

CSC420

Page Layout

Basics

- Visual Hierarchy
 - The most important content should stand out the most
 - Whitespace, bolding (text), color (text, image)...
- Visual Flow
 - What should I look at next?
 - Focal points
 - Perceived meaning changes flow (I'm here to read the tiny text, not stare at the huge flash ad)
- Grouping and Alignment
 - Put things close (and align them) to indicate they are related
 - Humans like order (is symmetry beauty?...)

(some of the) Gestalt Principles

- Proximity
 - Humans associate things that are close
- Similarity
 - Humans associate things that are similar (shape, orientation, color...)
- Continuity
 - Human eyes tend to follow continuous “curves” built of smaller elements
- Closure
 - Humans like seeing simple closed forms (rectangles, circles...) and associate smaller elements whose alignment resembles those

Dynamic Displays

- Gestalt is well-known and well-used for *static* content (billboards, posters, magazines, etc)
- Very little innovation in *dynamic* displays, despite the huge opportunities
- Dynamic is good:
 - Space usage
 - Scrollbars
 - Stacks, panes, etc
 - Provides another dimension (esp. with interactivity)
- Dynamic is bad:
 - Too little space (really a technology issue)
 - dpi
 - tradition of small screens
 - overused in a bad way (flashing red “CLICK ME” ads)

Page Layout Patterns

- Visual framework
- Center stage
- Titled sections
- Card stack
- Closable panels
- Movable panels
- Right/left alignment
- Diagonal balance
- Property sheet
- Responsive disclosure
- Responsive enabling
- Liquid layout

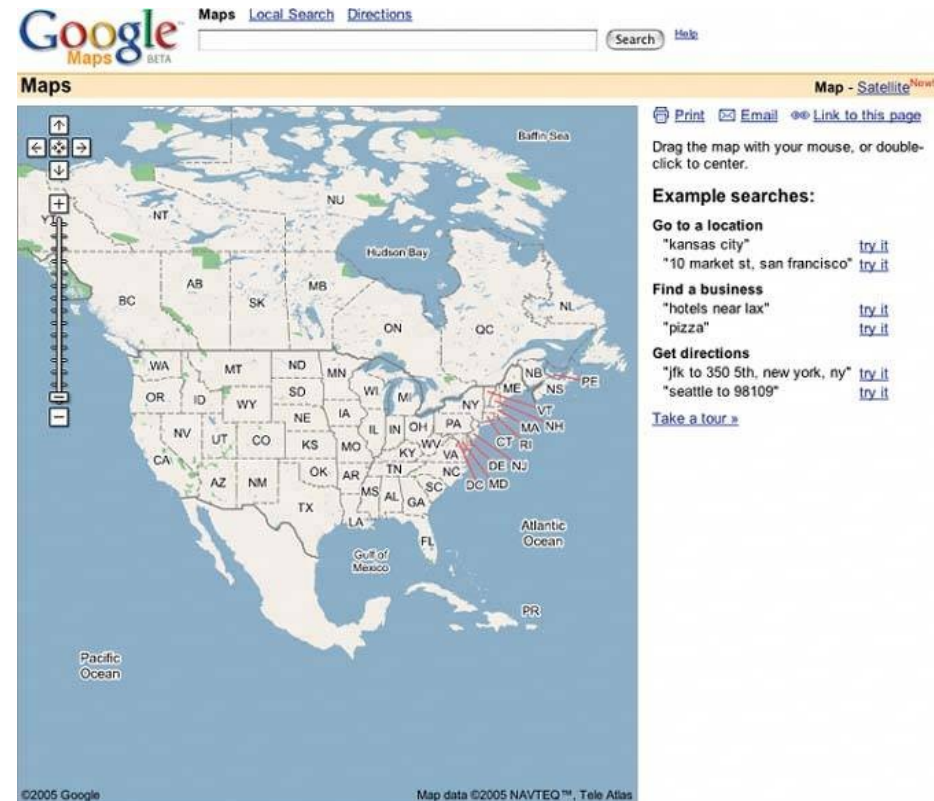
Visual Framework



- Design each page with the same basic layout (colors, style, etc) but allow for varying page content
- Consistency matters for navigation (and is generally good: consistency == order)

Center Stage

- Put the most important part of the UI into the largest subsection of the page or window; cluster secondary tools and content around it in smaller panels
- Leads to Clear Entry Points
- Establishes the purpose of the UI



Titled Sections

- Define separate sections of content by giving each one a visually strong title, and then laying them all out on the page together
- Makes info architecture obvious
- Guides the eye (which naturally looks for bigger patterns)

Constructor Summary	
<code>JButton()</code>	Creates a button with no set text or icon.
<code>JButton(Action a)</code>	Creates a button where properties are taken from the Action supplied.
<code>JButton(Icon icon)</code>	Creates a button with an icon.
<code>JButton(String text)</code>	Creates a button with text.
<code>JButton(String text, Icon icon)</code>	Creates a button with initial text and an icon.

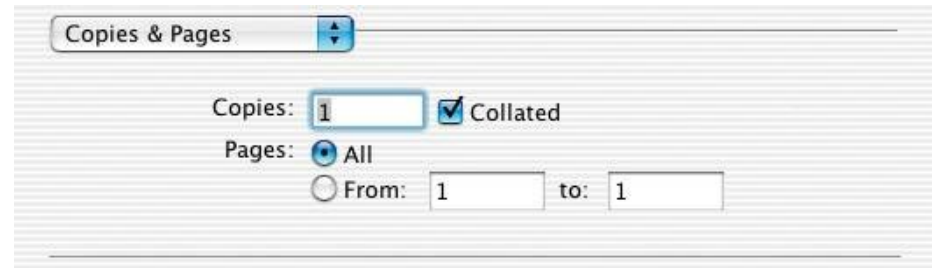
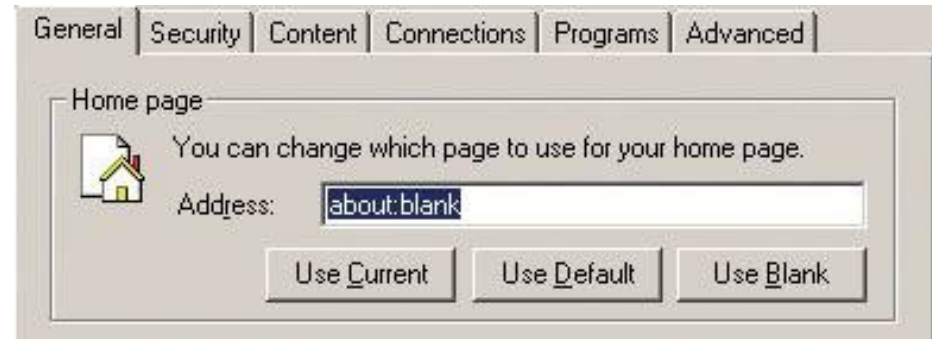
Method Summary	
protected void	<code>configurePropertiesFromAction(Action a)</code> Factory method which sets the <code>AbstractButton</code> 's properties according to values from the <code>Action</code> instance.
AccessibleContext	<code>getAccessibleContext()</code> Gets the <code>AccessibleContext</code> associated with this <code>JButton</code> .
String	<code>getUIClassID()</code> Returns a string that specifies the name of the L&F class that renders this component.
boolean	<code>isDefaultButton()</code> Gets the value of the <code>defaultButton</code> property, which if <code>true</code> means that this button is the current default button for its <code>JRootPane</code> .
boolean	<code>isDefaultCapable()</code> Gets the value of the <code>defaultCapable</code> property.
protected String	<code> paramString()</code> Returns a string representation of this <code>JButton</code> .
void	<code>removeNotify()</code> Overrides <code>JComponent.removeNotify</code> to check if this button is currently set as the default button on the <code>RootPane</code> , and if so, sets the <code>RootPane</code> 's default button to <code>null</code> to ensure the <code>RootPane</code> doesn't hold onto an invalid button reference.
void	<code>setDefaultCapable(boolean defaultCapable)</code> Sets the <code>defaultCapable</code> property, which determines whether this button can be made the default button for its root pane.
void	<code>updateUI()</code> Resets the UI property to a value from the current look and feel.

Methods inherited from class `javax.swing.AbstractButton`

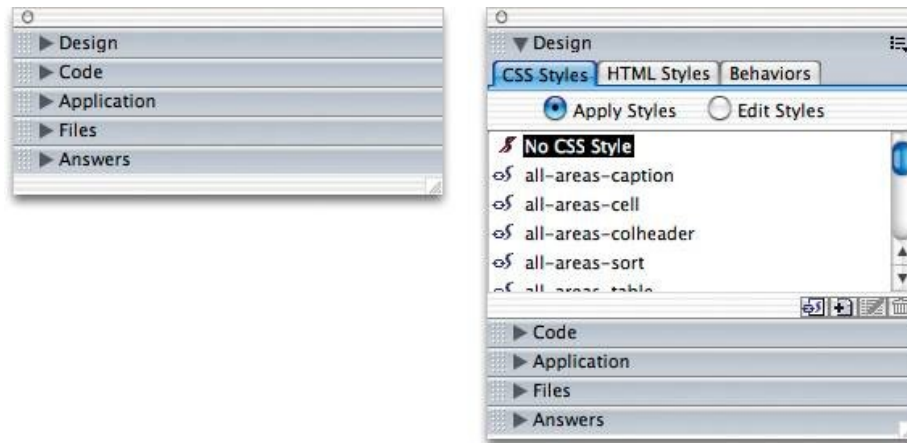
`addActionListener`, `addChangeListener`, `addItemListener`, `checkHorizontalKey`, `checkVerticalKey`, `createActionListener`, `createActionPropertyChangeListener`, `createChangeListener`, `createItemListener`, `doClick`, `doClick`, `fireActionPerformed`, `fireItemStateChanged`, `fireStateChanged`, `getAction`, `getActionCommand`, `getActionListeners`, `getChangeListeners`, `getDisabledIcon`, `getDisabledSelectedIcon`, `getDisplayedMnemonicIndex`, `getHorizontalAlignment`, `getHorizontalTextPosition`, `getIcon`, `getIconTextGap`, `getItemListeners`, `getLabel`, `getMargin`, `getMnemonic`, `getModel`, `getMultiClickThreshold`, `getPressedIcon`, `getRolloverIcon`, `getRolloverSelectedIcon`, `getSelectedIcon`, `getSelectedObjects`, `getText`, `getUI`, `getVerticalAlignment`, `getVerticalTextPosition`, `imageUpdate`, `init`, `isBorderPainted`, `isContentAreaFilled`, `isFocusPainted`,

Card Stack

- Put sections of content onto separate panels or "cards," and stack them up so only one is visible at a time; use tabs or other devices to give users access to them
- Tabs are very familiar (== “user-intuitive”)
- Structures content into easily digestible chunks

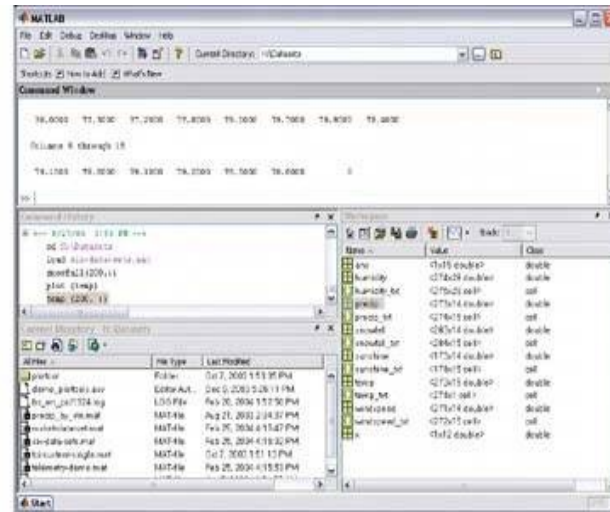
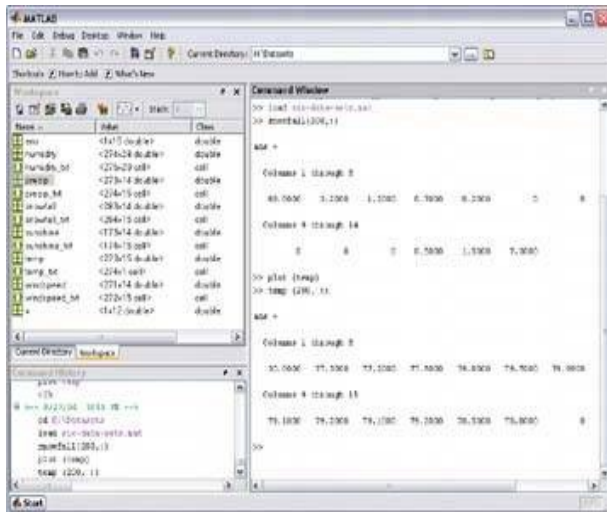


Closable Panels



- Put sections of content onto separate panels, and let the user open and close each of them separately from the others
- Too much stuff; users might want more than one at a time
- Extras on Demand
- Cost: not very familiar

Movable Panels



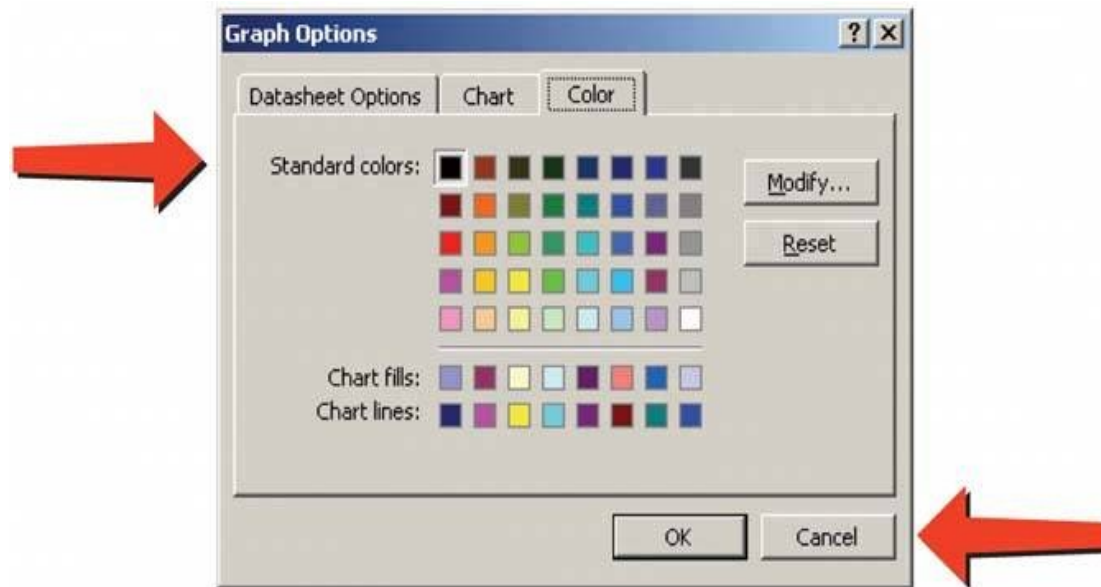
- Put different tools or sections of content onto separate panels, and let the user move them around to form a custom layout
- Use when sections are self-evident and won't benefit (much) from a rigid layout
- Allows users to assert their preferences

Right/Left Alignment

Method Summary	
<code>protected void</code>	<code>configurePropertiesFromAction(Action a)</code> Factory method which sets the <code>AbstractButton</code> 's properties according to values from the <code>Action</code> instance.
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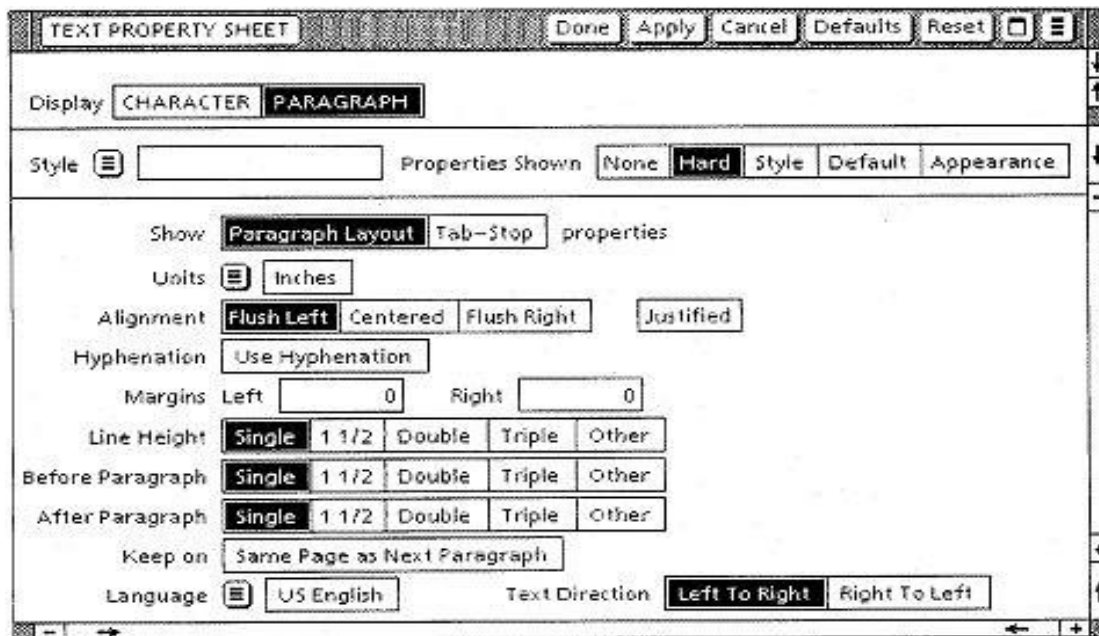
- When designing a two-column form or table, right-align the labels on the left, and left-align the items on the right
- Proximity (labels with controls); continuity (line down the middle)

Diagonal Balance



- Arrange page elements in an asymmetric fashion, but balance it by putting visual weight into both the upper-left and lower-right corners
- Beauty (symmetry); easy movement of the eyes (for left-to-right languages!)

Property Sheet



- Use a two-column or form-style layout to show the user that an object's properties are edited on this page
- Familiar; useful for mixing WYSIWYG with programming; helps users build a mental model of an object

Responsive Disclosure

Have you used TurboTax for the Web before?


Yes, I have used TurboTax for the Web before.

No, I am a new user.

Have you used TurboTax for the Web before?

Yes, I have used TurboTax for the Web before.

No, I am a new user.

 Sign In

User ID


Password

[Forgot ID?](#)

[Forgot password?](#)

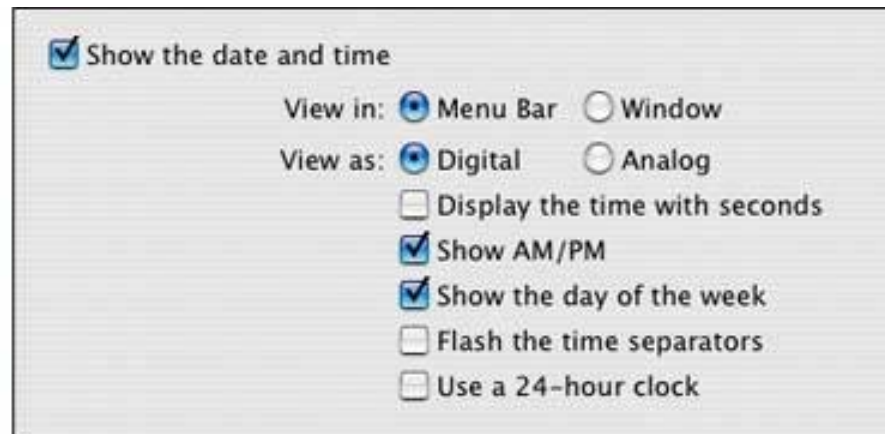
Remember my user ID on this computer

I have read and agree to the terms of the license agreement. [View agreement.](#)

 Sign In

- Starting with a very minimal UI, guide a user through a series of steps by showing more of the UI as he completes each step
- No context switches necessary (as in e.g., wizards) - everything unfolds on a single page

Responsive Enabling (Disabling)



- Starting with a UI that's mostly disabled, guide a user through a series of steps by enabling more of the UI as each step is done
- Allows the user to form a cause-and-effect model of the interface
- Unnecessary error messages are avoided (by locking out options)

Liquid Layout



- As the user resizes the window, resize the page contents along with it so the page is constantly filled
- Allows users to exert their preferences on the layout (page size, fonts, etc) without changing its flow