

B

Source Code for Chapter 24

This appendix shows the code for the above examples in full. To save space I've done some minor things such as only show the class names and the instance variable names in the class definition.

Superclasses

```
ApplicationModel subclass: #MyInput
  instanceVariableNames: 'person '

MyInput class>>open: aModel
  ^self openOn: (self new initialize: aModel)

ApplicationModel subclass: #MyView
  instanceVariableNames: 'person '

MyView class>>open: aModel
  ^self openOn: (self new initialize: aModel)

Model subclass: #MyPerson
  instanceVariableNames: 'name age '
```

Example One

```
MyInput subclass: #MyInput1
  instanceVariableNames: 'name age '

MyInput1>>initialize: aPerson
  person := aPerson.
  name := String new asValue.
  name onChangeSend: #nameChanged to: self.
  age := 0 asValue.
  age onChangeSend: #ageChanged to: self

MyInput1>>age
  ^age

MyInput1>>name
  ^name

MyInput1>>ageChanged
  person age: self age value
```

```
MyInput1>>nameChanged
  person name: self name value

MyView subclass: #MyView1
  instanceVariableNames: 'name age '

MyView1>>initialize: aPerson
  person := aPerson.
  person addDependent: self.
  name := String new asValue.
  age := 0 asValue.

MyView1>>age
  ^age

MyView1>>name
  ^name

MyView1>>update: aSymbol with: aValue from: anObject
  aSymbol == #name ifTrue: [self name value: aValue].
  aSymbol == #age ifTrue: [self age value: aValue]

MyPerson subclass: #MyPerson1
  instanceVariableNames: ''

MyPerson1>>age: aValue
  age := aValue.
  self changed: #age with: age

MyPerson1>>name: aValue
  name := aValue.
  self changed: #name with: name
```

Example Two

```
MyInput subclass: #MyInput2
  instanceVariableNames: 'name age '

MyInput2>>initialize: aPerson
  person := aPerson.
  name := String new asValue.
  name onChangeSend: #nameChanged to: self.
  age := 0 asValue.
  age onChangeSend: #ageChanged to: self.

MyInput2>>age
  ^age

MyInput2>>name
  ^name

MyInput2>>ageChanged
  person age value: self age value

MyInput2>>nameChanged
  person name value: self name value

MyView subclass: #MyView2
  instanceVariableNames: 'name age '

MyView2>>initialize: aPerson
  person := aPerson.
  person name onChangeSend: #nameChanged to: self.
  person age onChangeSend: #ageChanged to: self.
  name := String new asValue.
  age := 0 asValue.

MyView2>>age
  ^age

MyView2>>name
  ^name

MyView2>>ageChanged
  self age value: person age value.
```

```
MyView2>>nameChanged
  self name value: person name value.

MyPerson subclass: #MyPerson2
  instanceVariableNames: ''

MyPerson2>>age
  ^age isNil
    ifTrue: [age := 0 asValue]
    ifFalse: [age]

MyPerson2>>name
  ^name isNil
    ifTrue: [name := String new asValue]
    ifFalse: [name]
```

Example Three

```
MyInput subclass: #MyInput3
  instanceVariableNames: ''

MyInput3>>initialize: aPerson
  person := aPerson.

MyInput3>>age
  ^(AspectAdaptor subject: person sendsUpdates: true)
  forAspect: #age.

MyInput3>>name
  ^(AspectAdaptor subject: person sendsUpdates: true)
  forAspect: #name.

MyView subclass: #MyView3
  instanceVariableNames: ''

MyView3>>initialize: aPerson
  person := aPerson

MyView3>>age
  ^(AspectAdaptor subject: person sendsUpdates: true)
  forAspect: #age.

MyView3>>name
  ^(AspectAdaptor subject: person sendsUpdates: true)
  forAspect: #name.

MyPerson subclass: #MyPerson3
  instanceVariableNames: ''

MyPerson3>>age
  ^age

MyPerson3>>age: aValue
```

```
adaptor := AspectAdaptor subjectChannel: person sendsUpdates: true.
adaptor
  accessWith: #yearsOld
  assignWith: # yearsOld:
  aspect: #age.
^adaptor

MyInput4>>name
| adaptor |
adaptor := AspectAdaptor subjectChannel: person sendsUpdates: true.
adaptor
  accessWith: # called
  assignWith: # called:
  aspect: #name.
^adaptor

MyView subclass: #MyView4
instanceVariableNames: ''

MyView4>>initialize: aPerson
person := aPerson asValue

MyView4>>age
| adaptor |
adaptor := AspectAdaptor subjectChannel: person sendsUpdates: true.
adaptor
  accessWith: # yearsOld
  assignWith: # yearsOld:
  aspect: #age.
^adaptor

MyView4>>name
| adaptor |
adaptor := AspectAdaptor subjectChannel: person sendsUpdates: true.
adaptor
  accessWith: # called
  assignWith: # called:
  aspect: #name.
^adaptor

MyPerson subclass: #MyPerson4
instanceVariableNames: ''

MyPerson4>> yearsOld
^age

MyPerson4>> yearsOld: aValue
age := aValue.
self changed: #age

MyPerson4>>called
^name

MyPerson4>> called: aValue
name := aValue.
self changed: #name
```

Example Five

```
MyInput subclass: #MyInput5
instanceVariableNames: 'trigger '

MyInput5>>initialize: aPerson
person := aPerson.
trigger := false asValue

MyInput5>>accept
trigger value: true

MyInput5>>age
| adaptor |
adaptor := AspectAdaptor subject: person sendsUpdates: true.
adaptor forAspect: #age.
^BufferedValueHolder subject: adaptor triggerChannel: trigger.
```

```
MyInput5>>name
| adaptor |
adaptor := AspectAdaptor subject: person sendsUpdates: true.
adaptor forAspect: #name.
^BufferedValueHolder subject: adaptor triggerChannel: trigger.

MyView subclass: #MyView5
instanceVariableNames: ""

MyView5>>initialize: aPerson
person := aPerson

MyView5>>age
^(AspectAdaptor subject: person sendsUpdates: true)
forAspect: #age.

MyView5>>name
^(AspectAdaptor subject: person sendsUpdates: true)
forAspect: #name.

Model subclass: #MyPerson5
instanceVariableNames: ""

MyPerson5>>age
^age

MyPerson5>>age: aValue
age := aValue.
self changed: #age

MyPerson5>>name
^name

MyPerson5>>name: aValue
name := aValue.
self changed: #name
```

Example Six

```
MyInput subclass: #MyInput6
instanceVariableNames: ""

MyInput6>>initialize: aPerson
person := aPerson asValue.

MyInput6>>person
^person

MyView subclass: #MyView6
instanceVariableNames: ""

MyView6>>initialize: aPerson
person := aPerson asValue.

MyView6>>person
^person

Model subclass: #MyPerson6
instanceVariableNames: ''

MyPerson6>>age
^age

MyPerson6>>age: aValue
age := aValue.
self changed: #age

MyPerson6>>name
^name

MyPerson6>>name: aValue
name := aValue.
self changed: #name
```

Example Seven

```
MyInput subclass: #MyInput7
  instanceVariableNames: 'trigger '

MyInput7>>initialize: aPerson
  person := aPerson asValue.
  trigger := false asValue.

MyInput7>>person
  ^person

MyInput7>>trigger
  ^trigger

MyInput7>>accept
  trigger value: true.

MyView subclass: #MyView7
  instanceVariableNames: ''

MyView7>>initialize: aPerson
  person := aPerson asValue.

MyView7>>person
  ^person

MyPerson subclass: #MyPerson7
  instanceVariableNames: ''

MyPerson7>>age
  ^age

MyPerson7>>age: aValue
  age := aValue.
  Transcript cr; show: 'Age changed'.
  self changed: #age

MyPerson7>>name
  ^name

MyPerson7>>name: aValue
  name := aValue.
  Transcript cr; show: 'Name changed'.
  self changed: #name
```

Example Eight

```
MyInput subclass: #MyInput8
  instanceVariableNames: ''

MyInput8>>initialize: aPerson
  person := aPerson.

MyInput8>>age
  ^(PluggableAdaptor on: person)
    getBlock: [:model | model age]
    putBlock: [:model :aValue | model age: aValue * 3]
    updateBlock: [:model :aspect :parameter | aspect == #age]

MyInput8>>name
  ^(PluggableAdaptor on: person)
    getBlock: [:model | model name]
    putBlock: [:model :aValue | model name: aValue asLowercase]
    updateBlock: [:model :aspect :parameter | aspect == #name]

MyView subclass: #MyView8
  instanceVariableNames: ''

MyView8>>initialize: aPerson
  person := aPerson.

MyView8>>age
  ^(PluggableAdaptor on: person)
    getBlock: [:model | model age * 10]
```

```
        putBlock: [:model :aValue | ]
        updateBlock: [:model :aspect :parameter | aspect == #age]

MyView8>>name
  ^(PluggableAdaptor on: person)
  getBlock: [:model | model name asUppercase]
  putBlock: [:model :aValue | ]
  updateBlock: [:model :aspect :parameter | aspect == #name ]

Model subclass: #MyPerson8
  instanceVariableNames: ''

MyPerson8>>age
  ^age isNil
    ifTrue: [age := 0]
    ifFalse: [age]

MyPerson8>>age: aNumber
  age := aNumber.
  self changed: #age

MyPerson8>>name
  ^name isNil
    ifTrue: [name := String new]
    ifFalse: [name]

MyPerson8>>name: aString
  name := aString.
  self changed: #name
```