HUMAN-COMPUTER INTERACTION THIRD EDITION

DIX FINLAY ABOWD BEALE
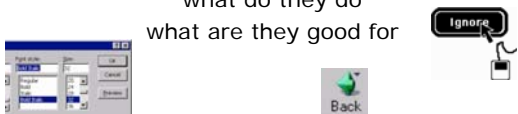
chapter 3

the interaction

extras …
more about widgets

HUMAN-COMPUTER INTERACTION

understanding and choosing widgets

widgets - bits that make the GUI
what do they do
what are they good for
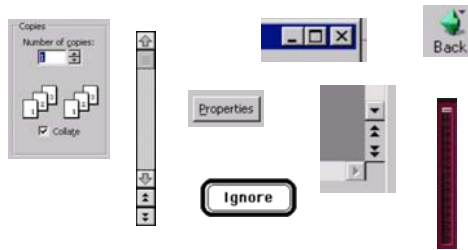
Ignore

Back

HUMAN-COMPUTER INTERACTION

one-by-one – WIMP elements

- widgets - bits that make the GUI

- what do they do

- what are they good for

widgets?

- individual items on a GUI screen …
  – checkboxes, menus, toolbars, buttons etc.

- three aspects:
  – appearance - what they look like
  – interaction - how they behave
  – semantics - what they mean

---

appearance

---

appearance includes words

- verbs - action words
  – quit, exit, embolden, italicise
- adjectives - description/state words
  – bold, italic
- nouns - usually as a form of description
  – Times New Roman, US Letter
- beware of mixes …
  – embolden + italic !!?!

behaviour

Ignore

Move mouse over button
— highlights

Ignore

Move mouse off target with
button still down
— highlight removed

Ignore

Release mouse
— nothing happens

---

behaviour … ctd.

- some bits the toolkit does for you
  - but is it right?
- some you control
  - e.g. drawing, interactions between widgets
- beware timing issues
  - e.g. large selections under Windows apps.

---

semantics

- menus, buttons, …, etc.

- do things …

  it **bold italic**

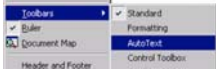| Font style:	Size:	
Bold Italic	32	OK
Regular	20	Cancel
Bold	24	
Italic	28	Preview
Bold Italic	32	
	36	

… lets make it ***bold italic***

YOU say what it means

- semantics usually up to you
  - although widgets may link direct to database
  - even then, you say what links

- think separately:
  - meaning first   - what you want it to do
  - then appearance - how you do it

- choose the widget for the job

---

what do you want?

- actions
  - usually menu, buttons, or toolbar
- setting state/options
  - usually checkbox, radio button, combi-box
- but …
  - menus can be used to set state etc. …

Toolbars	▶	✓ Standard
✓ Ruler		Formatting
Document Map		AutoText
Header and Footer		Control Toolbox

---

how many?

- one of several options
  - radio buttons, selection menu
- zero, one or more options
  - checkbox, multi-choice menu
- free choice
  - offer recent/typical shortcuts
  - one line text boxes often terrible!

favourite colour?
○ red ● blue ○ orange

☑ Word wrap text in autoshape
☐ Resize autoshape to fit text
☑ Rotate text within autoshape by 90°

and more ...

- number
  - fixed   e.g. bold, italic, underline
  - variable   e.g. font list
  - scolling through telephone list ...
- liveness
  - grey out inactive options
- dynamic interactions
  - some choices dependent on others

☑ Move object with text

☐ Lock anchor

☐ Float over text