

Menu Style Dialog

Original source Ken Blundell

Menu Dialog

- What is a Menu Interface?
 - List of Options from which desired choice is selected
- List may be in words or icons
- Selected by keyboard cursor, mouse, selection code
- Hierarchical Structure with alternate paths

Menu Dialog

- When is Menu Appropriate?
 - Self Explanatory
 - Make clear what can be done
 - Make clear how to do it
 - Learning burden is decreased
 - Requires Little Human Memory
 - Easy to Learn and Remember
 - Rely on Recognition Memory not Recall

Menu Dialog

- When is Menu Appropriate?(cont)
 - Few Keystrokes
 - User types only one or two character code
 - Point and click
 - Less time and fewer errors
 - Easy Error Handling
 - Easy to check for limited set of valid inputs

Menu Dialog

- When is Menu Appropriate?(cont)
 - Enhancements are Visible
 - Presents all valid options to user
 - New functions appear on screen automatically

Designing Menus

- Menu Choice Selection
 - There are a variety of Selection Mechanisms
 - Single letter or number codes
 - Moving cursor
 - Pointing with a mouse, joystick or touch screen

Wordstar 3.3

```
H:INTRO PAGE 1 LINE 9 COL 11 INSERT ON
          <<< MAIN MENU >>>
--Cursor Movement-- | -Delete- | -Miscellaneous- | -Other Menus-
^S char left ^D char right | ^G char | ^I Tab ^B Reform | (from Main only)
^A word left ^F word right | DEL chr lf | ^V INSERT ON/OFF | ^J Help ^K Block
^E line up ^X line down | ^T word rt | ^L Find/Replce again | ^Q Quick ^P Print
--Scrolling-- | ^Y line | RETURN End paragraph | ^O Onscreen
^Z line down ^W line up | | ^N Insert a RETURN |
^C screen up ^R screen down | | ^U Stop a command |
!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----R
```

1. Introducing WordStar

WordStar is highly flexible and very visible. Watch the screens as you give commands, and information in various parts of the screen will guide you. You won't see all the information all the time, but it will be there when you need it.

WHERE YOU ARE

The seven WordStar menus are your greatest aids. They are like signposts at the top of your screen, showing you where you are.

1HELP 2INDENT 3SET LM 4SET RM 5UNDLIN 6BLDFCE 7BEGBLK 8ENDBLK 9BEGFIL 10ENDFIL

Menu Dialog

- When is Menu NOT Appropriate?(cont)
 - Inefficient
 - Menu systems can get complex
 - Tedious to navigate
 - Many levels in a menu hierarchy
 - May not be easy to use

Menu Dialog

- When is Menu NOT Appropriate?(cont)
 - Inflexible
 - Force user through a rigid sequence
 - Dialog is system controlled
 - Impractical for Numerous Choices
 - Menus are workable for a limited number of valid inputs
 - Menus > 20 can become unworkable

Menu Dialog

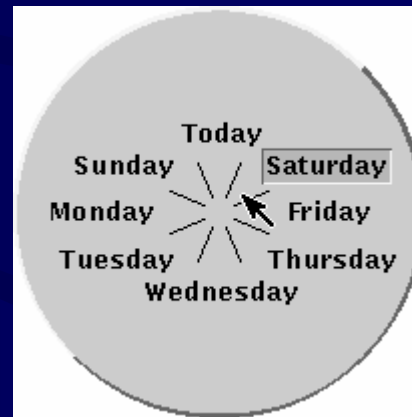
- Take Up Screen Real Estate
 - Menus take up valuable screen space
 - Other dialog styles are less demanding

Menu Types

- Scrolling menus (vertical)
- Walking menus (horizontal)
- Pie (circular)
- <http://developer.apple.com/documentation/mac/HIGuidelines/HIGuidelines-75.html>

Pie Menu

- Most tests show users like pie.



Designing Menus

- There are five aspects for designing menus
 - Menu Structure
 - Menu Choice Ordering
 - Menu Choice Selection
 - Menu Invocation
 - Menu Navigation

Designing Menus

- Menu Structure
 - Match the Menu Structure to the Task Structure
 - Select documents first
 - Then Select operations
 - Menu should reflect the most efficient sequence
 - Provide means to adapt menu to the task
 - Allow users to tailor a menu structure to support the type of task

Designing Menus

- Menu Structure (cont)
 - Minimize Hierarchy Depth at the expense of Breadth
 - Deep structures have many levels
 - With long decision times, minimize breadth
 - With long execution times, minimize width
 - In general, no more than 20 choices per screen

Designing Menus

- Menu Structure (cont)
 - Present menu choices vertically
 - Use Pie Menus for one or two level hierarchies
 - Gray out or delete inactive menu items
 - Create labels as verb-noun combinations
 - e.g. Select Course

Designing Menus

- Menu Choice Ordering
 - Create an order of labels based upon
 - Frequency of Use
 - Sequence of Use
 - Semantic Categories
 - Alphabetical

Designing Menus

- Menu Choice Selection
 - For short menus, use cursor control
 - For longer menus, use mnemonic letter codes
 - Or use mouse pointer
 - Mnemonic codes are best based on first letters
 - Provide Menu Selection Defaults
 - Based on most frequently used item
 - Last item selected previously

Natural orderings

- Time: chronological ordering
- Numeric ordering: ascending or descending
- Physical properties: increasing or decreasing length, area, volume, temperature, etc.

For non-natural ordering use

- Alphabetic sequence of items
- Grouping of related items
- Most frequently used items first
- Most important items first

Card's study

- Indicated that alphabetic sequence is faster
 - strategy time per trial
 - alphabetic 0.81 sec
 - functional 1.28 sec
 - random 3.23 sec

Designing Menus

- Menu Choice Selection (cont)
 - Distinguish between Choose One and Choose Many
 - In “Choose One” users can select only one at a time
 - In “Choose Many” two or more menu items can be selected simultaneously
 - Provide visual feedback for selected items

Designing Menus

- Menu Invocation
 - Concerns how and when the menu is presented to the user
 - Use Pop-Up Menus for High Frequency Users or when real estate is scarce
 - Permanent menus are preferable
 - User must know the invocation scheme

Designing Menus

- Menu Navigation
 - Establish conventions for menu design
 - Apply them consistently
 - Provide menu maps when the user may get lost
 - use context labels and place markers
 - Use TypeAhead to assist expert users
 - Allow for Backward Navigation and Escapes