Lecture 11

Chapter 7.1-7.4 Menu Types

Task-Related Organization

“The primary goal for menu, form-fillin, and dialog-box designers is to create a sensible, comprehensible, memorable, and convenient organization relevant to the user's task.”

Single Menus

- Binary Menus
  - Mnemonic letters
  - Radio Buttons
  - Button Choice
- Multiple-item Menus (radio buttons)
- Multiple-selection menus or check boxes
Single Menus (cont.)

• Pull-down, pop-up, and toolbar menus
  – Pull-down menus
    • Always available to the user by making selections on a top menu bar
    • Keyboard shortcuts
      – E.g., Ctrl+C, important to support expert user efficiency
  – Pop-up menus
    • Appear on a display in response to a check or tap with a pointing device
    • "Pie" menu structure
  – Toolbars, iconic menus, and palettes
    • Offers actions on a displayed object

Single Menus (cont.)

Pull-down, toolbar & palette examples

Pie menus

Simple linear pull-down menu

Pop-up Pie menu
Single Menus (cont.)

Pop-up pie example

Single Menus (cont.)

- Single Menus (cont.)

  - Menu for long lists
  - Problem: Long lists of items take a lot of time to read/select
    - Scrolling menus, combo boxes, and fisheye menus
      - Scrolling menus display the first portion of the menu and an additional menu item, typically an arrow that leads to the next set of items in the menu sequence.
      - Combo boxes combine a scrolling menu with a text-entry field.
      - Fisheye menus display all of the menu items on the screen at once, but show only items near the cursor at full size.

Fisheye Menu
Fisheye for desktop icons (Gutwin CHI 2004)

Single Menus (cont.)

- Menus for long lists (cont.)
  - Sliders and alphasliders
    - When items consist of ranges or numerical values, a slider is a natural choice to allow the selection of a value.
    - The alphaslider uses multiple levels of granularity in moving the slider thumb and therefore can support tens or hundreds of thousand of items.

Alphaslider to select movie titles
Single Menus (cont.)

- **Menus for long lists (cont.)**
  - Two-dimensional menus
    - “Fast and vast” two-dimensional menus give users a good overview of the choices, reduce the number of required actions, and allow rapid selection.

Single Menus (cont.)

- **Embedded menus and hotlinks**
  - Embedded menus are an alternative to explicit menus
  - It is natural to allow users reading about people, events, and places to retrieve detailed information by selecting menus in context.
Single Menus (cont.)

Combination of multiple menus

- **Linear menu sequences and simultaneous menus**
  - Linear
    - Guide the user through complex decision-making process.
    - E.g., cue cards or "Wizards"
  - Effective for novice users performing simple tasks
  - Simultaneous
    - Present multiple active menus at the same time and allows users to enter choices in any order

Combination of multiple menus (cont.)

- **Tree-structured menus**
  - Designers can form categories of similar items to create a tree structure
  - E.g., fonts, size style, spacing
  - Fast retrieved if natural and comprehensive
  - Use terminology from the task domain
  - Expanding menus maintain the full context of each choice
  - E.g., Windows Explorer
Combination of multiple menus (cont.)

- **Menu Maps**
  - Menu maps can help users stay oriented in a large menu tree
  - Effective for providing overviews to minimize user disorientation.

- **Acyclic and Cyclic Networks**
  - Useful for social relationships, transportation routing, scientific journal citations
  - Can cause confusion and disorientation
  - Example: Website with acyclic page structure where users get “lost” in the site