

Cross-platform development with C#

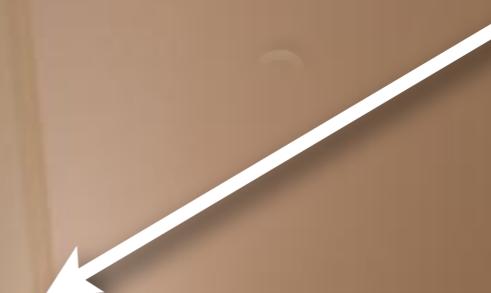
Olexandr Leuschenko

Agenda

- ⌚ Platform overview
- ⌚ Advanced Xamarin stuff
- ⌚ Xamarin for cross-platform development

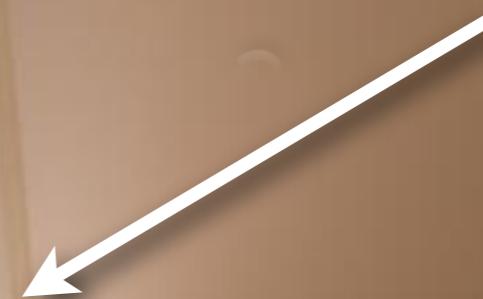
History

Miguel de Icaza



History

Miguel de Icaza



- ⌚ Mono - 2004 / 06 / 30
- ⌚ MonoTouch - 2009 / 09 / 14
- ⌚ Xamarin 2.0 - 2013 / 03 / 05

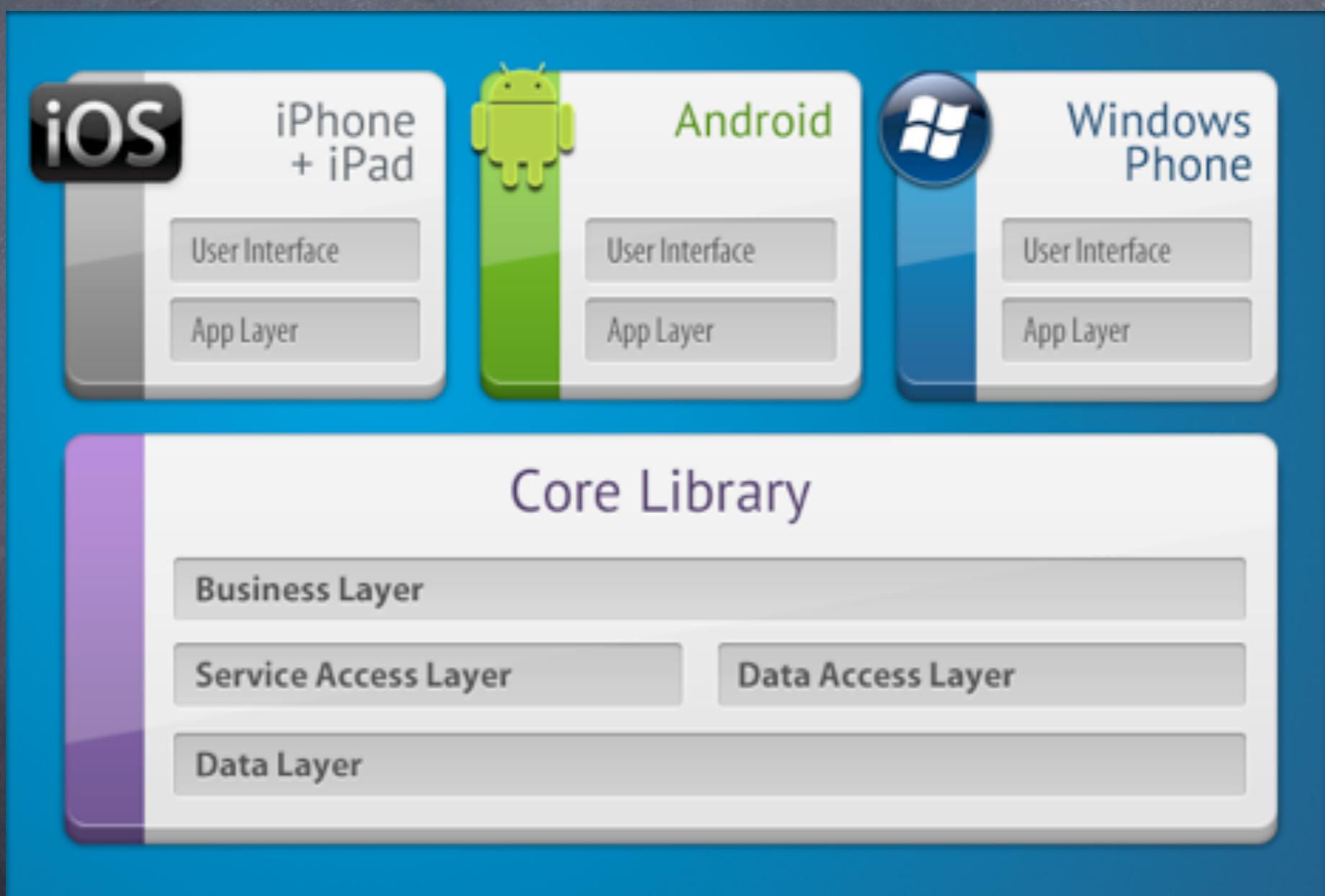
What is Xamarin platform?

- ⦿ C# compiler from Mono (F# for enthusiasts)
- ⦿ Core .NET libs
- ⦿ IDE (MonoDevelop, Xamarin Studio, Visual Studio)
- ⦿ Bindings-bindings-bindings

Not cross-platform? :(



Cross-platform! :)



Write once - run
everywhere!

~~Write once - run
everywhere!~~



UI



!=



!=



UI



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- ⌚ Interface Builder for iOS
- ⌚ Designer for Android
- ⌚ Designer for Windows Phone

Demo #1

Agenda

- ⌚ Platform overview
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- ⌚ Xamarin for cross-platform development

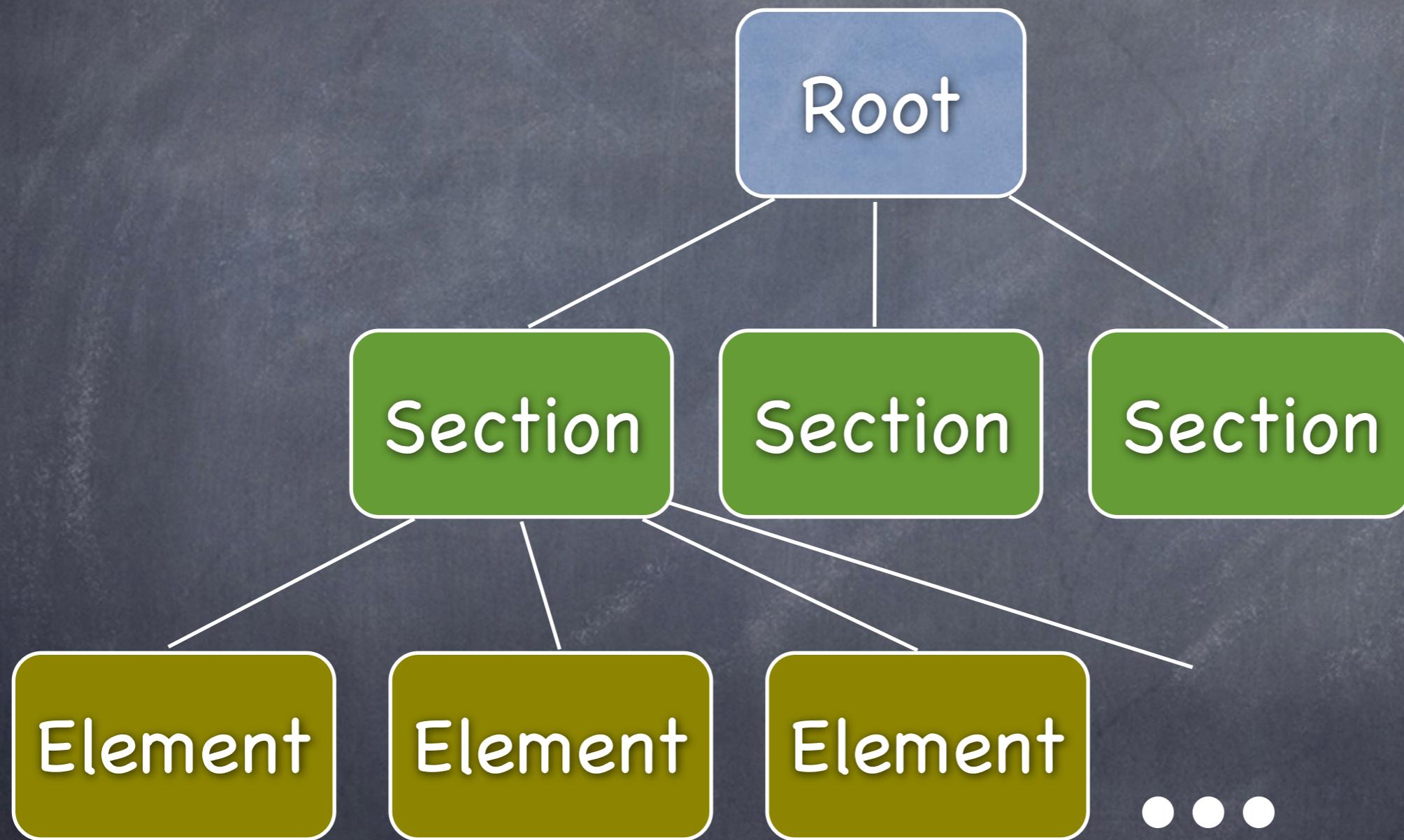
MonoTouch.Dialog

MonoDroid.Dialog

```
public partial class MTDialogViewController : DialogViewController
{
    public MTDialogViewController () : base (UITableViewStyle.Grouped, null)
    {
        Root = new RootElement ("MTDialogViewController") {
            new Section ("First Section"){
                new StringElement ("Hello", () => {
                    new UIAlertView ("Hola", "Thanks for tapping!", null, "Continue").Show ();
                }),
                new EntryElement ("Name", "Enter your name", String.Empty)
            },
            new Section ("Second Section"){
            },
        };
    }
}
```

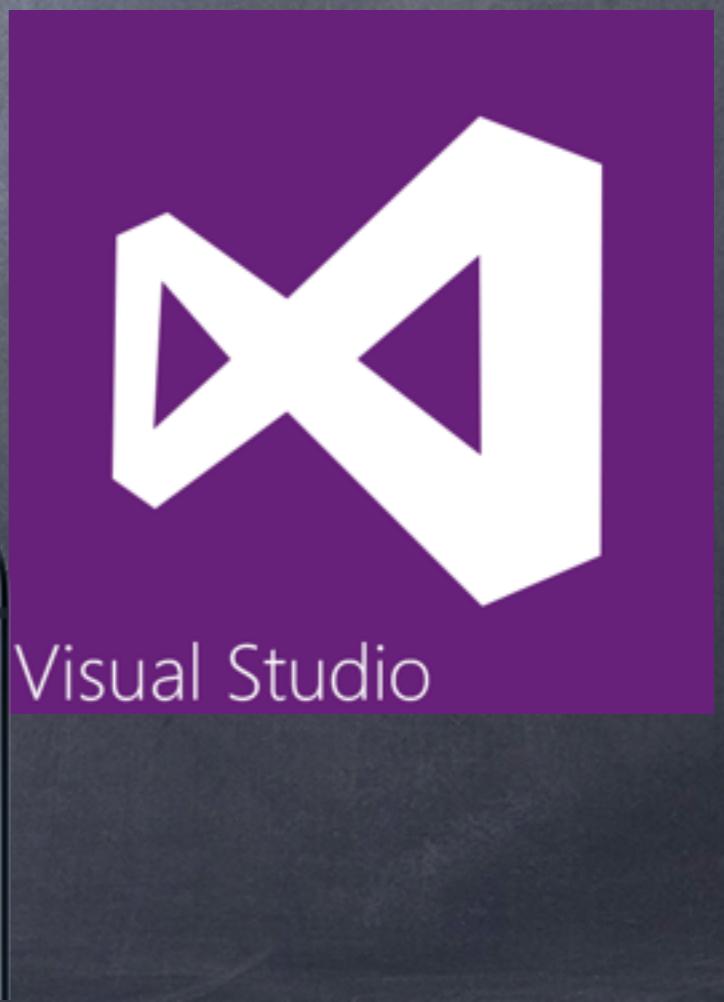
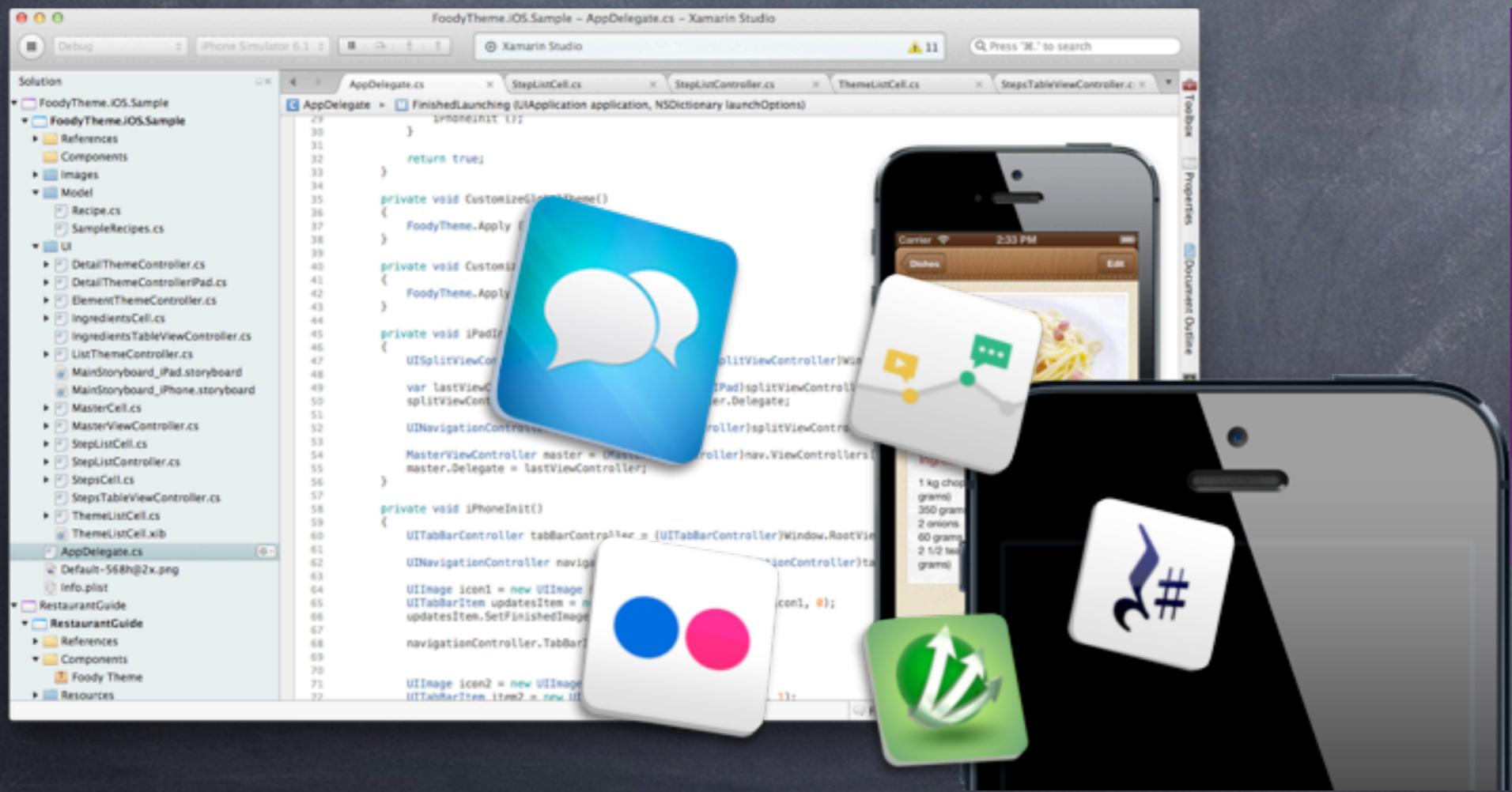
MonoTouch.Dialog

MonoDroid.Dialog



Xamarin 2.0

- ⌚ Xamarin Studio
- ⌚ iOS development with Visual Studio
- ⌚ Components



Components

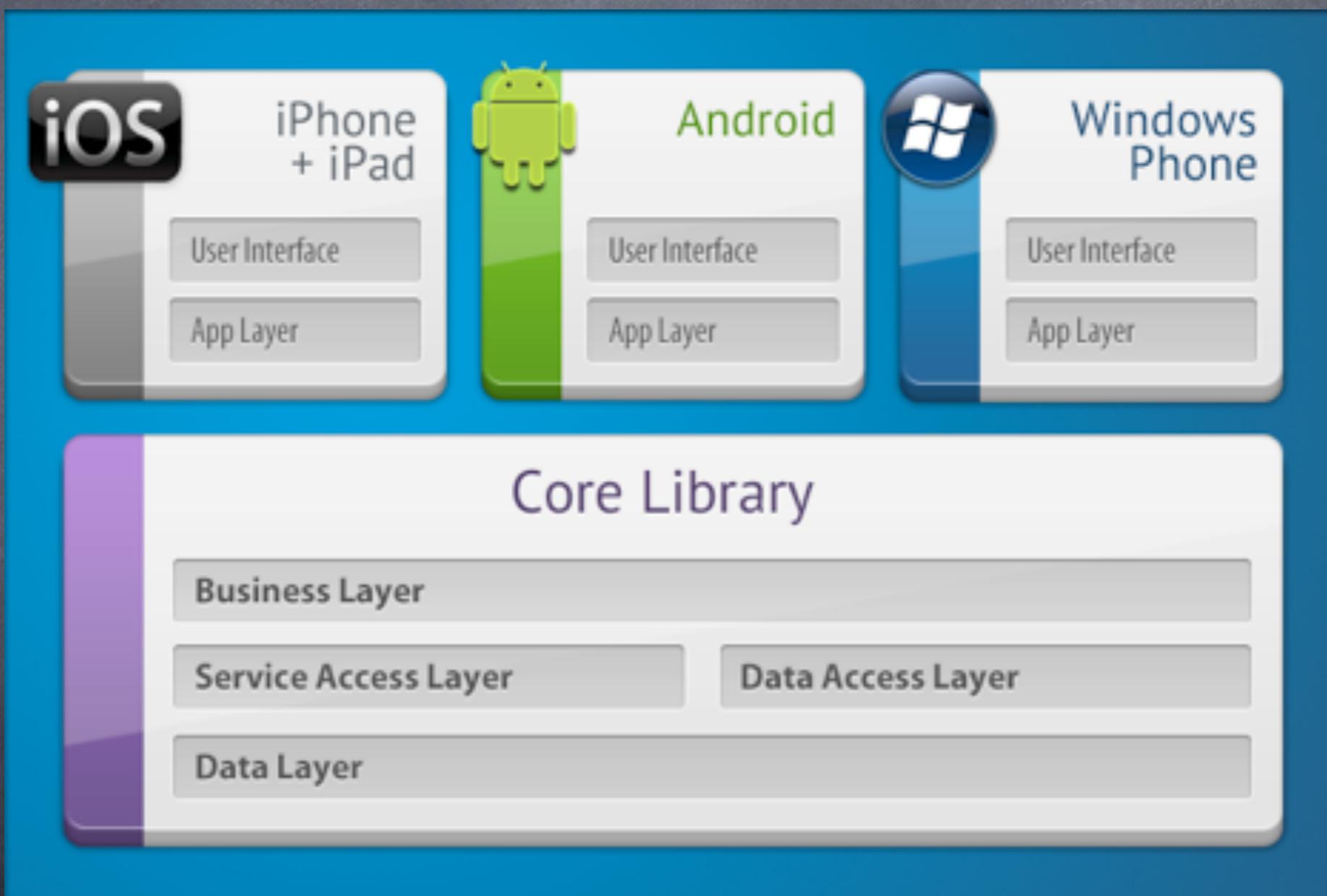
- ⦿ iOS, Android, Windows Phone
- ⦿ Components by Xamarin (Auth, Mobile, Social)
- ⦿ Database (SQLite.NET, SQLCipher)
- ⦿ UI (navigation, notifications, custom views)
- ⦿ Services (RestSharp, Dropbox, etc.)

Demo #2

Agenda

- ⌚ Platform overview
- ⌚ Advanced Xamarin stuff
- ⌚ Xamarin for cross-platform development

Xamarin for cross-platform development





UI Abstraction

Calculator

Text Field

Button 1

Button 2

...

Button Plus

Button Minus

...

Calculator

Text Field

Button 1

Button 2

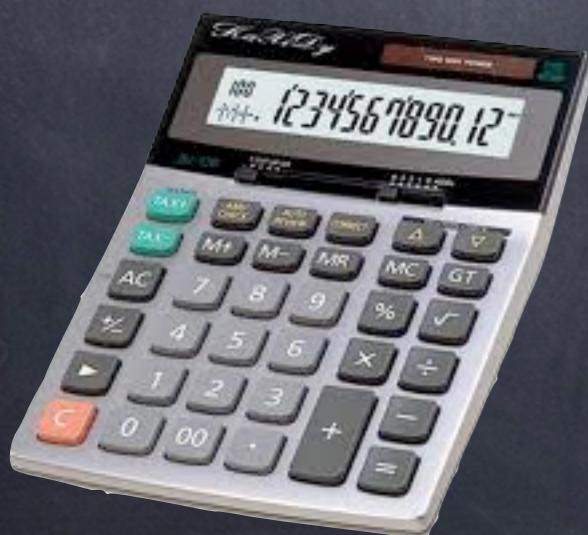
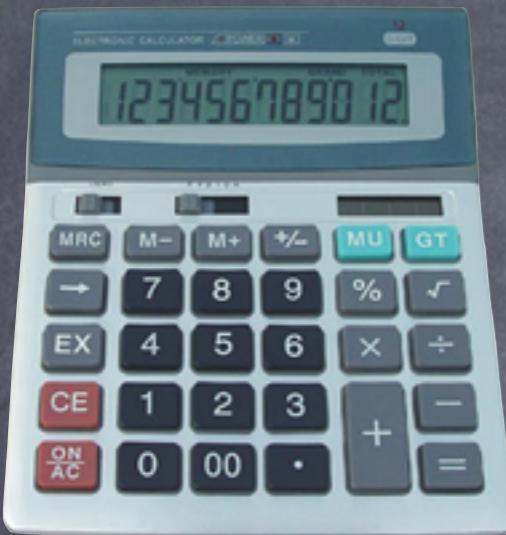
...

Button Plus

Button Minus

...

Calculator
Logic



Text Field

Button 1

Button 2

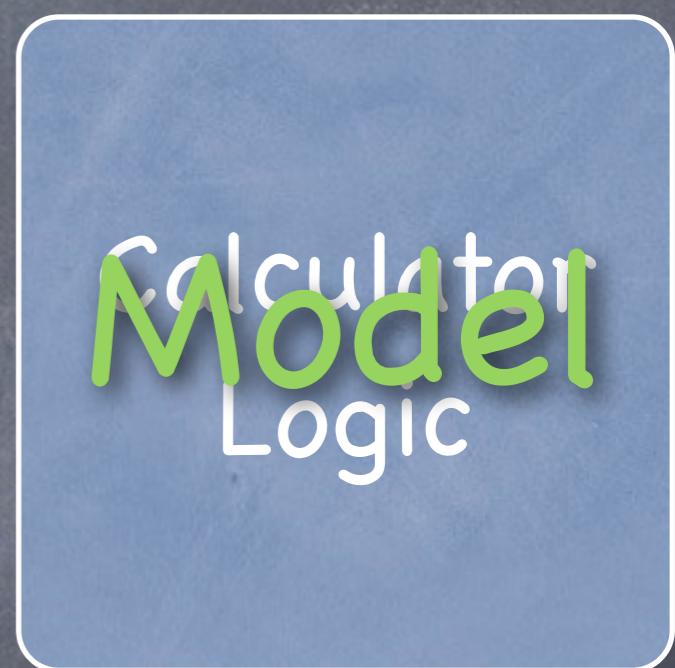
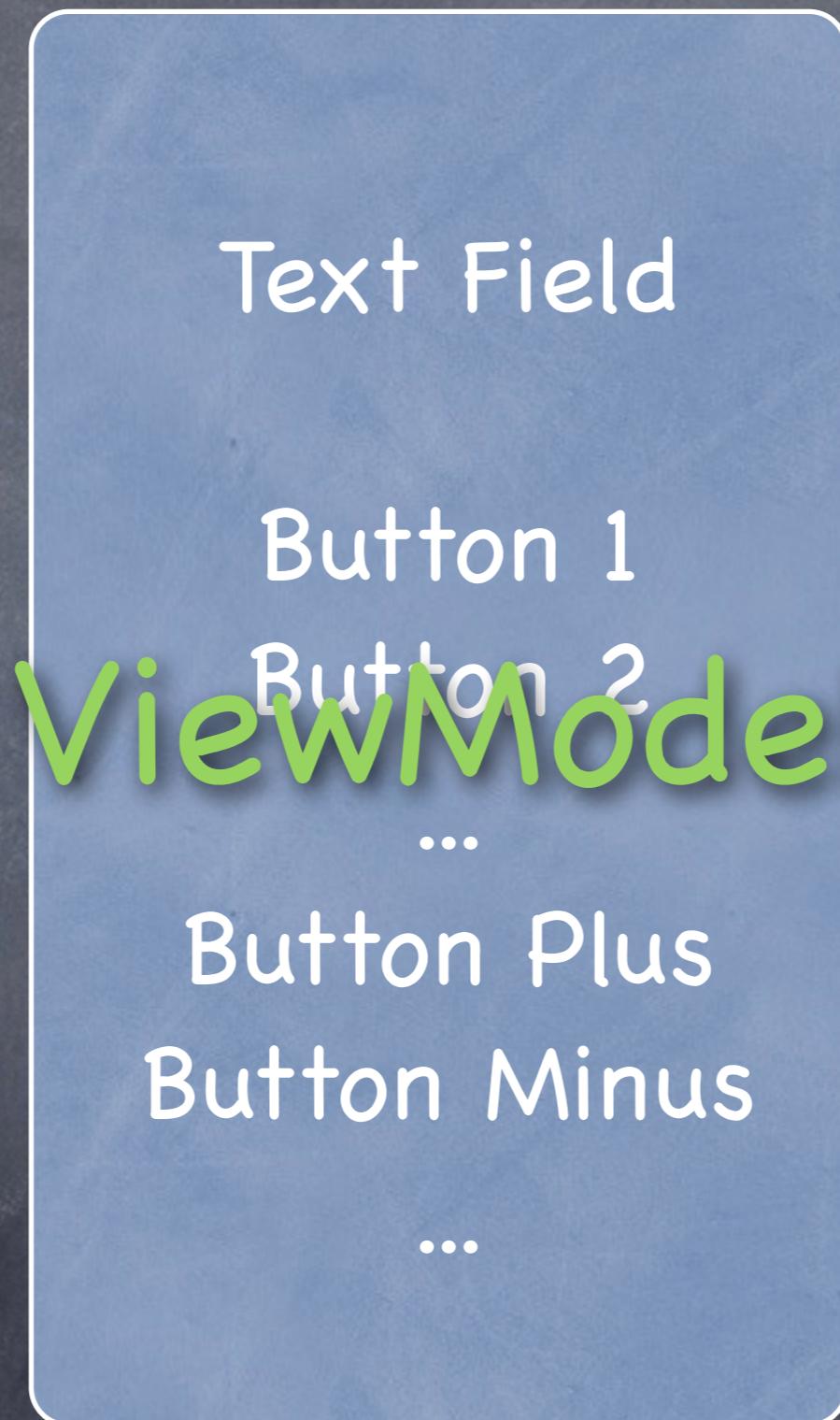
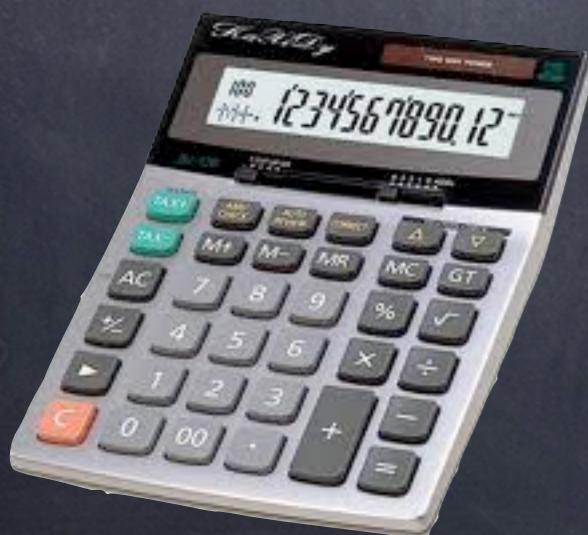
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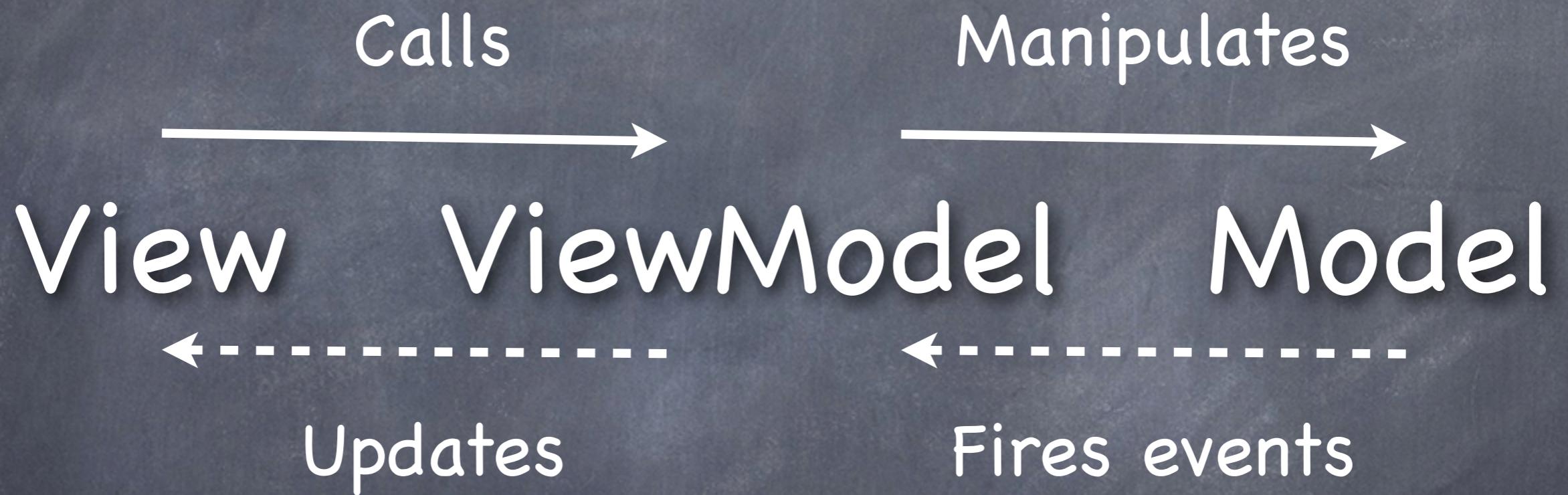
Button Plus

Button Minus

...

Calculator
Logic





Model View ViewModel

- ⌚ Architecture
- ⌚ Testing
- ⌚ Serialization
- ⌚ Portable

Model View ViewModel

- Architecture
- Testing
- Serialization

Portable



Model View ViewModel

- Architecture

- Testing

- Serialization

- Portable

- Data Binding



Model View ViewModel

• Architecture

• Testing

• Serialization

Portable



• Data Binding



Stuart Lodge



MvvmCross



- ⌚ Initial commit – Nov 25, 2011
- ⌚ Open source
- ⌚ Fork of MonoCross
- ⌚ Ideas from MvvmLight, ASP.NET
MVC, OpenNetCF

Demo #3

Thanks !!! :)



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