Microsoft Reactor

DataTemplate
数据模板

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为什么需要 DataTemplate

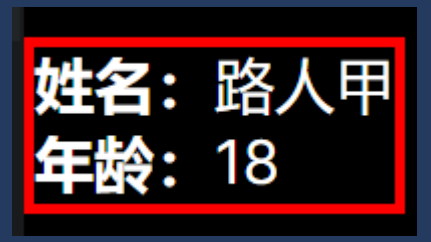
为什么需要DataTemplate

```
public class ContentControl : TemplatedControl, IContentControl, IContentPresenterHost
```

```
    Gets or sets the content to display.
    [Content]
    [DependsOn(nameof(ContentTemplate))]
    1438+4 用法  Steven Kirk +1  更多...
    public object? Content
    {
        get => GetValue(ContentProperty);
        set => SetValue(ContentProperty, value);
    }
```

为什么需要DataTemplate

姓名：路人甲 - 年龄：18



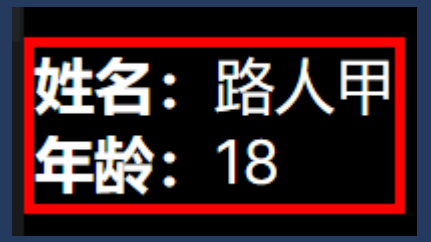

```
public override string ToString()
{
    return $"姓名：{Name} - 年龄：{Age}";
}
```

为什么需要DataTemplate

- 为不同类型的数据定义专属的界面展示模板
- 数据与界面解耦

为什么需要DataTemplate

姓名：路人甲 - 年龄：18




```
public override string ToString()
{
    return $"姓名：{Name} - 年龄：{Age}";
}
```

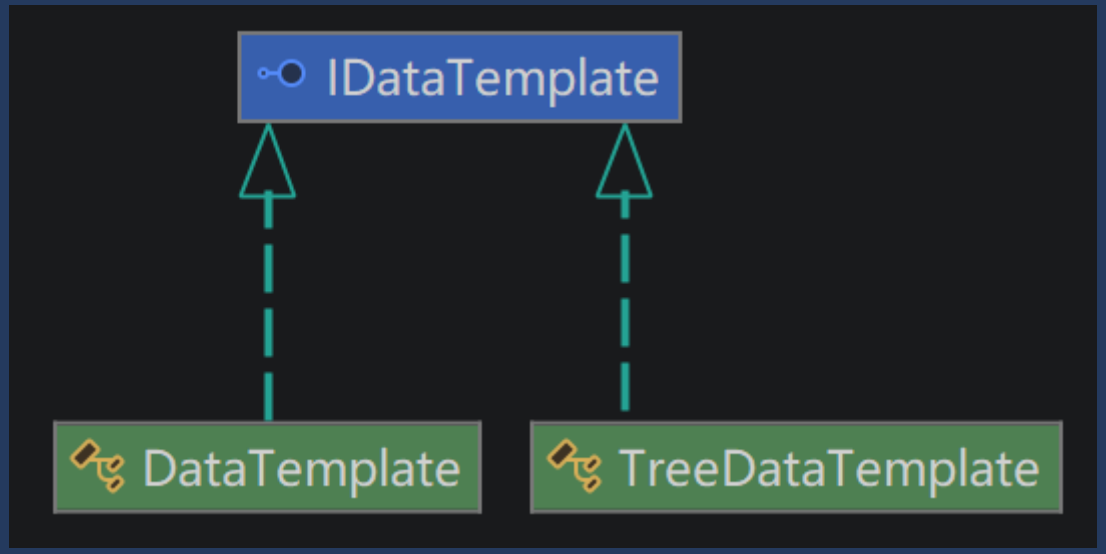
```
<ContentControl.ContentTemplate>
    <DataTemplate DataType="models:Person">
        <Border BorderThickness="[all:]5" BorderBrush="Red">
            <UniformGrid HorizontalAlignment="Left" Columns="2">
                <TextBlock Text="姓名：" FontWeight="Bold" />
                <TextBlock Text="{Binding (Person). Path=Name}" />
                <TextBlock Text="年龄：" FontWeight="Bold" />
                <TextBlock Text="{Binding (Person). Path=Age}" />
            </UniformGrid>
        </Border>
    </DataTemplate>
</ContentControl.ContentTemplate>
```

基本用法

DataTemplates

DataTemplates

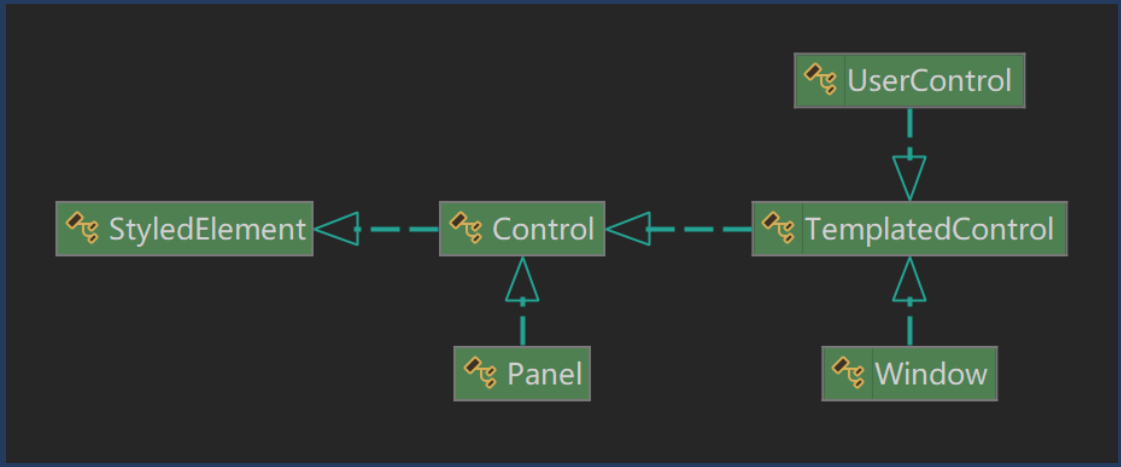
```
public class DataTemplates : AvaloniaList<IDataTemplate>,
{
    Initializes a new instance of the DataTemplates class.
    2 用法  ◇  Steven Kirk +2
    public DataTemplates()
    {
        ResetBehavior = ResetBehavior.Remove;
        Validator = this;
    }
```



DataTemplates

```
public class Control : InputElement, IDataTemplateHost, IVisualBrushInitialize, ISetterValue
    44+5 用法  Steven Kirk
    public DataTemplates DataTemplates ⇒ _dataTemplates ??= new DataTemplates();
```

```
public class Application : AvaloniaObject, IDataContextProvider, IGlobalDataTemplates, IGlobalStyles,
    public DataTemplates DataTemplates ⇒ _dataTemplates ?? (_dataTemplates = new DataTemplates());
```



DataTemplate的查找顺序

Application
|- DataTemplates [5]

UserControl
|- DataTemplates [4]
|- StackPanel
  |- DataTemplates [3]
  |- ItemsControl
    |- DataTemplates [2]
    |- ItemTemplate [1]

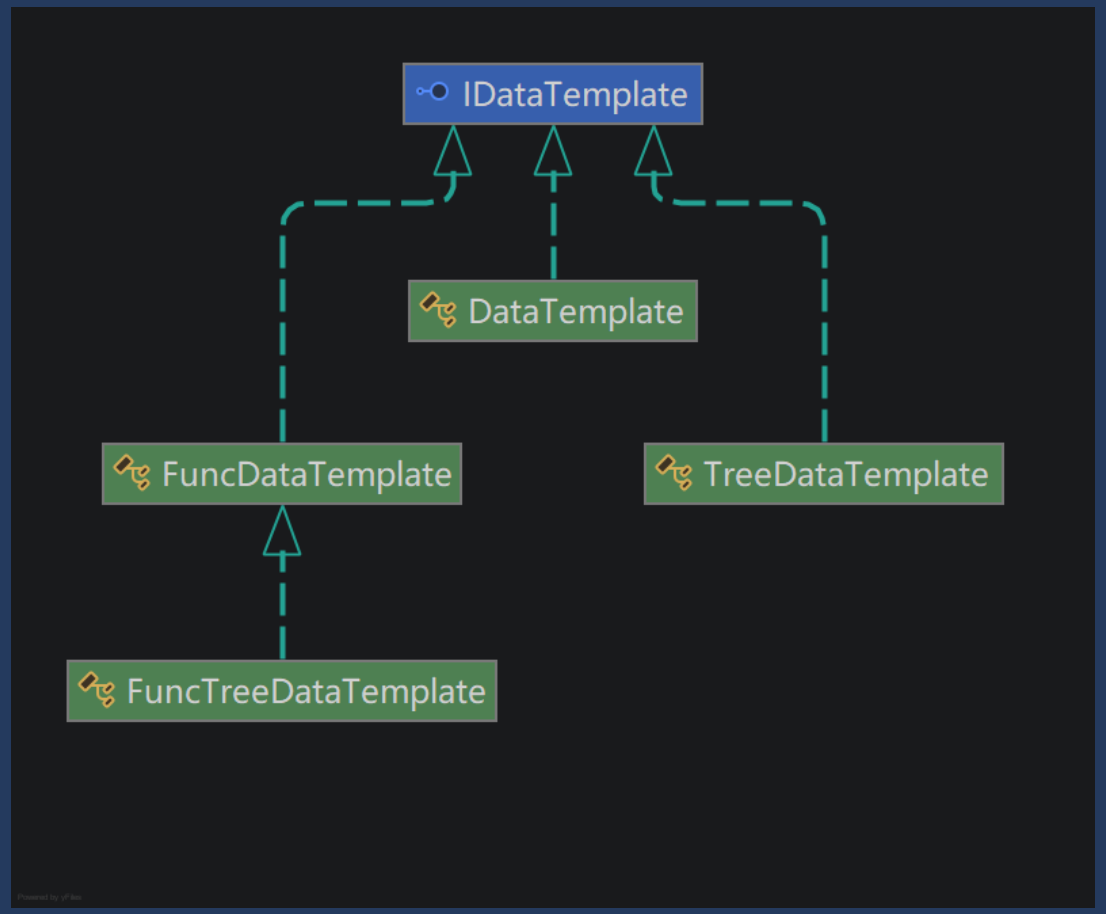
```
public class ContentControl : TemplatedControl, IContentControl, IContentPresenterHost
    Gets or sets the data template used to display the content of the control.
    186 用法  Steven Kirk +1
    public IDataTemplate? ContentTemplate
    {
        get ⇒ GetValue(ContentTemplateProperty);
        set ⇒ SetValue(ContentTemplateProperty, value);
    }
```

```
public class ItemsControl : TemplatedControl, IChildIndexProvider
    114 用法  Steven Kirk +1
    public IDataTemplate? ItemTemplate
    {
        get ⇒ GetValue(ItemTemplateProperty);
        set ⇒ SetValue(ItemTemplateProperty, value);
    }
```

IDataTemplate

FuncDataTemplate

FuncDataTemplate



FuncDataTemplate

```
public class FuncDataTemplate : FuncTemplate<object?, Control?>, IRecyclingDataTemplate
```

```
public class FuncDataTemplate<T> : FuncDataTemplate
```

FuncDataTemplate

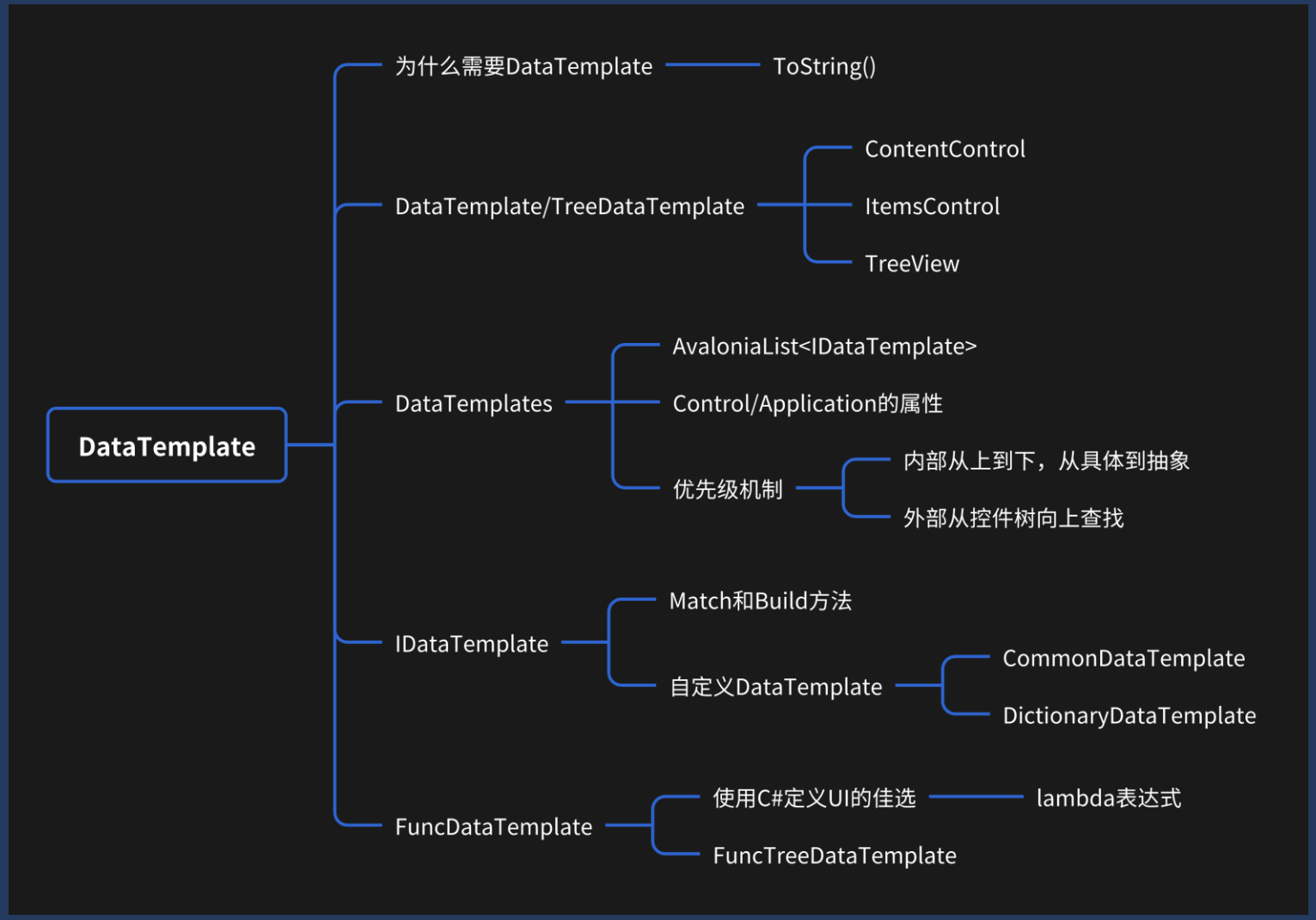
```
public class FuncDataTemplate : FuncTemplate<object?, Control?>, IRecyclingDataTemplate
```

```
public class FuncDataTemplate<T> : FuncDataTemplate
```

```
public class FuncTreeDataTemplate : FuncDataTemplate, ITreeDataTemplate
```

```
public class FuncTreeDataTemplate<T> : FuncTreeDataTemplate
```

小结


DataTemplate
为什么需要DataTemplate
ToString()
DataTemplate/TreeDataTemplate
ContentControl
ItemsControl
TreeView
DataTemplates
AvaloniaList<IDataTemplate>
Control/Application的属性
优先级机制
内部从上到下，从具体到抽象
外部从控件树向上查找
IDataTemplate
Match和Build方法
自定义DataTemplate
CommonDataTemplate
DictionaryDataTemplate
FuncDataTemplate
使用C#定义UI的佳选
lambda表达式
FuncTreeDataTemplate