



Chapter 14

widgets

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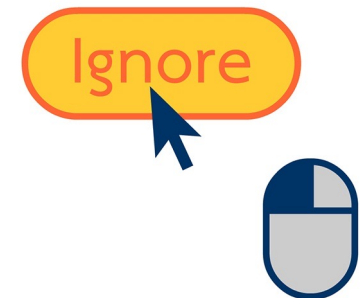
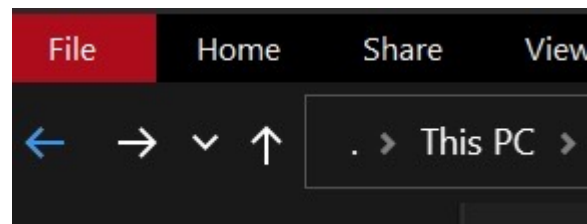
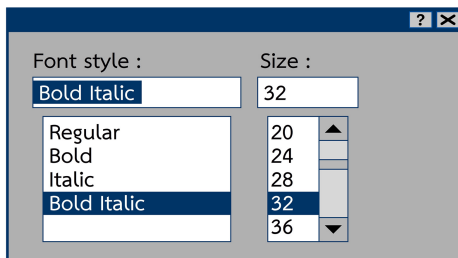
Reference :

1. Dix, A.J., Finlay, J.E., Abowd, G.D., and Beale, R. 2004. Human - Computer Interaction, 3rd ed. Prentice Hall Europe.
2. ชุรี เตชะวุฒิ. 2560. การปฏิสัมพันธ์ระหว่างมนุษย์และคอมพิวเตอร์เพื่อการออกแบบประสบการณ์ในการใช้งานหลายอุปกรณ์. พงษ์สวัสดิ์การพิมพ์.
ISBN: 978-616-478-333-1

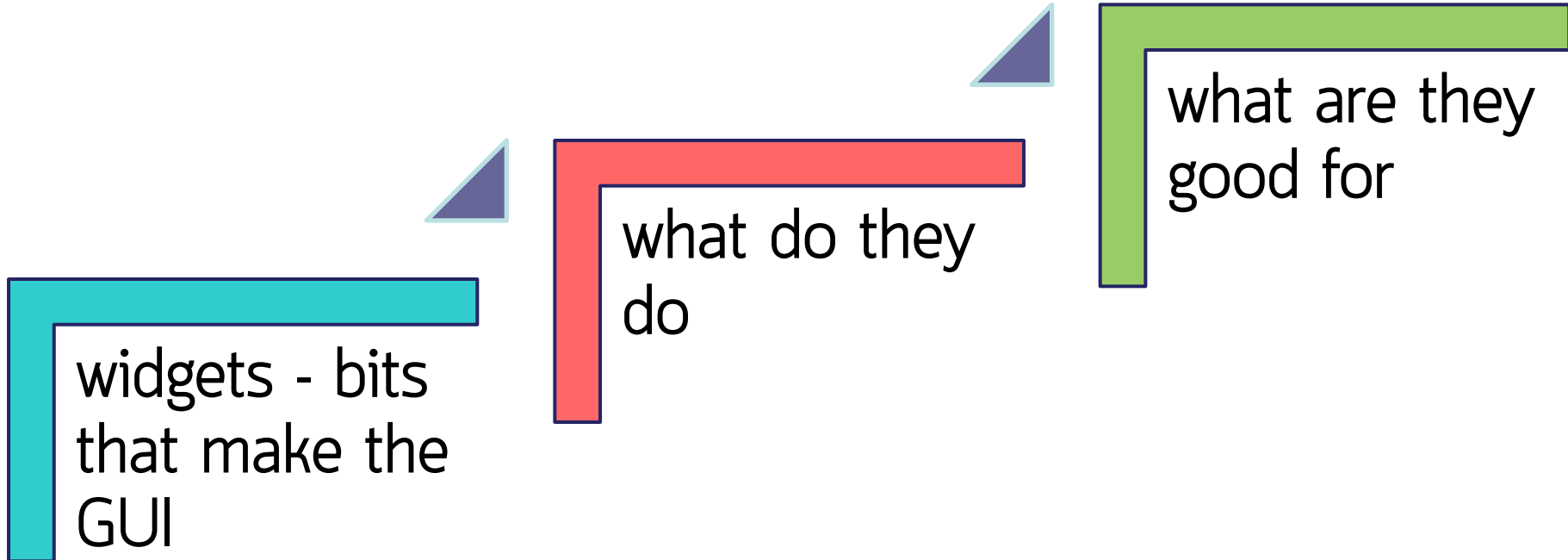
understanding and choosing widgets

Appearance
Behavior
Semantic

Bold Italic



one-by-one - WIMP elements

The diagram illustrates the WIMP (What Is Manipulated) paradigm through a sequence of three L-shaped boxes, each with a different color and a small purple triangle pointing towards the next box. The first box is cyan and contains the text 'widgets - bits that make the GUI'. The second box is red and contains the text 'what do they do'. The third box is green and contains the text 'what are they good for'.

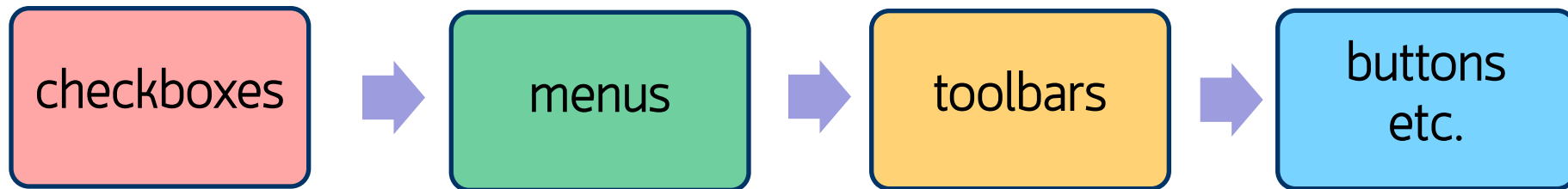
widgets - bits
that make the
GUI

what do they
do

what are they
good for

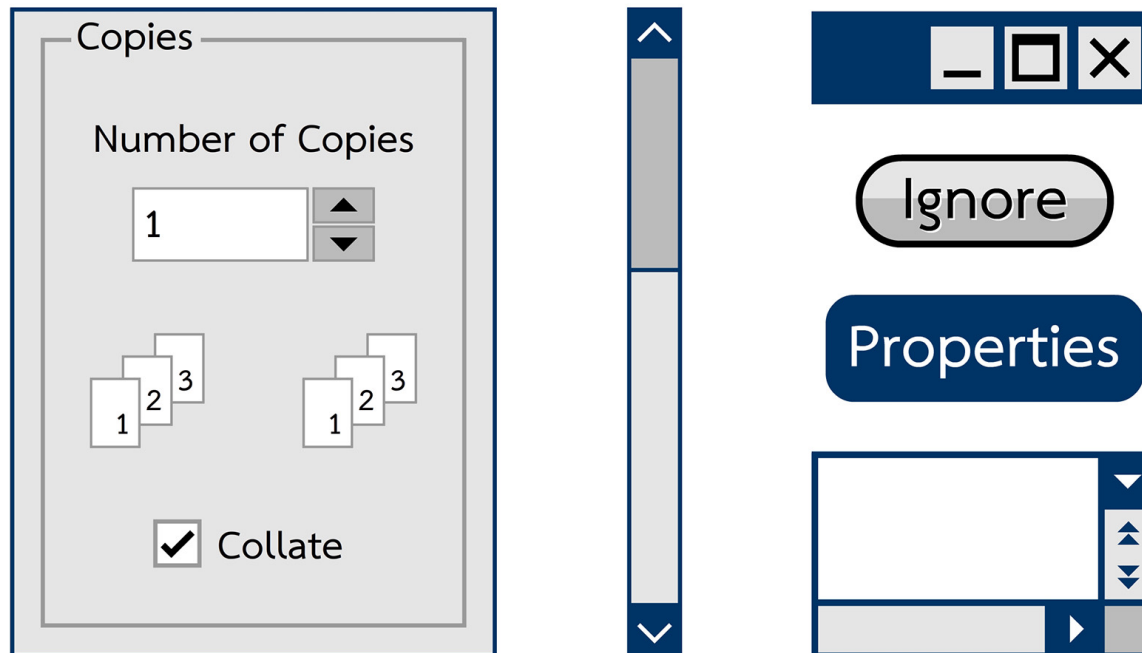
widgets?

- individual items on a GUI screen ...



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



Move mouse
over button
(highlights)

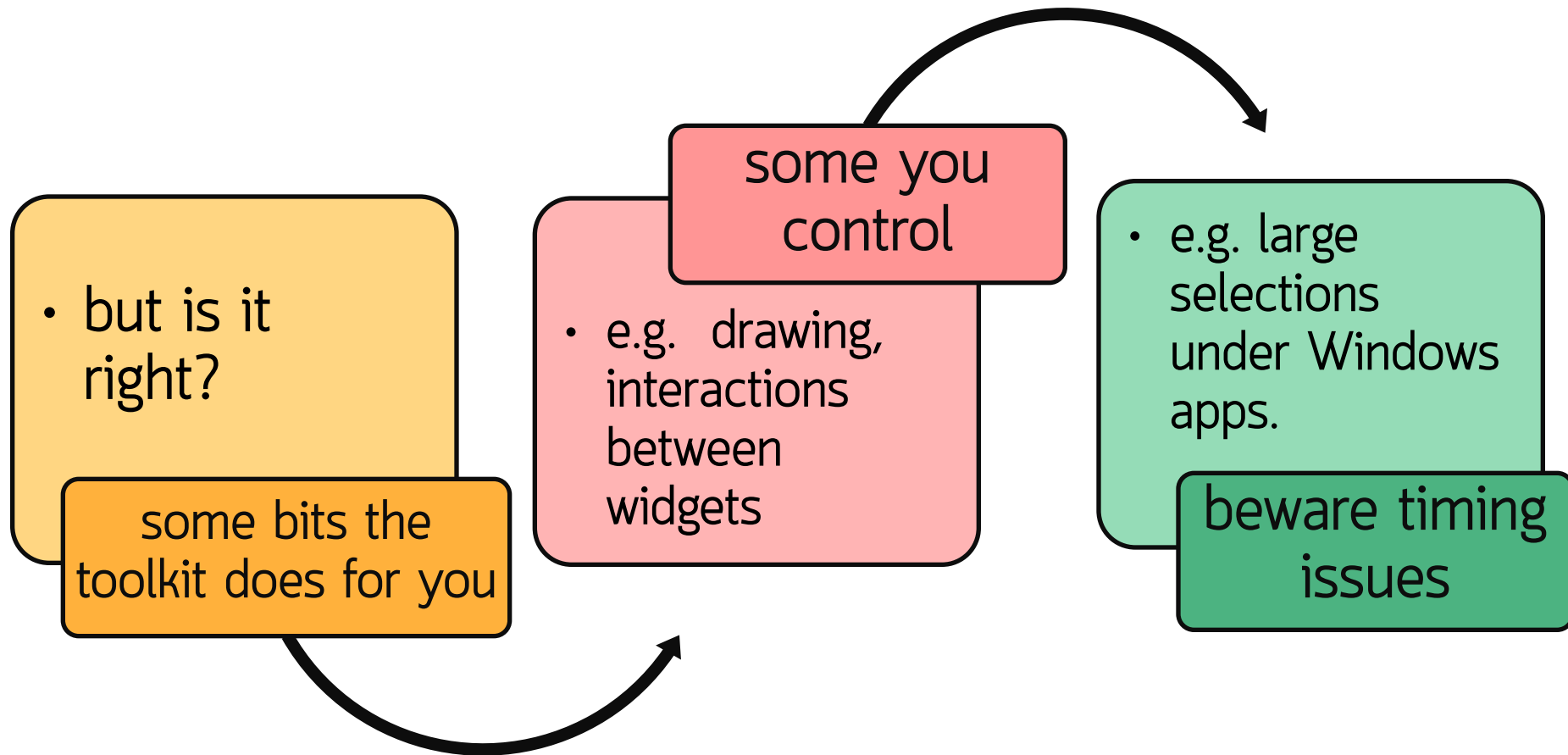


Move mouse off target
with button still down
(highlights removed)



Release mouse
(nothing happens)

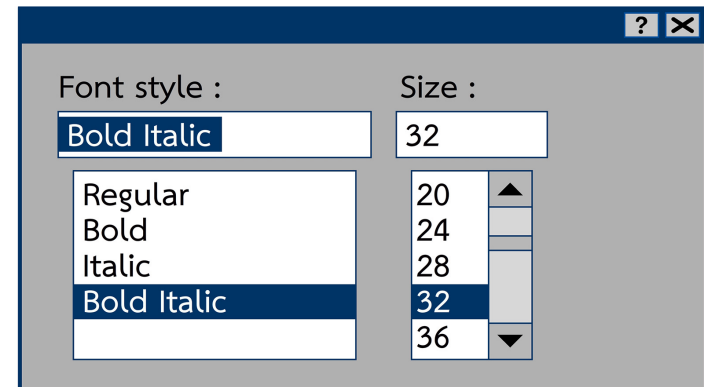
behaviour ... ctd.



semantics

- menus, buttons, ..., etc.
- do things ...

Bold Italic



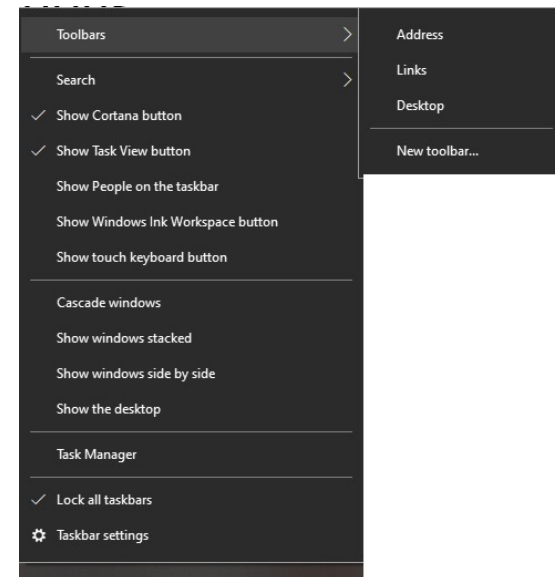
... lets make it ***bold italic***

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. ...



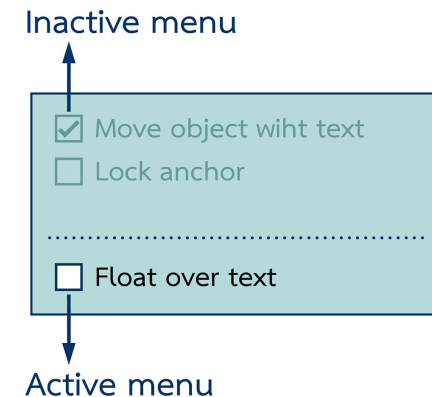
how many?

- **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!

<p>Nationality?</p> <p><input checked="" type="radio"/> Thai</p> <p><input type="radio"/> American</p> <p><input type="radio"/> Chinese</p>	<p>Interested vehicles?</p> <p><input checked="" type="checkbox"/> Car</p> <p><input checked="" type="checkbox"/> Motorcycle</p> <p><input type="checkbox"/> Bicycle</p>	<p>Search <input type="text"/></p>
Radio buttons	Checkboxes	Text boxes

and more ...

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





Questions and Answers