

# Advanced Data Binding Concepts

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# Overview



Using converters

Binding properties

Debugging data binding statements

Using nested BindingContext

Compiled data binding



# Using Converters

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# Converters

Hook in the data  
binding

Type to another  
type

IValueConverter



# A Sample Converter

```
public class CurrencyConverter: IValueConverter
{
    public object Convert(object value, Type targetType,
object parameter, CultureInfo culture)
    { ... }

    public object ConvertBack(object value, Type
targetType, object parameter, CultureInfo culture)
    { ... }
}
```

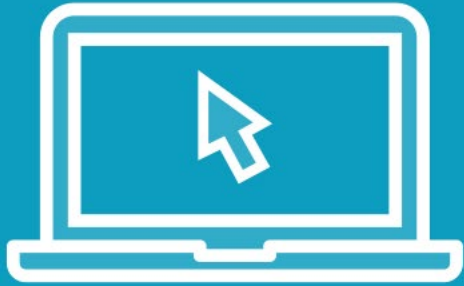


```
<Label x:Name="PriceLabel"  
    Text="{Binding Pie.Price,  
        Converter={StaticResource LocalCurrencyConverter}}"  
></Label>
```

## Using the Converter



# Demo



Creating a converter

Using the converter

Passing parameters to the converters

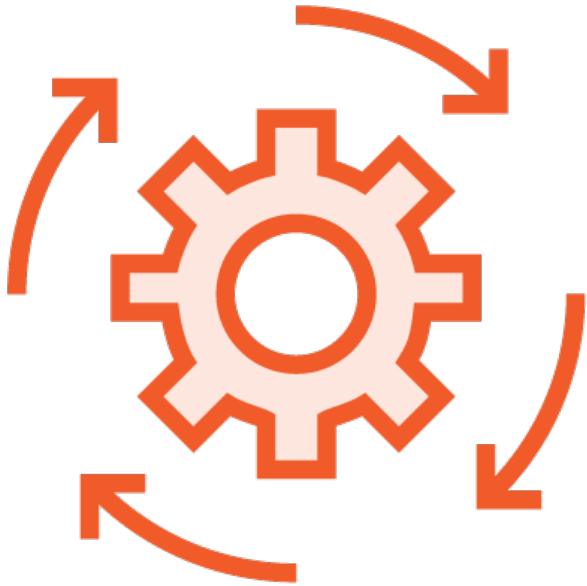


# Binding Properties

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## Can avoid writing a converter

- StringFormat
- FallbackValue
- TargetNullValue

```
<Label Text="{Binding Price, StringFormat='{0:C}'}" />
```

# StringFormat



```
<Label  
    Text="{Binding IsPremiumPie,  
    FallbackValue='Name unknown'}" />
```

# FallbackValue



```
<Image Source="{Binding imageUrl,  
TargetNullValue='https://www.bethanyspieshop.com/unknown.jpg'}"  
... />
```

TargetNullValue



# Demo



## Using the binding properties



# Debugging Data Binding Statements

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# Demo



Creating a converter for debugging purposes



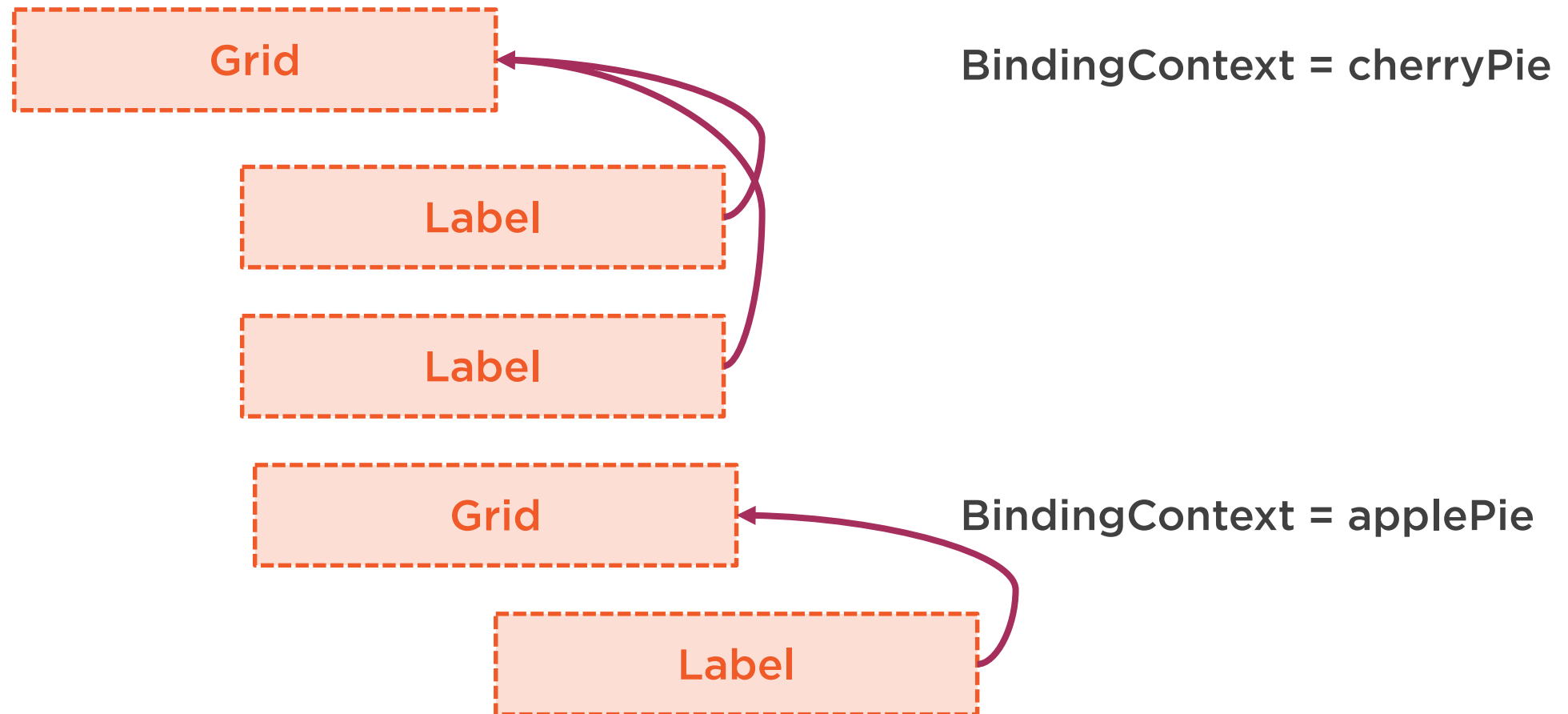
# Using Nested BindingContext

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# Nested BindingContext



# Demo



Working with several nested DataContext instances



# Compiled Data Binding

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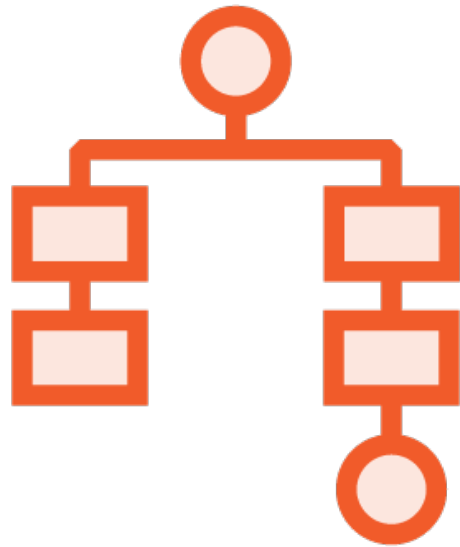


# Regular Data Binding Issues

**No validation**

**Performance**





## Compiled data bindings

- Invalid data bindings will result in compilation errors
- Require XAML compilation
- `x:DataType` must be set

# Working with a Compiled Data Binding

```
<StackLayout x:DataType="model:Pie">  
  <Grid>  
    <Entry Text="{Binding PieName, Mode=TwoWay}" >  
  </Entry>  
  </Grid>  
</StackLayout>
```



# Demo



## Working with compiled data bindings



# Summary



## Data binding offers many options

- Converters
- Debugging
- Extra binding properties
- Compiled data bindings





**Up next:**  
Data binding and MVVM

