

# Animation



## *Basic Concepts*



**ExplorNet CareerTech**

*from The Centers for Quality Teaching and Learning*

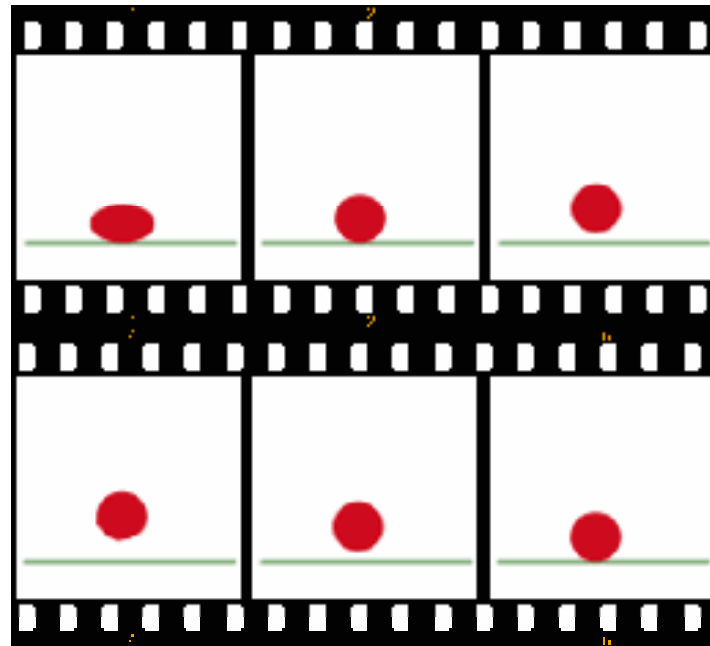




# Animation in Multimedia

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.

- *Example: Cartoons such as Scooby Doo, The Simpsons or Family Guy*





# 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 extention
- ✓ 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
- ✓ 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 Do You Need 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

