

# **PROGRAMMING**

CSCI-E11 • Digital Multimedia Art • Roy Pardi

# OVERVIEW

- Hackers & Painters
- Art programming
- Culture, metaphor and language

# SURVIVAL ACTIONSCRIPT

- ActionScript 2
- Timeline Navigation

play();

stop();

gotoAndPlay(*frame number or name*);

gotoAndStop(*frame number or name*);

nextFrame();

prevFrame();

# **SURVIVAL ACTIONSCRIPT**

The Flash scripting environment

- Actions window
- Syntax side panel
- Output window
- Compiler error window
- Movie Explorer
- (AS 2) Behaviors & Script Assist
- Help window (don't forget this one!)

# SURVIVAL ACTIONSCRIPT

- Targeting movieClips: you can control main timeline or the timeline of any nested movieClip

```
gotoAndPlay("central")
```

```
movieClipName. gotoAndPlay(frame or label)
```

```
names_mc. gotoAndPlay("central")
```

# **SURVIVAL ACTIONSCRIPT**

## Paths

`_root` or `_level0`  
`_root.names_mc`

Absolute path: full path from `_root`  
`_root.names_mc`

Relative path: path relative to parent clip:  
`this.names_mc`

Use Target selector to determine path

# **SURVIVAL ACTIONSCRIPT**

## ActionScript 2:

- scripts can be attached to frame or objects
  - frame scripts execute when the playback head enters the frame
  - object scripts execute when triggering event occurs



# PROGRAMMING CONCEPTS

- Personifying (programming metaphors)
- Algorithmic thinking
- Pseudo code
- programming = instructions
- Invent a programming approach that works for you

# PONG

- List the elements/objects/characters
- Describe their behaviors
- Who is in control?

# PROGRAMMING CONCEPTS

- Elements of most scripting/programming languages:
  - Data types
  - Operators
  - Conditional logic
  - Loops
  - Variables
  - Data structures (mainly arrays in AS)
  - Functions
  - Events & event handling
  - Objects (instances, methods, properties)
  - Comments

# BUGS

- Most common causes of “bugs” & issues
  - typos and case issues
  - not having a clear analysis of the task
  - forgetting real life knowledge
  - not seeking help (syntax)

# PROGRAMMING CONCEPTS

- Styles or types of programming
  - procedural
  - object-oriented
- Program flow: who is in control?