Today’s Lecture
- Lecture Feedback
- C# Tips / Tricks
  - Drag / drop
- Continue
  - Human Information Processing

Reminders
- Blog Post (Week)
- Homework 5
- Project 3

Discuss
- Consistent UI
  - Good or bad?
  - Compare / contrast
    - Apple iPhone / iPod Touch
    - Android
    - Symbian
    - Windows Mobile

Customizable UI - Android
http://vimeo.com/7670834

Surface Units
- Simulator
  - Installed on each of the multi-touch
  - Also on the Macs via the VM
- Community website
  - Homepage of Internet Explorer
  - Login is striegel@nd.edu
    - Don’t post!
    - Automatically saved
Drag / Drop Surface

- Shopping Cart in the SDK
  - All Multi-Touch, Macs, Dev unit
- Solution: DragDropScatterView
  - Borrow this class
  - Extension of scatter view class
- Remember
  - Background
  - AllowDrop
  - or just use the above class 😊

Receiver - Easier

- LibraryBar
  - Will create the object to drag out
  - Whew!
- Task
  - How do we react to the newly dropped object?
    - AllowDrop property
    - Drop event handler

Design Qualities

- Visually pleasing
  - Balance
  - Symmetry
  - Regularity
  - Predictability
  - Sequentiality
  - Economy
  - Unity
  - Proportion
  - Simplicity
  - Groupings

Instability

Balance
Balance
- Equal weight of elements
  - Left to right
  - Top to bottom
- Heavy vs. light
  - Dark colors, unusual shapes, larger objects -> heavier
  - Light colors, regular shapes, small objects -> lighter

Symmetry
- Symmetry creates formal balance
- Can be balanced without symmetry
- Symmetry
  - More compressed / compact
- Asymmetric
  - Perceived as larger
Asymmetry

- Standard / consistent spacing
- Horizontal / vertical alignment points
- Similar
  - Element size
  - Shapes
  - Colors
  - Spacing

Regularity

- View one screen
  - Predict the next one
- Spontaneous
  - No plan
  - Unpredictable

Irregularity

Predictability

- Consistent / follow conventional order
- View one screen
  - Predict the next one
- Spontaneous
  - No plan
  - Unpredictable

Predictability

- View one screen
  - Predict the next one
- Spontaneous
  - No plan
  - Unpredictable
Spontaneous

Icon  Control  Control  Button

Control  Button  Control

Icon  Control  Control

Menu Bar  Button  Icon

Sequentiality

- Logic, rhythm
- Eye attraction
  - Brighter vs. less bright
  - Isolated before elements in a group
  - Graphics before text
  - Color before black / white
  - Highly saturated colors vs. less
  - Dark areas before light areas
  - Big element before small
  - Unusual shape vs. usual one
  - Big objects vs. little objects

Dum de dum dum dum dum

Sequentiality

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Randomness

Economy

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- Limit
  - Styles
  - Display techniques
  - Colors
- Frugal, judicious
- Opposite is intricacy
Economy

Intricacy

Unity

Fragmentation

Proportion

- Use similar sizes, shapes, colors
- Leave less space between elements vs. space left at margins

- Use aesthetic proportions (Markus 92)
  - Square (1:1)
  - Stability / permanence
  - Square root of two (1:1.414)
  - Book design
  - Golden rectangle (1:1.618)
  - Early Greek architecture
  - Square root of three (1:1.732)
  - Narrowness gives distinct shape
  - Double square (1:2)
  - Higher ratio is difficult to sense
Proportions

- Letter paper
  - 1:1.29
- TV
  - 1:1.33
- CRT / LCD
  - 1:1.33 to 1:1.50

Questions?