

Der Design-Workflow für Silverlight in der Praxis

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In eigener Sache

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- Motivation
- Designer Developer Workflow
- Prototyping und Styleguide
- Business und Bindungen
- Integration



Motivation



Silverlight, warum nicht?

- Neugierde
- Designer Developer Workflow
- Verstehen, Lernen und Bewerten
- Anforderungen und **Ressourcen**



Designer Developer Workflow



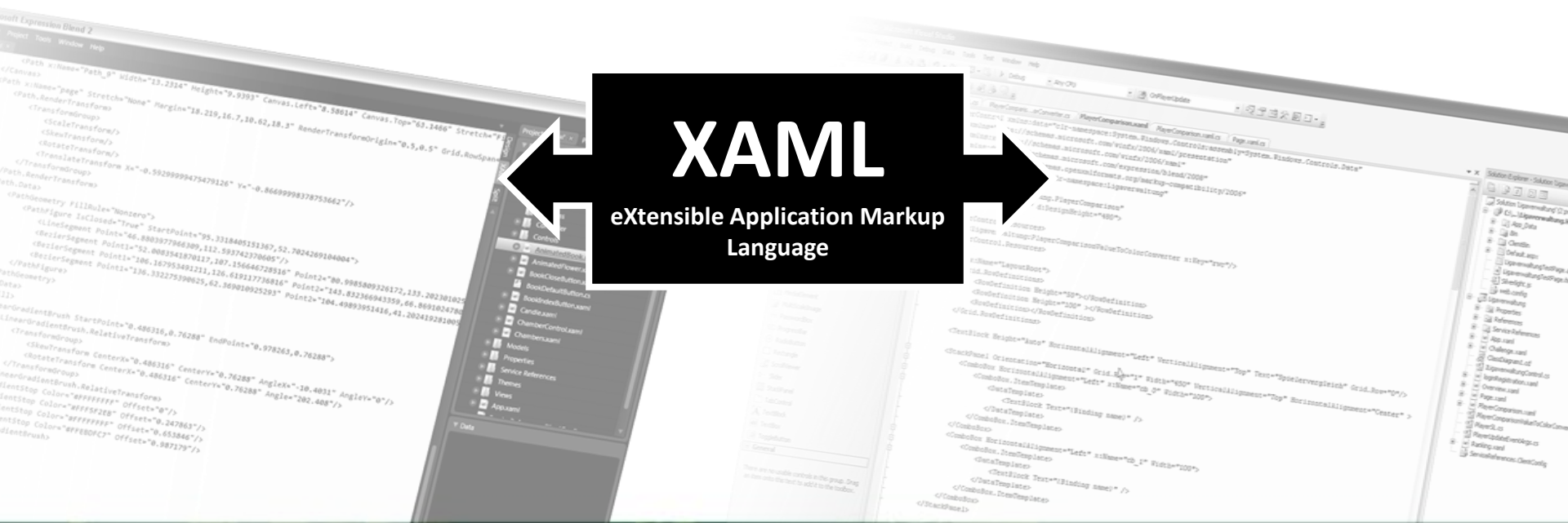
Gemeinsamkeiten



Microsoft
Expression Blend 2



Microsoft
Visual Studio



XAML

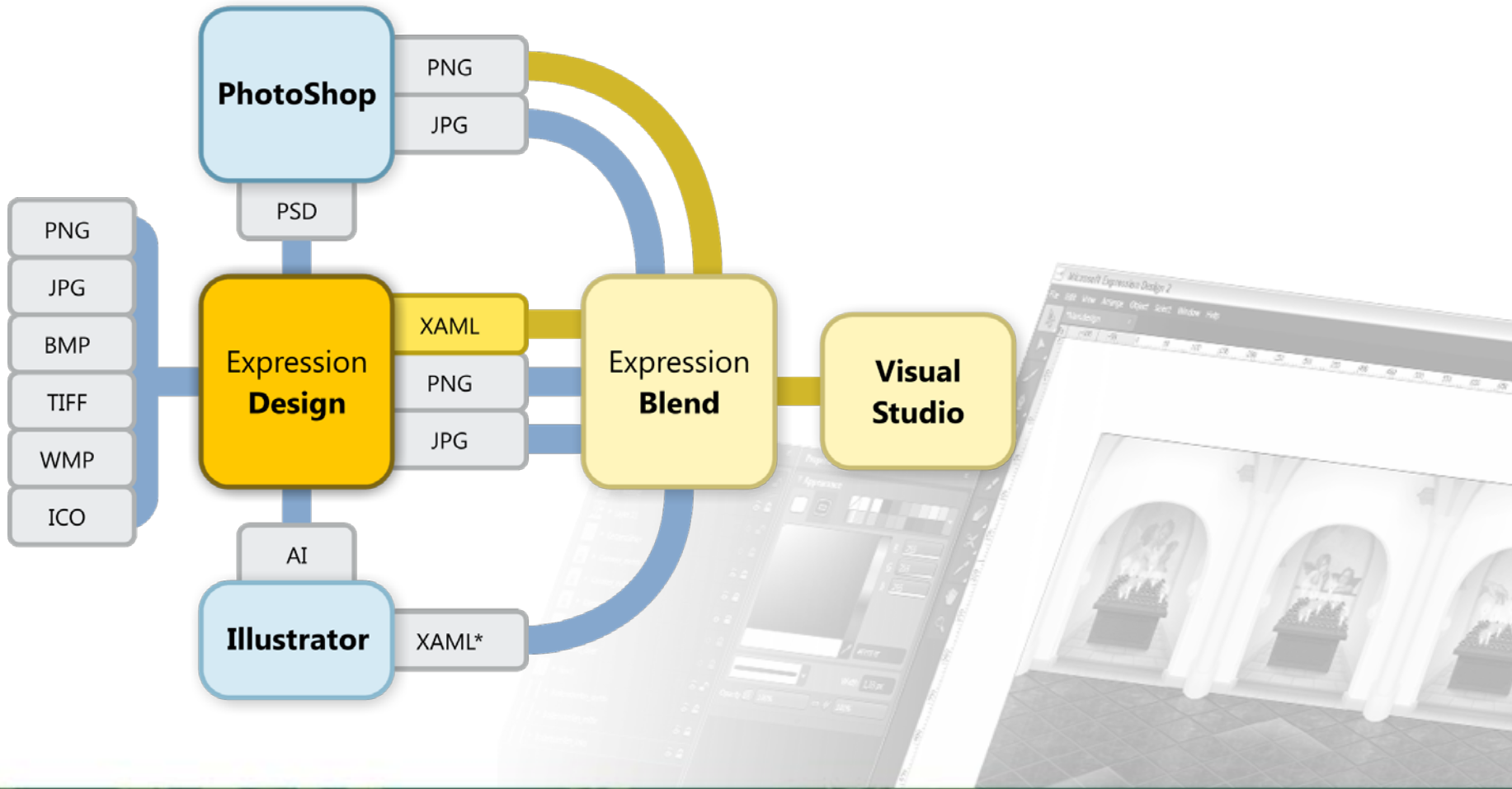
eXtensible Application Markup
Language

Werkzeuge

- Gemeinsames Projektformat
- Grafische Inhalte mit Expression Design
- **Segmente**
- XAML versus Bitmaps



Workflow



Medienintegration

■ Animation

- Tipp: x: Name versus „Property Path“

```
Storyboard.TargetName="rectangle"
```

```
Storyboard.TargetProperty="(UIElement.RenderTransform)
```

```
.(TransformGroup.Children)[0].(ScaleTransform.ScaleX)">
```

```
Storyboard.TargetName="scaleTransform,,
```

```
Storyboard.TargetProperty="ScaleX"
```

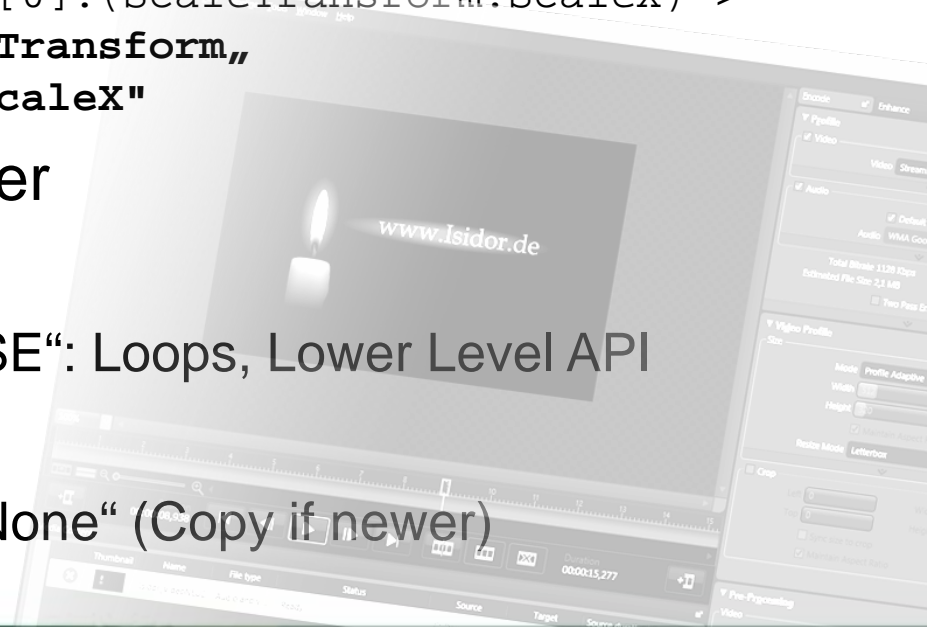
■ Video mit Expression Encoder

■ Sound

- „Microsoft, MAKE SOME NOISE“: Loops, Lower Level API

■ Eingebettet versus Extern

- Build Action „Resource“ und „None“ (Copy if newer)



Prototyping

Mock-up

- Views
- Page Switcher
- Controller

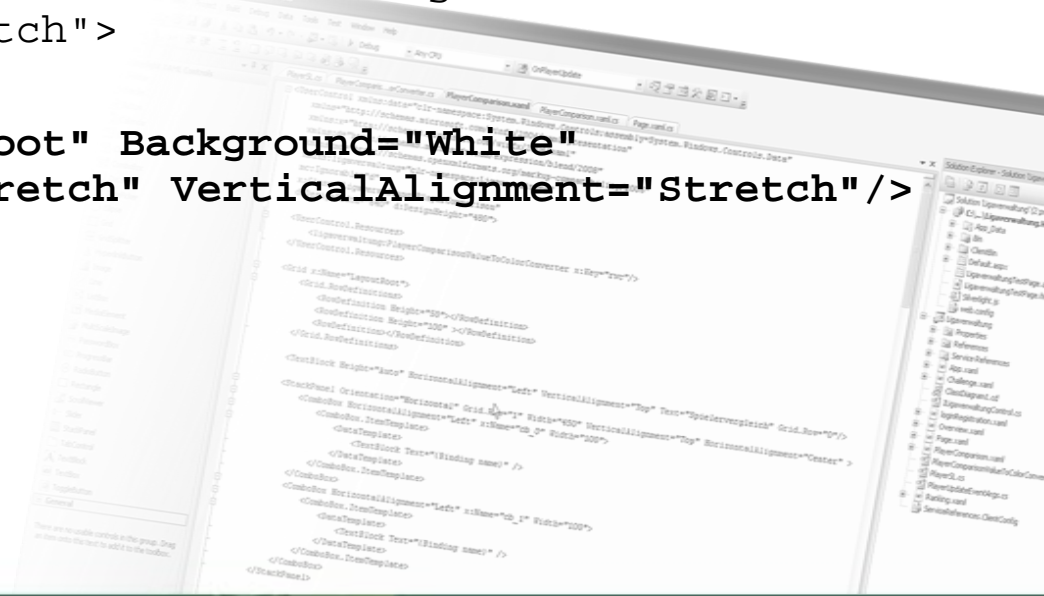


Code-Snippet: Page Switcher, XAML

```
<UserControl
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    x:Class="Isidor.Page"
    Width="Auto" Height="Auto" HorizontalAlignment="Stretch"
    VerticalAlignment="Stretch">

    <Border x:Name="LayoutRoot" Background="White"
    HorizontalAlignment="Stretch" VerticalAlignment="Stretch" />

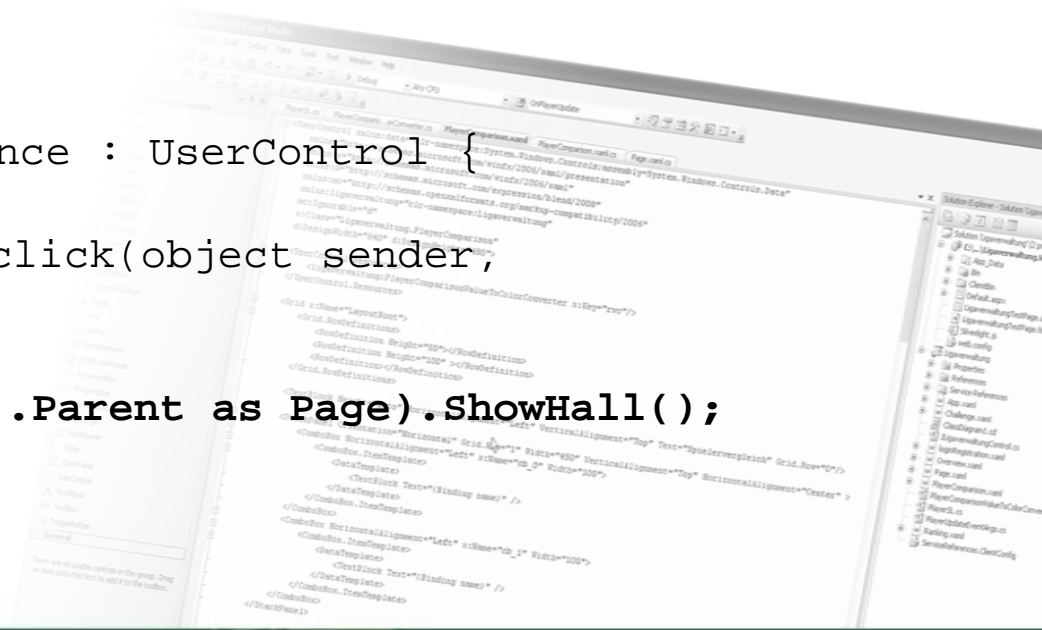
</UserControl>
```



Code-Snippet: Page Switcher, C#

```
public partial class Page : UserControl {  
    ...  
    public void ShowEntrance()  
    {  
        LayoutRoot.Child = new Entrance();  
    }  
    ...  
}
```

```
public partial class Entrance : UserControl {  
    ...  
    private void ShowHall_click(object sender,  
        RoutedEventArgs e)  
    {  
        ((Parent as Border).Parent as Page).ShowHall();  
    }  
    ...  
}
```



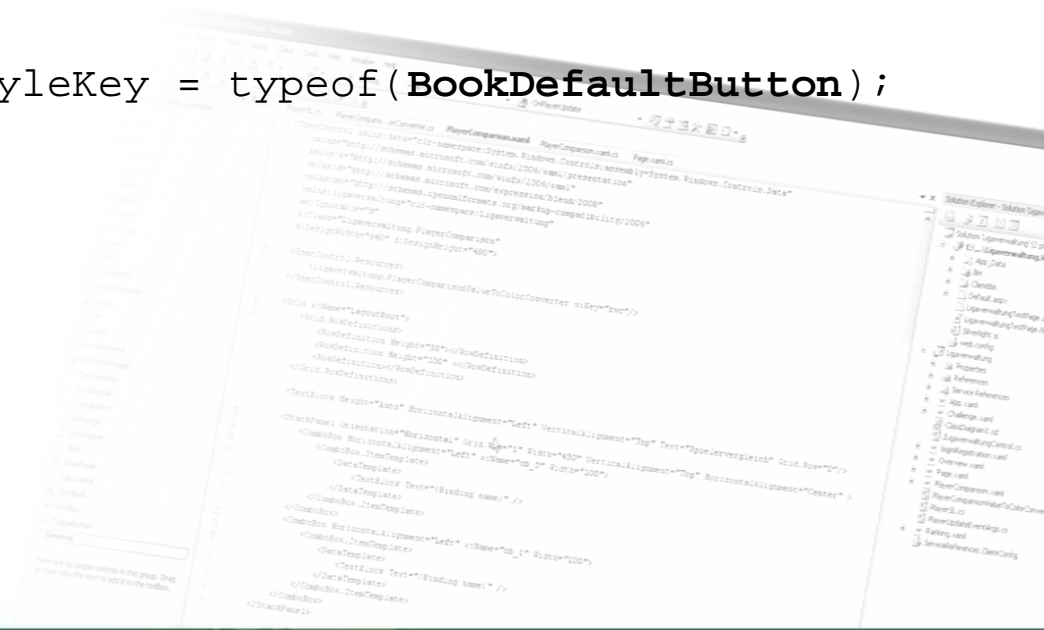
Styleguide

- App Resources versus UserControl Resources
 - Farben, Größen und noch viel mehr...
- Styles
- Templates
- Data Templates
- Theme (generic.xaml)



Code-Snippet: Controls, C#

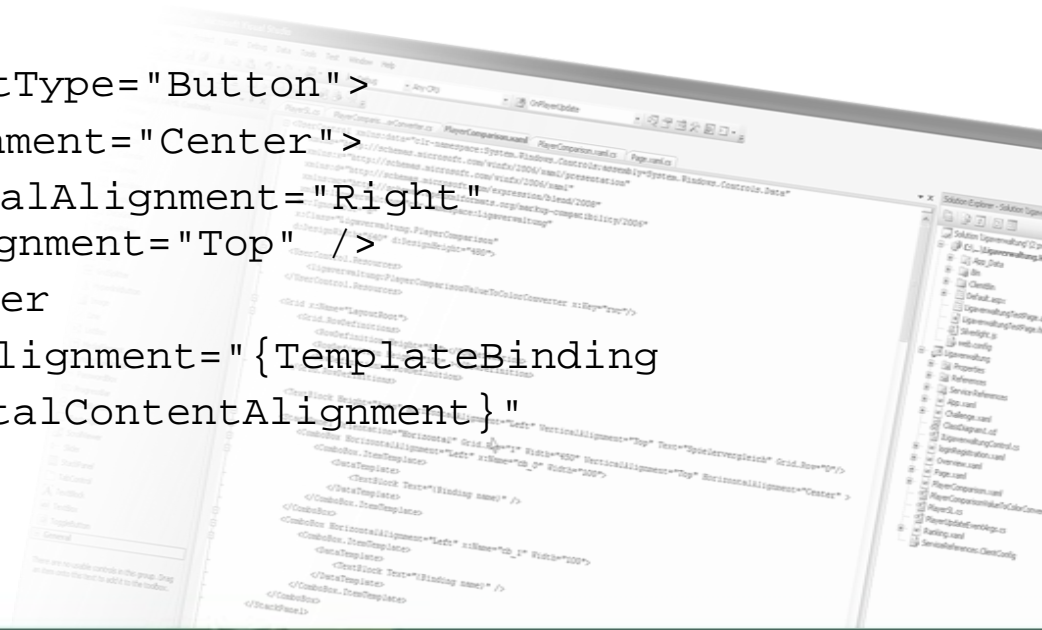
```
namespace IsidorApplication.Controls
{
    public class BookDefaultButton : Button
    {
        public BookDefaultButton()
        {
            this.DefaultStyleKey = typeof(BookDefaultButton);
        }
    }
}
```



Code-Snippet: Controls, Theme

```
<Style TargetType="controls:BookDefaultButton">
  <Setter Property="Foreground"
    Value="{StaticResource IsidorStandard}" />
  <Setter Property="Cursor" Value="Hand" />
  <Setter Property="Template">
    <Setter.Value>
      <ControlTemplate TargetType="Button">
        <Grid VerticalAlignment="Center">
          <Image HorizontalAlignment="Right"
            VerticalAlignment="Top" />
          <ContentPresenter
            HorizontalAlignment="{TemplateBinding
              HorizontalContentAlignment}"
          />
        </Grid>
      </ControlTemplate>
    </Setter.Value>
  </Setter>
</Style>
```

...



Business und Bindungen

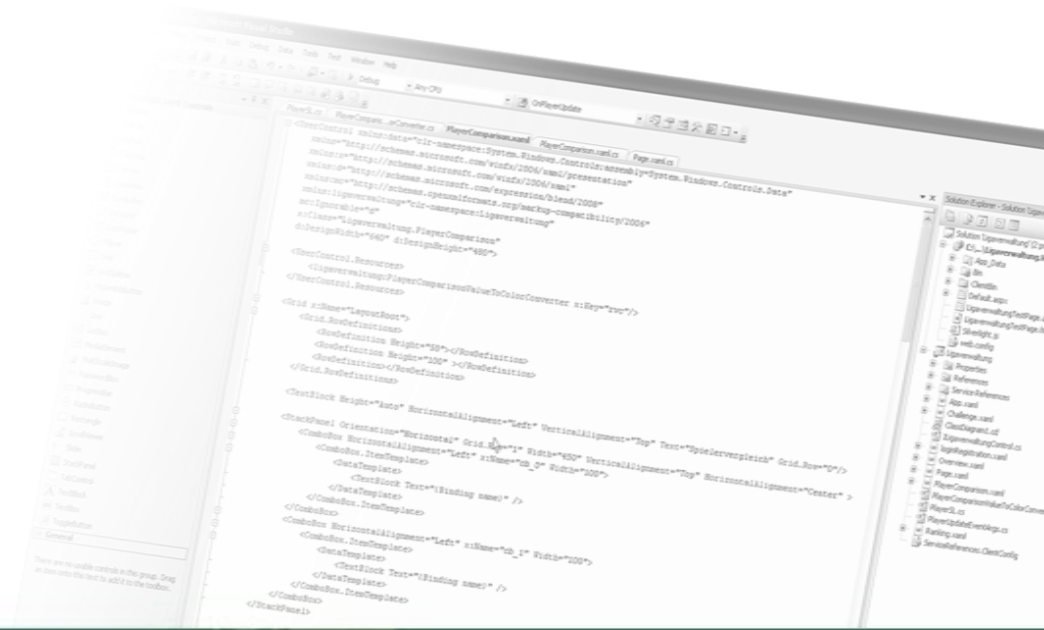
Architektur

- Modell
 - Anwendungsdaten (**nicht vergessen: Rich Application**)
- View
 - XAML
 - Trennung von Design und Code
 - **Raus** geht es durch Ereignisse
 - **Rein** geht es durch Bindungen
- Controller
 - Code-Behind delegiert
 - Controller ist Singleton, weil...
 - Business im Controller



Code-Snippet: Bindung, Interface

```
public class IsidorModel : INotifyPropertyChanged
{
    ...
    public event PropertyChangedEventHandler PropertyChanged;
    ...
}
```



Code-Snippet: Bindung, Property

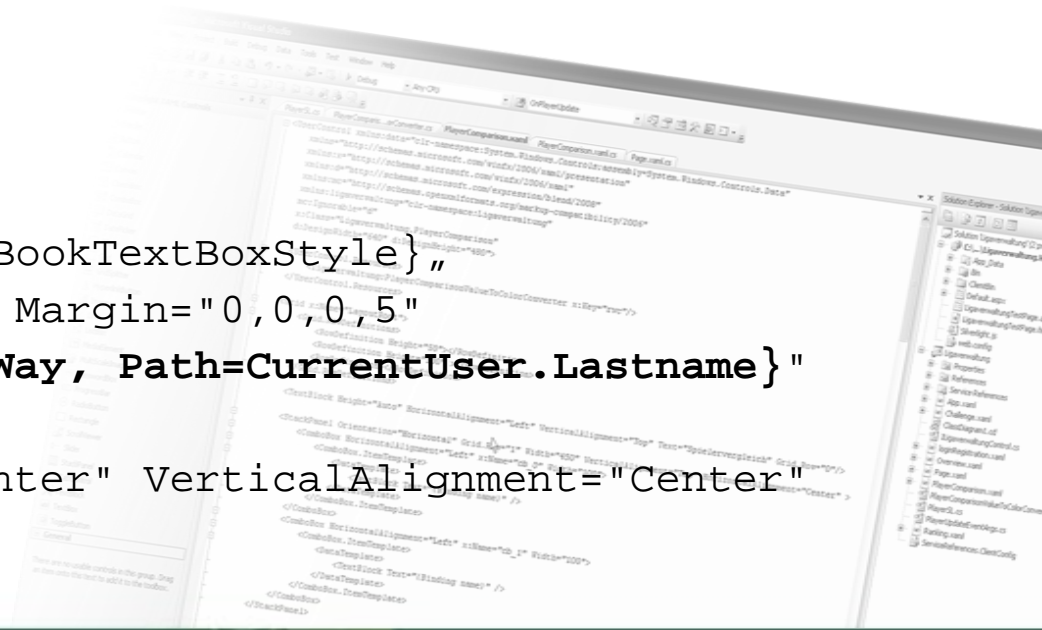
```
public class IsidorModel : INotifyPropertyChanged
{
    ...
    private User _currentUser = null;
    public User CurrentUser
    {
        get { return _currentUser; }
        set
        {
            _currentUser = value;
            //Call NotifyPropertyChanged
            //when the source property is updated
            NotifyPropertyChanged("CurrentUser");
        }
    }
    ...
}
```



Bindungen nutzen

```
<ContentControl  
  x:Name="ContentHolder"  
  IsEnabled="{Binding CurrentContentEnabled}"  
  Content="{Binding CurrentContent}"  
  HorizontalAlignment="Stretch" VerticalAlignment="Stretch"  
/>
```

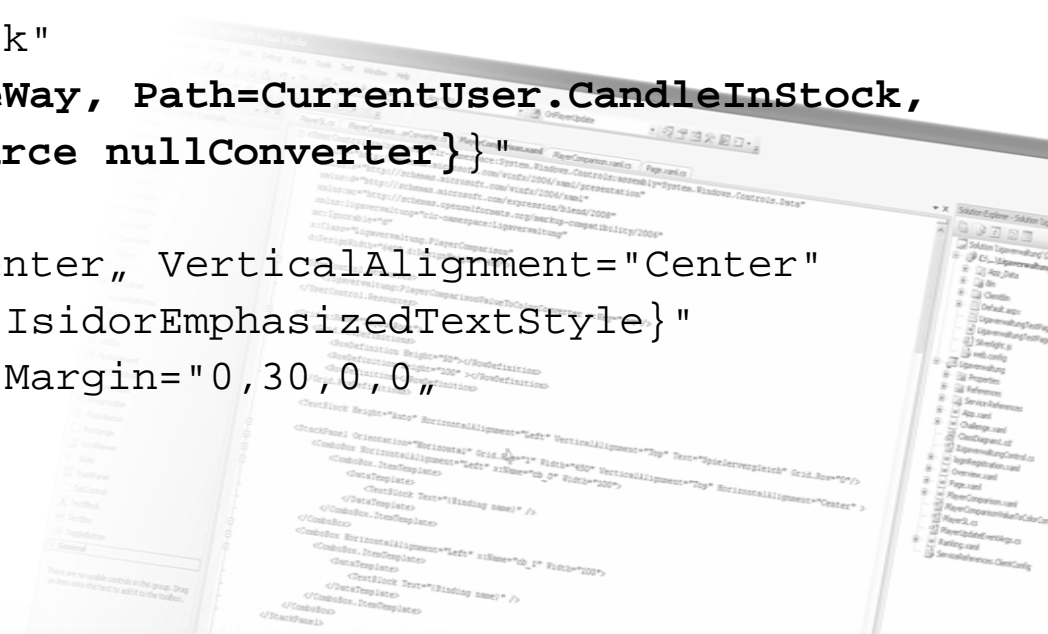
```
<TextBox  
  x:Name="txtLastname"  
  Style="{StaticResource BookTextBoxStyle}"  
  Width="200" Height="30" Margin="0,0,0,5"  
  Text="{Binding Mode=OneWay, Path=CurrentUser.Lastname}"  
  TextWrapping="Wrap"  
  HorizontalAlignment="Center" VerticalAlignment="Center"  
/>
```



Bindungen konvertieren

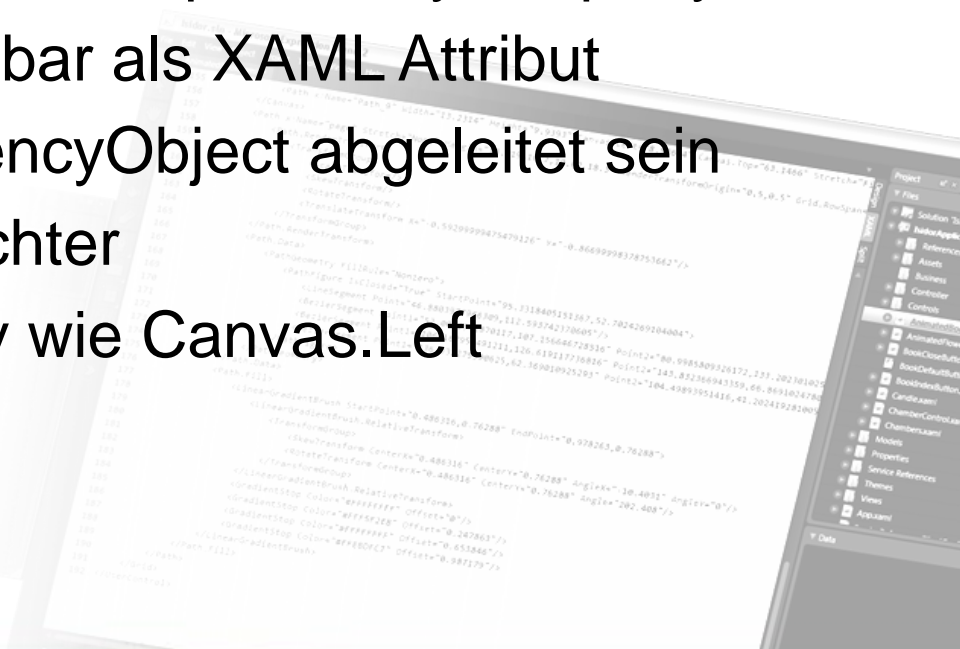
```
<UserControl.Resources>  
  <model:NullConverter x:Key="nullConverter" />  
</UserControl.Resources>
```

```
<TextBlock  
  x:Name="CandleCountBlock"  
  Text="{Binding Mode=OneWay, Path=CurrentUser.CandleInStock,  
    Converter={StaticResource nullConverter}}"  
  TextWrapping="Wrap"  
  HorizontalAlignment="Center", VerticalAlignment="Center"  
  Style="{StaticResource IsidorEmphasizedTextStyle}"  
  Foreground="#FFFBFAF7" Margin="0,30,0,0"  
>
```



Bindungen selbstgemacht

- Nutzbar bei eigenen Komponenten
- Für Styles, Bindungen und Animationen
- Voraussetzung für Bindungen: Dependency Property
- Positiver Nebeneffekt: Nutzbar als XAML Attribut
- Klasse muss von DependencyObject abgeleitet sein
- Code-Snippet macht es leichter
- Ausblick: Attached Property wie Canvas.Left



Integration



Integration: Ecosystem

Create



Microsoft
Expression Studio

Expression Blend for
creating media
experiences

Expression Media
Encoder for publishing
with Silverlight

+ Existing ecosystem
of WMV technology
partners / solution
providers

Distribute



Windows Server[®] 2008

Up to 2x streaming
scalability over
Windows Server 2003

New IIS7 Media Pack
with bit-rate throttling
for lower cost for
downloaded media—
New Secure content
delivery over SSL and
Cache/Proxy support

Experience



Microsoft[®]
Silverlight[™]

Interactivity, video, and
animation in browser
and/or full screen

Seamless, Fast
Installation for End
Users

Consistent experience
on Mac and Windows

Fragen?



Danke für Ihre Geduld.

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