Animation Patterns

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pluralsight
hardcore developer training

Surprise!!!!

Animation

- Item
- Item
- Item
- Item
- Item

Billy Hollis

Creating User Experiences:

Fundamental Design Principles

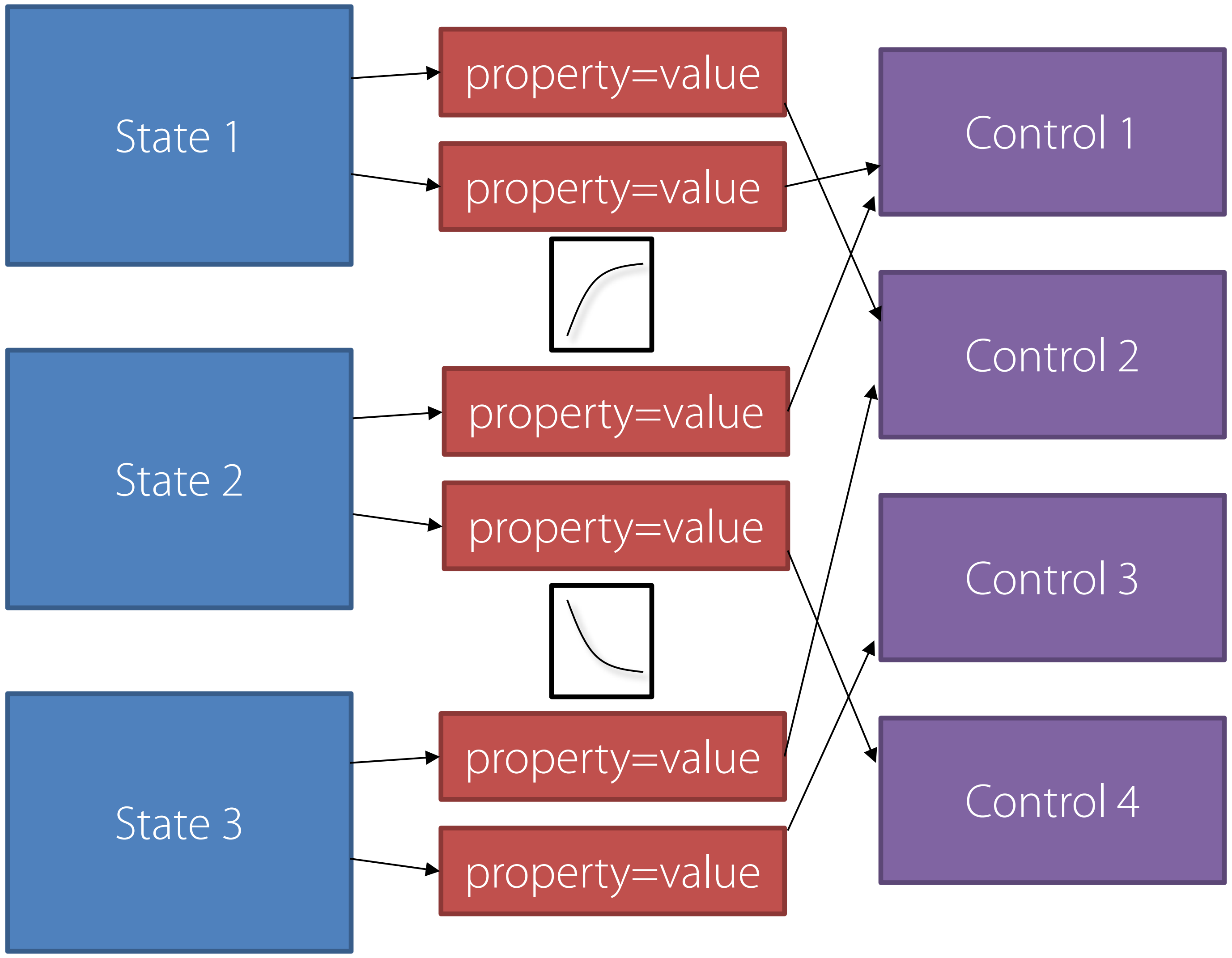
Separation

- **Visual State Manager**
  - Visual State Binding
  - Circular Animations
  - Control States
- **Triggers**
  - List Item Animations
- **Theme Transitions**

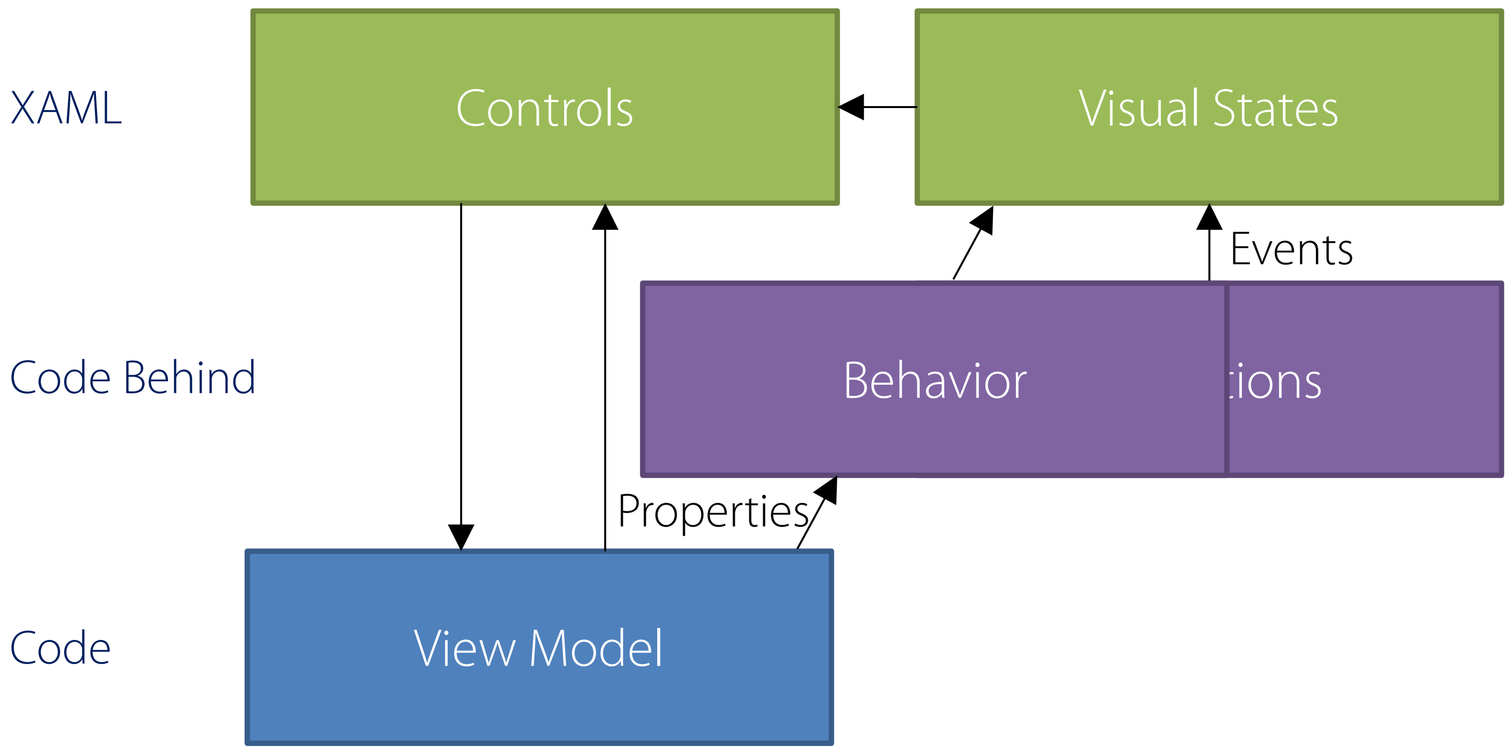
Visual State Binding

Separate state from presentation

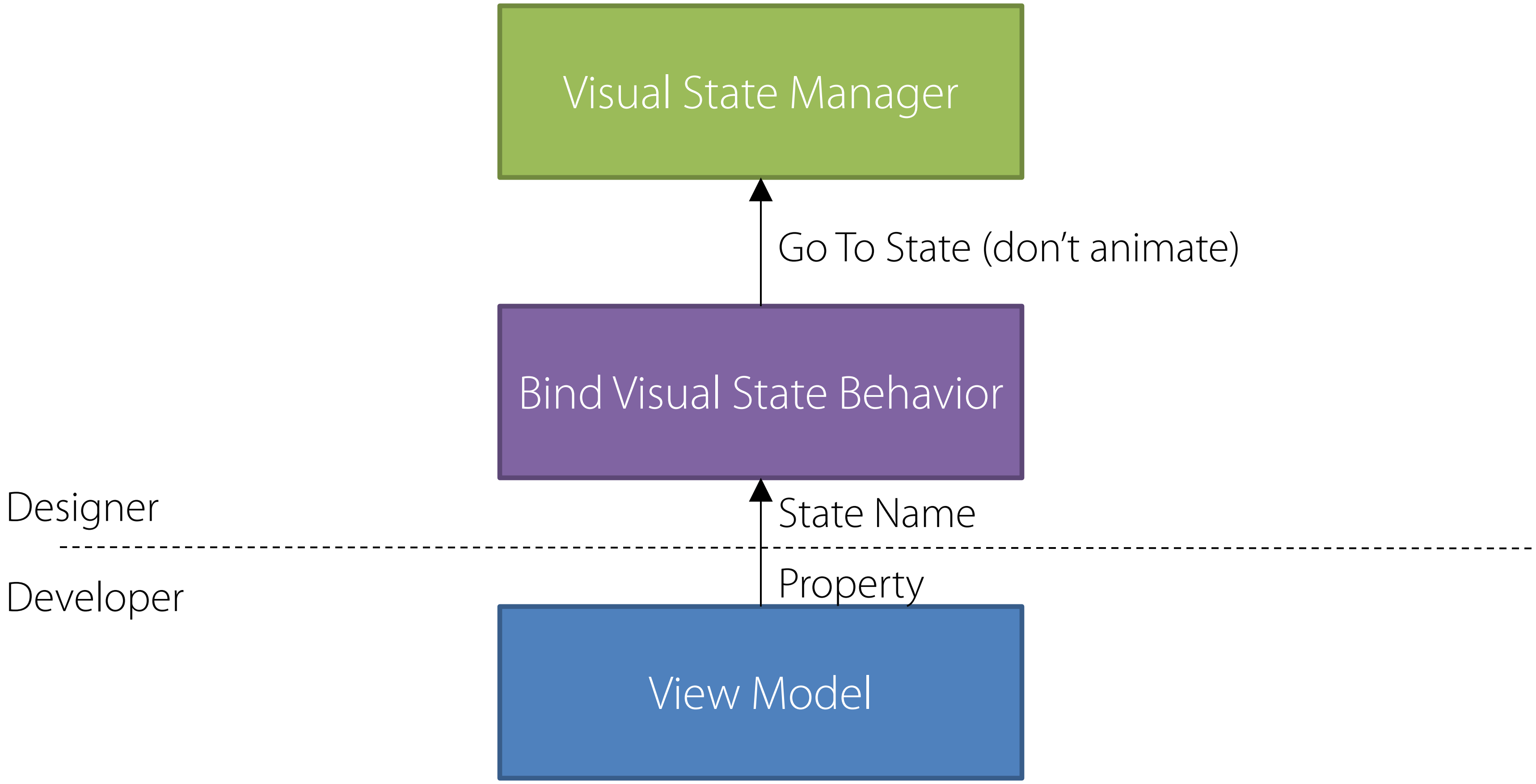
Visual State Manager



Changing State



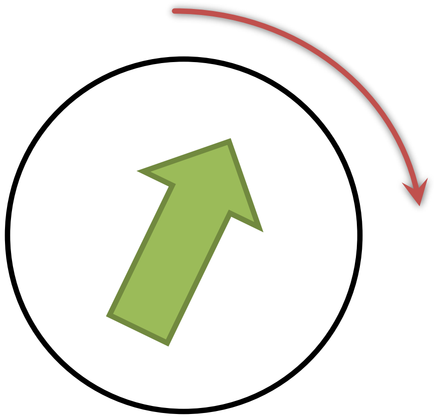
Bind Visual State Behavior

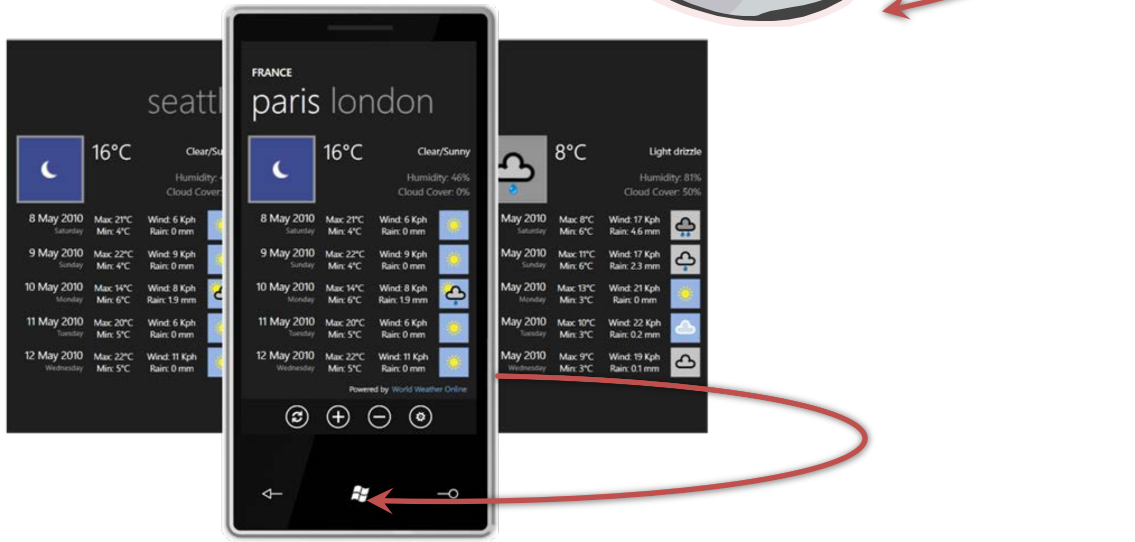


Circular Animations

Wrap seamlessly

Wrap Around





FRANCE

paris london

16°C Clear/Sunny

Humidity: 46%
Cloud Cover: 0%

8 May 2010 Saturday	Max: 21°C Min: 4°C	Wind: 6 Kph Rain: 0 mm
9 May 2010 Sunday	Max: 22°C Min: 4°C	Wind: 9 Kph Rain: 0 mm
10 May 2010 Monday	Max: 14°C Min: 6°C	Wind: 8 Kph Rain: 1.9 mm
11 May 2010 Tuesday	Max: 20°C Min: 5°C	Wind: 6 Kph Rain: 0 mm
12 May 2010 Wednesday	Max: 22°C Min: 5°C	Wind: 11 Kph Rain: 0 mm

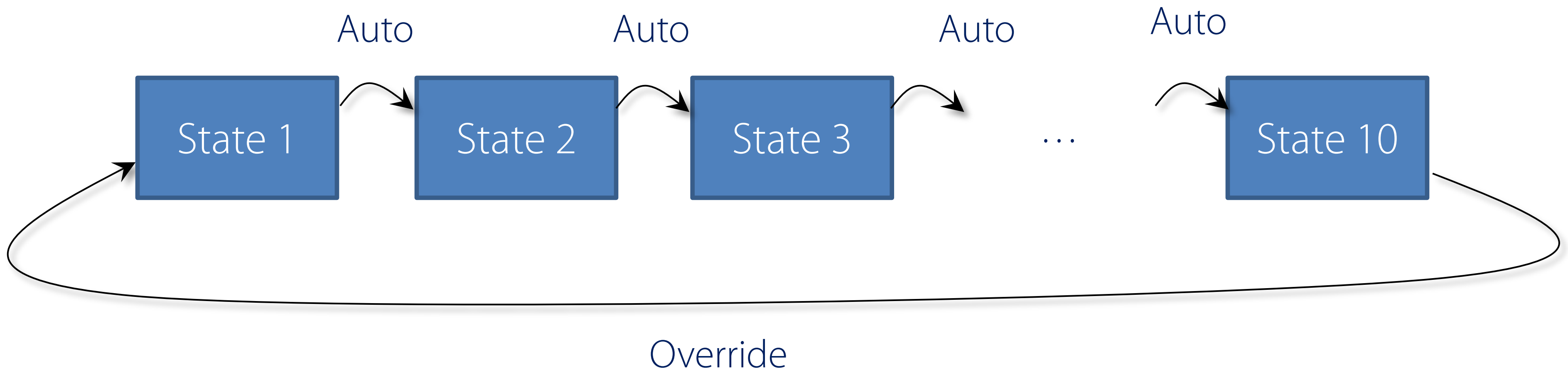
Powered by World Weather Online

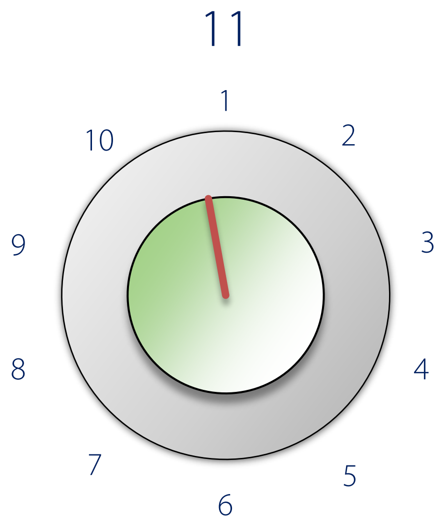
8°C Light drizzle

Humidity: 81%
Cloud Cover: 50%

May 2010 Saturday	Max: 8°C Min: 6°C	Wind: 17 Kph Rain: 4.6 mm
May 2010 Sunday	Max: 11°C Min: 6°C	Wind: 17 Kph Rain: 2.3 mm
May 2010 Monday	Max: 13°C Min: 3°C	Wind: 21 Kph Rain: 0 mm
May 2010 Tuesday	Max: 10°C Min: 3°C	Wind: 22 Kph Rain: 0.2 mm
May 2010 Wednesday	Max: 9°C Min: 3°C	Wind: 19 Kph Rain: 0.1 mm

State Transitions

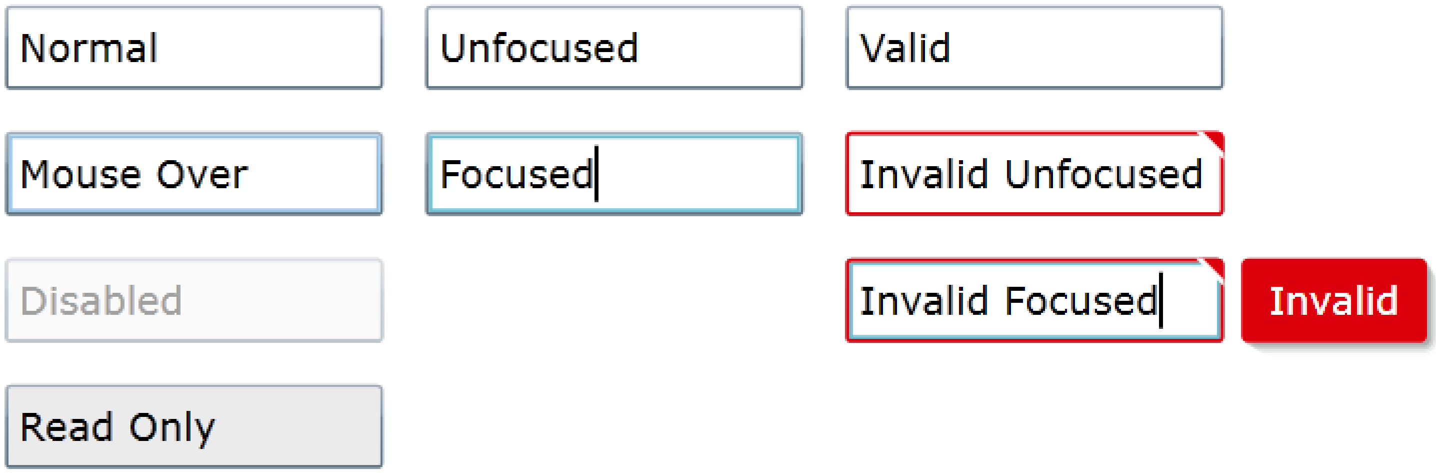




Control States

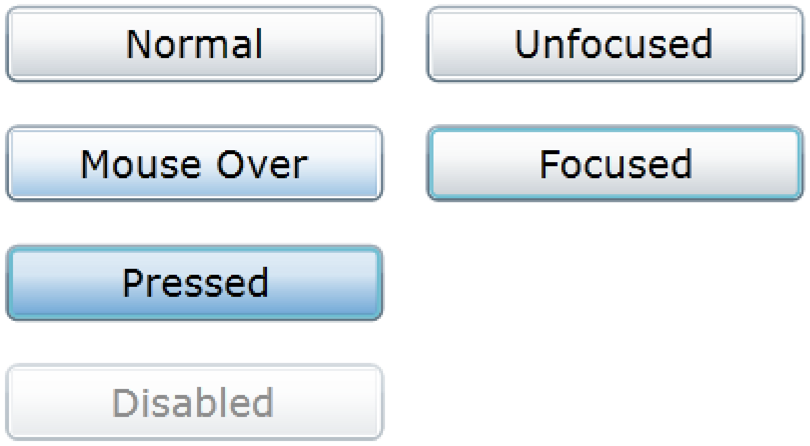
Customize feedback

Silverlight Control States



Common States Focus States Validation States

Button Visual State Groups



Common States Focus States

Layers

Validation Error Element

Focus Visual Element

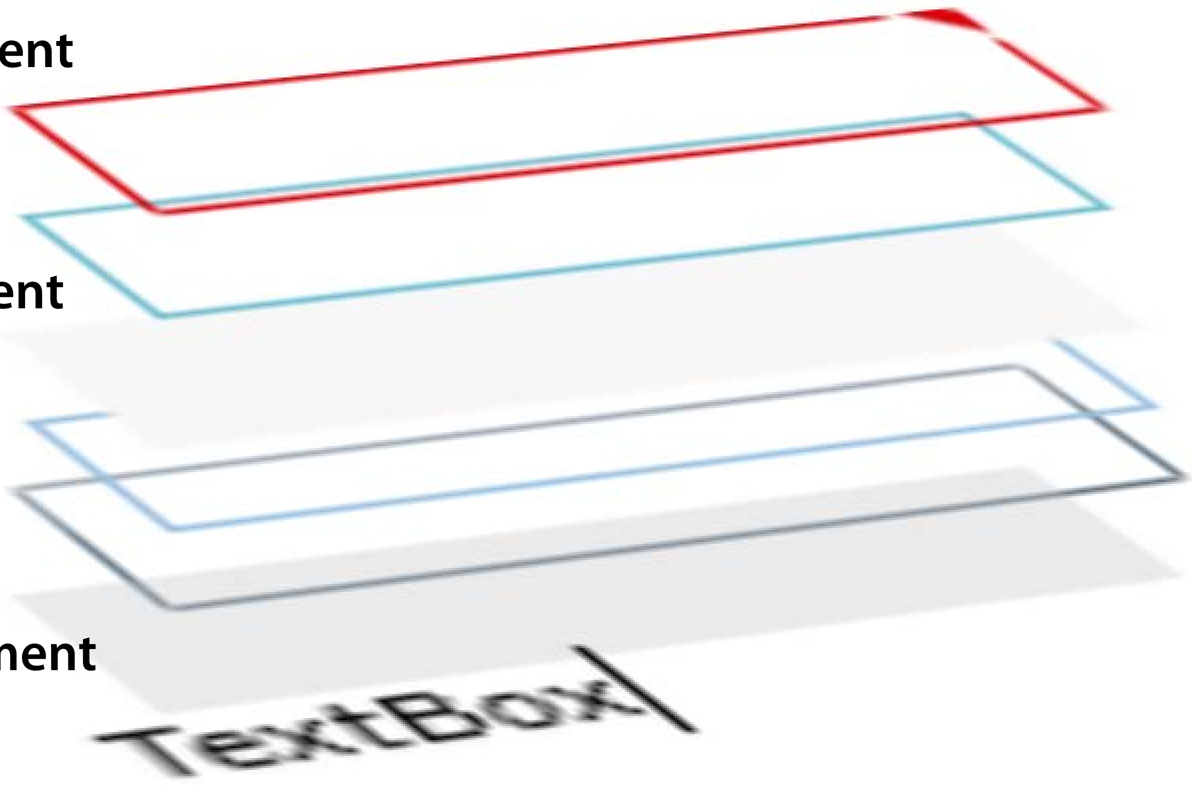
Disabled Visual Element

Mouse Over Border

Border

Read Only Visual Element

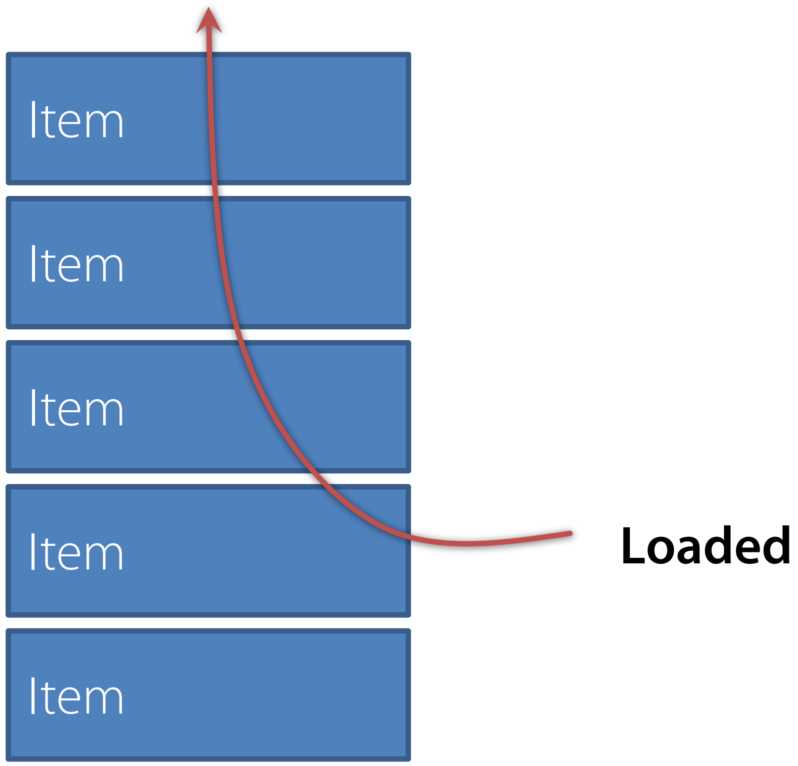
Content Element



List Item Animations

Illustrate change

Loaded animation



Theme Transitions

Simple consistent animations

Windows 8 Theme Transitions

- **EntranceThemeTransition**
  - Fly in from the right
  - Individual component
    - Transitions
  - Container
    - ChildrenTransitions
    - IsStaggeringEnabled
    - Manually apply to nested containers
- **AddDeleteThemeTransition**
  - Moves items out of the way
  - Handles exit animation
  - Automatically applied to ListView controls

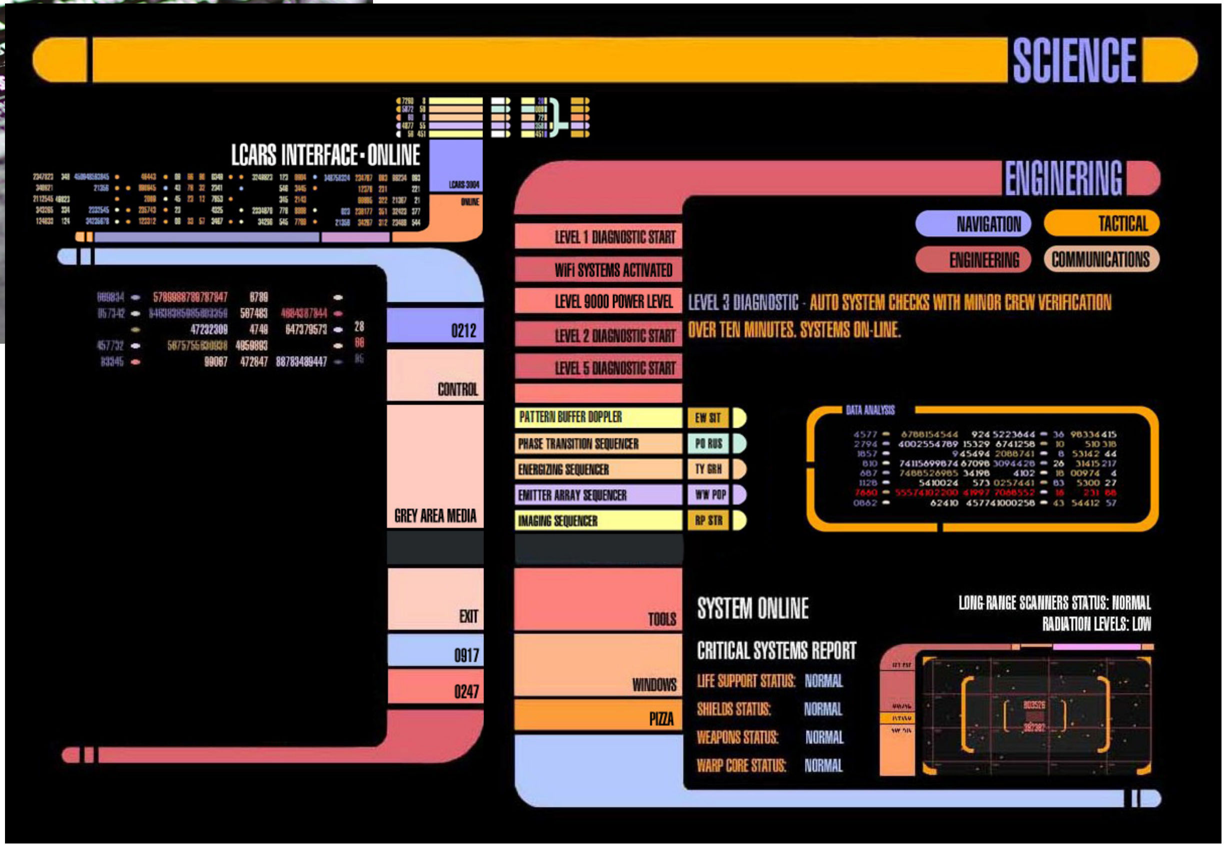
Summary

- **Goals**
  - Visual Indication
  - Separation

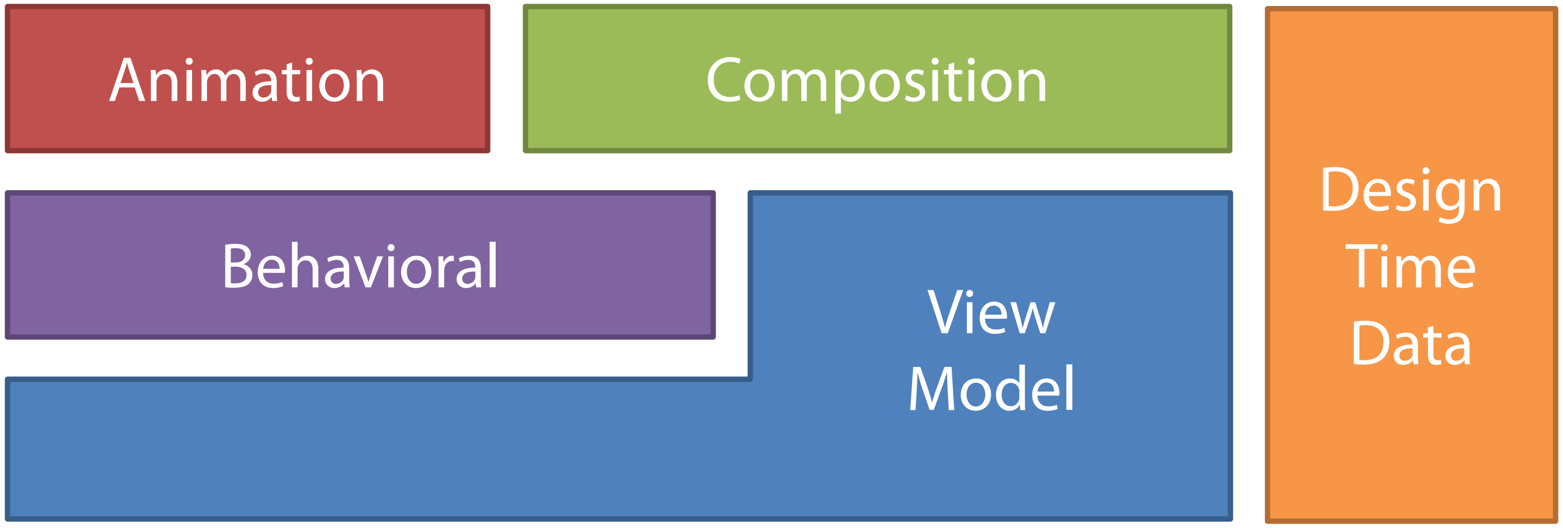
- **Visual State Manager**
  - Visual State Binding
  - Circular Animations
  - Control States
- **Item Continuity**
  - List Item Animations
  - Theme Transitions

XAML

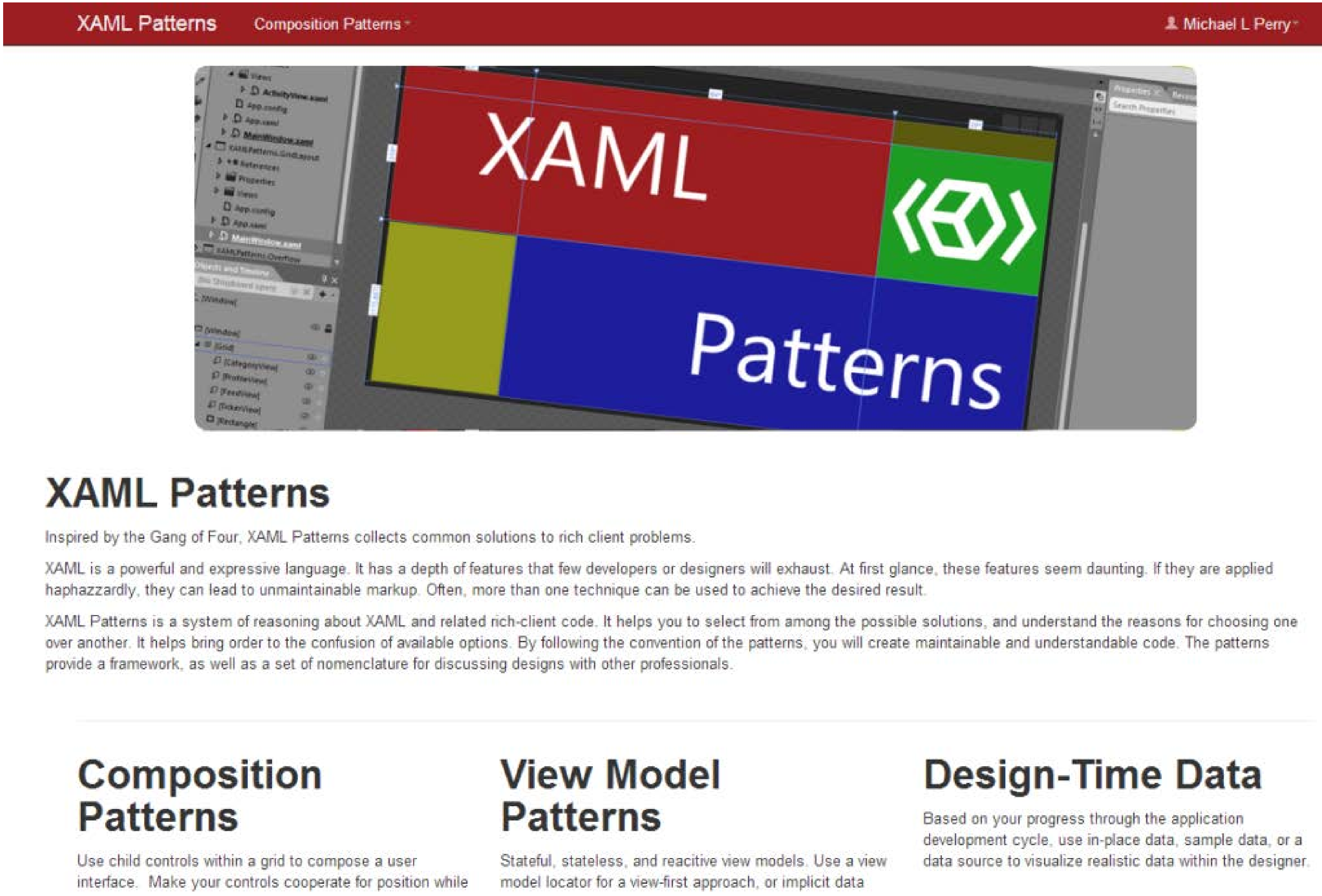
SAVE OUR LANDMARK
Interesting Project
Pioneer of


SCIENCE
LCARS INTERFACE - ONLINE
LCARS 3004
ONLINE
ENGINERING
NAVIGATION
TACTICAL
ENGINEERING
COMMUNICATIONS
LEVEL 1 DIAGNOSTIC START
WiFi SYSTEMS ACTIVATED
LEVEL 9000 POWER LEVEL
LEVEL 2 DIAGNOSTIC START
LEVEL 5 DIAGNOSTIC START
LEVEL 3 DIAGNOSTIC - AUTO SYSTEM CHECKS WITH MINOR CREW VERIFICATION OVER TEN MINUTES. SYSTEMS ON-LINE.
0212
CONTROL
GREY AREA MEDIA
EXIT
0917
0247
PATTERN BUFFER DOPPLER
PHASE TRANSITION SEQUENCER
ENERGIZING SEQUENCER
EMITTER ARRAY SEQUENCER
IMAGING SEQUENCER
EW SIT
PO RUS
TY GRH
WW POP
RP STR
DATA ANALYSIS
TOOLS
WINDOWS
PIZZA
SYSTEM ONLINE
LONG RANGE SCANNERS STATUS: NORMAL
RADIATION LEVELS: LOW
CRITICAL SYSTEMS REPORT
LIFE SUPPORT STATUS: NORMAL
SHIELDS STATUS: NORMAL
WEAPONS STATUS: NORMAL
WARP CORE STATUS: NORMAL

Patterns


Animation
Composition
Design Time Data
Behavioral
View Model

XAMLPatterns.com



XAML Patterns

Inspired by the Gang of Four, XAML Patterns collects common solutions to rich client problems.

XAML is a powerful and expressive language. It has a depth of features that few developers or designers will exhaust. At first glance, these features seem daunting. If they are applied haphazardly, they can lead to unmaintainable markup. Often, more than one technique can be used to achieve the desired result.

XAML Patterns is a system of reasoning about XAML and related rich-client code. It helps you to select from among the possible solutions, and understand the reasons for choosing one over another. It helps bring order to the confusion of available options. By following the convention of the patterns, you will create maintainable and understandable code. The patterns provide a framework, as well as a set of nomenclature for discussing designs with other professionals.

Composition Patterns

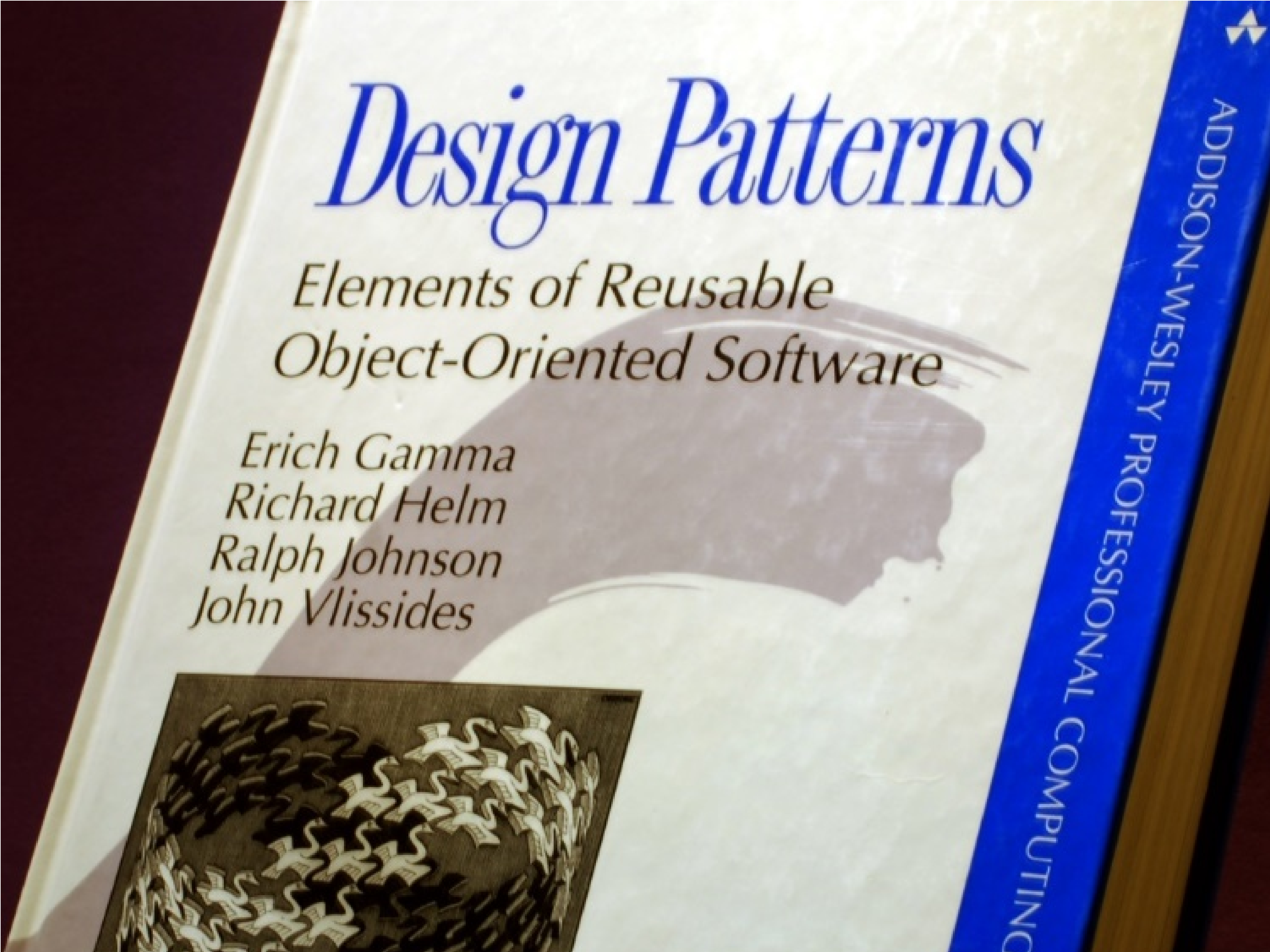
Use child controls within a grid to compose a user interface. Make your controls cooperate for position while

View Model Patterns

Stateful, stateless, and reacitive view models. Use a view model locator for a view-first approach, or implicit data

Design-Time Data

Based on your progress through the application development cycle, use in-place data, sample data, or a data source to visualize realistic data within the designer.



Design Patterns

Elements of Reusable Object-Oriented Software

Erich Gamma
Richard Helm
Ralph Johnson
John Vlissides

ADDISON-WESLEY PROFESSIONAL COMPUTING