

3.– 6. September 2012
in Nürnberg



Herbstcampus

Wissenstransfer
par excellence

Das muss man wissen!

Windows 8 für Entwickler

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Windows 8 für Entwickler - Das muss man wissen!

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developers
*de**velopers***
*de**velopers***
*de**velopers*** .NET





Agenda

New
Features

New
Devices

New UX

WinRT

Your Knowledge

Demo

PLM

Your Chance



Windows 8 – New Features

Connected
Standby

UEFI

Performance

Multi
Monitor
Support

Windows
To Go

Hy

File
History

.iso
Mount

Metered
Connections

Storage
Spaces

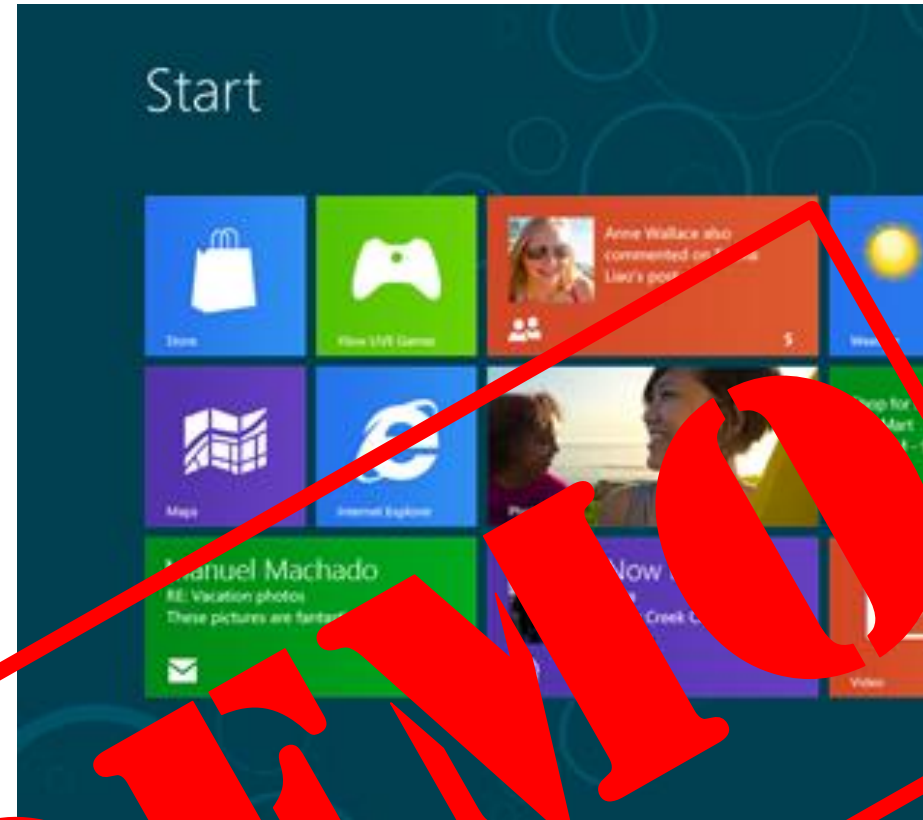


Windows 8 – New Devices





New User Experience



No Compromise.

⬅ Your Know-How, today



Do you use C++?

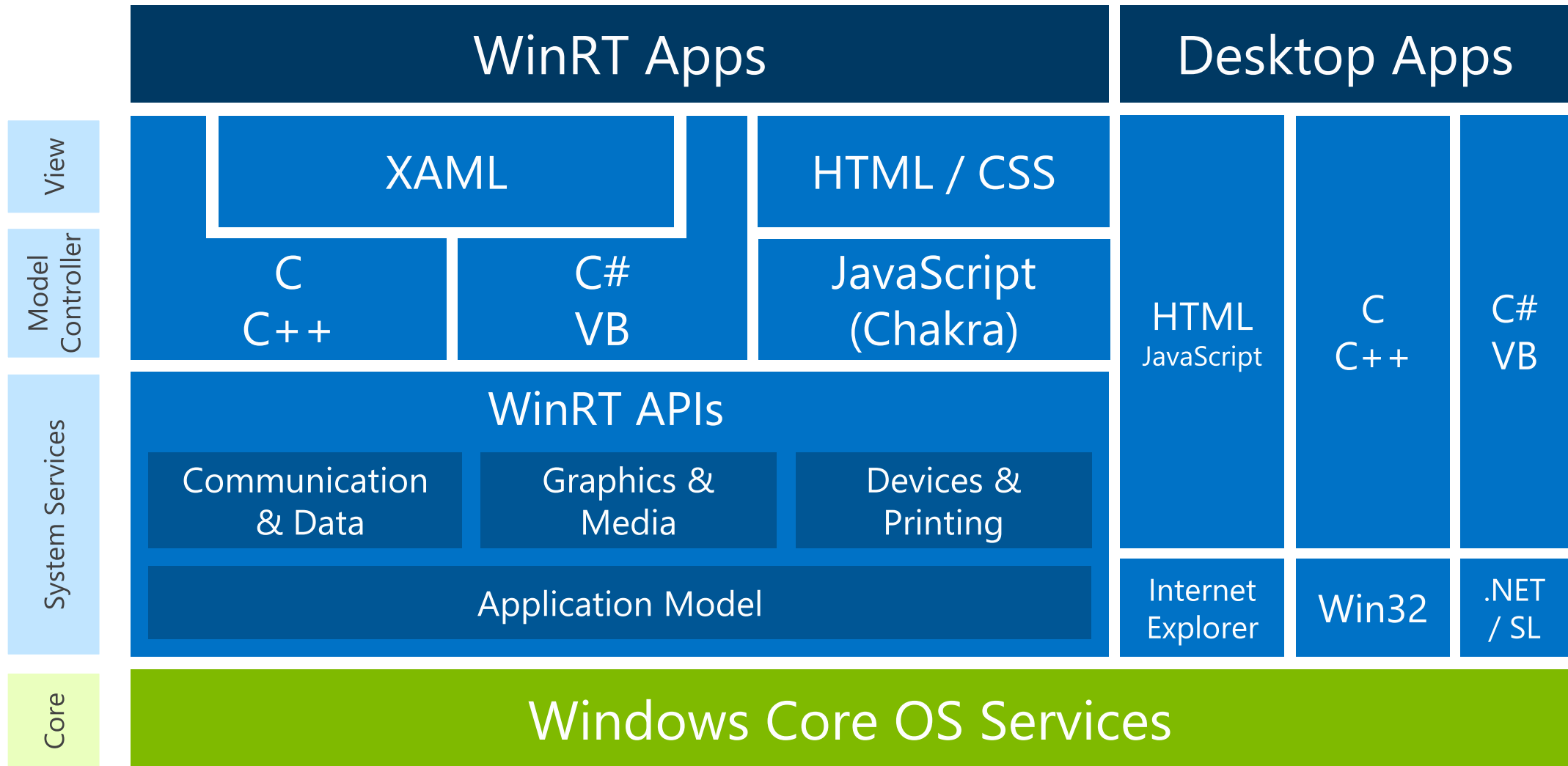
Do you use VB.NET?

Are you a Web Developer?

Do you C#?

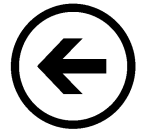
You already have all the knowledge you
need.

WinRT



Hello WinRT in C++

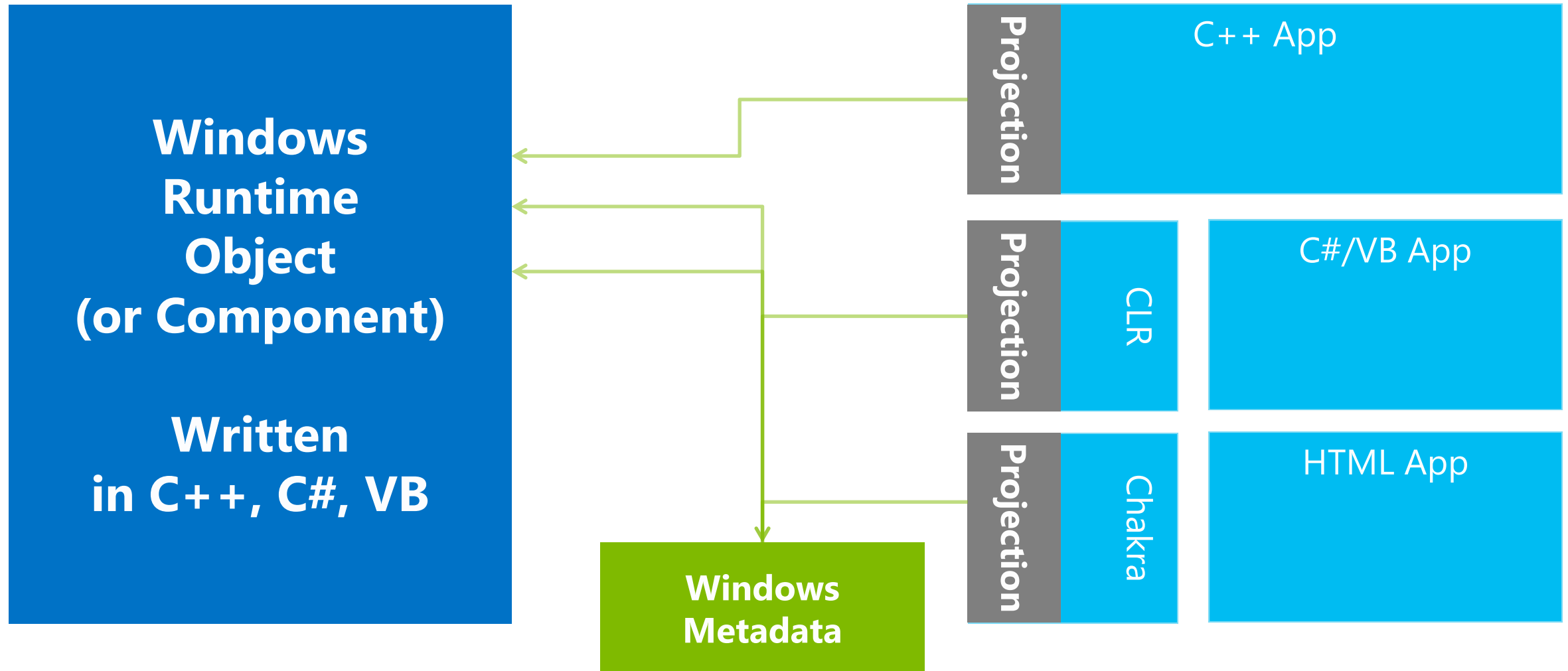
demo



What did we see...

- WinRT APIs are native
- XAML used from C++

Language projections



Metro style application APIs

User Interface

XAML

HTML5/CSS

Controls

Data Binding

Tiles

Input

Accessibility

Printing

Devices

Geolocation

Portable

Sensors

NFC

Communications & Data

Contracts

Local & Cloud Storage

Web

Notifications

Streams

Memory Management

XML

Networking

SMS

Media

Playback

Capture

PlayTo

Visual Effects

Fundamentals

Application Services

Threading/Timers

Memory Management

Authentication

Cryptography

Globalization

The C# code you have to write today...

```
[DllImport("avicap32.dll", EntryPoint="capCreateCaptureWindow")]  
static extern int capCreateCaptureWindow(  
    string lpszWindowName, int dwStyle,  
    int X, int Y, int nWidth, int nHeight,  
    int hwndParent, int nID);
```

```
[DllImport("avicap32.dll")]  
static extern bool capGetDriverDescription(  
    int wDriverIndex,  
    [MarshalAs(UnmanagedType.LPCTSTR)] ref string lpszName,  
    int cbName,  
    [MarshalAs(UnmanagedType.LPCTSTR)] ref string lpszVer,  
    int cbVer);
```

```
// more and more of the same
```

```
graph LR; A[Your Managed Code] --> B[Manually Generated Interop Code]; B --> C[Traditional Windows API];
```

Your Managed Code

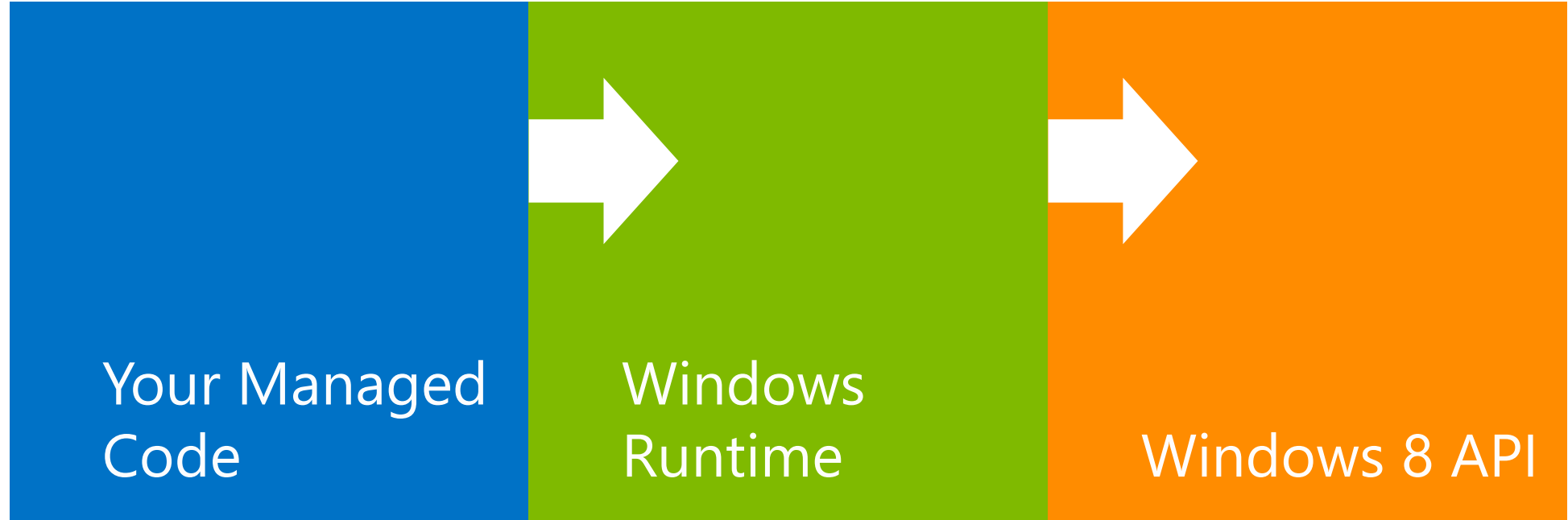
Manually
Generated
Interop Code

Traditional
Windows API



demo

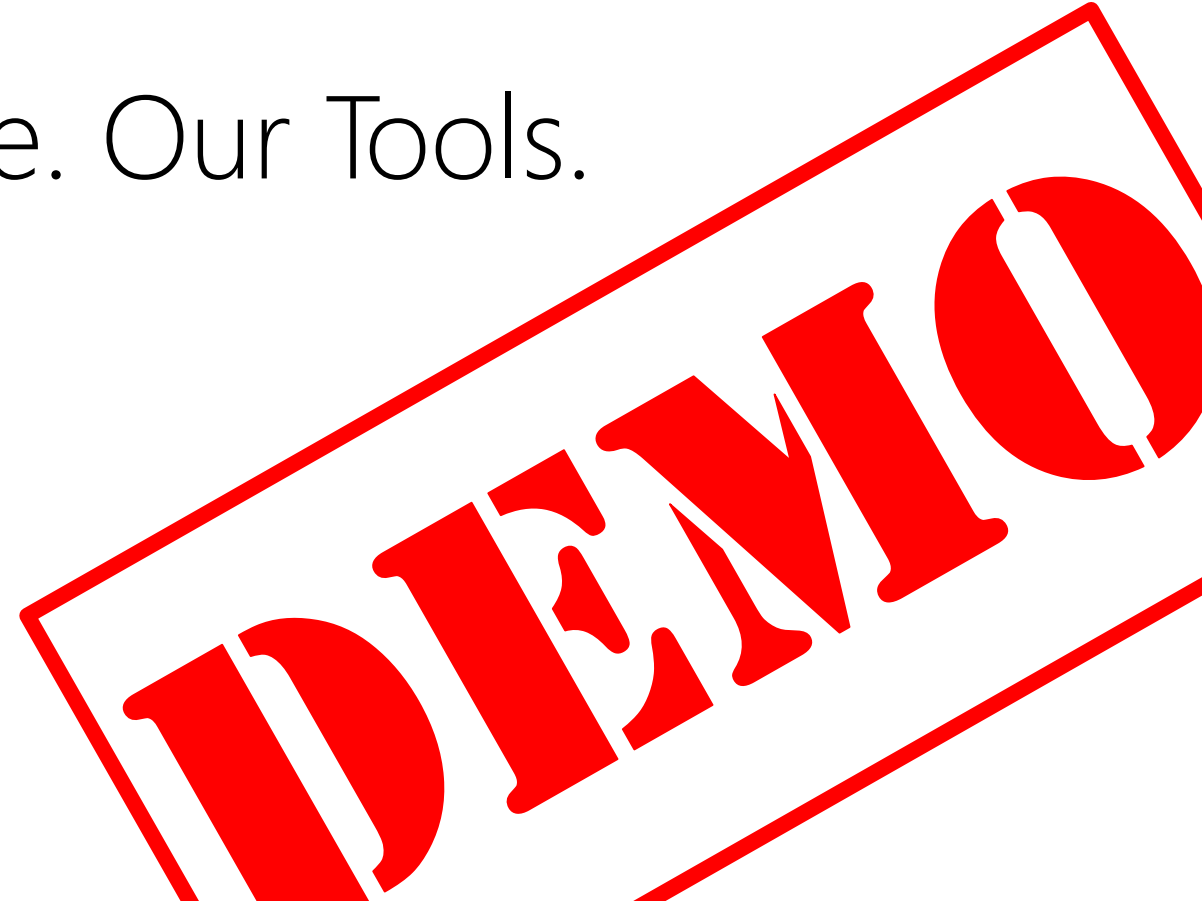
Camera Access in C#



What did we see...

- WinRT APIs are asynchronous
- WinRT APIs provide rich access to device, OS and services
- WinRT APIs feel natural in C#, Javascript and C++

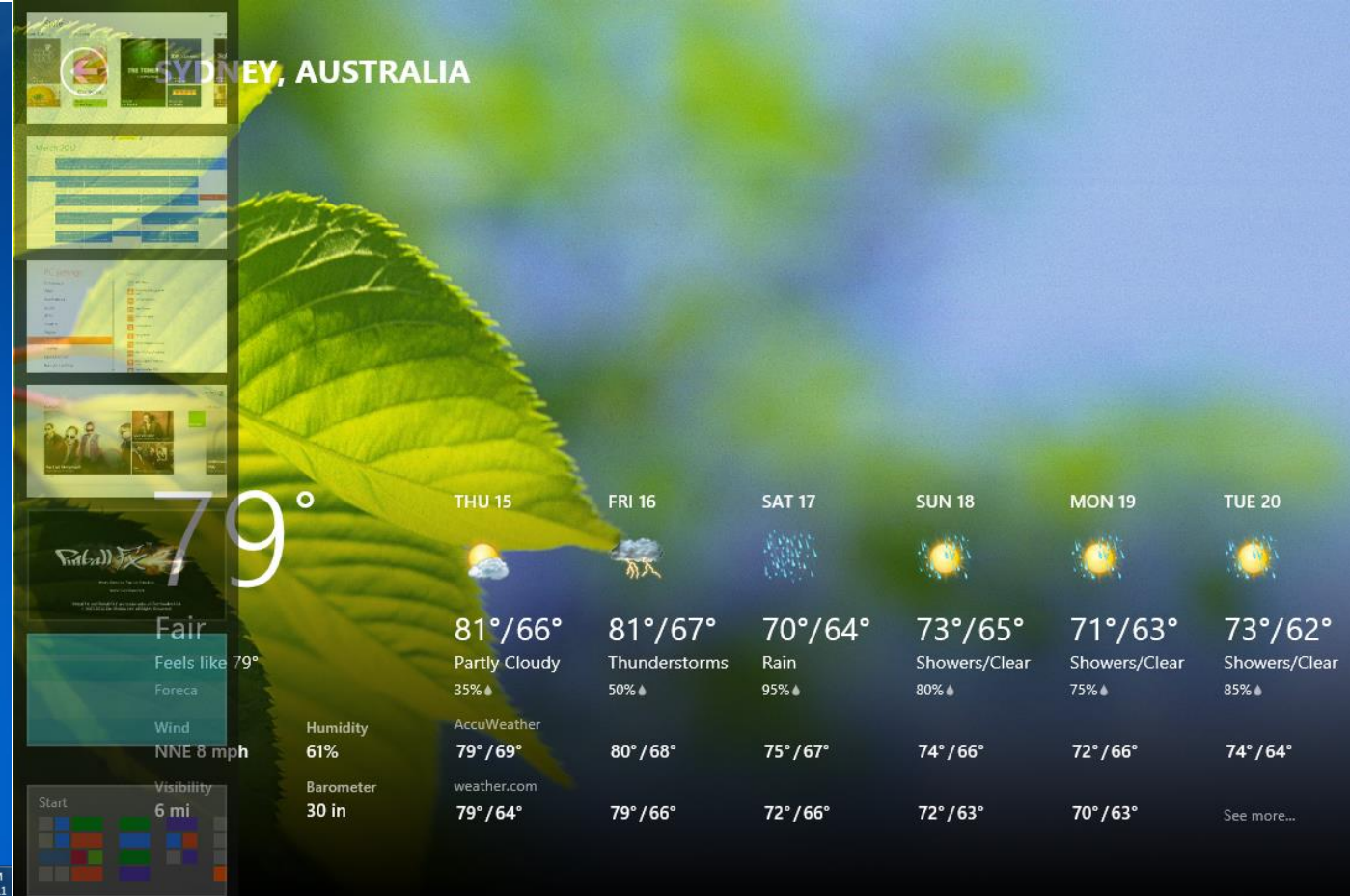
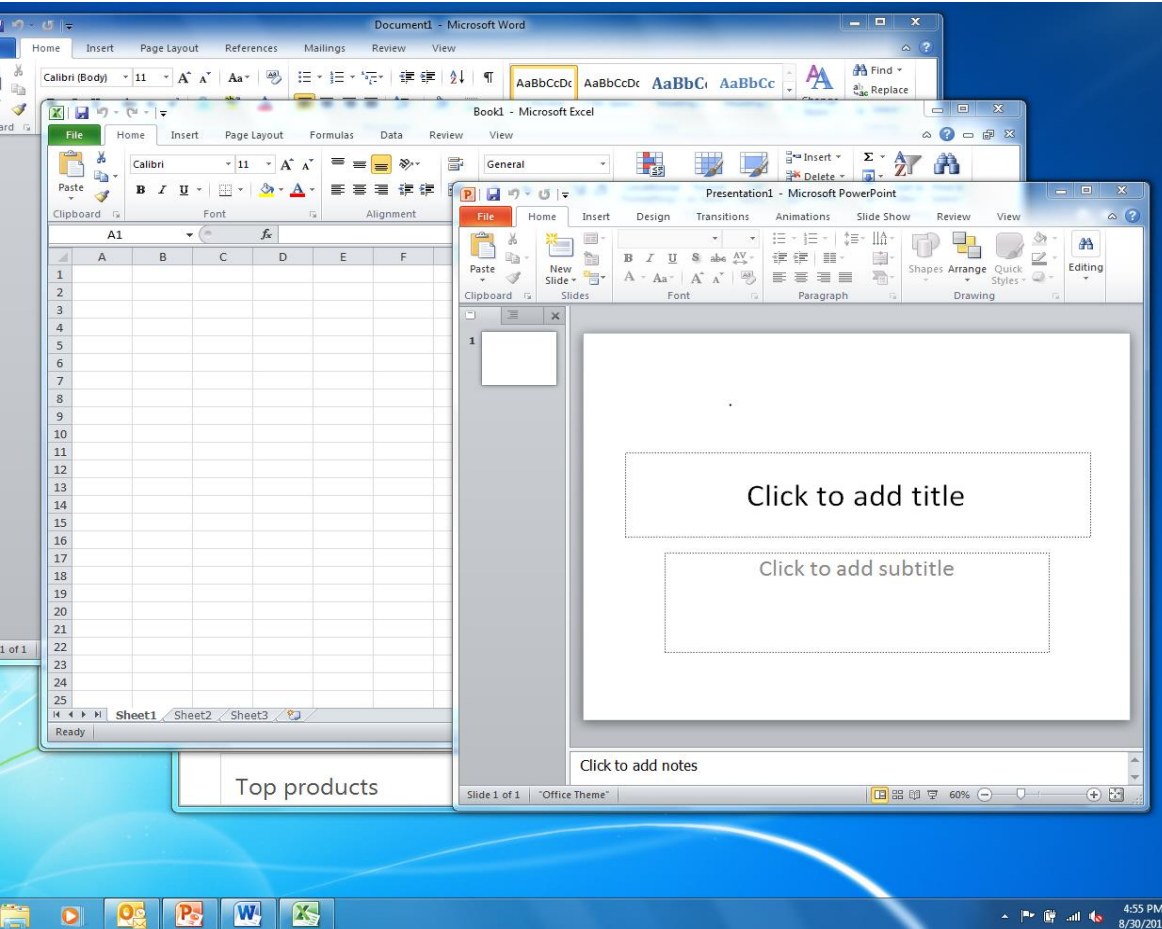
Your Knowledge. Our Tools.



When Do Apps Run?

Windows 7 **User** manages app lifetime

Windows 8 **System** manages app lifetime



Process Lifetime Walkthrough

Running

App 1

Apps suspend after a short delay

App 2

Apps resume instantly from suspend

App 3

...

App N

Suspended

App terminated under memory pressure **without notification**

Terminated

Introducing Suspend

- System resources focused on the app that the user is interacting with in the foreground
- Inactive apps have no impact on battery life or responsiveness, they are suspended by the OS
- Enables instant switching between apps!



Termination

- System needs more memory
- User switch occurs
- User closes the app
- System shutdown
- Apps crash

Apps do not get notified when they are getting terminated

Registering for Suspend and Resume is Easy

```
//Register for the Suspending event and call suspendingHandler when received
Windows.UI.WebUI.WebUIApplication.addEventListener("suspending", suspendingHandler);

//Handle the suspending event and save the current user session using WinJS sessionState
function suspendingHandler(eventArgs) {

    //We are getting suspended

}

//Register for the Resuming event and call resumingHandler when received
Windows.UI.WebUI.WebUIApplication.addEventListener("resuming", resumingHandler);

function resumingHandler() {

    //We are getting resumed, in general do nothing

}
```

Best Practices for Saving and Restoring State


| Scenario | You should.... |
|--|---|
| User is using your App | Save user data incrementally |
| App switched away from (Suspending) | Save where the user is – what screen they are on, for example |
| Not running App launched by user (Activated) | Bring the user back and restore their session as if they never left |
| Suspended App launched by user (Resuming) | Do nothing |



Your Chance *Windows Store*

Store

Spotlight



The finalists of the First Apps Contest
8 great apps for Consumer Preview



Endomondo
Free ★★★★★



USA Today
Free ★★★★★



Cut The Rope
Free ★★★★★



Got apps?
Yes, yes you do.

All stars

Top paid

Top free



Links

<http://dev.windows.com>

<http://design.windows.com>

<http://microsoftadvertising.com>

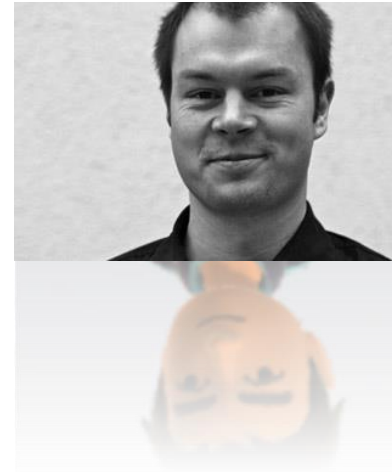
<http://DevelopersDevelopersDevelopersDevelopers.NET>



Q&A

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Vielen Dank!

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