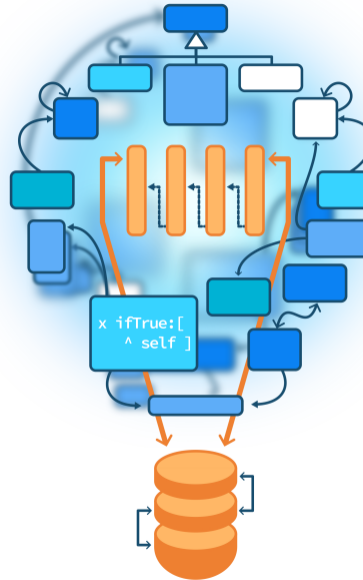


Applying Command Design Pattern

A Glimpse at Commander

S.Ducasse, L. Fabresse, G. Polito, and P. Tesone

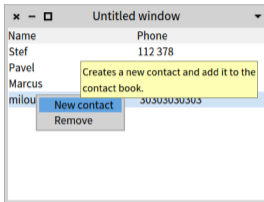


Goals

- Command Design Pattern in Action
- Glimpse at Commander: a command framework



Commander: a Command framework



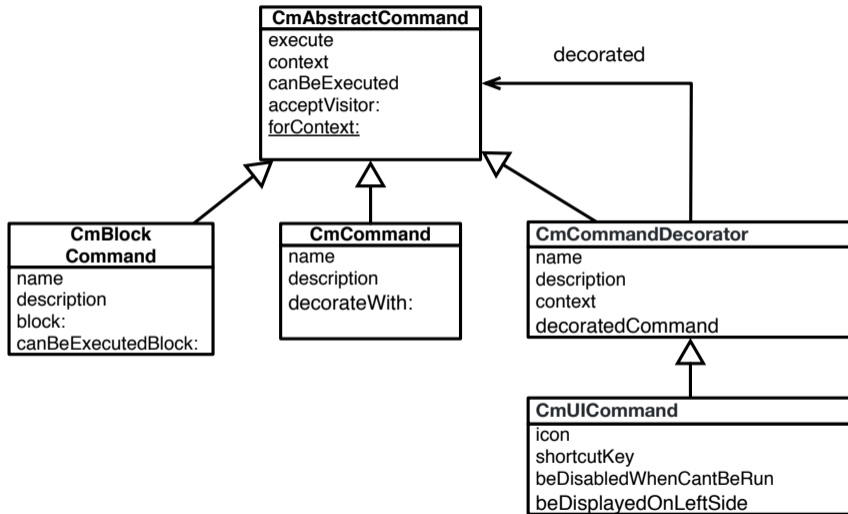
Commander is a little framework for commands using decorators

- Can produce a toolbar or menus
- UI is optional

(EgAddContactCommand new context: aPresenter) execute



Core commander



Add Contact

```
EgContactBookCommand << #EgAddContactCommand  
package: 'EgContactBook'
```

```
CmAddContactCommand >> initialize  
  super initialize.  
  self  
    basicName: 'New contact';  
    basicDescription: 'Creates a new contact and add it to the contact  
book.'
```

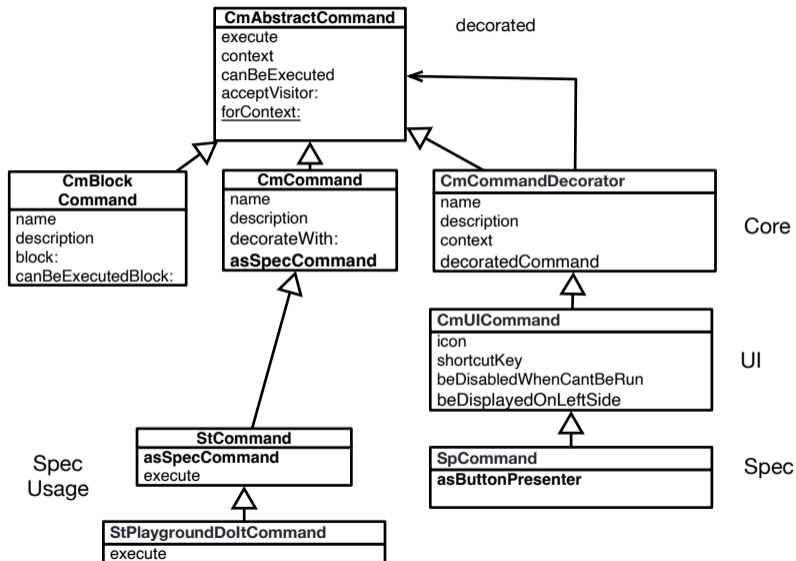


Add Contact: Behavior

```
CmAddContactCommand >> execute
| contact |
contact := self contactBookPresenter newContact.
self hasSelectedContact
  ifTrue: [ self contactBook
            addContact: contact
            after: self selectedContact ]
  ifFalse: [ self contactBook addContact: contact ].
self contactBookPresenter updateView
```



Commander and its decorators



Commander and its decorators

```
CmCommand >> asSpecCommand
```

```
"Subclasses might override this method to define default icon and shortcut."
```

```
^ self decorateWith: SpCommand
```

```
StCommand >> asSpecCommand
```

```
| command |
```

```
command := super asSpecCommand
```

```
iconProvider: self application;
```

```
iconName: self class defaultIconName;
```

```
yourself.
```

```
self class defaultShortcut
```

```
ifNotNil: [ :keyCombination | command shortcutKey: keyCombination ].
```

```
^ command
```



One Command

```
StCommand << StPlaygroundDoltCommand  
package: 'NewTools-Playground'
```

```
StCommand >> execute  
context doEvaluateAllAndGo
```



Conclusion

- Commands are first-class actions
- Adapted for manipulation of actions (undo, replay)



Produced as part of the course on <http://www.fun-mooc.fr>

Advanced Object-Oriented Design and Development with Pharo

A course by

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