

Objective 104.02

Understand digital animation production methods, software, and hardware.



Course Weight : 10%



ExplorNet CareerTech

from The Centers for Quality Teaching and Learning





Animation Production Methods

Three Phases for Producing Digital Animations :

1. Pre-Production

define parameters of the project and make preliminary decisions

2. Production

work in an animation software to create a digital animation

3. Post-Production

optimize the animation output file for specific client needs



1. Pre-Production

- ✓ Determine the overall **purpose** of the project
- ✓ Define the intended **target audience**
- ✓ Use a **storyboard** to determine sequence of events in the animation and provide client with a visual representation of ideas



1. Pre-Production (continued)

- ✓ Determine specific **hardware** needs
 - Computer
 - Still Photo Camera (*for stop-motion animation*)
 - Graphic Tablet
 - Scanner



1. Pre-Production (continued)

- ✓ Determine specific **software** needs
- **2-D Animation Software**
animates relatively simple drawings or graphics on a 2-D canvas (*ex : Adobe[®] Flash*)
- **3-D Animation Software**
animates complex, life-like 3-D models that interact with an artificial environment (*ex : Cinema4D or 3D Studio Max*)



2. Production

- ✓ **Import** existing graphics, audio, and/or video into library of animation project
- ✓ **Draw or create** original graphics and place them on independent layers
- ✓ **Animate the objects** according to the storyboard



2. Production (continued)

Animation Editing Terms :

- Frame

still image that creates animation when viewed in succession

- Keyframe

specified place in the animation where change occurs

- Tween

animation process that occurs between keyframes

Motion Tween : used to make an object smoothly transition from a defined starting position to a defined ending position

Shape Tween : used to make an object gradually morph or change shape



2. Production (continued)

Animation Editing Terms : (continued)

- **Library**
collection of graphics, audio, and video files utilized in a particular animation project
- **Symbol**
an object stored in the library of a project that can be quickly accessed and used repeatedly throughout the animation
- **Shape**
a simple object drawn on the stage of an animation
- **F.P.S. (Frames Per Second)**
unit of playback speed of an animation



2. Production (continued)

Animation Editing Terms : (continued)

- Alpha

transparency value of object in animation; normally used to make an object gradually fade in or fade out

- Anchor Point

rotation axis of an animated spinning object

- Scene

a division of frames used to separate different parts of an animation to make editing and playback easier to organize



3. Post-Production

Optimize the animation output file for specific client needs, including :

- ✓ Primary use of animation
- ✓ File size requirements
- ✓ File format requirements



3. Post-Production (continued)

Common Animation File Formats :

Animated .GIF

- supports only frame-based animation
- simplest way to display short animation clips
- only animation format that cannot play audio

.SWF

- standard animation format for use on the Internet
- can support frame-based or vector animation
- supports ActionScript coding, allowing for user interactivity
- relatively small file size

.MOV

- converts an animation to a video file
- can be imported and edited by a video editing software
- used for television broadcasting



3. Post-Production (continued)

Common Animation File Formats : (continued)

.FLV

- video format that uses the Adobe® Flash Player for animation playback
- standard format for embedded video on the Internet

.FLA

- native project file used by Adobe® Flash
- preserves the project's layers, scenes, and library for future editing
- can only be opened or edited by Flash

