

Animation



Basic Concepts



ExplorNet CareerTech

from The Centers for Quality Teaching and Learning





Animation in Multimedia

What is animation?

- ✓ Animation is movement of graphics or text





Animation in Multimedia

Some common uses of animation include:

- ✓ Advertising
 - Example: Web site advertisements that are animated to attract attention
- ✓ Information
 - Example: Kiosk for directions or information
- ✓ Education
 - Example: Tutorials using animated graphics for demonstration





Animation in Multimedia

Uses of animation (cont.):

- ✓ Games
 - Example: Games using animation to simulate action
- ✓ Websites
 - Example: Animated navigation button that changes when the cursor passes over it (rollover)





Animation in Multimedia

Types/Categories of Animation:

- ✓ Frame-Based (Flip book) – Animation of a series of continuous frames, where each frame shows the graphic moved slightly in position each frame to create a continuous motion when placed together with all frames.





Animation in Multimedia

Types/Categories of Animation (cont.):

- ✓ Vector (Path) – Animation where the movement is defined by computer generated formulas to create paths of movement
 - Small file size with clean images
 - Utilizes tweening of keyframes
- ✓ 2 Dimensional (2D) – Animation exists in two dimensions. Has a flat look in appearance
 - Example: Simpsons or Family Guy cartoons





Animation in Multimedia

Types/Categories of Animation (cont.):

- ✓ 3 Dimensional (3D) – Animation exists in three dimensions
 - Has depth, and more realistic in appearance
 - Example: Video games like Halo or Madden or 3D movies





Animation in Multimedia

Common Animation Formats:

- ✓ Animated GIF
- ✓ SWF
- ✓ MOV
- ✓ AVI





Animation Formats

Animated GIF:

- ✓ Pronounced je-if
- ✓ .gif file extension
- ✓ A bitmap file format often used on the Internet
- ✓ A series of individual GIF frames joined together to create animation
- ✓ Used for small animations and low-resolution film clips
- ✓ Easiest way to create and view simple animations
- ✓ Supports frame-based animation





Animation Formats

SWF:

- ✓ Pronounced swa-if
- ✓ .swf file extension
- ✓ The dominant format for displaying animated vector graphics on the Web
- ✓ Used in programs and games with Actionscripting





Animation Formats

MOV:

- ✓ Pronounced moo-v
- ✓ .mov file extension
- ✓ Developed by Apple computers for Quicktime video player
- ✓ Also known as Quicktime movie or movie format
- ✓ Used for streaming





Animation Formats

AVI:

- ✓ Pronounced a-v-i
- ✓ .avi file extension
- ✓ Developed by Microsoft computers for Windows media video player
- ✓ Not good for streaming





Editing Animation

Animation editing programs have features for creating animations to include:

- ✓ Importing resources
- ✓ Drawing
- ✓ Scaling (Resizing)
- ✓ Layering
- ✓ Keyframing
- ✓ Tweening





Editing Animation

Animation editing programs have features for creating animations that include (cont.):

- ✓ Anchor point adjustment
- ✓ Transitions





Animation in Multimedia

Creating Animation:

- ✓ Importing resources – Bring files or images into the animation software to animate
- ✓ Drawing – Use of mouse or graphic tablet with stylus to sketch or draw images to animate
- ✓ Scaling (Resizing) – Changing the size of the image in width and height





Animation in Multimedia

Creating Animation:

- ✓ Layering – Technique used to separate images from other images. In order to make adjustments to individual items, each item must be on a separate layer.
- ✓ Keyframe – Intermediate frames that blend so one appears to change into the next. The point where a change occurs in the animation.





Animation in Multimedia

Creating Animation:

- ✓ Tween – Animation process, or change that occurs between keyframes.
- ✓ Anchor point – Axis or point of rotation. Spot where rotation spins from.
- ✓ Transition – Change from one scene to the next





Animation in Multimedia

Creating Animation

- ✓ Rollover – Animation of two or more images that switch when the cursor moves over that image or navigation button
- ✓ Morphing – Transformation of one thing into another





Animation in Multimedia

Virtual Reality:

- ✓ Animation technology that allows a user to immerse and interact with an artificial, realistic environment





Animation Equipment

Types of equipment utilized in animation:

- ✓ Cameras
 - Digital photo
 - Video
 - Stop motion
 - Motion picture
- ✓ Computers – hardware and animation editing software





Animation Equipment

Types of equipment utilized in animation
(cont.):

- ✓ Scanners
- ✓ Drawing tablets – used to draw images and sketches with a stylus (pen) and tablet





Animation Review

What to know?

- ✓ What is animation?
- ✓ How is animation utilized?
- ✓ What are the types or categories of animation?
- ✓ What are the types of animation file formats?
- ✓ Editing features of animation software
- ✓ Equipment used in digital animation

