



MODULE 07

DEPENDENCY PROPERTIES

MODULE TOPICS

Dependency Property Functionality Defining a Dependency Property
Registering a Dependency Property
Property Wrappers
Property Value Inheritance
Change Notification

DEPENDENCY PROPERTY FUNCTIONALITY

- Property Value Inheritance
- Change Notification
- Enhanced Data Binding
- Resources
- Styles
- Animations

DEFINING A DEPENDENCY PROPERTY

```
public static readonly DependencyProperty HighlightProperty;
```

FRAMEWORK PROPERTY METADATA

```
FrameworkPropertyMetadata metadata = new FrameworkPropertyMetadata(  
    false,                                     // Default Value  
    FrameworkPropertyMetadataOptions.Inherits, // Value can be inherited  
    new PropertyChangedCallback(OnHighlightChanged) // Change Callback  
);
```

REGISTERING A DEPENDENCY PROPERTY

```
HighlightProperty = DependencyProperty.Register(
    "Highlight", // Name of Dependency Property
    typeof(Boolean), // Type of Dependency Property
    typeof(HighlightButton), // Owner of Dependency Property
    metadata // FrameworkPropertyMetadata
);
```

PROPERTY WRAPPERS

```
public Boolean Highlight
{
    get { return (Boolean)GetValue(HighlightProperty); }
    set { SetValue(HighlightProperty, value); }
}
```

PROPERTY VALUE INHERITANCE

- Some Dependency Properties support value inheritance
- This allows a property value to inherit down from a parent element to a child
- Example is setting font properties on a Window, and child elements using those values

PROPERTY VALUE PRECEDENCE

1. Default value
2. Inherited
value
3. Value from a
style
4. Local value

PROPERTY VALUE CHANGE NOTIFICATIONS

- Some Dependency Properties have events that are raised when the property value changes
- The event names end in Changed
 - Examples: DataContextChanged, IsEnabledChanged, IsVisibleChanged

ANY QUESTIONS?