Graphic Design

Graphic Design
Design Philosophies
Graphic Design Principles
Economy of Visual Elements
Coding Techniques
Typography
Fonts
Color
Icon Design

Graphic Design

The "look & feel" portion of an interface

What someone initially encounters

– Conveys an impression, mood

Design Philosophies

My personal preferences:

– Economy of visual elements

– Less is more

– Clean, well organized

Graphic Design Principles

- Metaphor
- Clarity
- Consistency

- Alignment
- Proximity
- Contrast

Metaphor

Tying presentation and visual elements to some familiar relevant items

- **e.g., Desktop metaphor**
- **If you're building an interface for a grocery application, maybe mimic a person walking through a store with a cart**

Example   **Overdone?**

`www.worldwidestore.com/Mainlvl.htm`

Clarity

- **Every element in an interface should have a reason for being there**
  - **Make that reason clear too!**
- **Less is more**
- **White space**
  - **Leads the eye**
  - **Provides symmetry and balance through its use**
  - **Strengthens impact of message**
  - **Allows eye to rest between elements of activity**
  - **Used to promote simplicity, elegance, class, refinement**

Example
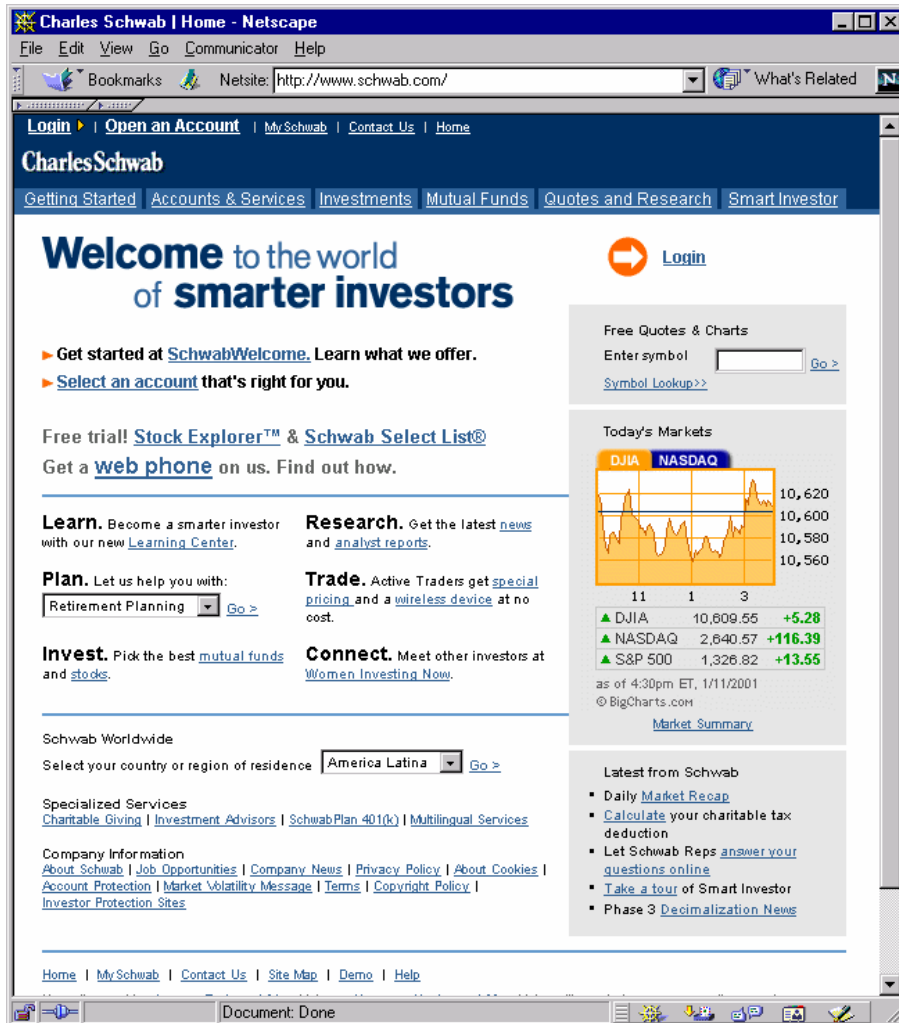
www.schwab.com

Clear, clean appearance

Opinion?

Consistency

- **In layout, color, images, icons, typography, text, …**
- **Within screen, across screens**
- **Stay within metaphor everywhere**
- **Platform may have a style guide**
  - **Follow it!**

Example

`www.santafean.com`
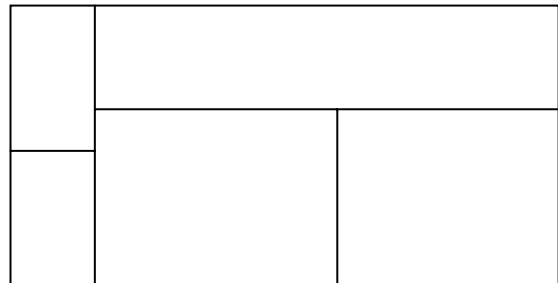

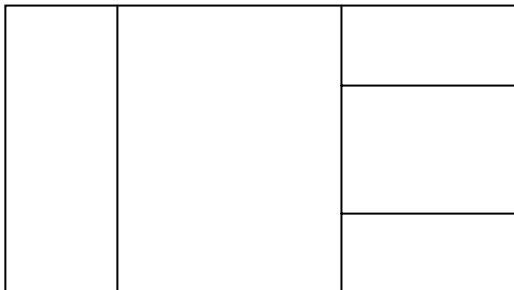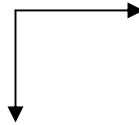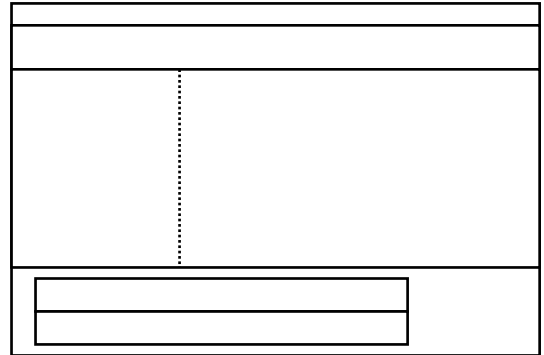Home page   Content page 1   Content page 2

Alignment

- **Western world**
  - **Start from top left**

- **Allows eye to parse display more easily**
- **Grids**
  - **(Hidden) horizontal and vertical lines to help locate window components**
  - **Align related things**
  - **Group items logically**
  - **Minimize number of controls, reduce clutter**
- **Grids - use them**

Grid Example

Alignment

- **Left, center, or right**

Here is	Here is	Here is
some	some	some
new text	new text	new text

- **Choose one, use it everywhere**
- **Novices often center things**
     - **No definition, calm, very formal**

Proximity

- **Items close together appear to have a relationship**
- **Distance implies no relationship**

Time [   ]

Time: [   ]

Name [   ]

Addr1 [   ]

Addr2 [   ]

City [   ]

State [   ]

Phone [   ]

Fax [   ]

Name [   ]

Addr1 [   ]
Addr2 [   ]
City [   ]
State [   ]

Phone [   ]
Fax [   ]

Name [   ]

Addr1 [   ]
Addr2 [   ]
City [   ]
State [   ]

Phone [   ]
Fax [   ]

Contrast

- **Pulls you in**
- **Guides your eyes around the interface**
- **Supports skimming**

- **Take advantage of contrast to add focus or to energize an interface**
- **Can be used to distinguish active control**

- **Can be used to set off most important item**
  - **Allow it to dominate**

- **Ask yourself what is the most important item in the interface, highlight it**
- **Use geometry to help sequencing**

Important element
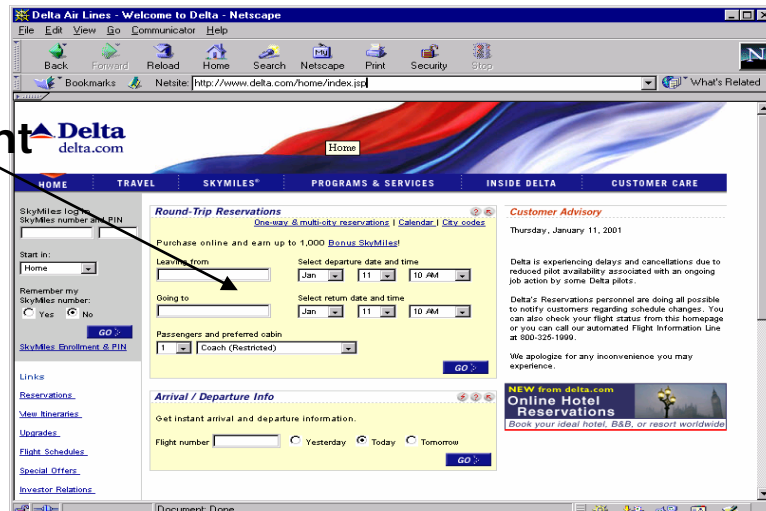
`www.delta.com`

Economy of Visual Elements

- **Less is more**
- **Minimize borders and heavy outlining, section boundaries (use whitespace)**
- **Reduce clutter**
- **Minimize the number of controls**

Coding Techniques

- **Blinking**
  - **Good for grabbing attention, but use very sparingly**
- **Reverse video, bold**
  - **Good for making something stand out**
  - **Again, use sparingly**

Typography

- **Characters and symbols should be easily noticeable and distinguishable**
  - **Avoid heavy use of all upper case**
  - **Studies have found that mixed case promotes faster reading**

HOW MUCH FUN IS IT TO READ ALL THIS TEXT WHEN IT'S ALL IN CAPITALS AND YOU NEVER GET A REST	How much fun is it to read all this text when it's all in capitals and you never get a rest

- **Readability**
  - **How easy is it to read a lot of text**
- **Legibility**
  - **How easy is it to recognize a short burst of text**
  - **Typeface = font
    (not really, but close enough)**

Typography

- Serif font - readability
- Sans serif font - legibility
        (both are variable spaced)

- Monospace font

Fonts

- Serif
  - Times, Bookman

- Sans serif
  - Tahoma, Arial

- Decorative
  - Comic Sans

- Script
  - Script

- Monospaced
  - Courier, Lucida

Guidelines

- **Use serif for long, extended text; sans serif for "headlines"**
  - **Use 1-2 fonts/typefaces (3 max)**
  - **Use of normal, italics, bold is OK**
  - **Never use bold, italics, capitals for large sections of text**
  - **Use 1-3 point sizes max**
  - **Be careful of text to background color issues**

Font Control

Which do you prefer?

CRAFTS AND GAMES
ARTS FESTIVAL
OF ATLANTA AND DECATUR

SEPTEMBER 19-24

COME AND ENJOY

Crafts and Games
Arts Festival
Of Atlanta and Decatur

September 19-24

Come and Enjoy!

Applies lots of these principles

Color

- **We see the world via a *reflective* color model**
  - **Light strikes a surface and is reflected to our eyes--Properties of surface dictate color**
  - **Printers**
- **Colors on display follow the *emitted* model**

- **On monitors, typically RGB scheme**
  - **0-255 value each red, green, blue**

  - **R: 170 G:43 B: 211**

- **Use it for a purpose, not to just add some color in**

Color Attributes

- **Hue**
  - **native color, pigment**
- **Saturation**
  - **relative purity, brightness, or intensity of a color**
- **Value**
  - **lightness or darkness of a color**

Color

Color Guidelines

- **Display color images on black background**
- **Choose bright foreground color (white, bold green,…)**
- **Avoid brown and green as background colors**
- **Be sure fg colors contrast in both brightness and hue with bg colors**
- **Use color sparingly--Design in b/w then add color where appropriate**
- **Use color to draw attention, communicate organization, to indicate status, to establish relationships**
- **Avoid using color in non-task related ways**

Color

Color Guidelines

Color is good for supporting search

- **Do not use color without some other redundant cue**
  - **Color-blindness**
  - **Monochrome monitors**
  - **Redundant coding enhances performance**
- **Be consistent with color associations from jobs and cultures**
- **Limit coding to 8 distinct colors (4 better)**
- **Avoid using saturated blues for text or small, thin lines**
- **Use color on b/w or gray, or b/w on color**
- **To express difference, use high contrast colors (and vice versa)**

Color

Color Suites

- **Designers often pick a palette of 4 or 5 colors**

  Professional

  Monochromatic

  Southwestern

Color Associations

- **Red**
  - **hot, warning, aggression, love**
- **Pink**
  - **female, cute, cotton candy**
- **Orange**
  - **autumn, warm, Halloween**

- **Yellow**
  - **happy, caution, joy**
- **Brown**
  - **warm, fall, dirt, earth**
- **Green**
  - **lush, pastoral, envy**
- **Purple**
  - **royal, sophisticated, Barney**

Icon Design

- **Design task**
- **Represent object or action in a familiar and recognizable manner**
- **Limit number of different icons**
- **Make icon stand out from background**
- **Ensure that singly selected icon is clearly visible when surrounded by unselected ones**
- **Make each icon distinctive**
- **Make icons harmonious members of icon family**
- **Avoid excessive detail**

What do each of these signify?

Almost always want to accompany your icons by a text label