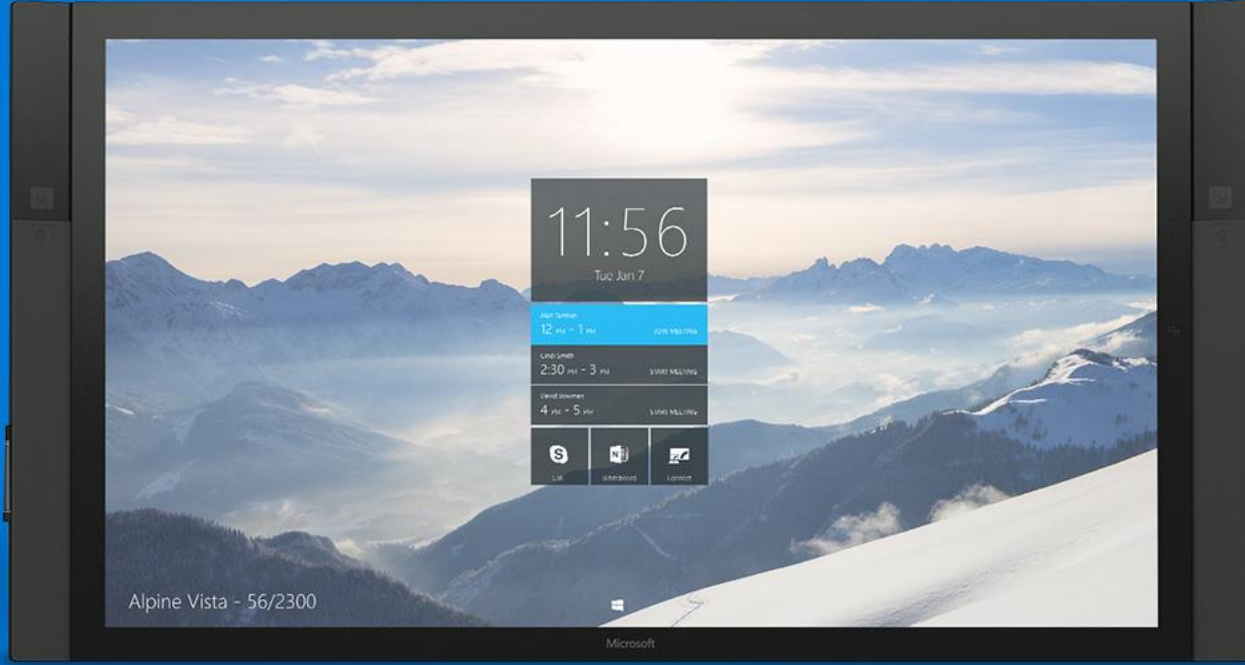**Microsoft**

Windows 10
Quoi de neuf dans la plateforme de développement ?

Etienne Margraff
Microsoft – Technical Evangelist
@meulta
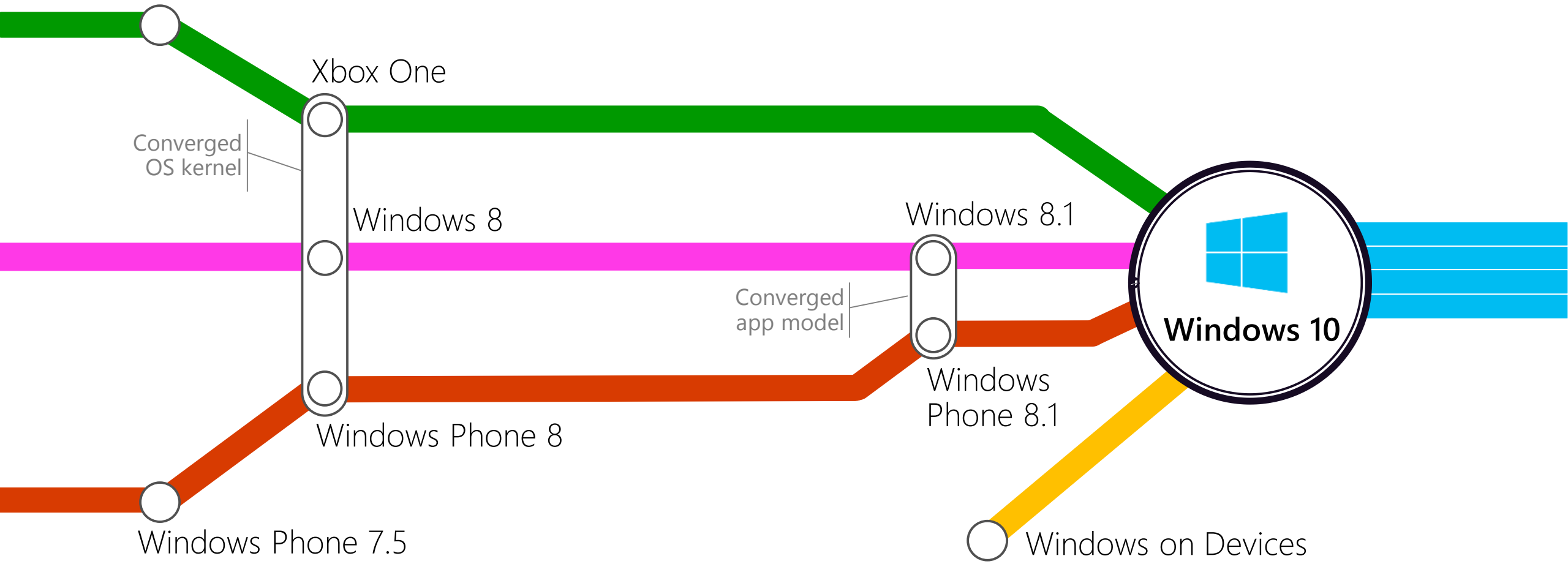
Jean-Sébastien Dupuy
Microsoft – Technical Evangelist
@dupuyjs

Convergence
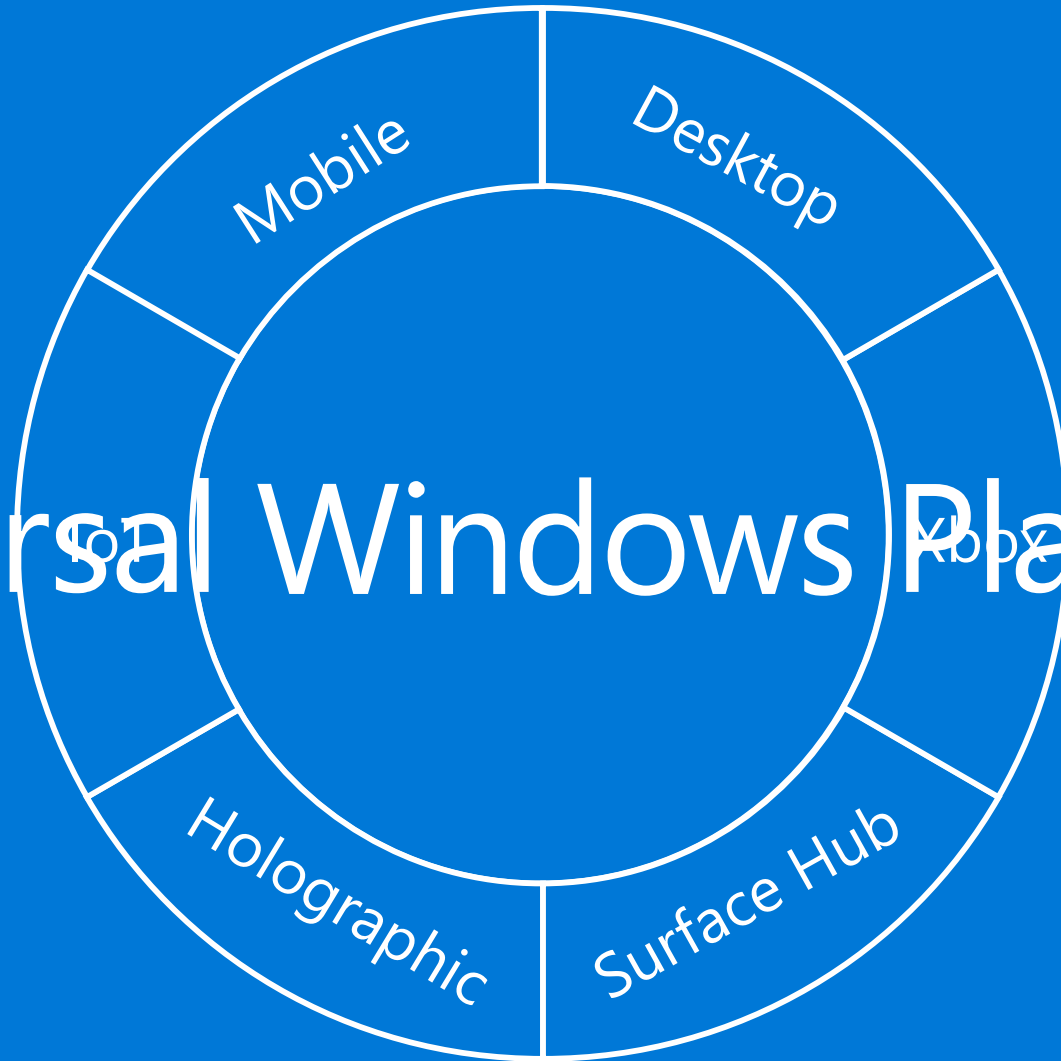
Converged
OS kernel

Xbox One

Windows 8

Converged
app model

Windows 8.1

Windows 10

Windows Phone 8

Windows
Phone 8.1

Windows Phone 7.5

Windows on Devices

Un code unique.

💻 && 🔌 && 📱

🥽 && 📱 && 🎮

Pour tous.

Plateforme
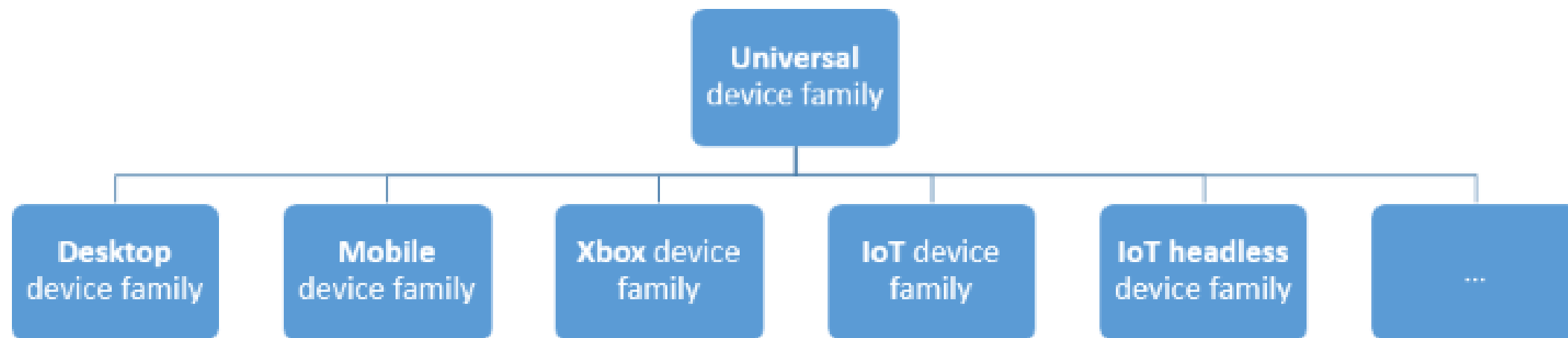
NuGet

- Universal Windows apps support referencing Windows 8.1 NuGet packages

Adaptative Design

Vidéo

Walking Dead - Saison 5
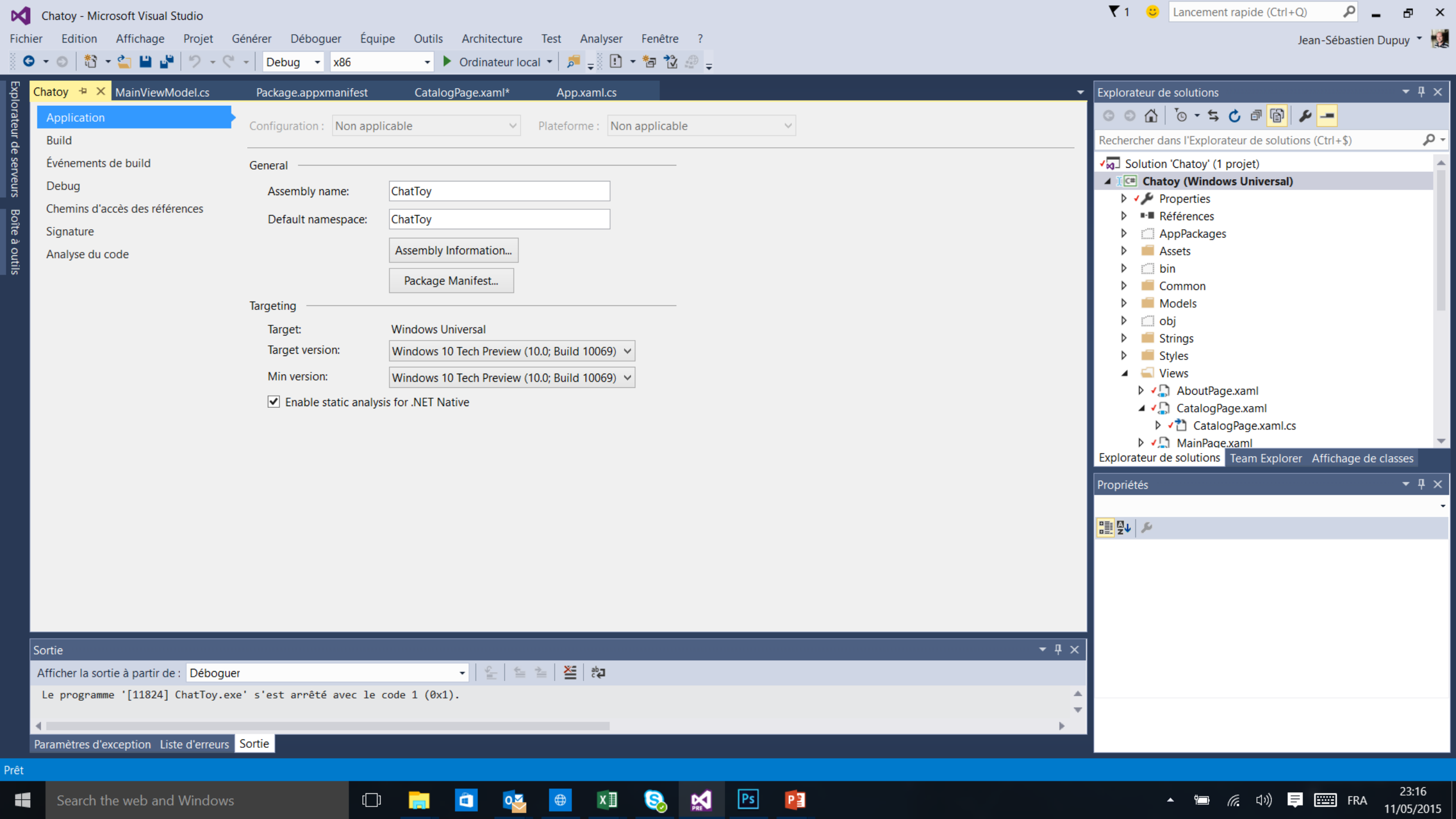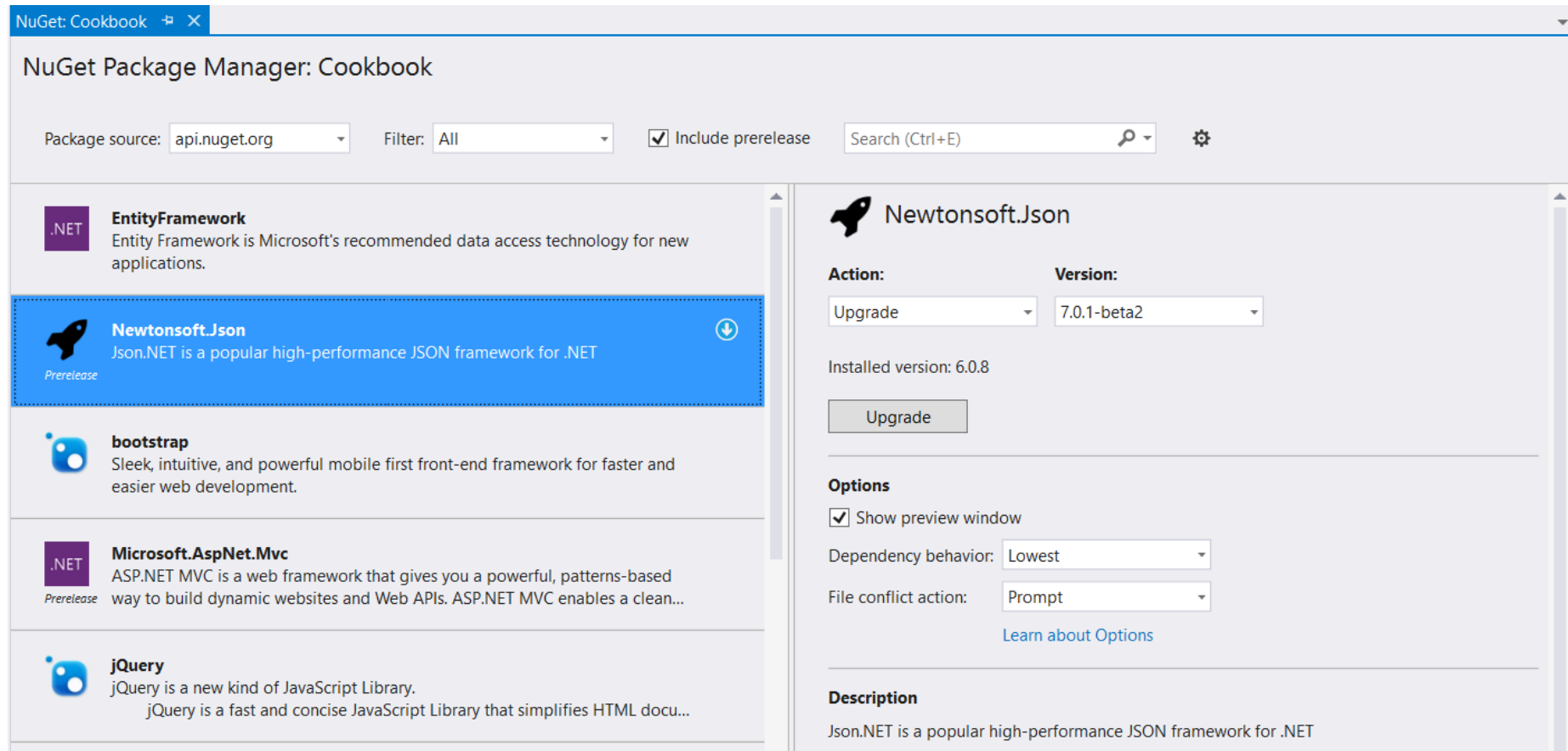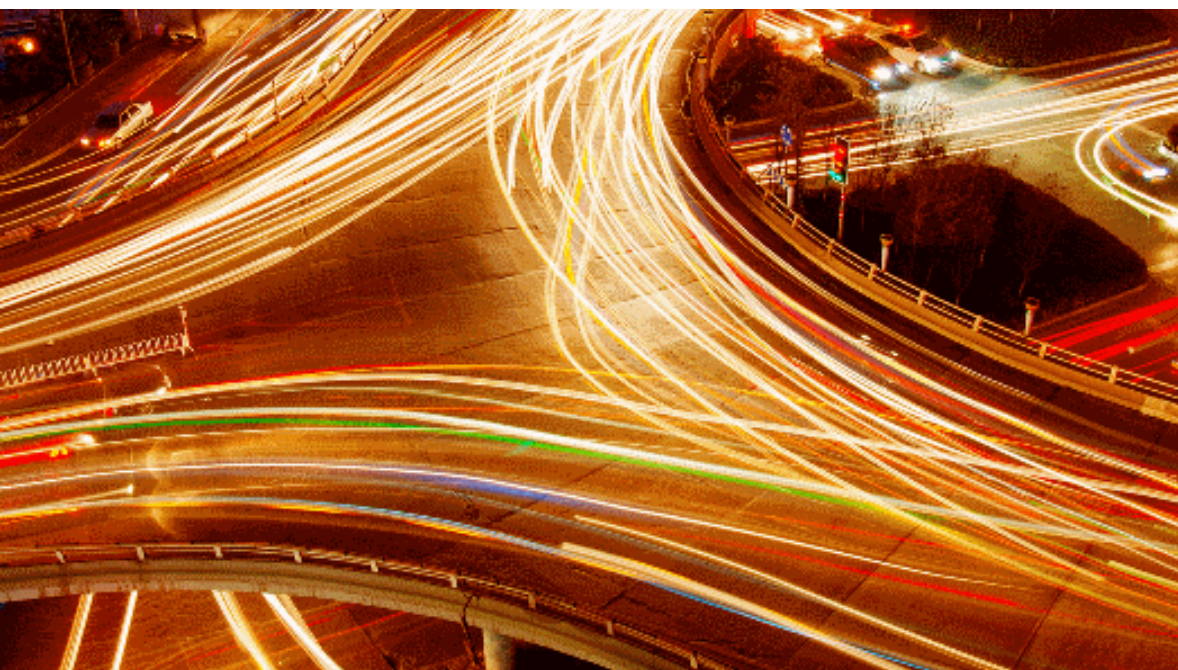Le dernier épisode maintenant disponible

Nouveaux programmes TV   Tout afficher

The Flash (2014)   Une Nuit en Enfer   Hero Corp: Saison 4   Stalker: Saison 1

Programmes TV en vedette   Tout afficher

The Walking Dead   Breaking Bad   Les Simpson   Defiance

Calendrier   — ☐ ✕

Jour ••• Aujourd'hui

⊕ Nouvel événement

avril 2015   avril 2015

avril 2015

lu   ma   me   je   ve   sa   di   lu   ma   me   je   ve   sa   di
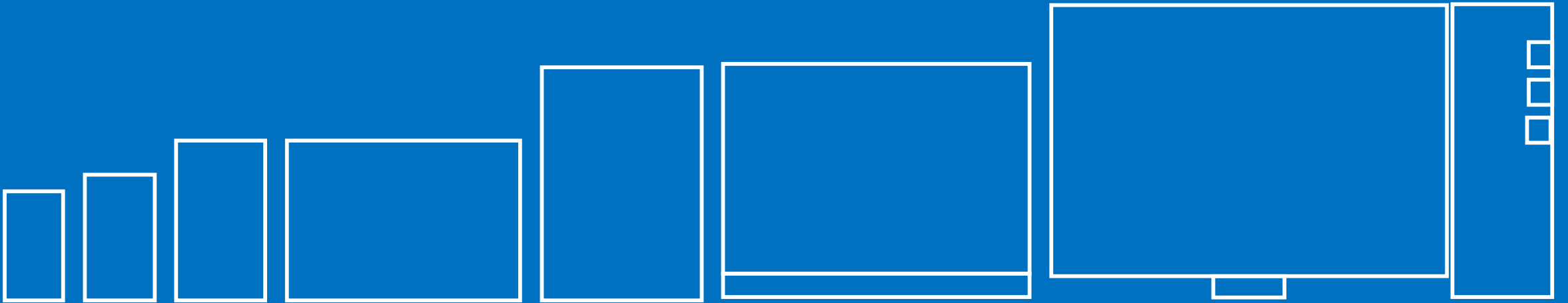30   31   1   2   3   4   5   30   31   01   02   03   04   05
                                             Anr   Anr   Anr   Anr   Anr   Anr
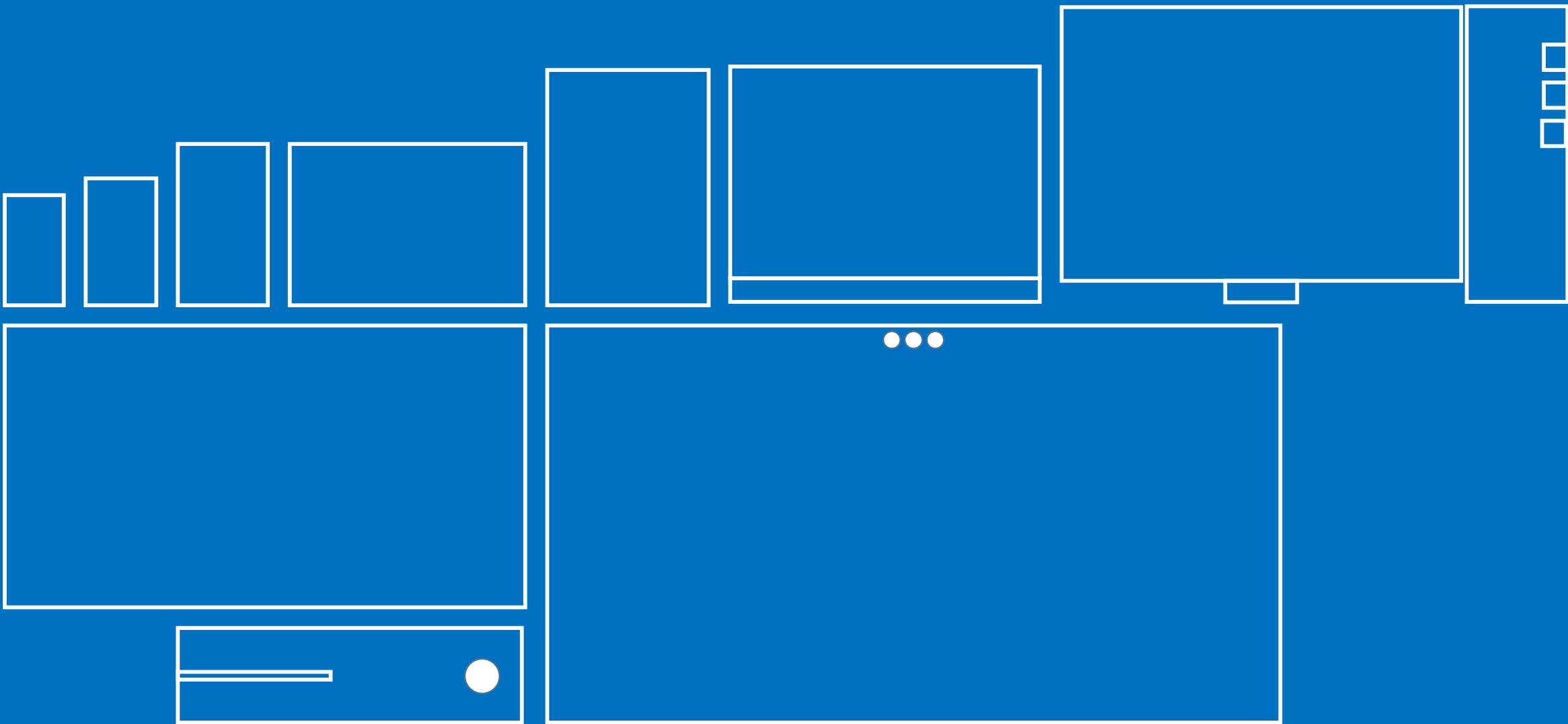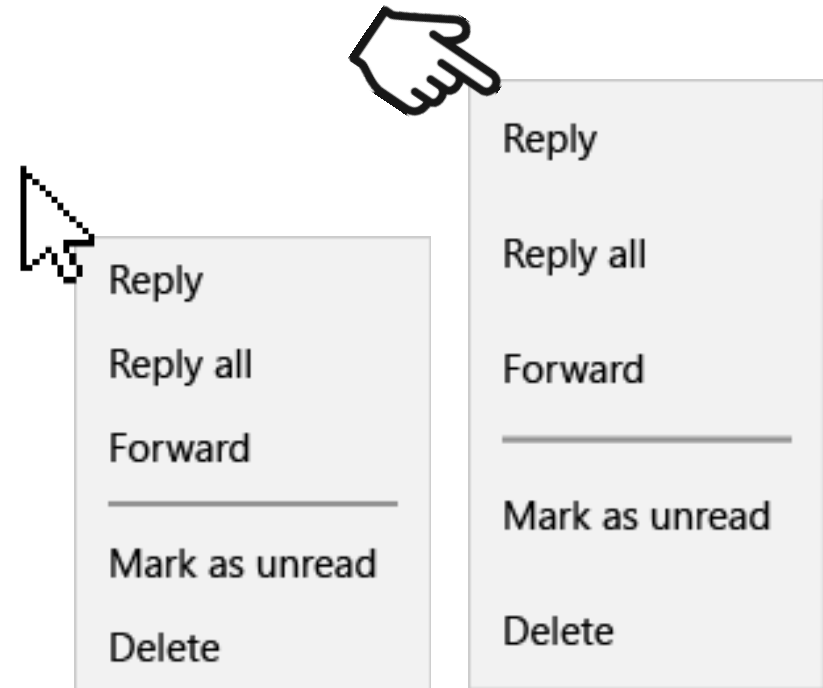6   7   8   9   10   11   12   06   07   08   09   10   11   12
                                             Anr   Anr   Anr   Anr   Anr   Anr
13   14   15   16   17   18   19   13   14   15   16   17   18   19
                                             Anr   Anr   Anr   Holi Anr
20   21   22   23   24   25   26   20   21   22   23   24   25   26
                                             Holidays   Anr   Anr
27   28   29   30   1   2   3   27   28   29   30   01   02   03
                                             Anr   Anr   Anr   Fête   Anr

⌃ Outlook

☑ Calendrier de supermitch

☑ TE Clients and Web

✉ 📅   🙂 ⚙

Search the web and Windows

FRA
13:46
28/04/2015

Windows 10 Pro Technical Preview
Evaluation copy. Build 10061

Les applications modernes
s'exécutent sur tous les
devices Windows 10

```
MenuFlyout mf = new MenuFlyout();
mf.ShowAt(sender, e.GetPosition(sender));
```

Reply

Reply all

Forward

_____

Mark as unread

Delete

Reply

Reply all

Forward

_____

Mark as unread

Delete

Chatoy - Microsoft Visual Studio

Fichier   Edition   Affichage   Projet   Générer   Déboguer   Équipe   Design   Format   Outils   Architecture   Test   Analyser   Fenêtre   ?

Jean-Sébastien Dupuy

Lancement rapide (Ctrl+Q)

Debug   x86   Ordinateur local

MainViewModel.cs   Package.appxmanifest   CatalogPage.xaml*   App.xaml.cs

5" Phone (1920 x 1080) 300% mise à l'échelle

5" Phone (1920 x 1080) 300% mise à l'échelle
6" Phone (1920 x 1080) 250% mise à l'échelle
8" Tablet (1280 x 800) 125% mise à l'échelle
12" Tablet (2160 x 1440) 150% mise à l'échelle
0" Desktop (1280 x 720) 100% mise à l'échelle
23" Desktop (1920 x 1080) 100% mise à l'échelle
42" Xbox (1920 x 1080) 150% mise à l'échelle
84" Surface Hub (3840 x 2160) 150% mise à l'échelle
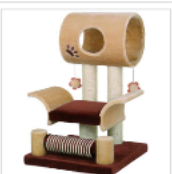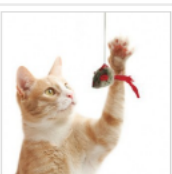10" IoT Device (1024 x 768) 100% mise à l'échelle

Souris Hypno
Souris Hypno

Ruban
Ruban

Mini Souris
Mini Souris

Cat Throne
Cat Throne

Nouveauté
Bird
Bird

Jouet
Jouet

30%

Création   XAML

Explorateur de solutions

Rechercher dans l'Explorateur de solutions (Ctrl+$)

- Assets
- bin
- Common
- Models
- obj
- Strings
- Styles
- Views
  - AboutPage.xaml
  - CatalogPage.xaml
    - CatalogPage.xaml.cs
  - MainPage.xaml
  - SettingsPage.xaml
    - SettingsPage.xaml.cs
  - Shell.xaml
    - Shell.xaml.cs
- App.xaml

Explorateur de solutions   Team Explorer   Affichage de classes

Propriétés

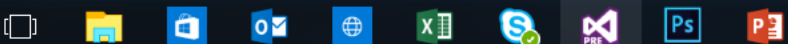Nom   <Aucun nom>
Type   Grid

Réorganiser par : Catégorie

- Pinceau
- Apparence
- Communes
  ChildrenTransitions   (Collection)
  ToolTipService.ToolTip
  DataContext   (MainViewModel)   Nouveau
- Disposition

Sortie

Afficher la sortie à partir de :   Déboguer

Le programme '[11824] ChatToy.exe' s'est arrêté avec le code 1 (0x1).

Paramètres d'exception   Liste d'erreurs   Sortie

Prêt

Search the web and Windows

FRA   22:22   11/05/2015

Demo

Adaptive Code & Design

SplitView
Adaptive navigation pane

```xml
<SplitView DisplayMode="Inline|Overlay|CompactInline|CompactOverlay">

        <SplitView.Pane>
        <!-- Navigation Content Here -->
        </SplitView.Pane>

        <!-- Main Content Here -->

</SplitView>
```
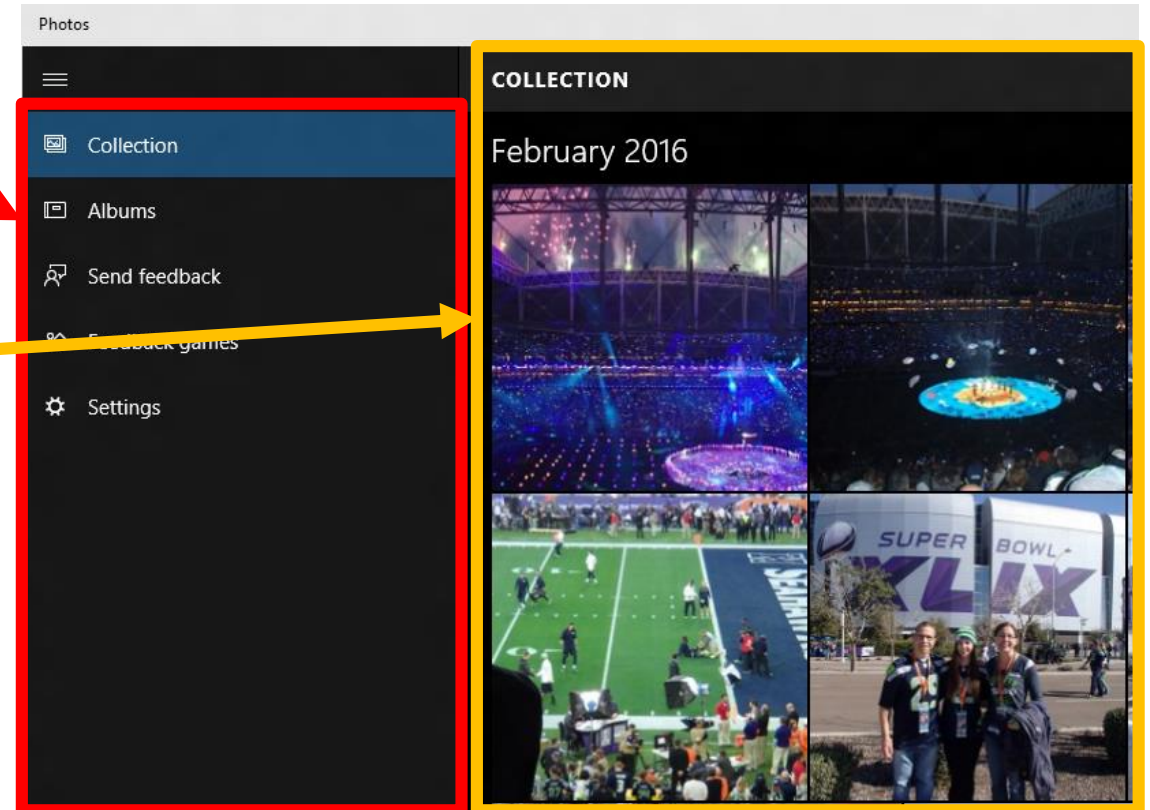
RelativePanel
Enables elements to layout relative to other elements

```
<Grid>
  <Grid.ColumnDefinitions>
    <ColumnDefinition Width="Auto"/>
    <ColumnDefinition Width="*"/>
  </Grid.ColumnDefinitions>
  <Image x:Name="img" …/>
  <StackPanel Grid.Column="1" …>
    <TextBlock x:Name="title" …/>
    <TextBlock x:Name="authors" …/>
    <TextBlock x:Name="summary" …/>
    <Button Content="Download" …/>
  </StackPanel>
</Grid>
```


"Traditional" nested panel layout can be challenging for more complex layouts

RelativePanel


```xml
<RelativePanel>
  <Image x:Name="img" …/>
  <TextBlock x:Name="title" RelativePanel.RightOf="img" RP.AlignTopWith="img" …/>
  <TextBlock x:Name="authors" RP.RightOf="img" RP.Below="title" …/>
  <TextBlock x:Name="summary" RP.RightOf="img" RP.Below="authors" …/>
  <Button Content="Download" RP.RightOf="img" RP.AlignBottomWithPanel="True" …/>
</RelativePanel>
```

Note: RP abbreviates RelativePanel (shortened for readability)

Use with Triggers and Setters for more adaptive/responsive designs

Simplifying Responsive View Development
Triggers and Setters (XAML equivalent of Media Queries)

```xml
<VisualState.Setters>
  <Setter Target="splitView.DisplayMode" Value="Inline" />
</VisualState.Setters>
<VisualState.StateTriggers>
  <AdaptiveTrigger MinWindowWidth="720" />
</VisualState.StateTriggers>


<VisualState.Setters>
  <Setter Target="splitView.DisplayMode" Value="Overlay" />
</VisualState.Setters>
<VisualState.StateTriggers>
  <AdaptiveTrigger MinWindowWidth= "0" />
 </VisualState.StateTriggers>
```

If the Window width is >= 720 effective pixels, then show SplitView in Inline mode

Vibration feedback example

```csharp
using Windows.Foundation.Metadata.ApiInformation;
using Windows.Phone.Devices.Notifications;

// give feedback for an error
if (IsTypePresent("Windows.Phone.Devices.Notifications.VibrationDevice"))
{
    VibrationDevice.GetDefault().Vibrate(TimeSpan.FromMilliseconds(550));
}
```
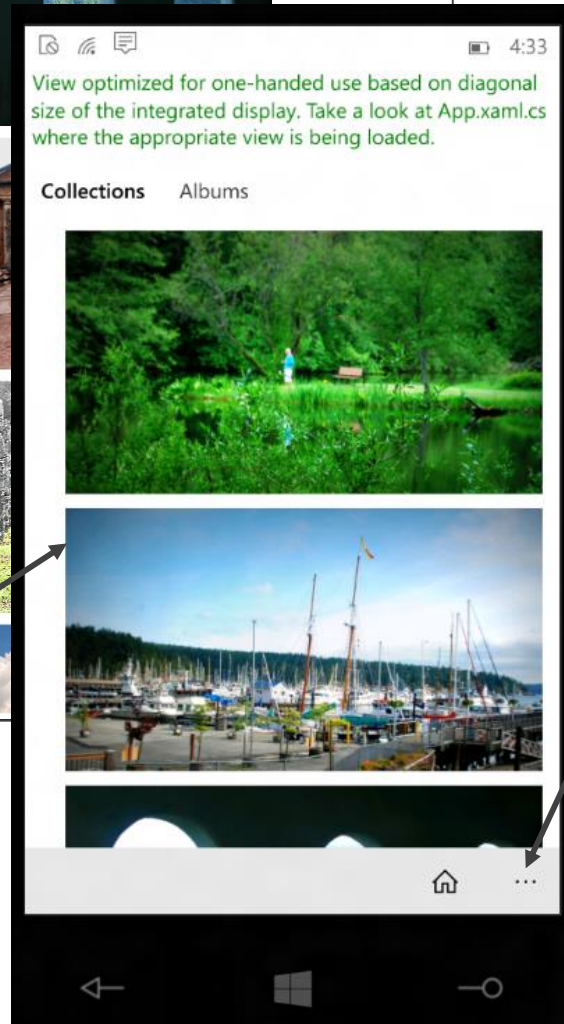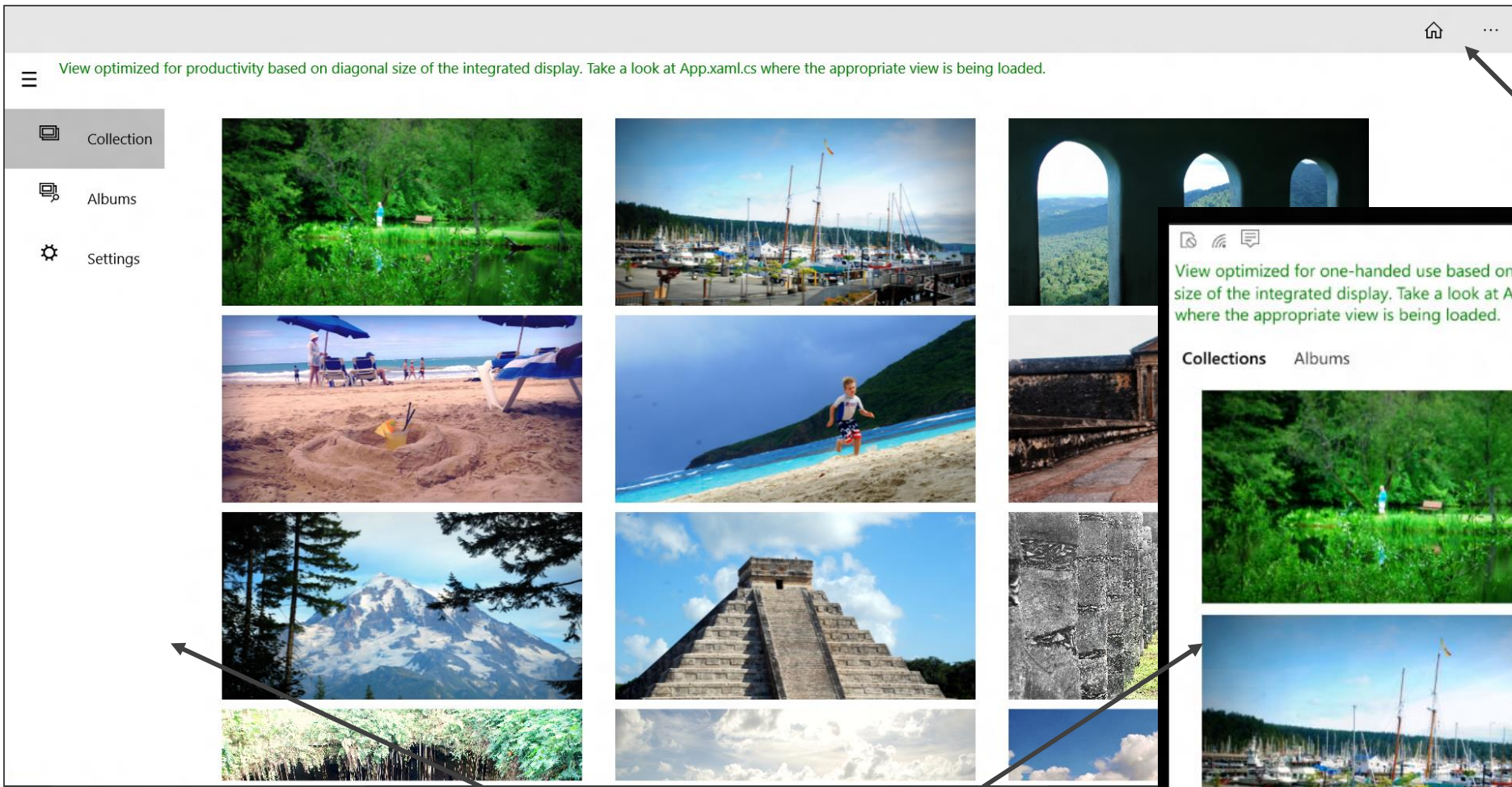
Note: The string for the type is always single-dotted notation, even for C++

Tailoring your view

- Decide what scenario drives the need
- Create unique views for those scenarios
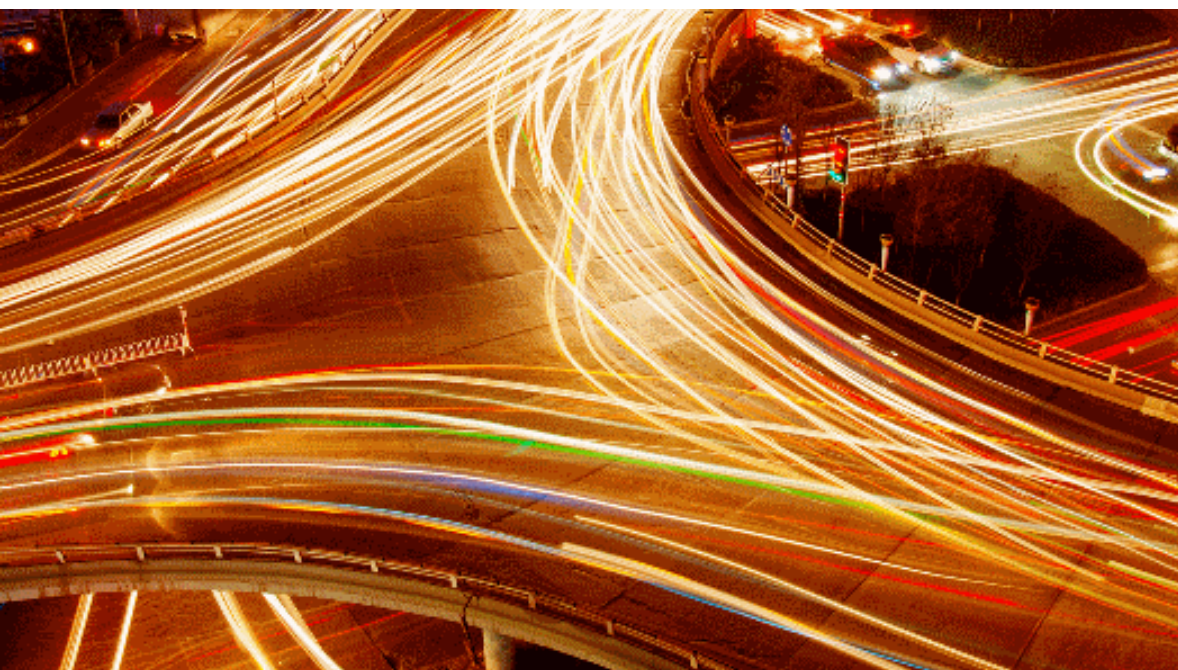- Load appropriate view on startup based on scenario

```
//Get the diagonal size of the integrated display
var dsc = new DisplaySizeHelper.DisplaySizeClass();
double _actualSizeInInches = dsc.GetDisplaySizeInInches();

//Guidance: If the diagonal size is <= 7" use the OneHanded optimized view
if ( _actualSizeInInches >0 && _actualSizeInInches <= ONEHANDEDSIZE)
{
    rootFrame.Navigate(typeof(MainPage_OneHanded), e.Arguments);
}
    else
{
    rootFrame.Navigate(typeof(MainPage), e.Arguments);
}
```
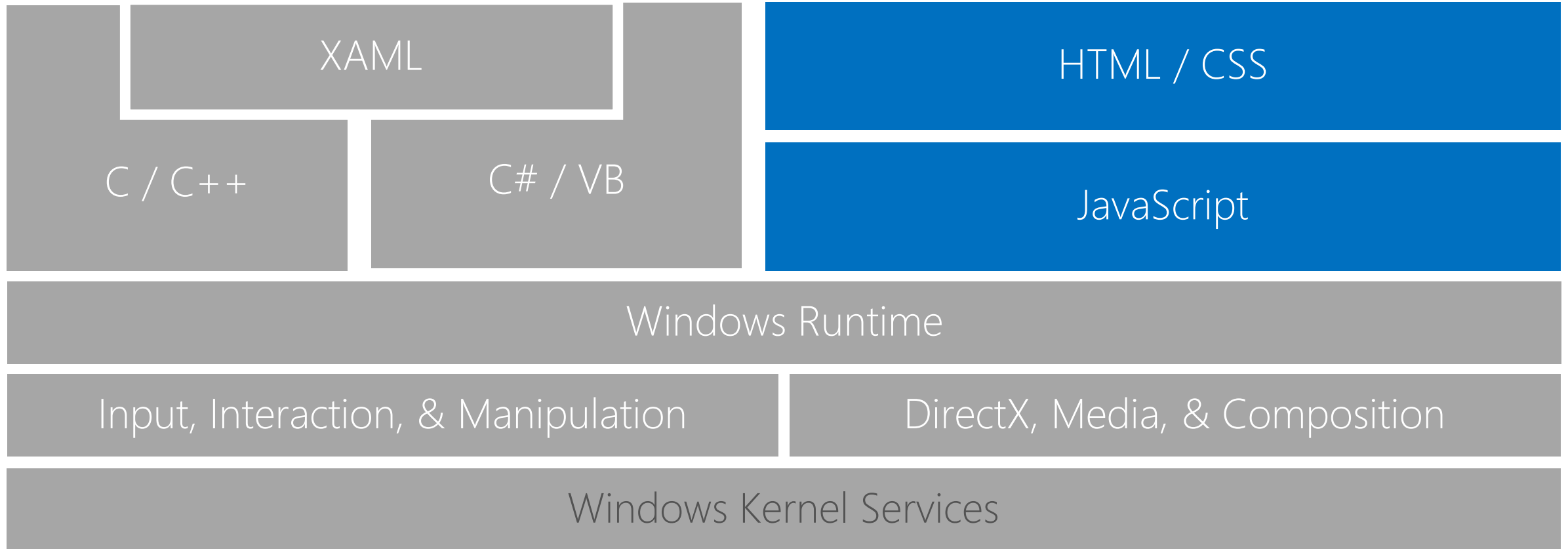
View optimized for productivity based on diagonal size of the integrated display. Take a look at App.xaml.cs where the appropriate view is being loaded.

Collection

Albums

Settings

View optimized for one-handed use based on diagonal size of the integrated display. Take a look at App.xaml.cs where the appropriate view is being loaded.

Collections   Albums

4:33

Commands at the top vs. bottom

SplitView vs. Pivot

HTML / JavaScript

HTML / JavaScript dans l'univers Windows

XAML		HTML / CSS
C / C++	C# / VB	JavaScript

Windows Runtime

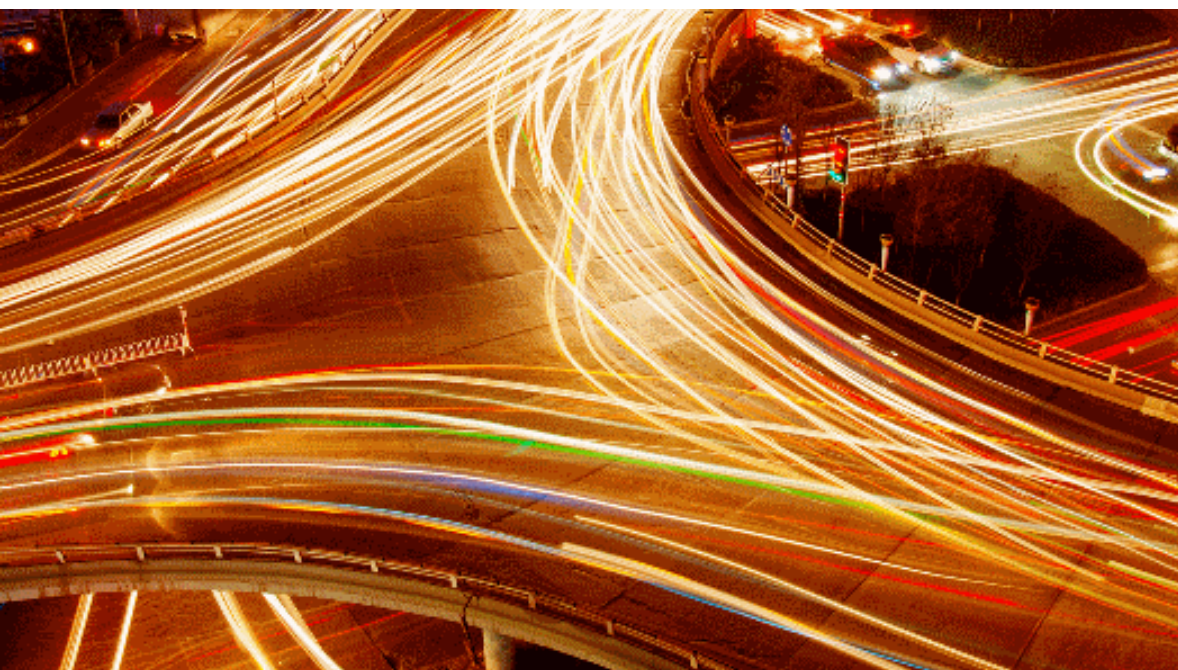| Input, Interaction, & Manipulation	DirectX, Media, & Composition

Windows Kernel Services

- Un **framework JavaScript Open Source**

- Pour le **web** (et pas que pour un navigateur)

- Fonctionne avec les applications HTML/JS dans **Windows**

- Puissance des UWA avec la **souplesse** du web

- **Compatible** avec les autres frameworks

Demo

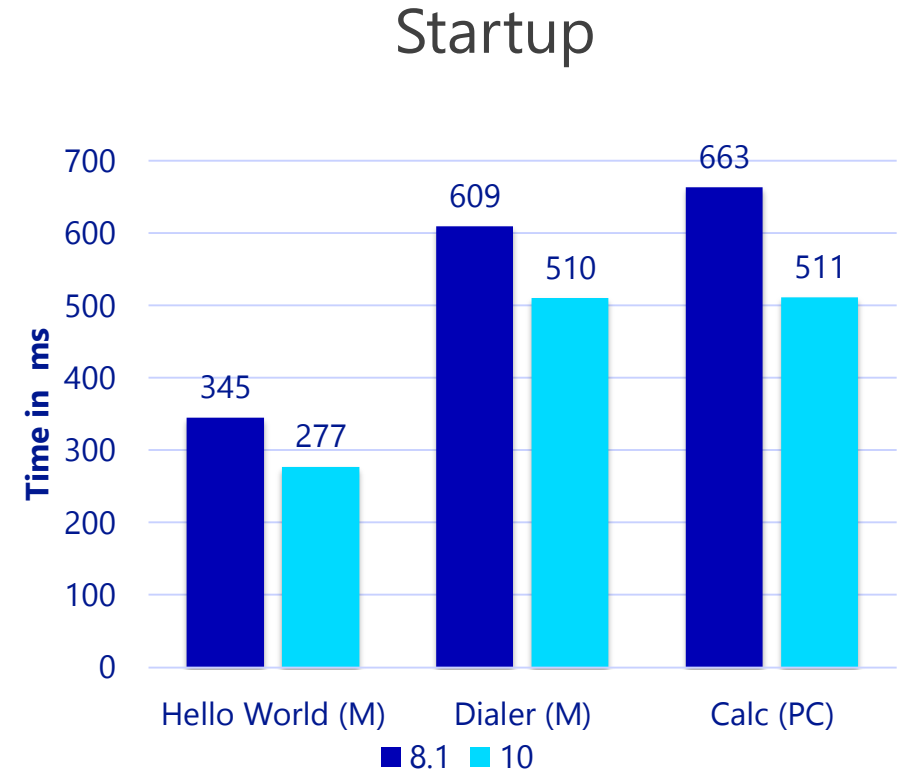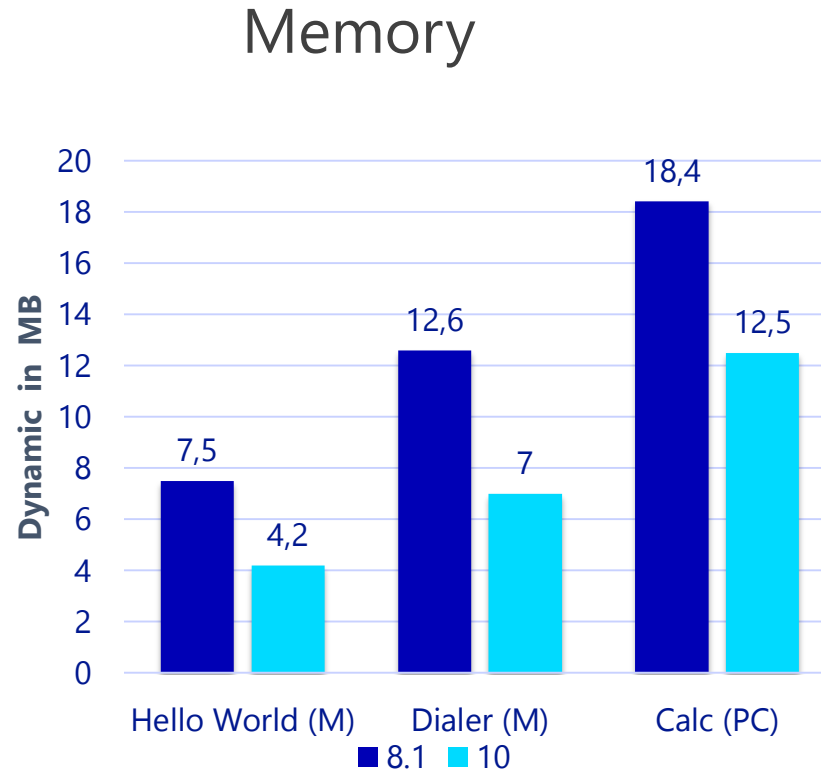Démo HTML/JS, WinJS et les Universal Windows Apps

Performance

Universal Windows app Performance

Notable performance gains when moving to UWP

Memory

Dynamic in MB

	Hello World (M)	Dialer (M)	Calc (PC)
8.1	7,5	12,6	18,4
10	4,2	7	12,5

■ 8.1 ■ 10

Startup

Time in ms

	Hello World (M)	Dialer (M)	Calc (PC)
8.1	345	609	663
10	277	510	511

■ 8.1 ■ 10

CPU - 15% to 30%
Working Set - 25% to 45%

Demo

Performance (x:Bind et x:Phase)

Notable New Performance Features
Compiled Bindings AKA {x:Bind}: Like {Binding}, only they go to 11

```xml
<ListView>
  <ListView.ItemTemplate>
    <DataTemplate x:DataType="local:FreeBookCategory">
      <StackPanel>
        <SymbolIcon Symbol="{x:Bind Symbol}"/>
        <TextBlock Text="{x:Bind Name}"/>
        <Button Click="{x:Bind Click}"/>
      </StackPanel>
    </DataTemplate>
  </ListView.ItemTemplate>
</ListView>
```

Resolved at compile time and produce compiler errors.

x:Phase – progressive rendering for list items

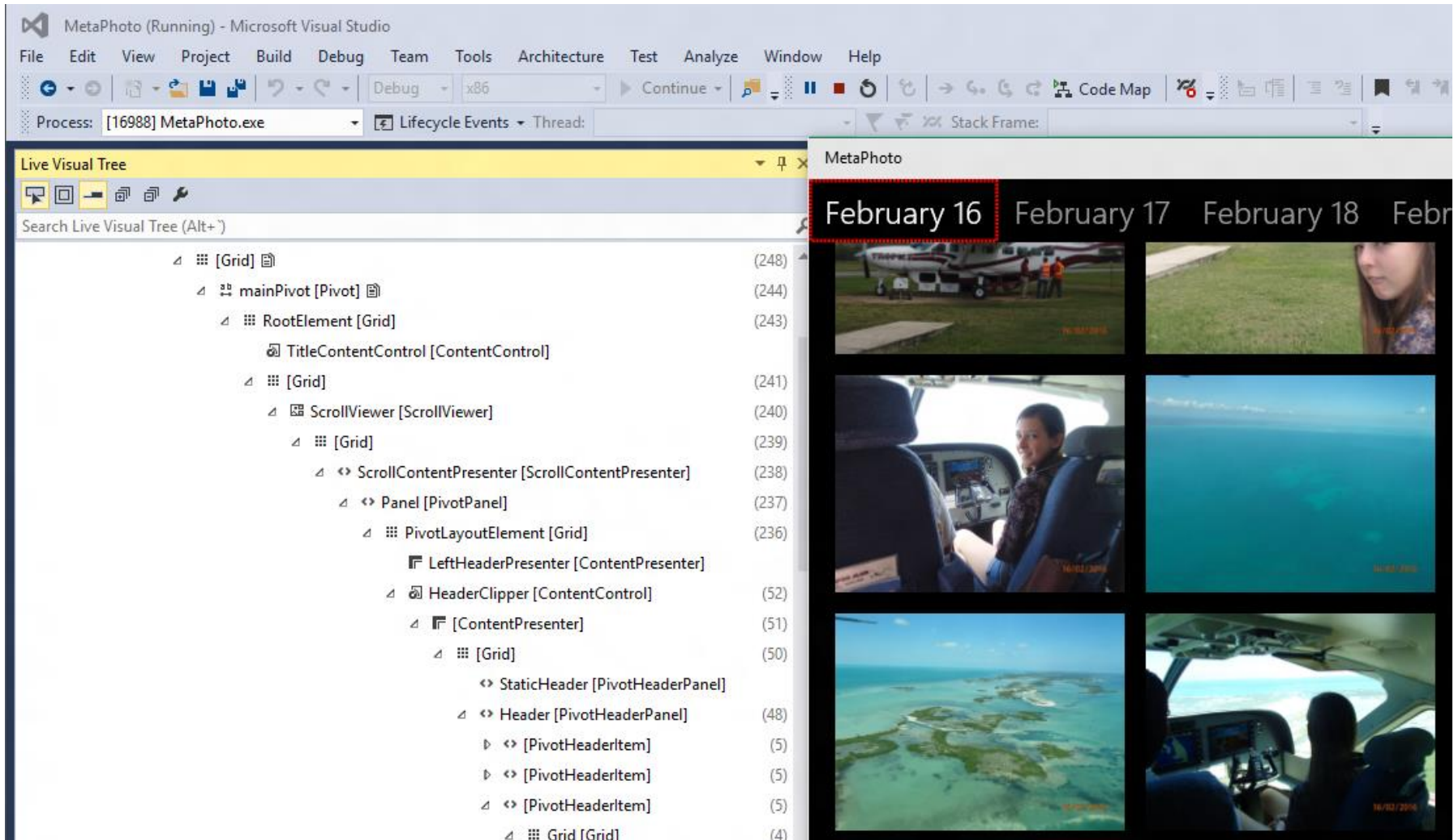Windows 8.1 introduced ContainerContentChanging Event
- Enables progressive rendering of list items
- Required code to update template which precluded use of binding

x:Phase enables declarative support for phased rendering

```xml
<DataTemplate x:DataType="model:FileItem">
  <Grid Width="200" Height="80">
    <TextBlock Text="{x:Bind DisplayName}" />
    <TextBlock Text="{x:Bind prettyDate}" x:Phase="1"/>
  </Grid>
</DataTemplate>
```
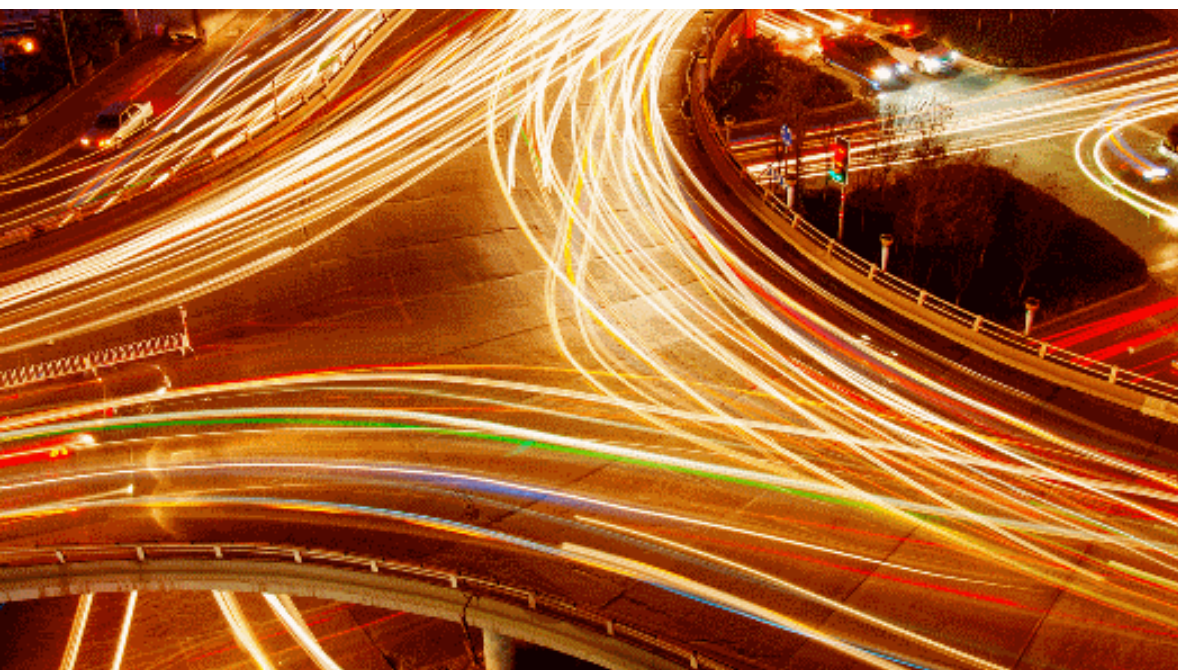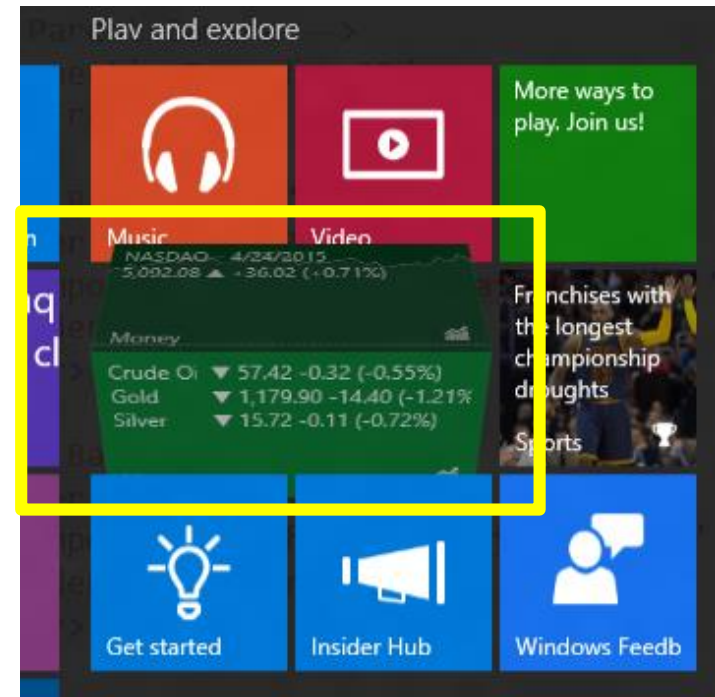
Implicit x:Phase="0" as no phase is specified

Visual Studio
Visual Tree Inspector (prochainement)

Nouveautés

PerspectiveTransform3D
Composable 3D Transforms (Effects: 3D Rotations, Parallax)

```xml
<Grid>
  <Grid.Transform3D>
    <!-- Parent Camera -->
    <PerspectiveTransform3D/>
  </Grid.Transform3D>

  <Border Background="#FF7F00">
    <Border.Transform3D>
      <CompositeTransform3D RotationX="-90 " …/>
    </Border.Transform3D>
  </Border>

  <Border Background="#FF6700">
    <Border.Transform3D>
      <CompositeTransform3D RotationY="-90" …/>
    </Border.Transform3D>
  </Border>
</Grid>
```
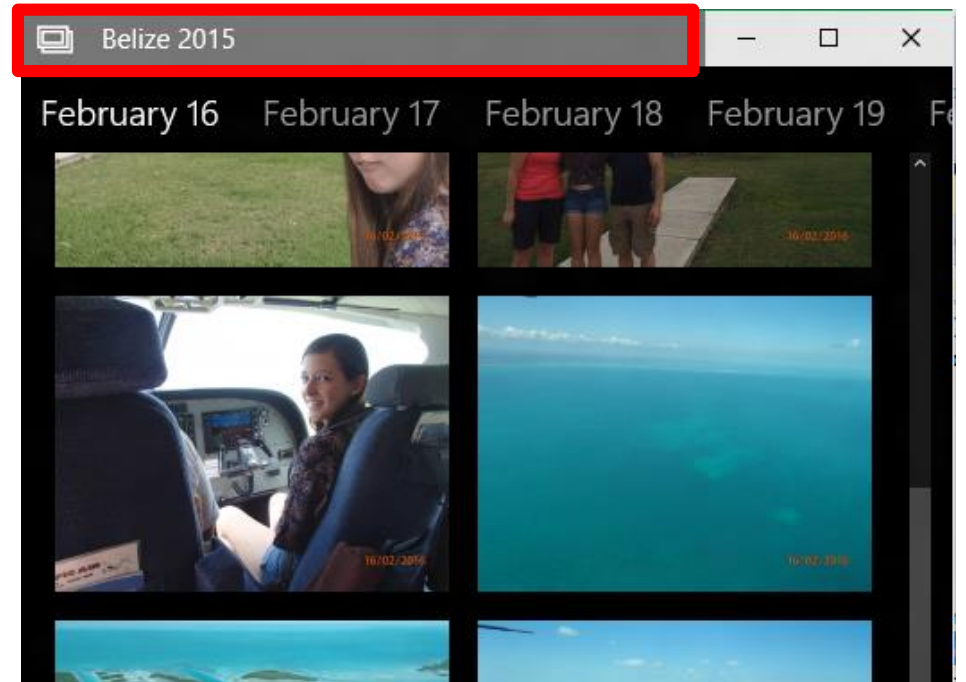
Windowing
Custom chrome, branding, sizing


```xml
<!-- XAML -->
<StackPanel x:Name="customTitleBar" Height="32" …>
  <FontIcon …/>
  <TextBlock Text="Belize 2015" …/>
</StackPanel>
```

```csharp
// Remove Standard Title Bar
CoreApplication.GetCurrentView().TitleBar.ExtendViewIntoTitleBar = true;

// Indicate Custom App UI to use as the TitleBar (for move, resize)
Window.Current.SetTitleBar(customTitleBar);
```

Ink Canvas
Palm rejection, smoothing, high fidelity

```xml
<Grid>
  <!-- It's this simple -->
  <InkCanvas/>
</Grid>
```
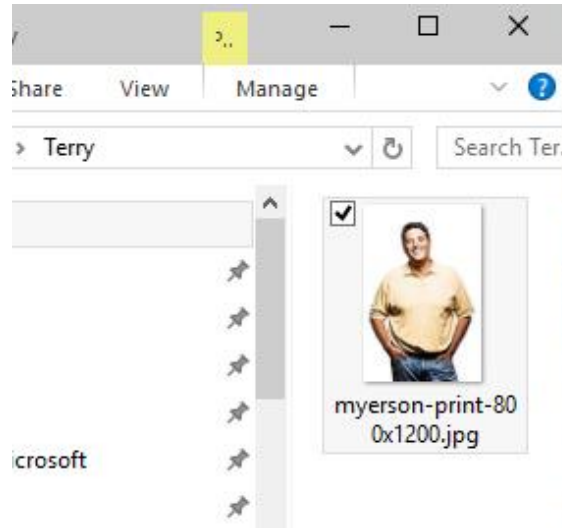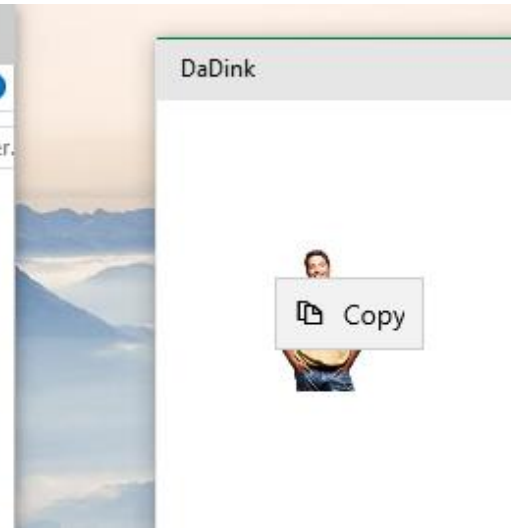
Drag and Drop
Extended for "Windowed" Apps

```xaml
<!-- XAML -->
<Grid AllowDrop="True" DragOver="Do_DragOver" Drop="Do_Drop" …>
…
</Grid>
```


File Explorer   My App

Demo

Nouveautés

Nouveautés

Cortana	Stockage partagé	Service d'application	App-to-App communication	Networking
Reconnaissance vocale	Cartes	Raccourcis clavier	Media	Devices

(et plein d'autres)

https://dev.windows.com/fr-fr/getstarted/whats-new-windows-10

IoT

Windows 10 IoT Editions

Windows 10 IoT for industry devices

Desktop Shell, Win32 apps, Universal apps and drivers
Minimum: 1 GB RAM, 16 GB storage
X86/x64

Windows 10 IoT for mobile devices

Modern Shell, Mobile apps, Universal apps and drivers
Minimum: 512 MB RAM, 4 GB storage
ARM

Windows 10 IoT Core

Universal Apps and Drivers
No shell or MS apps
Minimum: 256MB RAM, 2GB storage
X86/x64 or ARM

+

Windows
Updates

Visual Studio &
UWP

New User
Interfaces

Security &
Identity

Integrated
Device
Connectivity

Microsoft
Azure IoT

Quad-core ARM Cortex-A7 CPU
1GB LPDDR2 SDRAM
Micro SD, Ethernet, USB, HDMI

Intel Atom E3800 Processor
1GB DDR3 RAM
Micro SD, Ethernet, USB, HDMI

Qualcomm Snapdragon 410
1GB LPDDR3, 4GB eMMC
Micro SD, WiFi, BT 4.1 + LE, GPS

disponible **gratuitement**
sur **Raspberry Pi 2** et **Minnowboard Max**

Windows 10 IoT Core **Insider Preview**
www.windowsondevices.com

The Internet of your things

The Internet of Things (IoT) brings together devices, sensors, cloud, data and your imagination.
Build what matters most to you.

Get started now

Get started   Projects   Docs and samples   FAQs   Downloads   Hardware   Community   Build 2015

Windows IoT device

Rapidly prototype and build your Windows IoT solutions on a variety of devices running Windows 10 IoT Core. Windows 10 gives you powerful tools that let you develop fast and deploy to your device.
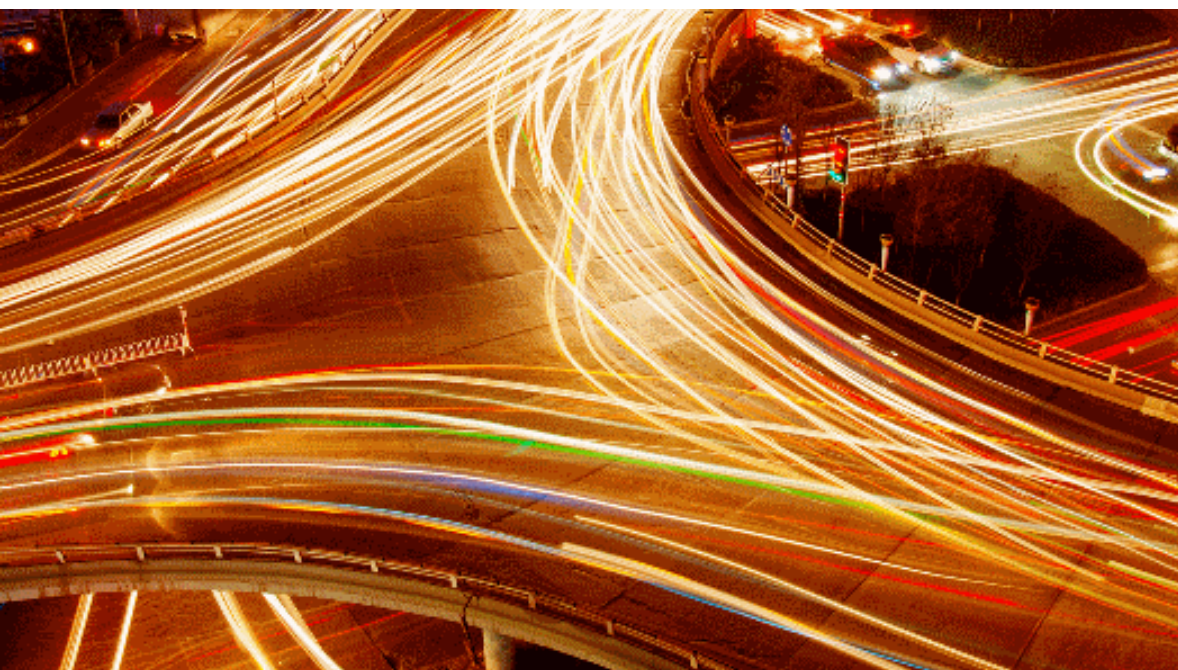
Device connectivity

Leverage the power of open frameworks like Connect-the-Dots to help connect your devices to Microsoft Azure. Microsoft Azure allows you to implement great solutions by leveraging advanced analytics services.

Maker community

Connect with other makers to share code and make contributions through GitHub. Join the community to influence future releases of the SDK.

Dev Center

https://dev.windows.com/fr-FR

Microsoft | Centre de développement Windows

Se connecter

Accueil   Explorer ⌄   Documentation ⌄   Téléchargements   Exemples   Communauté   Programmes   Tableau de bord

Un code unique. Pour tous.

Commencer rapidement à créer des applications pour Windows 10

Procédure

| Télécharger les outils | Obtenir des exemples de code | Soumettre votre application | Essayer App Studio | Obtenir un compte de développeur |

Prise en main

Vous êtes prêt à créer votre première Windows app ? Nos didacticiels vous

Conception et interface utilisateur

Accédez à des notions de base sur l'interface utilisateur, à des principes de
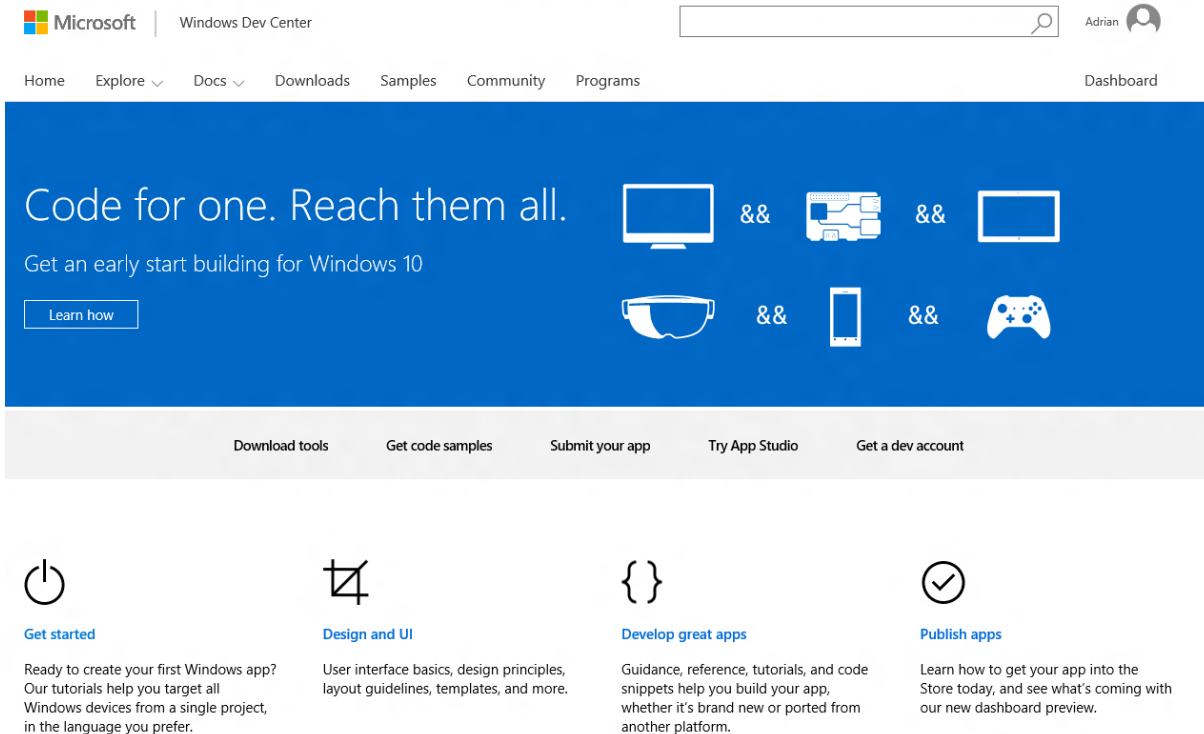
Développement d'applications de qu...

Accédez à des conseils, des documents de référence, des didacticiels et des

Publication d'applications

Découvrez comment placer votre application sur le Store dès aujourd'hui

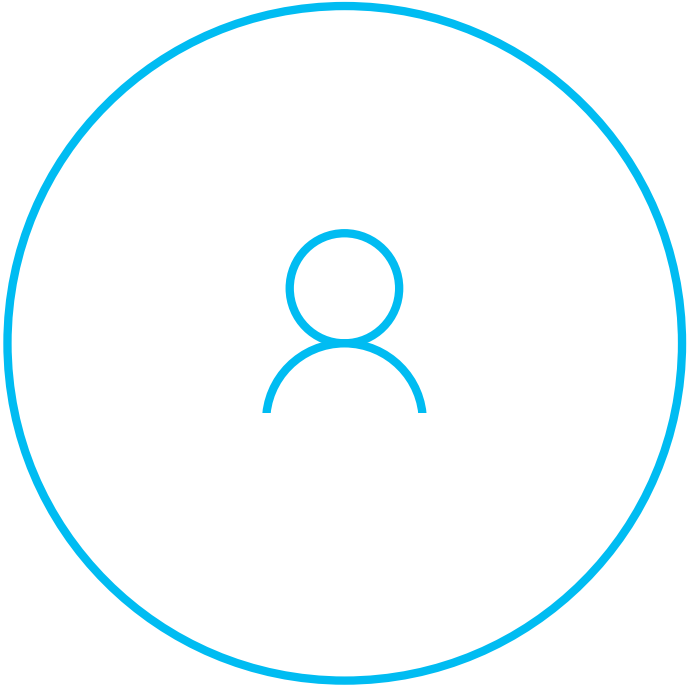Search the web and Windows

FRA
23:45
11/05/2015

Introducing One Windows Dev Center

One destination for supporting all Windows platforms

- ✓ One registration
- ✓ One app submission
- ✓ Customer acquisition
- ✓ Customer engagement
- ✓ Powerful monetization
- ✓ Rich analytics
- ✓ One payout

DEV.WINDOWS.COM

Preview available now!

One registration

Microsoft Advertising ready

Simplified tax registration

Multi user accounts and roles

Store certification

Pre-processing

Certification
In progress

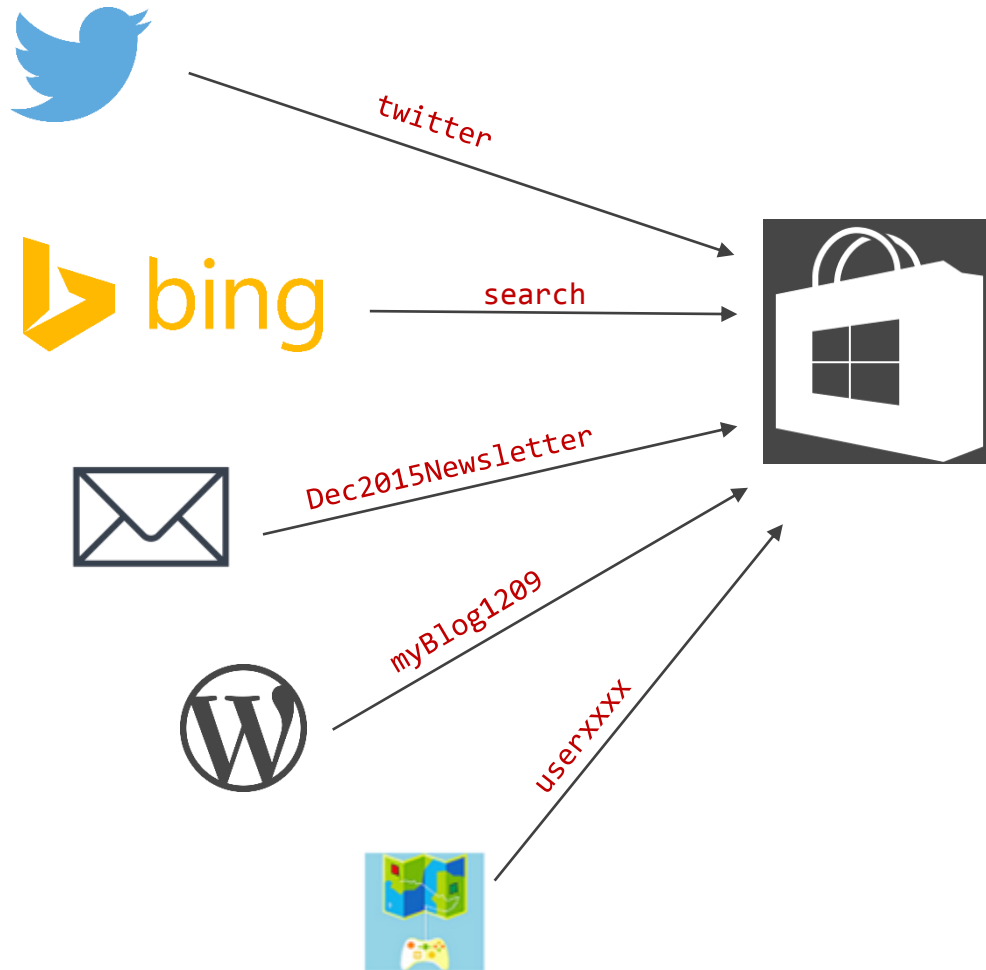Your app will be released on your request. Change release date

Review submission

One set of Store Certification policies

Windows-Age Ratings required for all applications

Quick Turnaround time

Customer acquisition

twitter

search

Dec2015Newsletter

myBlog1209

userxxx

Promote your apps
- ✓ Campaigns
- ✓ House ads
- ✓ App install ads

Promotional codes

Channels and conversions report

Customer engagement

Rocks!

★★★★★

Love this app, so much fun. It's running on all my devices, I use it wherever I go! Keep up the good work!

Love the concept

★★★☆☆

I appreciate the effort that went into this app. The user experience is clean and simple, and it's fast. I'm only giving it 4 out of 5 stars because it doesn't actually do anything useful.

Assess

✓   Trend analysis

✓   Auto translated reviews

Engage

✓   Public and Private response

Introducing the store affiliate program

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- ✓ Subscriptions: 6 months of renewals!
- ✓ Paid downloads: 24 hours

Watch the channel 9 video for more details

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