



Lesson 12

Multimedia and It's Application

12.A The Concept of Multimedia

12.B Computer Graphics

12.A The Concept of Multimedia

- Introduction
- What's multimedia
- Different media elements
 - Text
 - Graphics
 - Animation
 - Video
 - Audio

1 Introduction

- Multimedia is a set of more than one media element used to produce a concrete and more **structured** way of communication.
- 多媒体是一组多种媒体元素的集合，用于产生一种具体的、更结构化的表达方式。

concrete	a.	具体的	structured	结构化的
simultaneous		同时的		

1 Introduction

- Its importance has been realized in almost all walks of life, **may it be** education, cinema, advertising, fashion, and what not.
- 它的重要性几乎在各行各业都已被认识到，可能是教育、电影、广告、时尚等等。

may it be	可能是	what not	诸如此类

2 What's multimedia

- Multimedia systems are those computer platforms and software tools that support the interactive uses of text, graphics, animation, audio, or motion video.
- 多媒体系统是支持文本、图形、动画、音频或运动视频交互使用的计算机平台和软件工具。

graphics	图形	animation	动画
platform	平台		
academic presentation		学术报告	
corporate presentation		公司介绍	

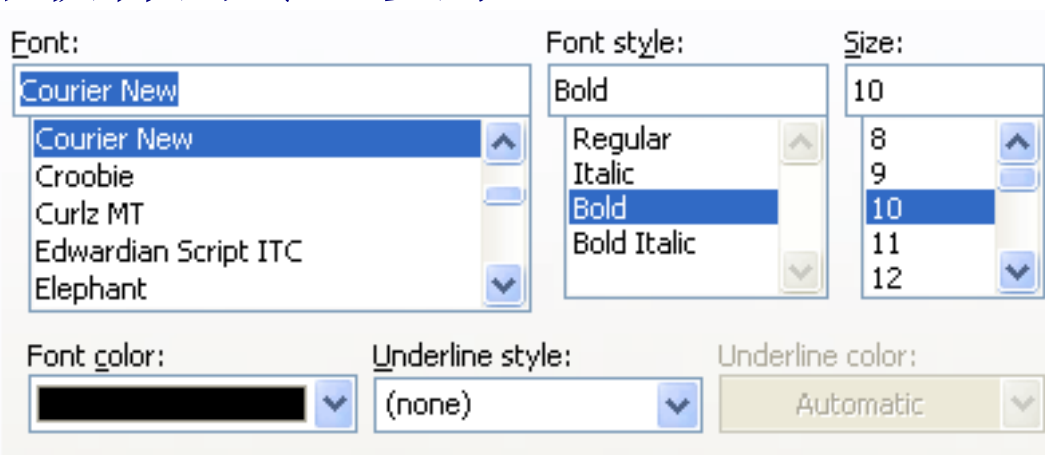
2 What's multimedia

- If the sequence and timing of these media elements can be controlled by the user, then one can name it as **Interactive Multimedia**.
- 如果这些媒体元素的顺序和节奏可以由用户控制，则可以将其命名为交互式多媒体。

timing	节奏		
Interactive Multimedia		交互式多媒体	

3 Different media elements

- The text can have different **type**, size, color and **style** to suit the professional requirement of the multimedia software.
- 文本可以有不同的**类型**，大小，颜色和**样式**，以适应多媒体软件的专业要求。



textual

文本的

3 Different media elements

- As a matter of fact, taking into consideration the human nature, a subject is more explained with some sort of pictorial/graphical representation, rather than as a large chunk of text.
- 事实上，考虑到人的本性，一个主题更多的是用某种图像/图形的表现来解释，而不是用一大块文本。
- A picture is worth a thousand words.

3 Different media elements

- This also helps to develop a clean multimedia screen, whereas use of large amount of text in a screen makes it dull in presentation.
- 这也有助于开发一个简洁的多媒体屏幕，而在屏幕上使用大量文本会使其在演示中变得单调乏味。

universal	普遍的	format	格式
BMP	bitmap picture	位图图像	

3 Different media elements

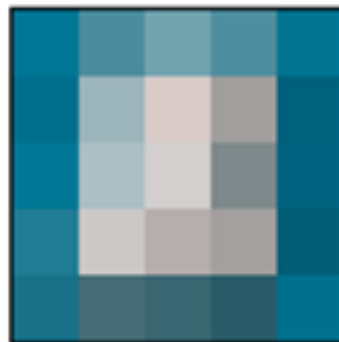
1 x 1



2 x 2



5 x 5



10 x 10



20 x 20



50 x 50



100 x 100



resolution

分辨率

pixel

像素

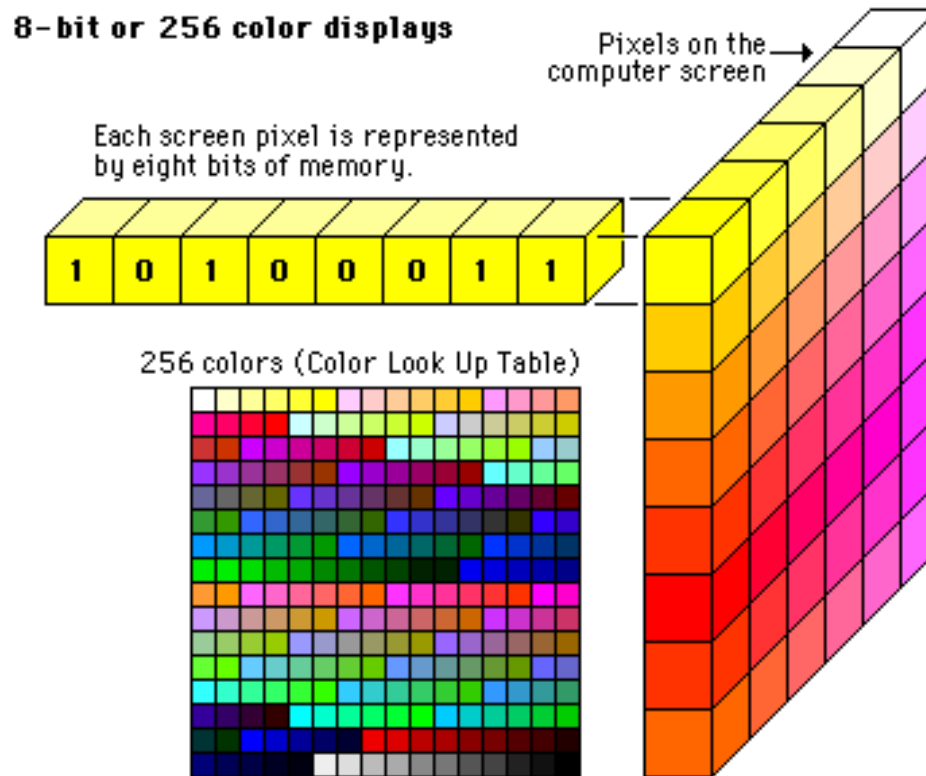
density

密度

image

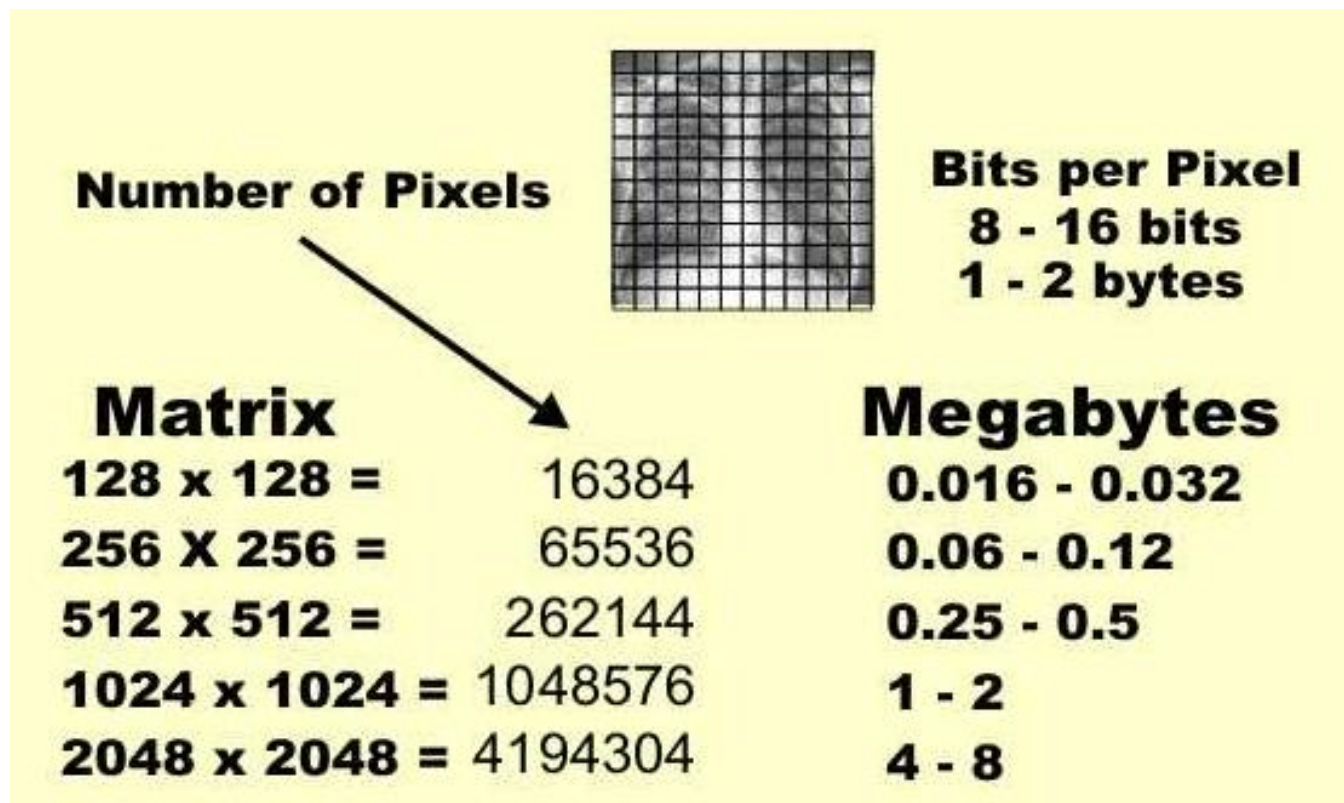
图像

3 Different media elements



resolution	分辨率	pixel	像素
density	密度	image	图像

3 Different media elements



resolution	分辨率	pixel	像素
density	密度	image	图像

3 Different media elements

- If the image size is bigger, it takes more time to load and also requires higher memory for processing and larger disk space for storage.
- 如果图像大小更大，则需要更多的时间来加载，还需要更大的内存进行处理、更大的磁盘空间进行存储。
- Different graphics formats are available which take less space and are faster to load into the memory.
- 可以使用不同的图形格式，它们占用的空间更少，加载到内存中的速度更快。

3 Different media elements

- There are several graphics packages available to develop excellent images and also to compress them so that they take lesser disk space but use higher resolution and more colors.
- 有一些图形包可用于开发优秀的图像，并压缩它们，使图像占用较少的磁盘空间，但具有更高的分辨率和更多的颜色。

readymade

现成的

incorporate into

纳入

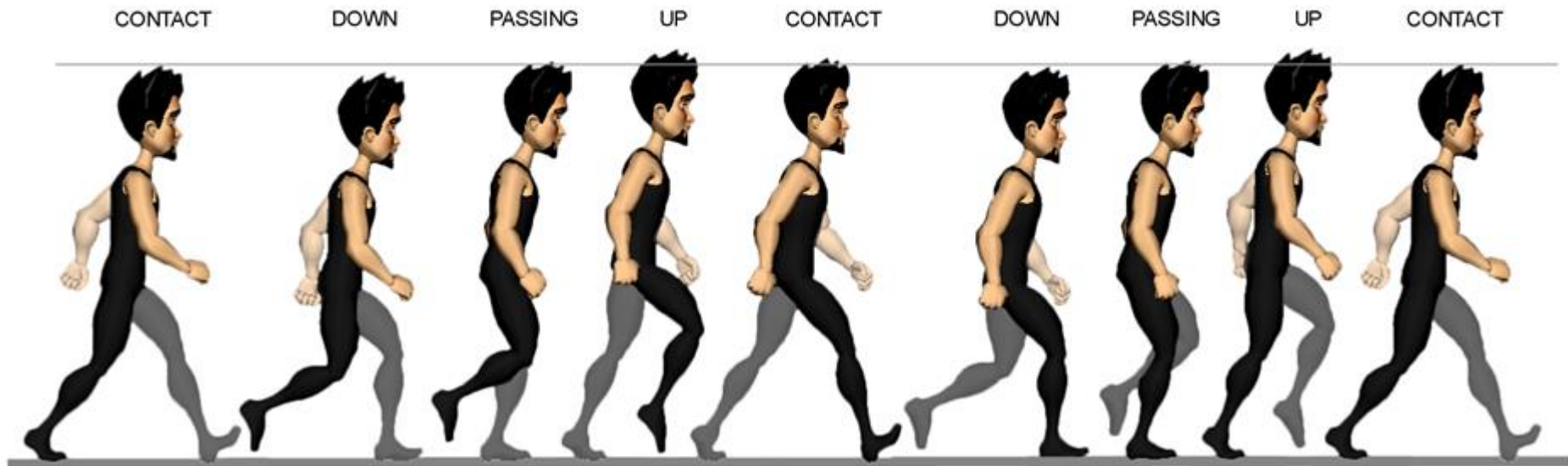
3 Different media elements

- Whereas video takes continuous motion and break it up into **discrete** frames, animation starts with independent pictures and puts them together to form the **illusion** of continuous motion.
- 视频捕获连续运动并将其分解为**离散**帧，而动画则从独立图片开始，将它们组合在一起，形成连续运动的**错觉**。

simulation	模拟	frame	帧，画面
monitor	显示器	discrete	离散的

3 Different media elements

WALK



Animation

3 Different media elements

- With latest technology it is possible to **include** video impact on clips of any type **into** any multimedia creation.
- 使用最新技术，可以将视频对任何类型剪辑的影响纳入任何多媒体创作。

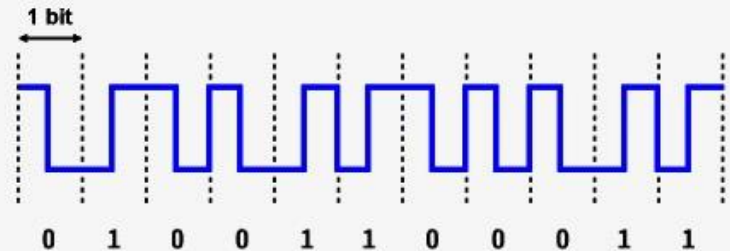
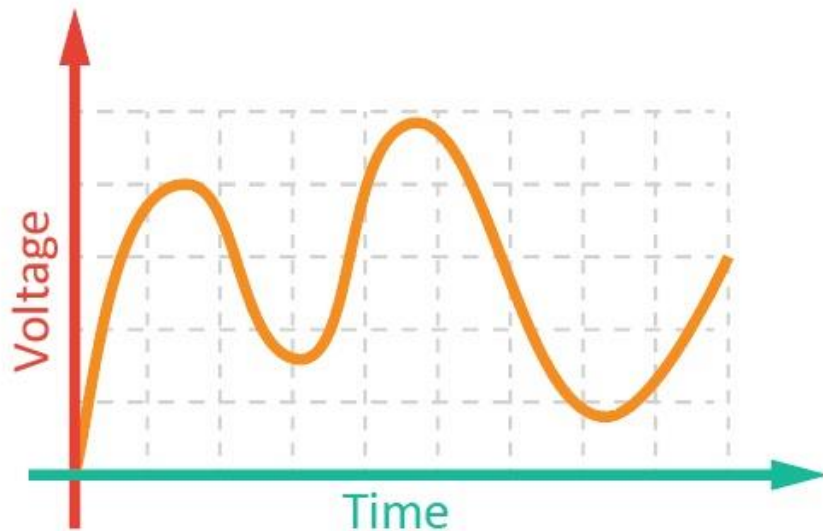
sound effect	音效	moving picture	电影;影片
video film	录像片	analog	模拟

3 Different media elements

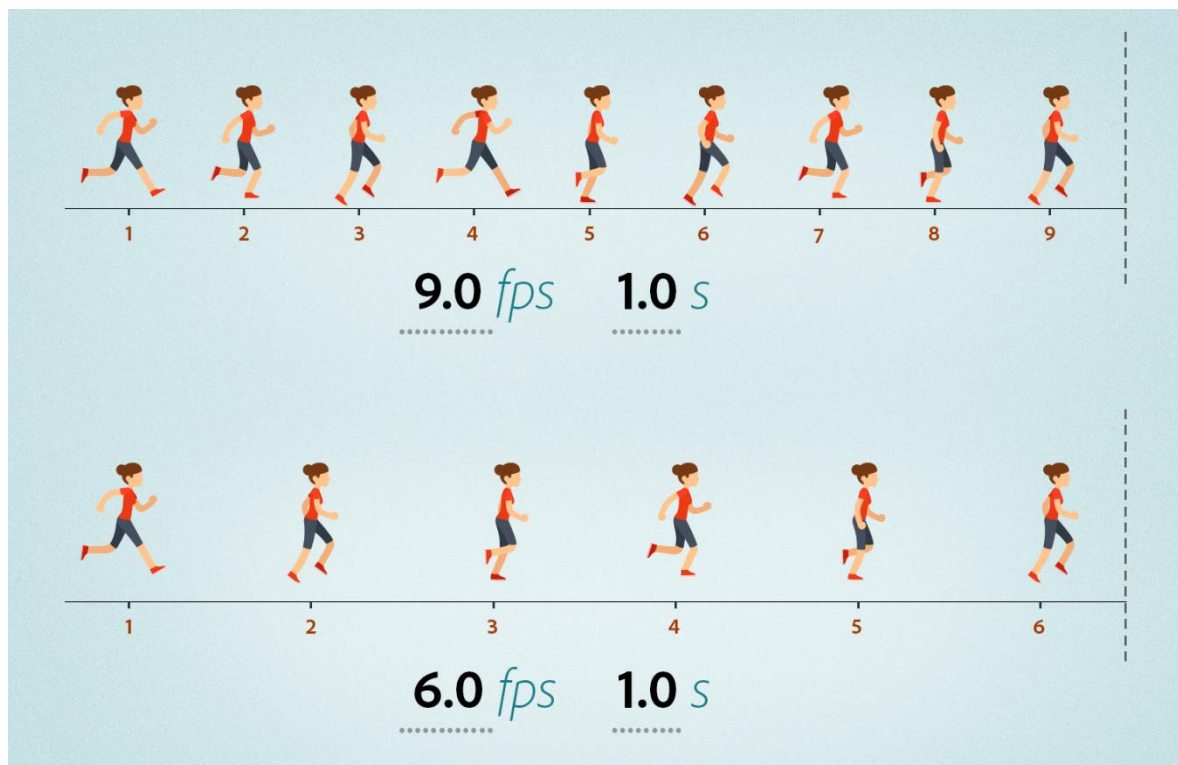
Analog Signal

VS

Digital Signal



3 Different media elements



frame rate	帧率	still a.	静止的
fps	frame per second		

3 Different media elements

- Latest video compression software **makes it possible** to **compress** the digitized video clips **to its maximum**.
- 最新的视频压缩软件可以最大限度地压缩数字化视频片段。
- Caution should be taken while **digitizing** the video from analog source to avoid frame dropping and distortion.
- 当从模拟源**数字化**视频时，应注意避免帧丢失和失真。

make it possible	让它成为可能	compression	n. 压缩

3 Different media elements

- Currently, video is good for: **promoting** television shows, films, or other non-computer media that traditionally have used trailers in their advertising; **giving** users an impression of a speaker's personality; **showing** things that move.
- 目前，视频有助于：推广电视节目、电影或其他非计算机媒体，这些媒体传统上在广告中使用预告片；给用户演讲者个性的印象；显示移动的事物。
- Product demos of physical products are also well suited for video.
- 实物产品的产品演示也非常适合视频。

demo n.	演示		
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3 Different media elements

- Incorporation of audio is one of the most important features of multimedia, which enhance the multimedia usability to its full potential.
- 加入音频是多媒体最重要的特征之一，它充分发挥了多媒体的可用性。
- All these can be used in any combination as long as they give some meaning to their inclusion in multimedia.
- 所有这些都可以任何组合使用，只要它们为它们所在多媒体赋予了一些意义。

life	活力	static state	静态

