



MODULE 15

CONTROL TEMPLATES

MODULE TOPICS

Logical and Visual Trees
Creating Control Templates
Templates vs. Styles

LOGICAL AND VISUAL TREES

- The elements you add to a window form the logical tree
 - Property value inheritance, event routing, and styling work through the logical tree
- To allow for the customization of elements, WPF goes deeper with the visual tree
 - A visual tree is an expanded version of the logical tree
 - Breaks elements into smaller pieces

VIEWING THE VISUAL TREE

- Use the Live Visual Tree and Live Property Explorer Windows
- While app is running
 - Debug | Windows | Live Visual Tree
 - Debug | Windows | Live Property Explorer

CREATING CONTROL TEMPLATES

```
<Style TargetType="Button">
  <Setter Property="Template">
    <Setter.Value>
      <ControlTemplate TargetType="Button">
        <Border>
          <Border.Style>
            <Style TargetType="{x:Type Border}">
              <Setter Property="Control.Background" Value="Orange" />
              <Style.Triggers>
                <Trigger Property="IsMouseOver" Value="True">
                  <Setter Property="Background" Value="Yellow" />
                </Trigger>
              </Style.Triggers>
            </Style>
          </Border>
        </ControlTemplate>
      </Setter.Value>
    </Setter>
  </Style>
```

TEMPLATES VS. STYLES

- Both templates and styles allow you to change the appearance of an element
- Styles can only adjust properties
- Templates can replace an entire visual tree

ANY QUESTIONS?