



# Databinding on the Web

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# Overview

WPF and Dyalog APL currently provide an excellent GUI for native windows.

XAML is used to define the GUI.

Data is manipulated by APL

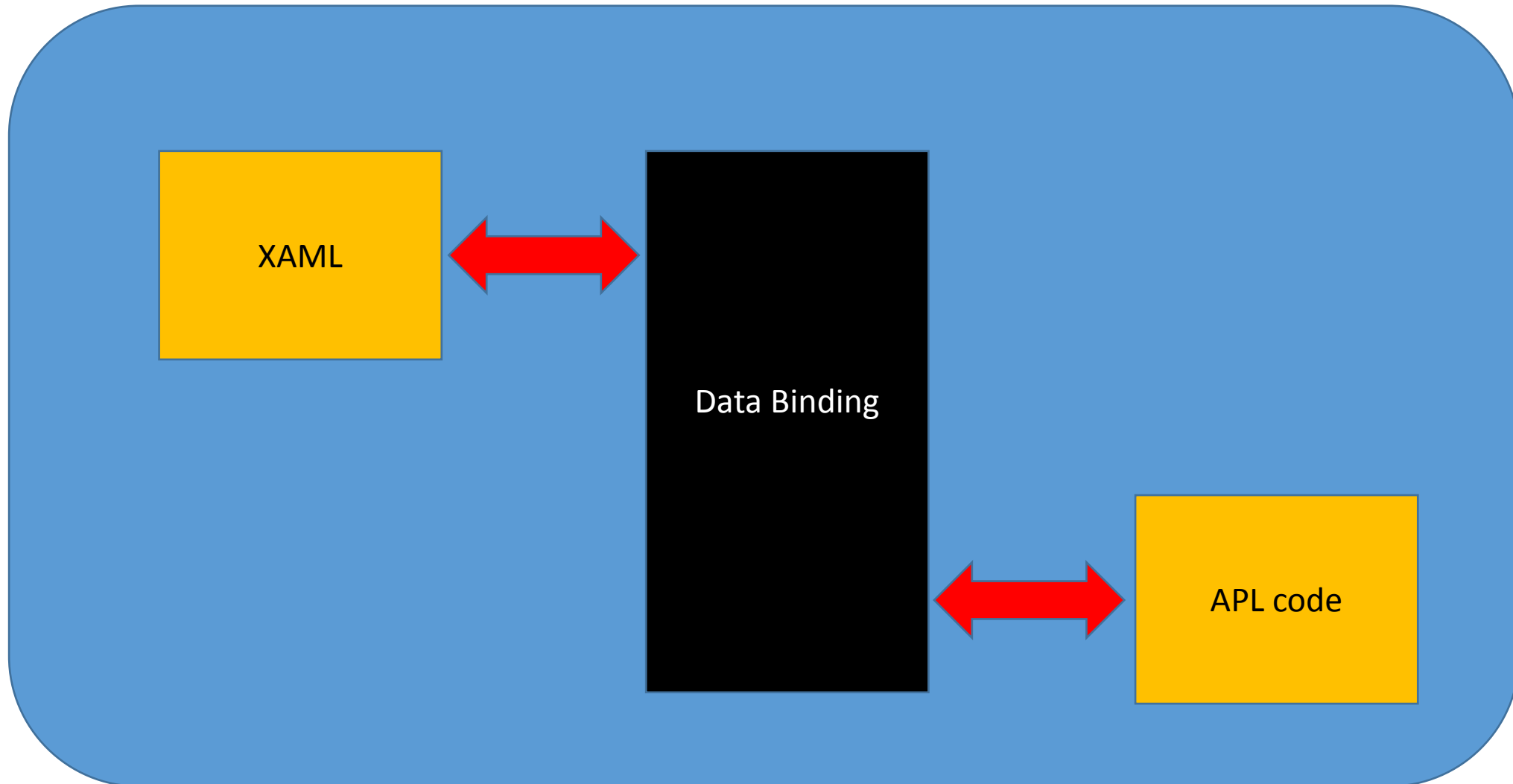
Databinding (2015) is used to connect the two together.

However it is currently limited to native Windows, excluding mobile apps, tablets, web browsers and Linux.

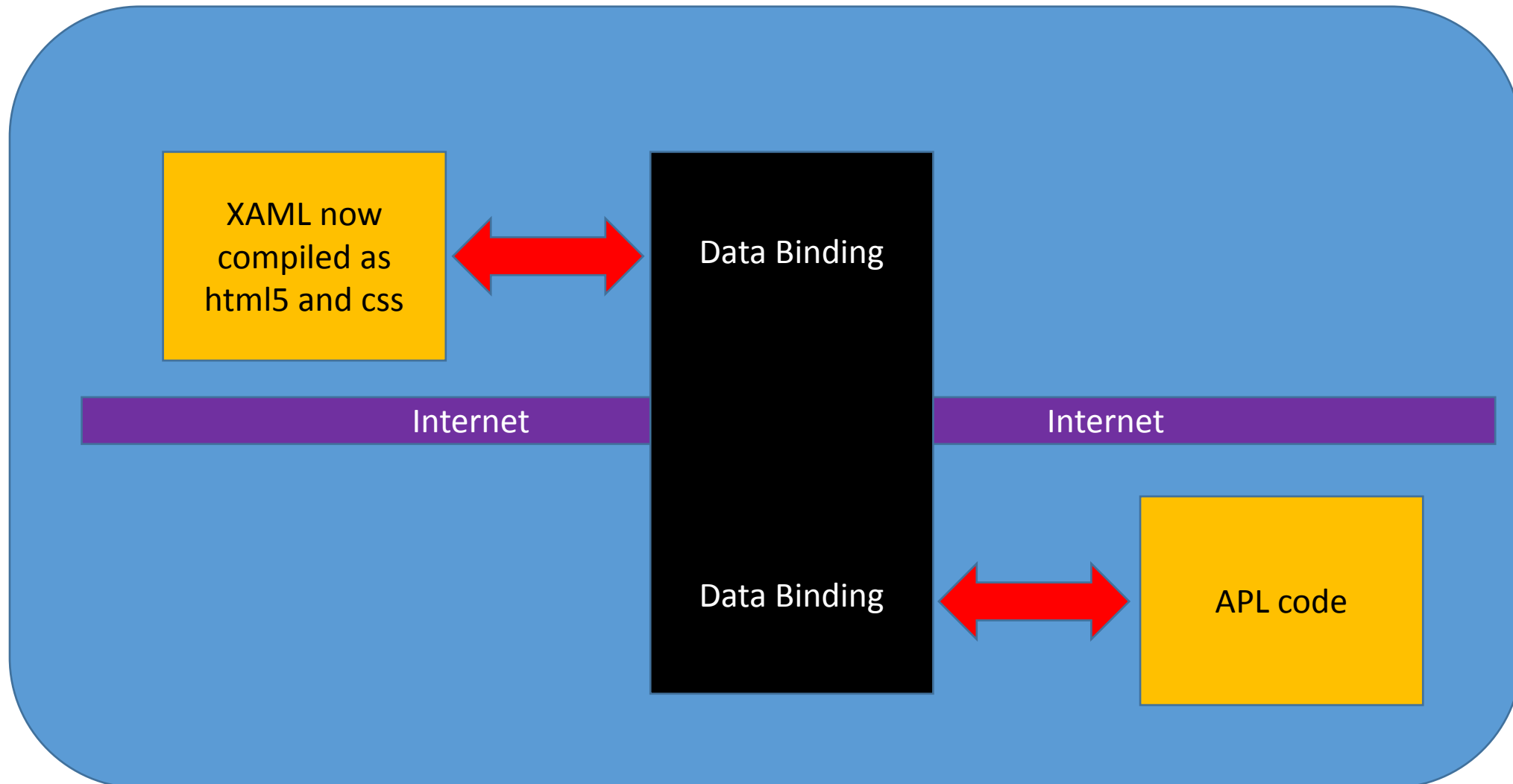
The aim is to address this using a product from Userware ([cshtml5.com](http://cshtml5.com)) which compiles standard C# and XAML files into html5, Javascript and CSS files.

Freeing a Dyalog Xaml WPF application to run on other platforms.

# Dyalog WPF/Xaml



# Dyalog WPF over the Web



# Four steps to the Web ....1

1. Create Xaml as for a normal Windows WPF system, using the same {apl:} markup;

DataContext="{apl:DataContext namespace}"	sets binding source
ItemsSource="{Binding var}"	binds var from namespace
ItemsSource="{apl:Binding ns.var}"	binds var from an explicit ns
Click="{apl:Event foo1_Click}"	runs APL function on server
Click="foo2_Click"	runs C# event as local
Command="{apl:Command command}"	runs APL function on server
Command="command"	runs C# command as local

# Four steps to the Web ....2-4



2. Create APL callback functions,  
specify types for binding if necessary – defaults may be good enough  
(identical to the left argument to Data binding lbeam)
3. ]cshtml5 inputdir= outputdir=
4. Copy output directory to Web Site  
Run Web Socket server

# Platforms

IIS8+, Apache 2.2+ or any web server supporting reverse proxy.  
Pre reverse proxy versions, need an open tcp socket through firewall.

Simple Conga 3 Web Socket server

Will work on any combination of;

- Windows/Linux\* browser supporting WebSockets
- Mobile App\* in the Apple/Windows/Android stores
- Windows client supporting WPF/.Net

\* needs Windows to compile, but not for runtime

# Proof of concept 1



A very boring page on [APLServer.co.uk](http://APLServer.co.uk)

It allows a user to select one of 5 data displays.

TableA

TableB

TableC

TableD

And displays a message when Tab is entered.

Manages multiple guest users (press Ok to discover your “index”)



# Proof of concept 2



A more interesting [Sample Application](#)

Shows off many controls, there is an example mobile app version  
Look in app stores for “Userware cshtml5.com”

[CSHTML5 home page](#)

# Acknowledgements



Gil Athoraya

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Userware  
([cshtml5.com](http://cshtml5.com))

Xaml/C# compiler into JavaScript/Html5/CSS

# Questions



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