Adding Properties

Brian Lagunas

http://brianlagunas.com

@brianlagunas

Outline

- **Dependency Properties**

- **Property Metadata**

- **Read Only Properties**

- **Collection Type Properties**

- **Attached Properties**

Dependency Properties

- **What is a DependencyProperty?**

- **Why Dependency Properties?**
  - Set in a Style
  - Support data binding
  - Set with a Resource
  - Support animation
  - More

- **How to create a DP**
  - Define a DP identifier
  - Register property name with property system
  - Provide metadata
  - Create CLR "wrapper"

Property Metadata

- **What is PropertyMetadata?**

- **Specify default values, coercion, property changed callbacks, validation**

- **FrameworkPropertyMetadata gives more control**
  - Change default data binding mode
  - AffectsMeasure
  - AffectsArrange
  - AffectsRender

Read Only Properties

- **Limited functionality**
  - Not settable
  - No data binding
  - No validation
  - No animation
  - No Inheritance

- **Why use them?**
  - Used for state determination
  - Used as a property trigger

Collection Type Properties

- **DO NOT provide default value in metadata**

- **Provide default value in constructor**

- **WHY?**
  - You don't want a singleton

Attached Properties

- **Global property for any object**

- **No wrapper**

- **Common use**
  - Layout
  - Parent/Child scenarios
  - Integration
  - Visual Studio designer support
  - More

Summary

- **Dependency Properties**

- **Property Metadata**

- **Read Only Properties**

- **Collection Type Properties**

- **Attached Properties**