

Art 382: Introduction to Interactive Media

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Lecture 11, March 25

Schedule

- Take Roll
- Assignment B
- Exporting
- Sound
 - Lip-synch

Assignment B

1. Questions?
2. Bring in your backstories next time
 1. Be further along than that!
 2. B is a lot of work!
 3. Don't start next week! Yikes!

publishing

- how to make a web page from a .fla
- "save" and "save as" make .fla
 - this format is native to flash
 - for your project
 - not what you want
- "export"
 - enables saving of single frames
 - jpg, eps available here
 - again, no

file->publish

- makes a .html, a .swf, and a .js
- the .html is the frame; allows browsers to view the .swf
- the .js is a JavaScript file
 - enables playback
 - you don't have to learn JavaScript now
- to put online, put all 3 in the same directory and link
 - you could also modify the page, or embed the Flash player in other pages

looking at the generated .html

- big, weird-looking
- find familiar objects:
 - `<html>`
 - `<head>`
 - `<body>`
 - `parameters="with values in quotes"`
 - `bgcolor`, `width`, `height`, `align` -- tweakable!
 - look for the name of your `.fla`
- it's html, with an "object"

Sound

- Flash can play .mp3, .aiff, .wav
 - lots of kinds of .wav; can't play them all
 - nothing can!
 - flip side of annoying standards body-- no standard!
 - export it from something Adobe or Apple, prolly ok

two kinds of sound in flash

- differ by intended role in your .swf
- classified as "event sounds"
 - to be played when buttons are pushed
 - short! < 2 seconds
 - played over and over, maybe many at once
- classified as "streaming sound"
 - background sound
 - long
 - played one-at-a-time

event sounds

- short sounds
- playback can't be stopped once started
 - who cares? they're short!
- starting is quick
 - user interface elements use these
 - UI elements must be responsive!
 - got whole thing in memory
 - don't have to load from disk
 - or wait for download
 - OTOH, makes file bigger

streaming sounds

- background music
- may be lag in starting and stopping
 - who cares? not part of UI, right?
 - bad for dialogue!
 - separate speech from background music
 - speech not handled well in flash
- smaller RAM footprint
 - uses a buffer
 - forgets early part of sound as soon as played

bringing in sound

- import to library
 - drag sounds onto the library
- double-click its symbol to see properties
 - note "update"; reloads sound
 - if the sound is large, recompress here
 - fewer samples = worse sound, smaller file
 - more samples = better sound, bigger file
- sound is ready for use as symbol

adding a sound

- make an audio layer
- make a keyframe on it
- set the time to that frame (select that keyframe)
- drag&drop the sound symbol onto the stage
- sound is attached to key
- moving key moves the sound

sound properties

- select sound's key
- "sync" can be "event" or "stream"
 - you want stream, for now.
- note also limited "effect" palette
 - more complex? edit the sound elsewhere, re-import

practice!

- download and save the .wav and .mp3's
- make a .fla
- make a simple animation
- make a sound layer
- add a keyframe
- drop sound onto STAGE
- scoot sound around

lip-synch

- mouth animations that make the character look like he/she/it is talking
- phoneme = the sounds of speech
 - not the same as letters
 - accents are different, too!

visemes

- viseme = a shape that your mouth makes as you speak
- corresponds roughly to current phoneme
 - the look of "m"
 - the look of "f"
 - the look of "oo"
 - reading lips works!
- lip-synch = viseme animation

the art of lip-synch

- decide on a set of visemes
 - an art to that!
- draw the visemes
 - got to have a character first!
 - drawing the character saying a sound
 - rough!
 - look out for emotional expressions
 - number of face poses =
number of visemes * number of emotions
- animate-- from one pose to next

which visemes are important?

- keep your goals in mind!
 - you don't need to enable lip-reading
 - only enough to make it look like talking
 - do less work!
- some phoneme-viseme pairs are more important
 - loud sound = mouth open
 - "m", "f", "v", "b" "p" = mouth closed
 - "o" "w" = mouth narrow
 - "l" = tongue visible

Neal's minimal set

- no academy awards
- open, closed and medium
- medium narrow, medium wide
- multiply by emotions, head angles

setting up in flash

- make a head
- make 6 mouth symbols
 - open, closed, medium, medium wide, medium narrow
- bring in sound
 - default = medium
 - p, m, b, f, end-of-speech = closed
 - w, oo, = narrow
 - ee, short i = wide

lip-synch examples

- cookie monster
 - open-shut-medium
 - makes up for it with emphasis
 - rule of thumb (Henson) : one mouth flap per syllable
 - Henson died rich, you know
- wallace and grommit
 - open-shut-medium-ooo-britishTeeth-toungue
 - the essence of their charm
- Finding Nemo : watch the angel fish!