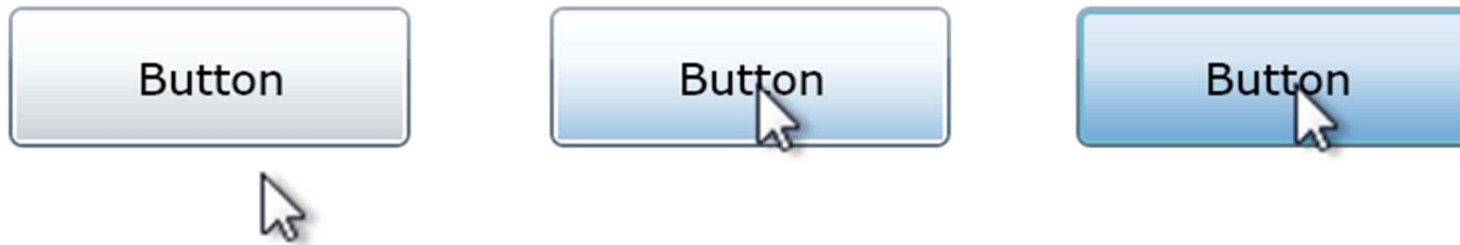


Visual State Manager

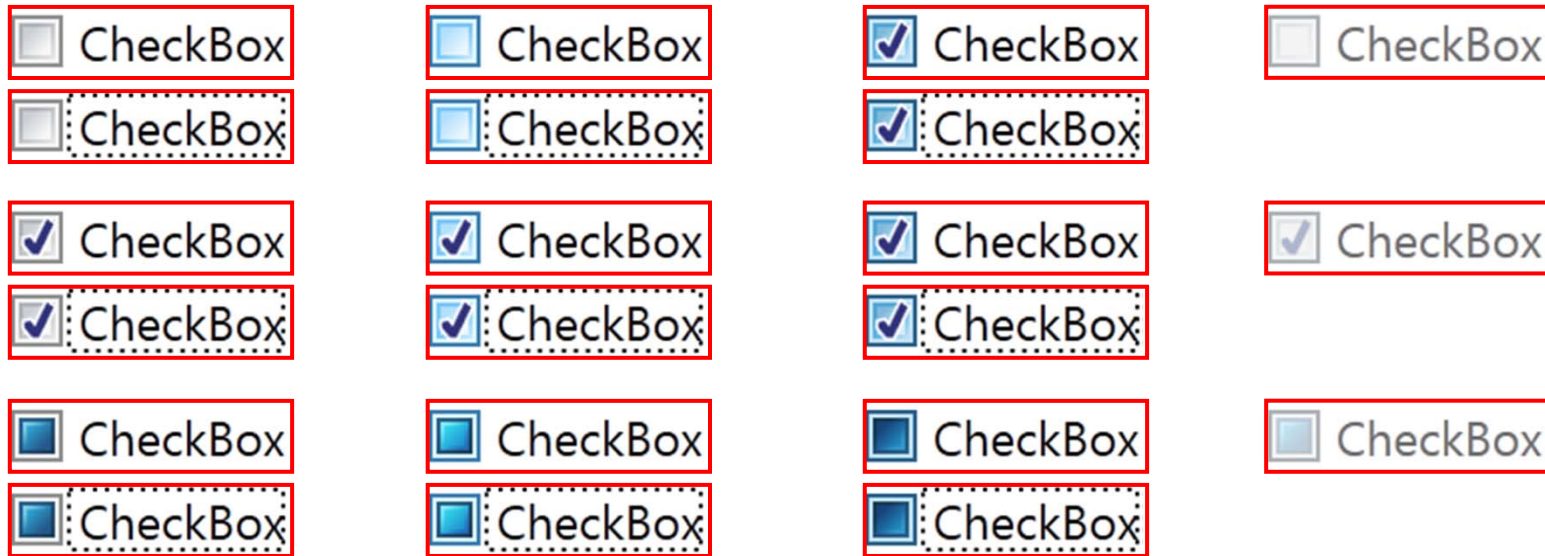
Features added in WPF 4



Visual States



States and State Groups



State Groups

Checked
Unchecked
Indeterminate

Normal
MouseOver
Pressed
Disabled

Focused
Unfocused

Valid
InvalidFocused
InvalidUnfocused

Per-State Animations

```
<vsm:VisualStateManager.VisualStateGroups>
  <vsm:VisualStateGroup x:Name="CommonStates">
    <vsm:VisualState x:Name="MouseOver">
      <Storyboard>
        <ColorAnimation Storyboard.TargetName="tickBox"
          Storyboard.TargetProperty="(Rectangle.Fill).
            (SolidColorBrush.Color)"
          To="PaleGreen" Duration="0:0:0.5" />
      </Storyboard>
    </vsm:VisualState>
  </vsm:VisualStateGroup>
</vsm:VisualStateManager.VisualStateGroups>
```

Runs when
control enters
MouseOver state

Transition Animations

```
<vsm:VisualStateGroup x:Name="CommonStates">
  <vsm:VisualStateGroup.Transitions>
    <vsm:VisualTransition From="Pressed" To="Normal" Duration="0:0:0.5">
      <Storyboard>
        <ColorAnimation Storyboard.TargetName="tickBox"
          Storyboard.TargetProperty="(Rectangle.Fill).
            (SolidColorBrush.Color)"
          To="Red" Duration="0:0:0.5" />
      </Storyboard>
    </vsm:VisualTransition>
  </vsm:VisualStateGroup.Transitions>

  <vsm:VisualState x:Name="MouseOver"> ...
```

Defining States

```
[TemplateVisualState(Name = "On",      GroupName = "SelectionStates")]
[TemplateVisualState(Name = "Off",     GroupName = "SelectionStates")]
[TemplateVisualState(Name = "MouseOver", GroupName = "CommonStates")]
[TemplateVisualState(Name = "Pressed",  GroupName = "CommonStates")]
[TemplateVisualState(Name = "Disabled", GroupName = "CommonStates")]
[TemplateVisualState(Name = "Focused",  GroupName = "FocusStates")]
[TemplateVisualState(Name = "Unfocused", GroupName = "FocusStates")]
public class MyCustomControl : Control ...
```

- Can use metadata provider
- Blend cheats

Changing State

```
VisualStateManager.GotoState(this, "MouseOver", true);
```



Run animations?

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