Dialog Styles

1. Direct Manipulation
2. Command languages
3. WIMP - Window, Icon, Menu, Pointer
4. Speech/Natural language
5. Gesture, pen
Agenda

• Review of dialogue design issues
• WIMP
  ▪ Advantages, disadvantages
  ▪ Design guidelines
General Issues in Choosing Dialogue Style

• Who is in control - user or computer
• Initial training required
• Learning time to become proficient
• Speed of use
• Generality/flexibility/power
• Special skills - typing
• Gulf of evaluation / gulf of execution
• Screen space required
• Computational resources required
WIMP

- Menus, Buttons, Forms, Icons
- Predominant desktop interface paradigm (along with some direct manipulation)
Windows Pros and Cons

• Why are windows good (at least sometimes)? Are there problems with windows?
  ▪ Focus just on windows, not on menus and icons etc
Window Pros

• Facilitate multi-tasking, which many people do.
• Maps well onto overlapping sheets of paper on our desks, so is a familiar concept.
• Makes computer usage easier for most of us.
Window Cons

• Can make concentrating on a single task hard (that incoming mail....)
• An extension of the cluttered desk :) 
• May be unnecessary for dedicated-use environments that run a single application
Menus - Many Different Types

- Pop-up
- Pull-down
- Radio buttons
- Pie buttons
- Hierarchical/cascading
Pie Menus

From Sim City
Pop-up Hierarchical
Menu Pros and Cons

• What is good about menus?
• What is bad about menus?
Menu Pros

• One keystroke or mouse operation vs. many - no typing!
• No memorization of commands
  ▪ Recognition, not recall
• Limited input set
Menu Cons

• Less direct user control - have to find correct menu / menu item
• Not so readily extensible
• Slower than keyboarding for experienced users, at least without accelerators
Menu Item Ordering

• What rules do Mac, Firefox, Windows, etc, use?
• Make a list
Menu Items

• Create groups of logically similar items
• Cover all possibilities
• Ensure that items are non-overlapping
• Keep wording concise, understandable
Menu Item Order - Some Rules

- One possible methodology (priority order)
  1. Natural order (if exists)
  2. Time
     - e.g. Breakfast, Lunch, Dinner
  1. Numeric ordering
     - e.g. Point sizes for font
  1. Categorical - with visual separation
  2. Frequency of use
  3. Order of use
  4. Alphabetical - esp for long lists

- Don’t change dynamically!
A Good Menu Example

- Logical grouping
- Visual separation of groups
- Disabled items “grayed out”
- Shortcuts shown
- … indicates leads to dialogue

- Be on the lookout for some bad examples!
A Bad Menu Example

- Travel web page links:
  - Flight page
  - 3 Best Itineraries
  - Flights & Prices
  - Timetables
  - Fares

- Which do you choose for reservations?
Key Ideas

• Window Pros and Cons
• Types of Menus
• Menu Pros and Cons
• Guidelines for ordering items in menus