

# 1A Windows Presentation Foundation Explained

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CA Technologies



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# About the Speaker

- Rob Layzell
  - Software Architect, Software Engineering, CA
  - Primarily responsible for CA Plex development
  - Live and work in San Francisco Bay Area
- 18 years experience in software development and IT
  - Worked with Obsydian since 1.5.2
  - Joined Synon through SPS Atlanta in 1996
  - Plex developer for 11 years
    - Patterns
    - Connector technologies
    - Runtimes (especially WinC, WinNTC and .NET)

# Agenda

- Part 1 – The Technologies
  - Why Do *YOU* Need a New Client?
  - Windows Presentation Foundation Explained
    - XAML, Code-behind, XBAP, ClickOnce
- Part 2 – CA Plex r7.0
  - WinC/Java/RPG client migration
  - Rich client development
  - Web enablement ideas
  - What's Currently Missing?



Why do ***YOU*** need a new  
client?

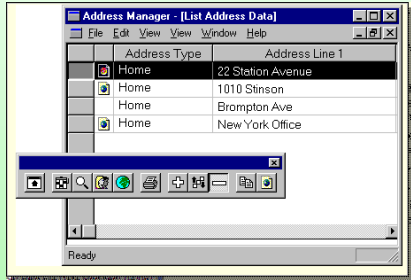
...and can CA Plex r7.0 Help?



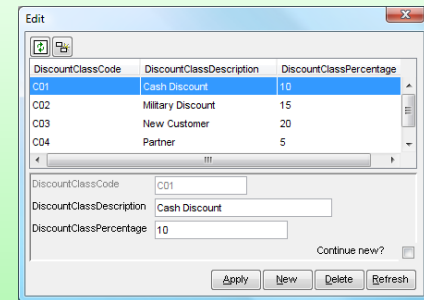
# Why Do You Need a New Client?

## A Brief History of Plex Client Generators

- Obsydian 1.0
- WinC
- WinWidgets

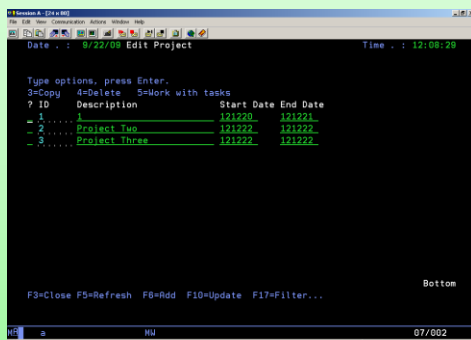


- COOL:Plex 4.5
- Java
- Swing

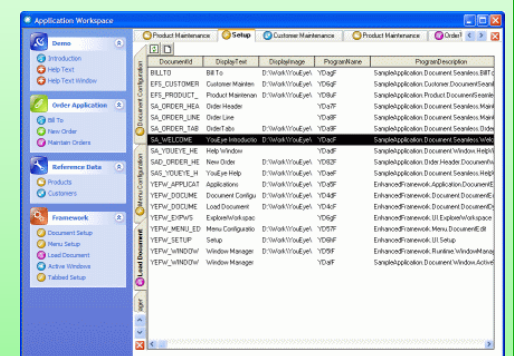


1994 1995 1996 1997 1998 1999 2000 2001 2002 ... 2011

- Obsydian 1.5
- RPGIII
- DDS



- Advantage Plex 5.0
- WinC
- MFC



# Why Do *You* Need a New Client?

## No New Client in 10 Years! Why?

- Lack of compelling technologies...
  - MFC
    - Implemented for WinC at Plex r5.0
    - We enjoy Visual Studio/MFC upgrades as much as you! ☺
    - No support for new Windows 7 technologies
  - WinForms
    - Glorified .NET wrapper for MFC
  - ASP.NET
    - Already have Web solutions (Websydian/ADC)

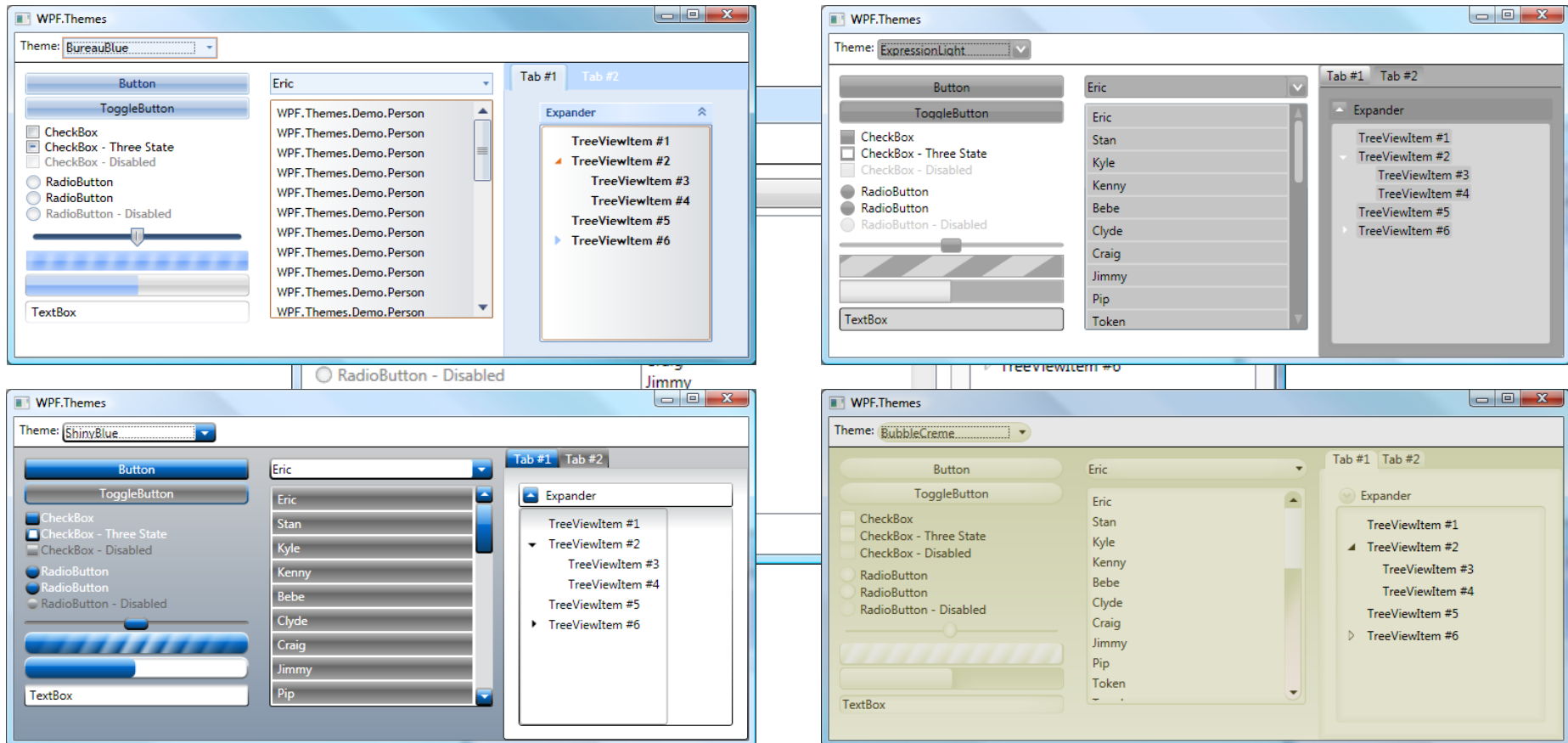




# Why Do *You* Need a New Client?

## WPF Technology Benefit #1

### — Separation of Design from Functionality

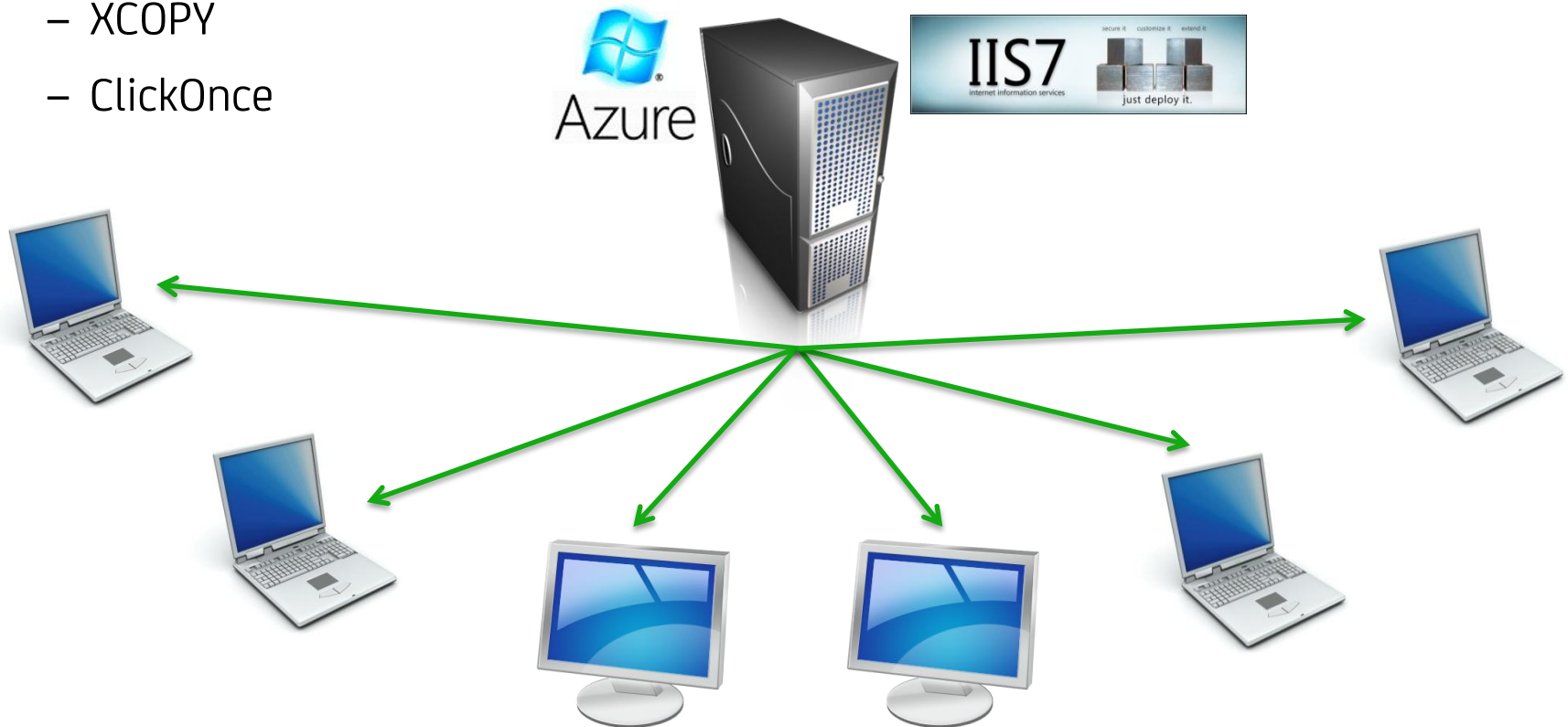


# Why Do *You* Need a New Client?

## WPF Technology Benefit #2

— Simplified deployment:

- XCOPY
- ClickOnce



# Why Do *You* Need a New Client?

## WPF Technology Benefit #3

- Rich-Web Enablement
  - XBAP – XAML Browser Applications
  - Silverlight
- Support for Windows 7 Technologies Built-in
  - Enhanced Accessibility
  - Multi-touch



# Why Do *You* Need a New Client?

## The Other CA Plex Benefits

- Backwards compatibility built in from the ground up
- UNICODE enabled
  - Not ANSI-code page
- No direct reliance on Visual Studio
  - Use freely available .NET Framework SDKs
  - Does NOT mean you cannot use Visual Studio!

# Windows Presentation Foundation Explained



# Windows Presentation Foundation Explained

## The Basics

- Introduced in .NET 3.0
- Framework for rendering UIs for Windows-based applications
- Uses DirectX for UI rendering rather than GDI
  - Hardware acceleration
  - Modern UI features (Glass-effects, scaling)
  - Multimedia enabled (Videos on buttons)
- Primarily uses XAML to define UI Elements

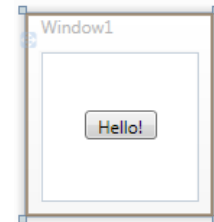


# Windows Presentation Foundation Explained

## What is XAML?

- eXtensible Application Markup Language
  - XML-based language for declaring object structures.
  - Used in:
    - Windows Presentation Foundation / Silverlight
    - Windows Workflow

```
<Window x:Class="DemoApp.Window1"
  xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
  Title="Window1" Height="140" Width="130">
  <Canvas>
    <Button Canvas.Left="30" Canvas.Top="40" Name="button1" Width="50" Height="50">Hello!</Button>
  </Canvas>
</Window>
```



- Don't Worry About Binding! We'll take care of it for you...

# Windows Presentation Foundation Explained

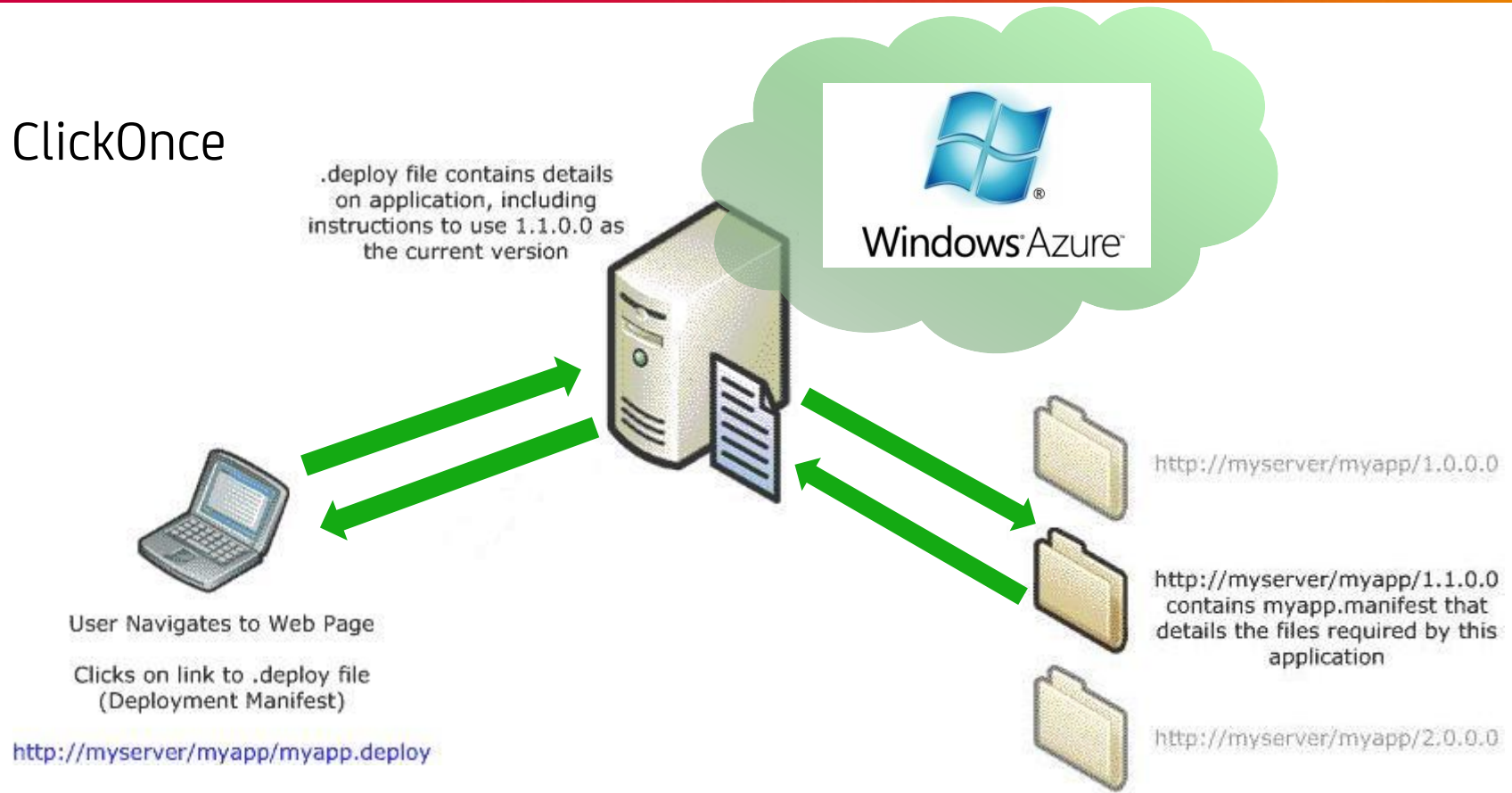
## What is XBAP?

- XAML Browser Applications
  - Full WPF Applications
  - Hosted on IIS Server or Azure Cloud
  - Run in a trusted Sandbox environment in Browser
  - Generally designed to run in Internet Explorer only
- Silverlight
  - Subset of WPF Framework
  - Designed for Cross-platform deployment (OS X, Linux, Windows Mobile, Symbian)

# Windows Presentation Foundation Explained

## What is ClickOnce?

### — ClickOnce



# Summary



# Summary

- WPF is here to stay
  - Used in all MS Products with UI
  - Solves the Fat vs. Web Client Conundrum
  - Not only **Web** enabled, but **Cloud** enabled
- What can you do now?
  - Stay for presentation **2A: The CA Plex .NET Client Generator** to find out!



Q & A

