Model-View-Control

(MVC)
Model-View-Control

• A paradigm coming from SmallTalk (1980)
• MVC is a base for GUI development

• MVC includes a number of *Design Patterns*:
  – Protocols instead of components (interfaces)
  – Weak coupling (Observer)
  – Separation of Model and View
    • Model = the data
    • View = the presentation
MVC

• Separate Logic and Presentation

• The arrow buttons receive the click and activate an ActionListener that changes THE MODEL

• The model notifies the presentation field to update the view of the model

http://www.enode.com/x/markup/tutorial/spinner.html#markup
Does MVC work?

• Model contains the data to display
  – Data may not exist, can be generated on the fly!
• View is the visual representation
• Control is the ”glue” between Model and View
  – knows how to modify the data

• ”Pure” MVC is difficult to implement
  • Some coupling necessary between C and MV
  • In the ideal world they should all be independent
How to...

1. Put your data into a Model
   – ListModel
   – TableModel

2. Link to a suitable representation (View)
   – JList
   – Jtable

3. Design the presentation (View)

4. Manipulate the model (the data in it)