

## KEYWORD LISTINGS

### INTRODUCTION TO MULTIMEDIA

- Hypermedia = user provided structure of linked element for navigation
- Linear = non interactive multimedia (montage, video)
- Non linear = interactive multimedia - user given navigational control and user interactive
- Authoring tools = merge multimedia element into a project
- method delivering multimedia (VR, Broadband internet, primary media)

### TEXT

- Typeface = family of graphics character with many type size and styles(Verdana)
- Font = collection of characters of single size and style belong to particular typeface(Verdana 20 points)
- Font styles = boldface , italic, underlining
- Font size = measure in points
- Kerning = spacing between character pairs
- Leading = spacing between line
- Interpunct = placing uppercase letter in the middle of word
- serif = little decoration at the end of letter stroke
- sans serif = do not have serif at the end of letter stroke
- symbols = concentrated text in form of stand alone graphic construct
- Button = clickable object that executed command when activated
- Portrait = taller than wide
- Landscape = wider than tall
- Hypertext Markup Language(HTML) use tags, it is standard document format
- Dynamic Hypertext Markup Language(dhtml) used as Coding Style Sheet (CSS)
- Post Script(type 3 and type 1) = describing image in term of mathematical construction
- True Type (apple and microsoft) = scalable outline fonts and can draw characters at low resolution
- Open Type (Adobe and Microsoft) = incorporates the best features of PostScript and TrueType
- Unicode = 16 bits architecture for multilingual text
- Links = connection between conceptual element
- Nodes = Accessible topics, document and message
- Anchors = reference from one document to another document, image,sound, file
- End Node = destination node linked to anchor

### IMAGE

- Bitmap= bit means simplest element, only 2 digits used
- Modelling = placing all element into 3D space
- Extrusion = shape of plane surface extend some distance
- Lathing = profile of shape is rotate around defined axis
- Rendering = intricate algorithm to apply user specify effect
- Panoramas = image created by stitching sequence of photos around a circle and adjusting them into seamless bitmap

- Light comes from atom where electron passes from higher to lower energy level
- Additive color = RGB for tv and computer monitor
- Subtractive color = cyan, magenta, yellow (combine color such as paint and ink)
- Monitor specific color = color used to the target audience
- RGB model = 24 methodology color ranging from 0 to 255
- HSB and HSL = color specified angle from 0 to 360 on color wheel
- color palettes = mathematical table that define color pixel display on screen
- Dithering = Pixel changed to the closest matching color using mathematical algorithm
- Macintosh (PICT format)
- Window (DIB and BMP, TIFF, PCX)
- Cross platform format = JPEG, GIF, PNG

## SOUND

- Vibration in the air create waves of pressure that are perceived as sound
- Acoustics = branch of physics that study sound
- Digital audio = device independent
- MIDI Audio = device dependent
- Trimming = remove dead air
- splicing = remove extraneous noises
- volume adjustment = select all the data in file and raise or lower the overall volume by certain amount
- working on multiple tracks = being able to edit and combine multiple tracks
- size monophonic =  $\text{sampling rate} \times (\text{bit resolution}/8) \times 1$
- size stereo recording =  $\text{sampling rate} \times \text{duration recording in seconds} \times (\text{bit resolution}/8) \times 2$
- File format for Macintosh = AIFF ,AIFC
- File format for windows = WAV
- Linear Pulse Code Modulation used for Red Book Audio Data files on consumer grade music

## ANIMATION

- Animation = act of making something alive
- Animation possible because of the biological phenomenon known as persistence of vision and psychological phenomenon called phi
- 2D space = simple and static
- 2 1/2 space = depth is created through shadowing, highlighting and force perspective
- 3D space = complicated and realistic animation
- cel animation = technique which series of progressively different graphic used on each frame of movie film
- Tweening = depict the the action that take place between keyframe
- keyframe = first and last frame of action
- Kinematic = study of movement and motion of structures that have joints
- inverse kinematics = process of linking object , define relationship and limit
- morhing = still or moving image is transform to another
- GIF89a = allow multiple image to be put into single file and display as animation web browser

## VIDEO

- Video = excellent tool for delivering multimedia
- digital video replaced analog video
- Charged Coupled Device (CCD) = converted light reflected from object through camera lens into electric signal
- time stretching = alter length in time without changing its pitch
- color cycling = color of image rapidly alter according to formula]

## ANALOG VIDEO

- Video recorded into magnetic tape
- video frame are interlaced

## ANALOG DISPLAY STANDARD

### 1) NTSC

- Define method for encoding information into electronic signal that produce television picture
- scr resolution of 525 horizontal line and scan 30 frame per second

### 2) PAL

- Scr resolution of 625 horizontal and scan 25 frame

### 3) SECAM

- Resolution of 625 horizontal and 50 Hz system
- SECAM differ from NTSC and PAL in broadcast method

## DIGITAL VIDEO

- Output digitized by camera into sequence of single frame
- Video and audio data compressed b4 digitally stored or being written to a tape

### 1) Multiple HDTV format exist( resolution vary)

- HDTV aspect of 16:9

### 2) CRT and LCD display

- Interlacing and progressive scan technology
- 1024\*768
- Overscan and save title area

## DIGITAL VIDEO CONTAINER

### 1) DIGITAL VIDEO ARCHITECTURE

- Consist of format encoding and playing back video files by computer
- Include player that can recognize and play files created for that format

### 2) CODE cs

- Algorithm used to compressed code a video for delivery
- Decodes the compressed video in real time for fast playback

- Streaming audio and video start playback after enough data has transferred to users computer
- MPEG is real time video compression algorithm
- MPEG-4 include numerous multimedia capabilities and preferred standard

## SHOOTING AND EDITING VIDEO

### 1) Shooting platform

- used external microphone
- know features of camera
- decide ratio up front

### 2) STORYBOARDING

- Successful video require planning

### 3) LIGHTING

- Always strive for adequate lighting

### 4) CHROMA KEYS

- Blue screen or chroma keys used to superimpose subject over different background

### 5)COMPOSITION

- Used close up and medium shots when possible
- Adjust white balance
- Consider delivery medium when composing shot

### 6) TITTLE AND TEXT

- Used plain, san serif fonts that easy to read
- Choose color wisely
- Leave tittle on screen long enough so that they can be read

### 7) NON LINEAR EDITING

- High end software has steep learning curve (adobe premier, avids media composer, apples final cut
- Simple editing software are free with operating system(microsoft windows live movie maker, apple imovie)

most video being done using non linear editing such as Avid, premiere and final cut