Flash	-	Macromedia Flash MX
ToonBoom	-	ToonBoom Studio
MB	-	Mega Bytes
VCD	-	Video Compact Disc
DVD	-	Digital Versatile Disc

CHAPTER 1

INTRODUCTION

1.1   Project Background

2D animation is one of the most popular techniques used by many designer or multimedia person to make cartoons, short movie or use it in the web design. Furthermore, 2D is not a new thing in multimedia fields. Actually 2D is a measurement with two dimensions on a flat plane. These dimensions run on an X an Y axis. There are many advantages using a 2D against 3D that you can find on the Internet and one of them is the process to create and manipulate objects are easier using 2D. Therefore, people who watch cartoons usually prefer 2D cartoon then 3D because it is simple and look funny.

Cartoons usually are made to entertain people and at the same time, developers still can deliver some messages, advices and some moral values. The title of this cartoon is "Simple Life". The main characters in this cartoon are 2 persons, student named John and his older brother, David. The cartoon will have many funny scenes and a moral value at the end of the story. These mean that it will not only entertain people but also have a moral value included to attract viewers.

The story started when John, who is very intelligent student and wants to be a good writer, did not get a place in one of the most elite university that he really wanted to

go for. He thought by entering the university is the only way for him to be a good writer. Thus, he is very upset with his life. So, his older brother, David, offers to help him to get place in the university. Therefore, both of them try so many ways to help John to get a place in the university. There will be so many funny parts on their journey to the university. Then, after trying so many ways he started to give up. At that time, he meets a writer that he admired so much. The writer then gives him encouragement and tells him that to be a good writer actually doesn't require a degree. Anyone can be a good writer. What you need actually are interest and courage.

1.2   Problem Statement

Cartoons in Malaysia are not very popular among Malaysian people compared with other countries like United States and Japan. This problem occurs because there are not many cartoons produce by a local company. Furthermore, Malaysian people do not give support to this industry. The main reason local company scared to produce cartoons is because they do not get many profits from it. They are likely to produce 'love story' films. That is the truth in Malaysian film market. As we can see nowadays, cartoons are becoming very popular worldwide. For example, "Shrek", "Finding Nemo" and even cartoons from Japan like "Pokemon" and "Final Fantasy" are sold thousand of copies worldwide.

On the other note, only 2 cartoons that have been published widely in Malaysia that are "Silat Lagenda" and "Puteh". There are also some cartoons that are shown in television and very popular such as "Usop Sontorian" and "Keluang Man". But that was a long time ago. Malaysian market should make more cartoons to make this industry more "colourful" especially in multimedia fields as technology increase day by day.

In addition, cartoons normally are produce to entertain people. So, usually they did not include moral of the story in their cartoons. Furthermore, some cartoons are not

suitable for children, for example "Futurama" and "South Park". Usually, cartoons are made for children as their target users but nowadays some cartoons contain a lot of nudity and violence.

To curb these problems, this project is not just made to entertain people, but it also will contain moral and commercial values. It will absolutely suitable to everyone especially for students and children.

1.3   Objectives

Each project must have objectives to make it success. It plays an important role for developers because developers can use it for references and to make the project development process go smoothly without any hassle. To make this project succeed, these are the objectives of this project:

i.   To add some facial expressions to the character such as happy, sad or angry expressions.

ii.   To entertain people especially students and children.

iii.   To add lip sync to the characters in the cartoon to make it more realistic.

1.4   Scopes

The target users for this cartoon are absolutely everyone especially for students and children. The good values in the cartoon can help to encourage those target users to

boost their self-confidence and that is the main aspects the developers want to send to all viewers as well as the funny parts in the cartoon itself.

The cartoon will contain a lot of outside scenes. It starts with a student who gets good result but did not get any offer letters from the university that he wished to go for. Then he asked his brother to accompany him to the university. There will be many funny things on their ways to the university. At the end of the story, he meets with an author who he really admired so much and the writer give him some advices. All animation will be done by 2D animation as well as all environments in the cartoon using Toon Boom Studio software. This cartoon will add some facial expressions such as sad, happy and angry expressions to make it more realistic. In addition, lip sync also will be added in this cartoon. The facial expressions and lip sync will be focused more on the main character.

However, this cartoon will not take many times as cartoon we seen on television, which is usually 30 minutes. This cartoon will only take 3 - 5 minutes. All viewers can enjoyed this cartoon because it will be used CD-Rom as it platform delivery. It also will use Malay language. The cartoon might not be the same as that are made and produced by professional animator or designer like what we usually seen on television but the developers can try to make it goes as smoothly as possible.

1.5   Project Significance

The "Simple Life" animation is just a short animation cartoon that contains a lot of funny scenes and the most important thing is that it has a message or good values to all viewers especially to children and students as well as teenagers. That is the strength of this cartoon. Furthermore, it is very suitable to all individuals who watch the cartoon and there is no violence or nudity in the cartoon. So, viewer restrictions are not necessary. The good values in the movie can encourage people especially for students who did not get a place in any university. At the end of the story, the writer will tell the student that

"to be a good writer, you not necessarily have diploma or degree, what you need is courage and determination. And that is the important aspects to be a good writer".

This cartoon also will help to encourage people in the animation fields to create and add more variety in cartoon area in Malaysia because as we all know cartoons made by Malaysian people are very limited. Most of the companies in Malaysia scared to produce cartoon because they know they cannot get many profits compared with films. The 2D cartoon animation made by American or Japanese people growth widely day by day. Perhaps someday cartoons made by Malaysian people can do the same. They prefer doing 2D rather than 3D because the cost to produce 2D movies or cartoons is much cheaper. This includes the budget for the film or animation, workforce and also hardware and software that will be used. Lip sync and facial expressions will also be included in this cartoon. From the observation that have been done before, cartoon in 2D usually do not focused on lip sync and facial expressions. But in this cartoon, these two elements will be focused.

Doing this project also can expand the multimedia design and concepts in all kind of corporate fields especially in broadcasting as well as expanding its usage and concepts in all kind of Information Technology fields across Malaysia. Furthermore, it also can help to encourage Information Technology students especially majoring in multimedia to show their talents and skills in this kind of areas.

1.6   Conclusion

To conclude, developing this project will help to add more variety in cartoons or animation fields in Malaysia. As we all know that cartoons or animations in Malaysia are very limited and none of this cartoons or animations is published worldwide. The main target users for this cartoon are children and students as well as all Malaysian people because it does not contain any pornographic or violence scenes. This also will help to

encourage all people in multimedia fields to create and publish more cartoons or animations and perhaps one day it can be sold or publish widely across the nation.

Overall, this chapter includes all problem statement, objectives, scopes and project significance. The problem statement has been stated clearly in this chapter. In the objectives section, developer has listed three identified objectified that will be focused in this cartoon. Scopes section needs developer to list all the constraints and scopes for this project. The last section which is problem significance requires developer to state the benefits of this project as well as describing who may get benefits from this project.

In the coming chapter that is literature reviews and project methodology, it focused more on fact and finding regarding to the project and also the methodology technique that will be used in completing the project. Project requirements including software and hardware requirements will also be stated in the second chapter as well as project schedule and milestones.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1   Introduction

This chapter is one of the most important chapters for any projects that will be developed. The main sections for this chapter are fact and finding as well as project methodology that will be used during development process of any projects.

In the fact and finding section, developers need to gather all data before studying the raw data and finally, make a conclusion for any reviews, articles or journals that had been read before from many different resources such as books, television, journal and web pages. The data that have been researched are much related to the project that will be developed that is 2d cartoon. This section is very important because the developers can gain some knowledge regarding to the topic or project before starts to develop the project.

The third section in this chapter is project methodology. In this section, project methodology that will be used or referred during the development process of this project will be described as a whole. Project methodology that will be used is Video Production Methodology. It consists of three phase; Pre-Production, Production and Post Production. Each of these phases will be discussed in detailed.

In the project requirements section, all requirements including software, hardware and other requirements that will be used in the development of this project will be explained here.

The last section in this chapter is project schedule and milestones. Project schedule and milestones will be showed using Gantt chart.

2.2   Fact And Finding

This is the most important topic in this thesis. Research had been done through several resources and there are some topics that the developer think it is much related to the project that will be develop. One of the important aspects that all people needs to know before starting to create an animation are, "what is animation?", "what software is best suites you" or "which is better, 2d or 3d?". These questions are some of the questions that the developer needs to answer or decide before deciding what tools or type of animation that he/she wants to do.

2.2.1   2D Animation and Cartoon

Animation in multimedia concepts and designs can be described as motion, act or process of preparing animated cartoons according to The American Heritage® Dictionary of the English Language (2000a). On the other hand, cartoons can be described as a process to draw a humorous situation or representing current public figures and issues by The American Heritage® Dictionary of the English Language (2000b). It also can be describe as a preliminary sketch. Actually, 2D is a measurement with two dimensions on a flat plane. These dimensions run on an X an Y axis. This mean that 2D cartoons only has two dimensions on a flat plane (only one angle at a time can be captured). This is different from 3D cartoons which it can be viewed or manipulated from different angle

(up to 360 degrees). Most animators choose this method rather than 3D because the processes to create and manipulate 2D cartoons are easier and flexible.

2.2.2   History of 2D Animation

The 2D animation has started since 1930 by Warner Brothers and Disney and it still remains unchanged for the past 50 years. The old technique has been replaced with the introduction of electronic scanning, ink and paint tools in the early 1990. This gadget helps animators to scan all the sketch hand-drawn images into computer and perform cleanup ink or paint on frames digitally. Although this kind of method is faster, it still has its limitations. Animators are still forced to use paper for the majority of their work, and a lot of time is spent on scanning and cleaning up imperfections in scanned images. This hybrid, paper/digital workflow is currently the backbone of most professional animation studios. Disney is one of the most successful companies in creating 2D animation cartoons as we all can see in the late 80s and early 90s; Disney has produced so many 2D blockbuster cartoons such as The Little Mermaid (1989), Beauty and the Beast (1991), Aladdin (1992) and The Lion King (1994). The reason all of those films did well, was simply because they offered audiences a superior viewing experience as well as good presented stories.

2.2.3   Cartoons in Malaysia

Hassan Muthalib (2004a), the director of "Silat Lagenda cartoon" in his article The Influence of Anime on Malaysian Animation Filmmakers, (http://www.titikberat.com/modules.php?name=News&file=article&sid=3) said that the real animation in Malaysia began in 1946. This was possible due to the availability of some animation equipment. Hassan Muthalib (2004b) also stated that the first short animation film, The Tale of the Mousedeer began in 1961, handled by one man, a set designer who was untrained in animation. He did all the animation and the backgrounds during his spare time with just one assistant. The film was completed in 1978, leading to the making of 5 other short films between 1984 & 1987 (The Mousedeer and the

Monkey, The Mousedeer and the Crocodile, The Clever Crow, The Arrogant Rabbit and the Greedy Lion). In Malaysia, there were only two animations films that have been showed in cinema that are "Silat Lagenda" and "Puteh". Both stories are about legendary and typical Malay life. There were also some cartoons that show on television and have a good rating such as "Keluang Man", "Usop Sontorian" and "Anak-anak Sidek". None of the films make a box-office. The main factor is Malaysian market itself. As we all known, Malaysian people like romantic or comedy films compared to animations or cartoons. Furthermore, not many Malaysian company willing to produce cartoon because they know that they cannot make profits through cartoons. In addition, Malaysian people also do not give support to curb this problem. Below is the list of cartoons that have been made by Malaysian people according to Hassan Muthalib (2004c):

Table 2.1: List of cartoons in Malaysia

Cartoon Type	Cartoon Titles
Films	Silat Lagenda
	Putih
	Mann Spider & the Princess of Melaka (unreleased)
Telemovies:	Nien Resurrection (3D)
	Skyland (3D)
	Kartini
TV Series	Usop Sontorian
	Joe Kilat
	Sang Wira
	Alif
	Anak-anak Sidek
	Kampong Boy
	Yokies
	Ice Kops
	Frooties
	Rimba