Multimedia Project Planning

Title: Multimedia Project Planning

By: Ali Akbary

Chapter 9 MULTIMEDIA PROJECT COSTING

Learning Outcome

Objectives of this chapter are: -
- ➢ Estimating Multimedia Project
- ➢ Monitoring Multimedia Project Budget

Introduction to multimedia project costing

Project costing involved in two areas, first, to estimate the project cost and second monitoring multimedia project cost according to the estimated cost.

Estimating the multimedia project costing

Before we start any multimedia project, we need to allocate our resources to the tasks and estimate the cost of each. For this purpose, we need to understand what resources are needed for the multimedia projects.

What is the multimedia project resources?

First of all, we need to understand what is mean by resources, the resource is anything we need or use to complete our projects.

Generally, the resources are classified as three types as follows: -

- ➢ Human resources
- ➢ Machinery resources
- ➢ And material resources

Human Resources

Human resources are included the production team. A large-scope, High-quality multimedia product requires a team which is very highly skilled and specialized.

producing multimedia, the smallest team may include only a designer and a programmer. However, most professional multimedia production firms include the following personnel.

- ➢ Production Manager
- ➢ Public Relations officer
- ➢ Multimedia writer
- ➢ Graphic Designer

- ➢ Photographer
- ➢ Videographer
- ➢ Audio Engineer
- ➢ Video Engineer
- ➢ Technical Engineer
- ➢ 2D/3D editor / Animator
- ➢ Computer Programmer

These are the team member which explain in detail in chapter 4.

Machinery Resources

Machinery resources are the piece of machinery or equipment that consume time when working on activity. Most multimedia equipment used for production are: -

- ➢ Video Equipment
- ➢ Audio Equipment
- ➢ Lighting equipment

Video Equipment

Video equipment are included digital cameras. A digital camera is a hardware device that captures photographs and stores the images as data on a memory card. Cameras can be categories as still image cameras or Video cameras. Still image cameras are taking one image at a time. The figures bellow shows the still Image cameras.

Figure 1 DSLR Camera

Figure 2 DSLR Camera with different types of lenses

Video Cameras

Video cameras are the camera which take images at a sequence according to the camera setting. Example if we set the camera frame rate to 25, means it will take 25 image a second.

Figure 3 Video Camera

Figure 4 Video Camera

Figure 5 Video Camera

Tripods

Tripods are the stand which camera fixed on them. The figures below are showing different types of cameras stands.

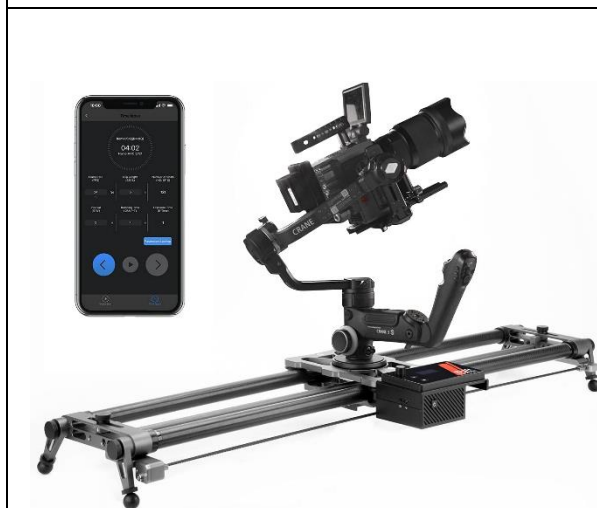*Figure 6 Tripods*

Figure 7 Camera rail

Figure 8 Camera Slider

Figure 9 Camera Crane Jib

Audio Equipment

In multimedia projects, we need audio equipment to perform our job efficiently. In Multimedia project audio is most important element. For that purpose, we need to have tools. Here we will look at some audio tools required in multimedia project.

Microphones

We can use Microphone to record a voice for our multimedia projects. There are many types of microphones are available with difference qualities.

The bellow figures are some types of microphones used for recording: -

Figure 10 Microphones

Figure 11 Microphone

Figure 12 collar Microphones

Figure 13 Wireless Microphone

Lighting is a fundamental to film because it creates a visual mood, atmosphere, and sense of meaning for the audience. Whether it's dressing a film set or blocking actors, every step of the cinematic process affects the lighting setup, and vice-versa. Lighting tells the audience where to look.

Firstly, the correct lighting for your film can set the mood for your content. This allows viewers to understand how they should be feeling emotionally whilst watching.

It's important to remember that a video camera doesn't capture lights in the same way our eyes do. It can seem like a good idea to rely on natural light if visibility that day is good, but this can prove a bad idea.
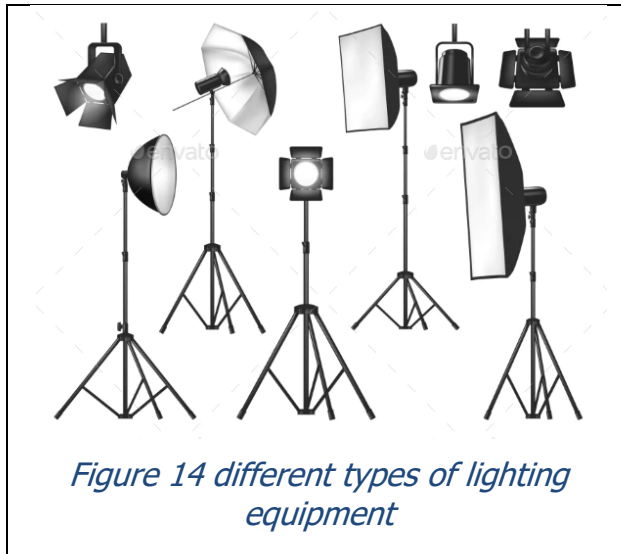
Lighting equipment

Figure 14 different types of lighting equipment

Figure 15 lighting studio

Lighting system

Three lights used for professional videos are: -

➢ Key Light — Used as your primary lighting point
➢ Fill Light — Used to fill opposite the key light
➢ Backlight — Used to extract the third dimension
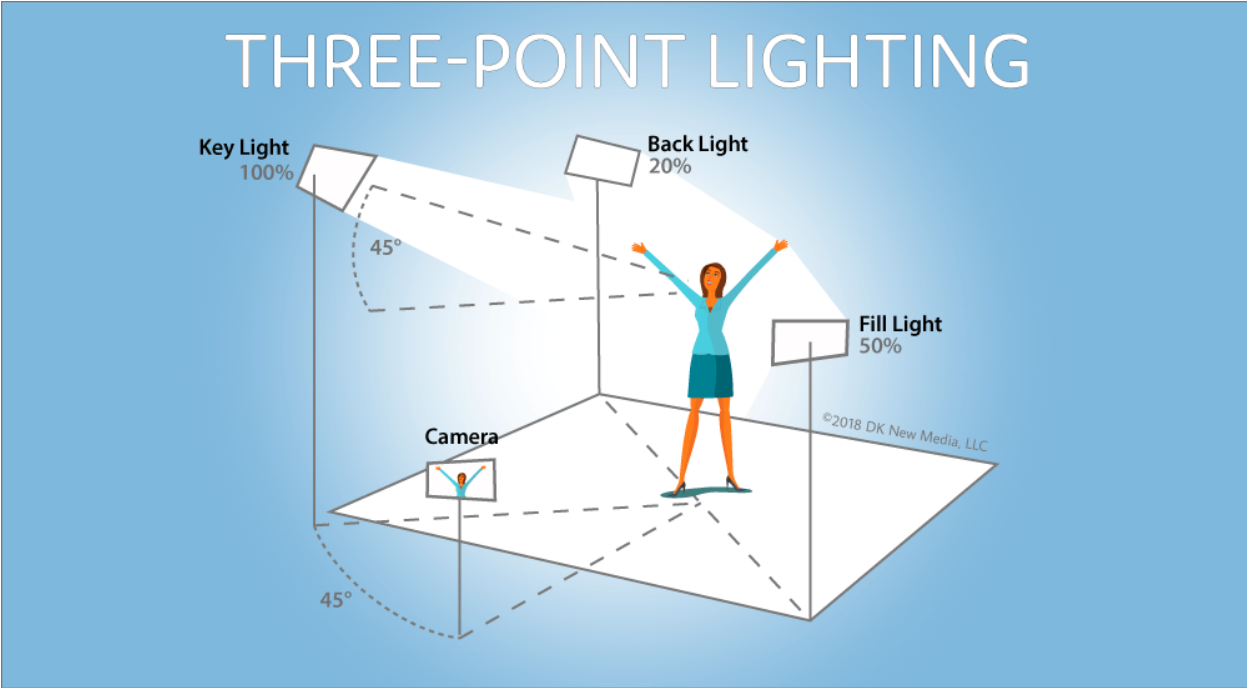
The figure below shows the power are the three lights.
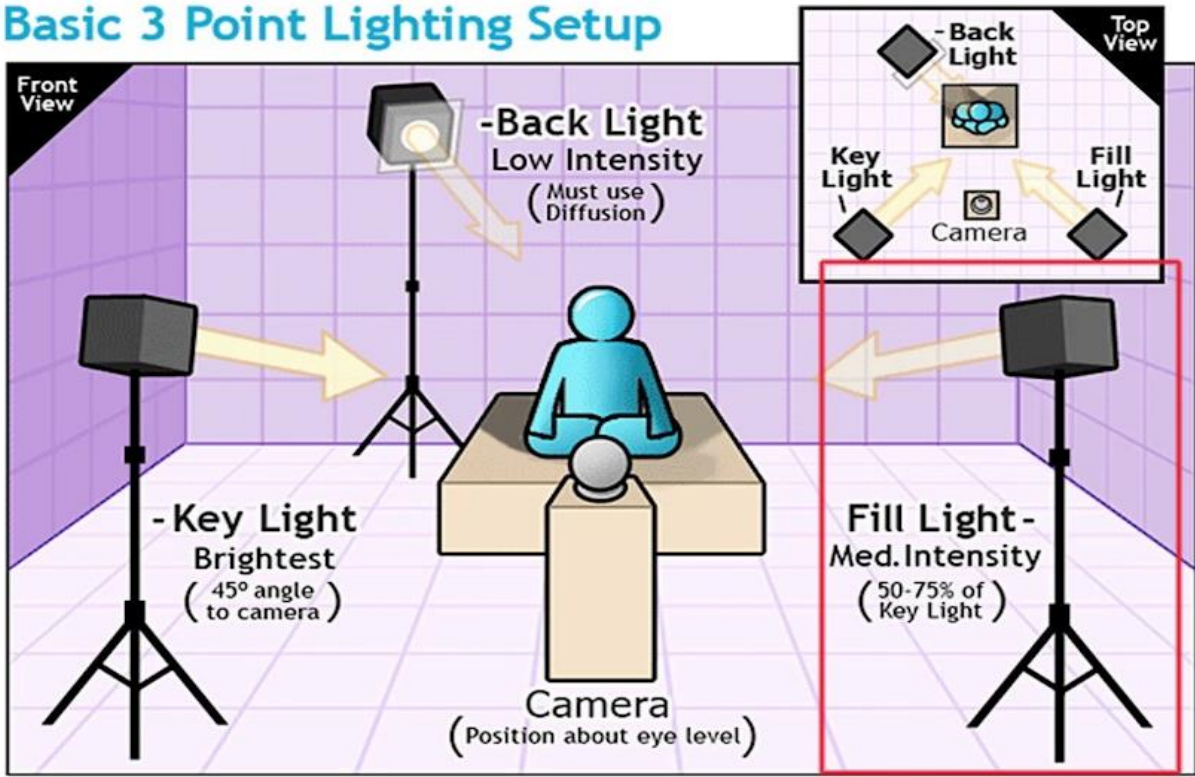
Figure 16 Power used in three lighting system

Figure 17 Light and camera angle setting

Computer System of Multimedia project

For multimedia project we need a computer system to edit and develop the project. Multimedia project need high performance computer system with large memory system. Here are some recommendations for multimedia projects.

Computer Hardware

A computer hardware is the tangible part of the computer which we can see, like case, monitor, keyboard and so on. For multimedia project we need a high-performance computer system which be able to carry out or develop the project with ease and fastest way. There are FIVE major factors for a computer to be powerful: -

- Speed
- Reliability
- Accuracy
- Storage
- Communication

The important part of computer hardware consists of the following items: -

- **Motherboard / mainboard** - A motherboard is the main printed circuit board (PCB) in general-purpose computers and other expandable systems. It holds and allows communication between many of the crucial electronic components of a system, such as the central processing unit (CPU) and memory, and provides connectors for other peripherals.
- **Central processing Unit (CPU)** - A central processing unit (CPU) is the electronic circuitry that executes instructions comprising a computer program. The CPU performs basic arithmetic, logic, controlling, and input/output (I/O) operations specified by the instructions in the program.
- **Random Access Memory (RAM)** - Random-access memory is a form of computer memory that can be read and changed in any order, typically used to store working data and machine code.
- **Graphic Cards** - A graphics card is an expansion card which generates a feed of output images to a display device (such as a computer monitor). At the core of both is the graphics processing unit (GPU), which is the main part that does the actual computations.
- **Hard Disks** - A hard disk drive (HDD) is an electro-mechanical data storage device that stores and retrieves digital data using magnetic storage and one or more rigid rapidly rotating platters coated with magnetic material.
- **Power Supply** - A power supply unit converts mains AC to low-voltage regulated DC power for the internal components of a computer. Modern personal computers universally use switched-mode power supplies.
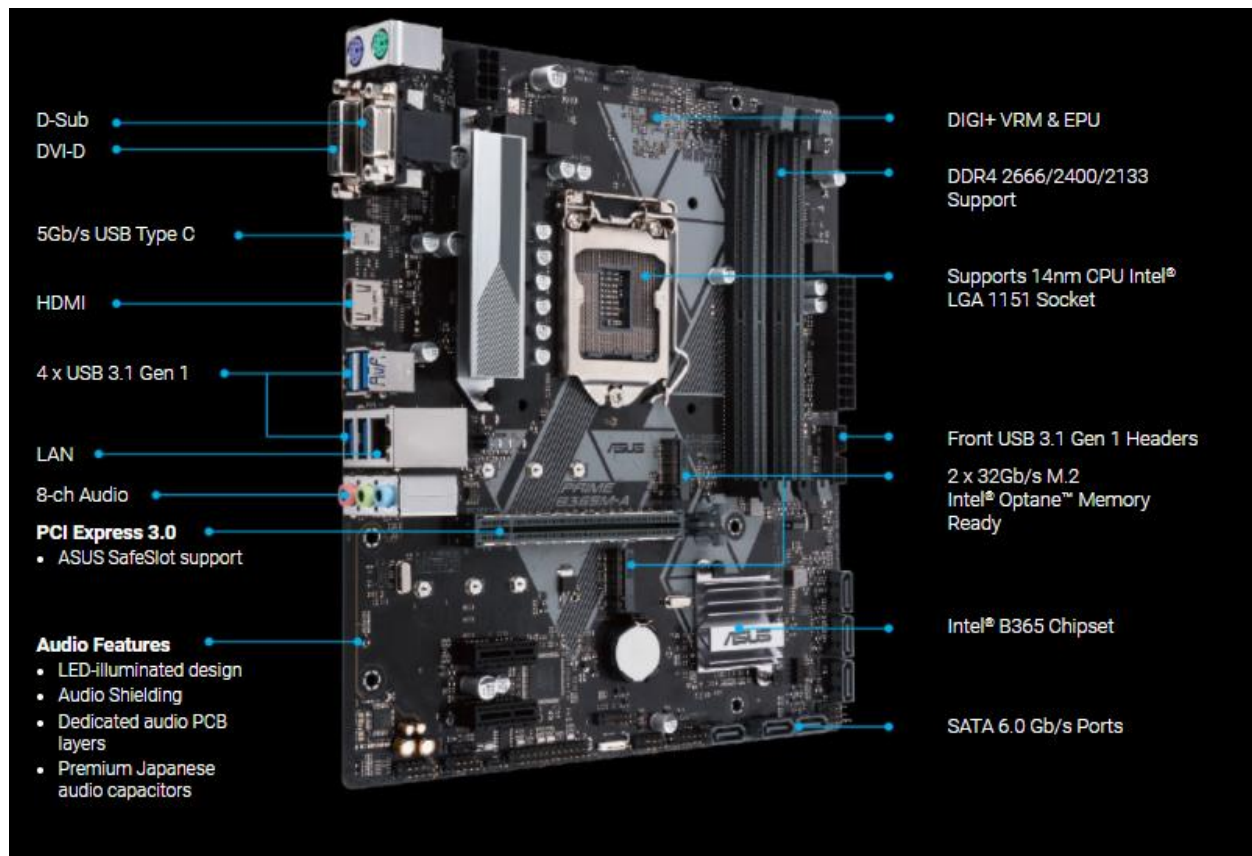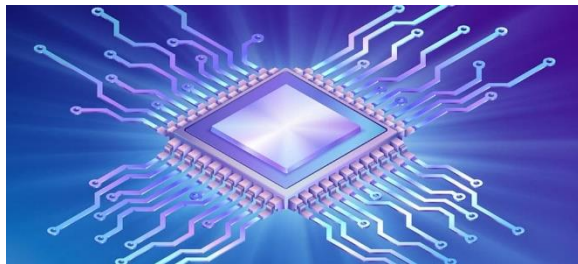
D-Sub
DVI-D

5Gb/s USB Type C

HDMI

4 x USB 3.1 Gen 1

LAN

8-ch Audio

PCI Express 3.0
- ASUS SafeSlot support

Audio Features
- LED-illuminated design
- Audio Shielding
- Dedicated audio PCB layers
- Premium Japanese audio capacitors

DIGI+ VRM & EPU

DDR4 2666/2400/2133 Support

Supports 14nm CPU Intel® LGA 1151 Socket

Front USB 3.1 Gen 1 Headers

2 x 32Gb/s M.2 Intel® Optane™ Memory Ready

Intel® B365 Chipset

SATA 6.0 Gb/s Ports

Figure 18 Asus Motherboard example

Figure 19 CPU Functions

Figure 20 CPU

Figure 21 RAM installed on Motherboard

Figure 22 RAM

Figure 23 Graphic card

Figure 24 HDD

Figure 25 SDD

Figure 26 Computer power supply

Computer Software

Computer software is a program that tells a computer how to perform tasks. A program is a series of step-by-step instructions that tell the computer precisely what actions to perform. For multimedia project we choose program according to our project type. Example for video projects we choose video editing programs such as Adobe premiere. For game development projects we choose program like Unity 3D.
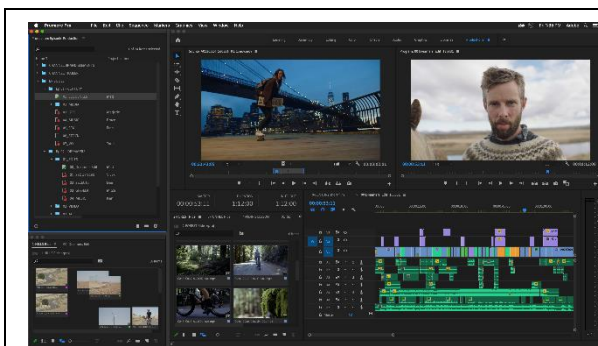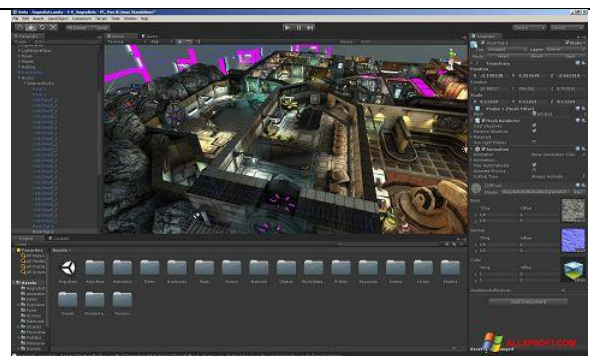

Figure 27 Adobe Premiere CC

Figure 28 Unity 3D

Multimedia Project costing

Multimedia project costing is estimating cost of the resources involved in project. As we learned previously the item required for the multimedia project. As we received confirmation of the project, we have to write down all resources involved or required for the project and we estimate the budget for the multimedia project. The sample below is the estimated cost for small multimedia project.

Sample multimedia budget

No	Description	Budgeted (RM)	Remarks
	ABC Multimedia Enterprise		
1	Initialization cost	RM500.00	
2	Scriptwriter	RM350.00	
3	Videographer (Cameraman)	RM1500.00	Including Video camera and equipment
4	Photographer	RM760.00	Including camera and equipment
5	Video editor	RM1200.00	Estimated of 20 hours working day
6	Audio specialist (Including cost of music and songs)	RM490.00	Royalty fee to music producers
7	Storage device (DVD's, USB's, etc.)	RM1100.00	
8	Other staff budgets (including Background stage staff like Public Relations staff and etc.)	RM600.00	
9	Transportation fee	RM2300.00	
10	Other costs	RM1000.00	
Total Costs		RM9800.00	
Remarks: 30% payment in advance prior to project approval.			

When they agree for the project, they should pay for 30% of the total amount and then the project will start and there will be an agreement between two parties. And all terms and condition such as cancelling project, delay on project will be mention there.

Monitoring the estimated project Cost

The monitoring of the project cost involves the allocation of the budget to the resourced involved in the project. Our duty is to make sure our budget allocation not excided the total project budget.

Example, if the total budget of the multimedia project is 100000 US dollar. We must allocate the money to our resources such a way that not excided 100000 US Dollar. As we saw in Microsoft Project, we allocated cost to the resources.