Menu Design Guidelines

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SWE 432
Design and Implementation of Software for the Web
Web Interfaces

• Web interfaces are composed of:
  – Menus
  – Forms
  – GUIs

• We will look at each of these 3 user interface types individually
Use Menus When ...

- A finite list of well-defined choices
- Users will understand choices without help
- Users need to be reminded what they want
Things to Consider

- Menu system structure
- Number of items
- Sequence of items
- Titles
- Prompts
- Phrasing of items
- Shortcuts
- On-line help
- Selection
Types of Menus

1. Binary
2. Multiple-item
3. Extended
4. Pop-up
5. Permanent
6. Multiple selection
1) Binary Menus

One of two choices can be made (Yes or No)

Are you a new customer? Open account

- Brief
- Concise
- But not descriptive

You may:
1. Open a new account
2. Login to an existing account

- More space
- Just as fast
- Instructions clear
- Results are clear
- Uses conversational dialogue, not stilted formalism
2) Multiple-item Menus

Only one item can be chosen

Do you want to:
- Withdraw
- Deposit
- Check Balance
- Quit

Touch your choice.
3) Extended Menus

One menu spanning two or more screens

1. _  2. _  3. _  4. _  Press the number of your choice or N for Next screen.

Title
Screen 1 of 2

5. _  6. _  7. _  Press the number of your choice or P for Previous screen.

• Titles must match.
• Screen numbering must be consistent.
• Choice labels must be unique across screens.
• 3 screens is a lot, 4 is too many.
4) Pop-Up and Pull-Down Menus

Menus that appear for one selection, then disappear

- Text must be short and concise
- If it needs a lot of text, don't use pop-up!
- Use for “ancillary” choices
5) Permanent

Pop-up menus that remain on the screen

- May be automatic or requested by the user
- Contains choices that are very common
- Use very little text
- Much like pop-up, but tasks are used frequently
6) Multiple Selection

More than one choice can be made at a time

Requires a “GO” button

<table>
<thead>
<tr>
<th>Set List Files Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Emphasize directories and executables</td>
</tr>
<tr>
<td>Show long format</td>
</tr>
<tr>
<td>Show “hidden” files</td>
</tr>
<tr>
<td>X Sort by modification time</td>
</tr>
<tr>
<td>Show group owner</td>
</tr>
</tbody>
</table>

Choose as many options as you wish.
Order Of Items

1. Frequently used first (most common strategy)
2. Numeric
3. Alphabetic
4. Chronological (time)
5. Grouping of related items
Adaptive Menus

An adaptive menu changes to adapt to the user's habits.

- Reorders the menu choices
- Infrequently used items put in a “background” menu (as in MS Office 2000)
- Risky
  - Can be confusing
  - Multiple users on the same computer
  - Users must have some control
  - Many users hate it
  - (Old) empirical evidence was not positive
Speeding Through Menus
(Shortcut)

• Keyboard shortcuts
• Increase # of items per menu
• Typeahead
  – If no returns, it's natural
  – Concatenation of characters yields one operation
• Menu names
  – Each menu has a name that can be used
  – Menu parsing must be more complicated
  – Allow users to define their own names
• Menu Macros
  – User assigns a name to a choice
Screen Design Hints (1)

- Title -- alone, top middle or top left
- Escape labeled -- how to get out
- No irrelevant info (such as advertisements!)
- Upper & lower case
- Legibility
- Instructions at top
- How to make choices
- Few options (about 7)
- No strange codes or symbols
- Numbering (we measure from 0, number from 1)
Screen Design Hints (2)

• Titles & selections same text!
• Same titles in documentation
• Text brief, descriptive and consistent grammatical style
• Consistent layout
• Take screen size into account
• Offer help!!
• Left justify items
• Instructions should be consistent on each screen
• Error messages in the same place
• Menu status always in the same place
Phrasing of Menu Choices

• Familiarity
• Consistency
• Distinct
• Concise
• Use the keyword first
Clarity vs. Social Amenities

• "Please", "do you wish", "If you want" can be eliminated to improve clarity
• Questions can be implicit, not explicit

Please select the criteria for class choice: ____________

or …

Class choice criteria: ___
Example – Wordy Version

Please enter course number or name: __ __ __ __

If entering course, also enter major: __ __ __
(Enter category for level 2 reports only)

1. **Add a class**
2. **Drop a class**
3. **Change section**
CLASS REGISTRATION

1. Add
2. Drop
3. Change section

Registration options:
Class Number or Name:  __  __  __  __
Major Code:  __  __  __

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Form Fill

Effective when extracting information that is predefined and simple in form

Advantages

• Few instructions
• User is in control

Goal: REDUCE TYPING !!!!
Form Fill Guidelines (1)

• Title should be descriptive
• Concise, clear instructions -- user's vocabulary
• Logical grouping of fields
• Plenty of white space
• Familiar field labels
  (from user's vocabulary, not developer's)
• Consistent terminology
• Consistent abbreviations and abbreviation strategy
• Error correction for characters and fields
  (Only make me change what I goofed up!)
Form Fill Guidelines (2)

- Polite, clear for unacceptable values
- Mark optional fields clearly
- Don't enter same data twice
- Use sensible defaults when appropriate
- How do I commit?
- MINIMIZE TYPING
- Minimize keyboard/mouse moving
Form Fill -- Columns

• Left justify alphabetic
• Right justify numbers on display
• Don't enter leftmost zeros!
• Line up decimals
Design for Common Data

Telephone (_______) _______ - _______
Social Security: _______ - _______ - _______
Times: ______ : ______ P M
Dates: MM / DD / YY
Money: $_______ . 00
Address: Street_______
Box or number_______
State_______
Zip_______
Name: First_______
Middle Initial: __
Last: _______

Allow for all sorts

Some people use middle name
Better Example

Telephone (____) ____-____
Social Security: ______-____-____
Times: ____ : ____ P M
Dates: MM / DD / YY
Money: $_____.00
Address: Address 1
Address 2
State
Zip
Name: First
Middle:
Last:

More flexibility
Allow middle name