

Mobile first!



aDevCamp
Praha
21.5. 2011



Juraj Michálek

Blog: <http://georgik.sinusgear.com>

Obsah

Vývoj na platforme AIR

Mobilné zaujímavosti

Možnosti vývoje

Java

C/C++

AIR

HTML/JavaScript

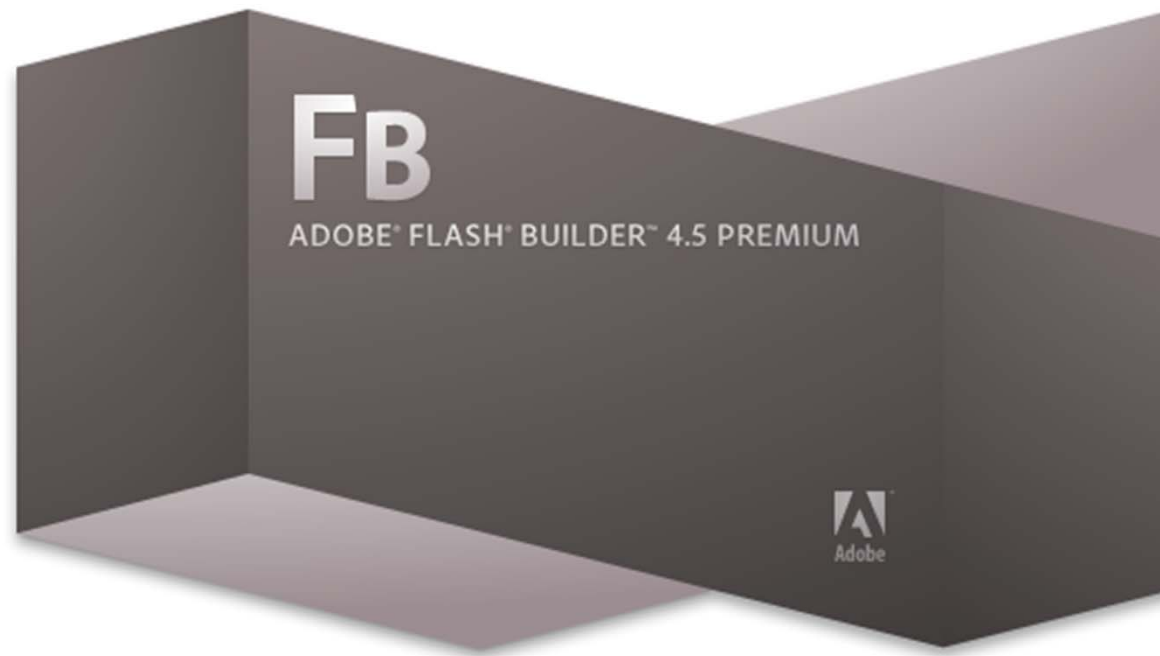
Adobe AIR



Multiplatform runtime
Linux, Mac, Windows, Mobile

RIA

Flash Builder



Flash Builder 4.5

Vývojové prostredie na Eclipse

Mac, Windows

<http://labs.adobe.com>

Študenti a akademický pracovníci
- licencia zdarma

Trial 60 dní.



Flex SDK Hero



Mozilla Public licence

Linux, Mac, Windows, BSD

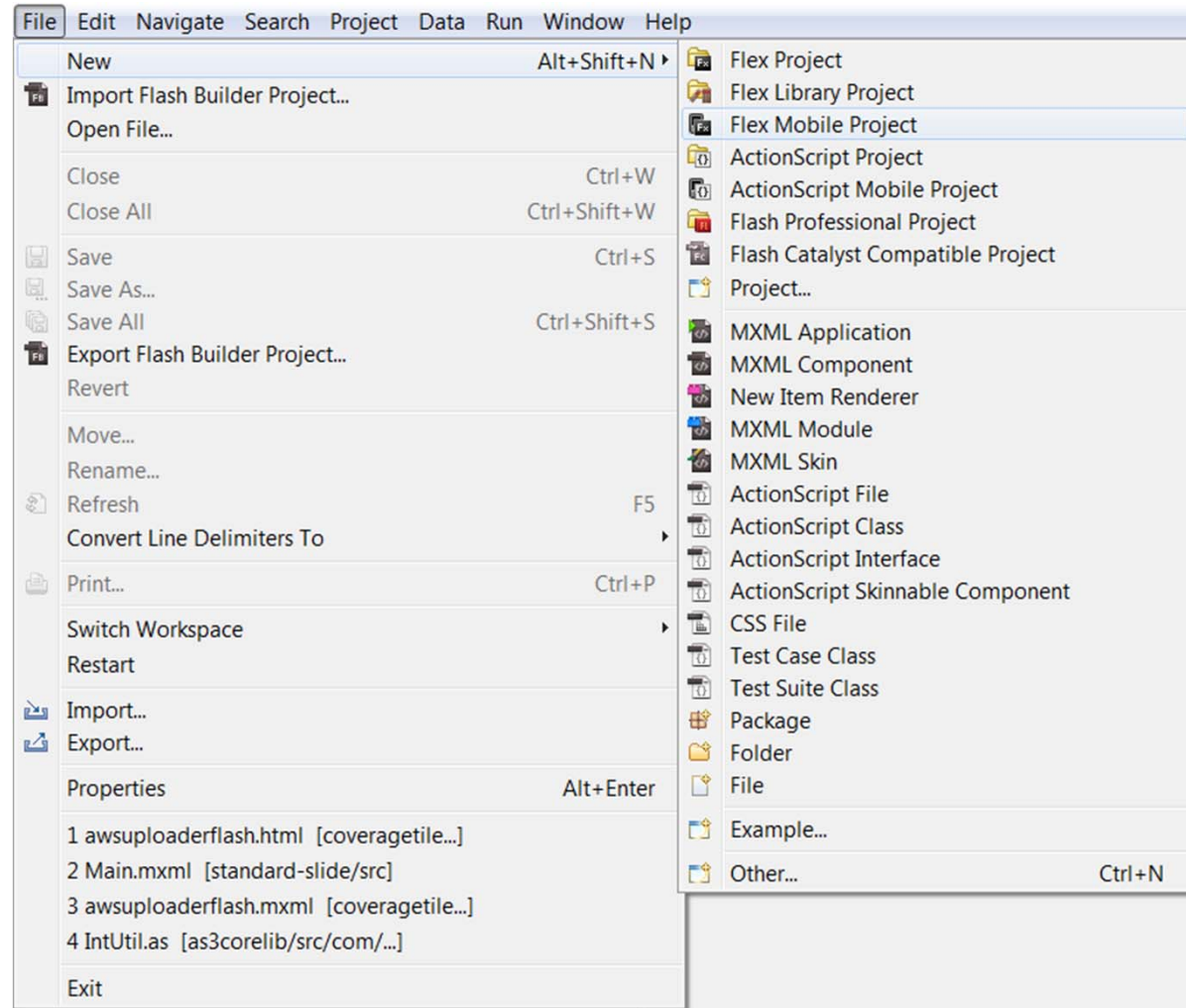
Flex SDK 4.5 – podpora mobilných zariadení

Creative Suite CS5.5

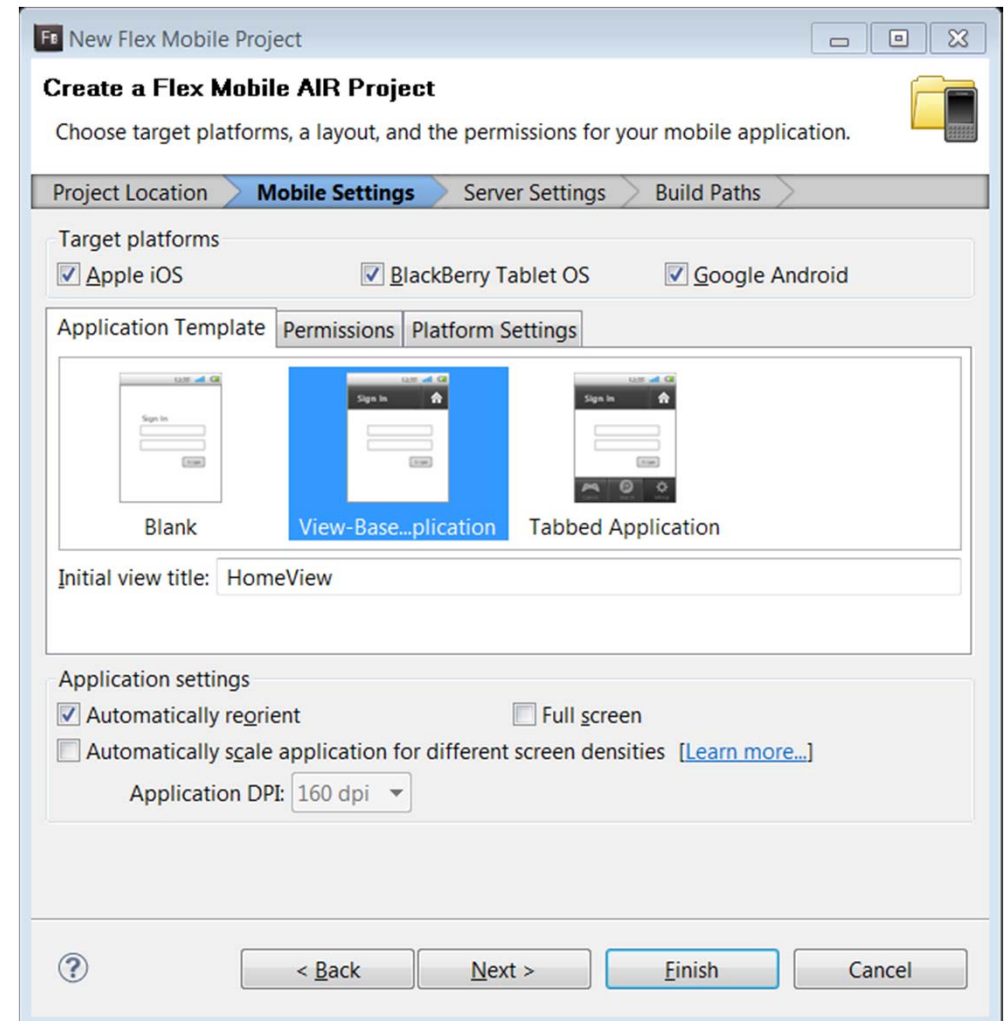
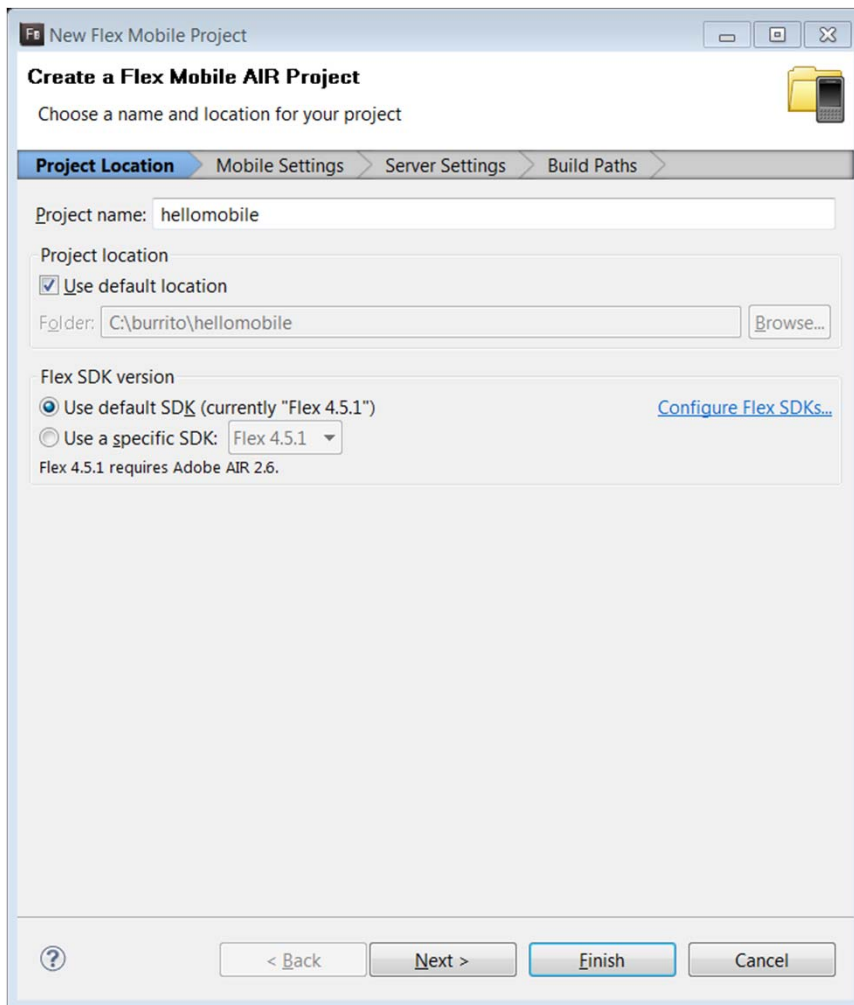
Študentská licencia

umožňuje komerčné použitie

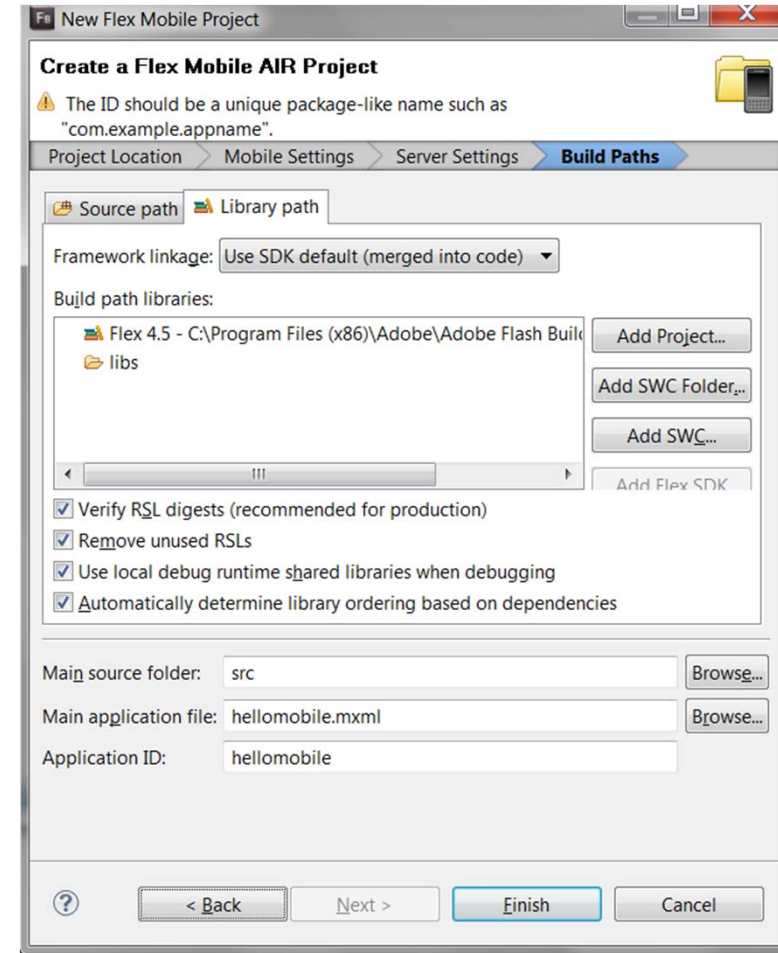
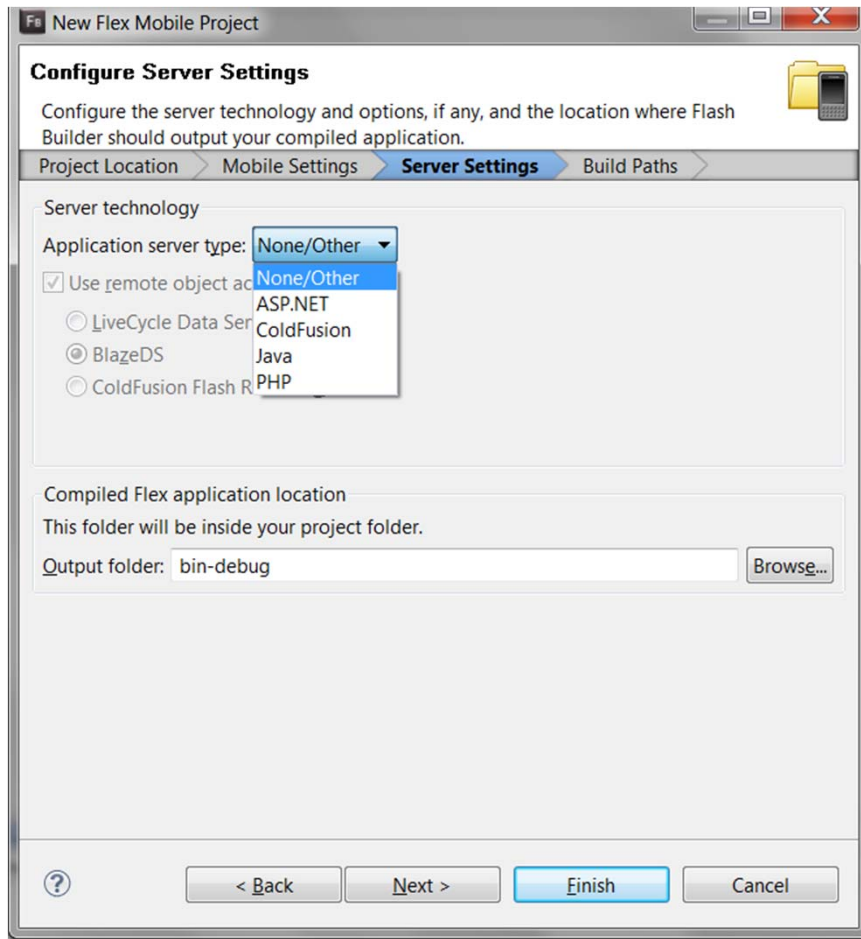
Flex Mobile Project



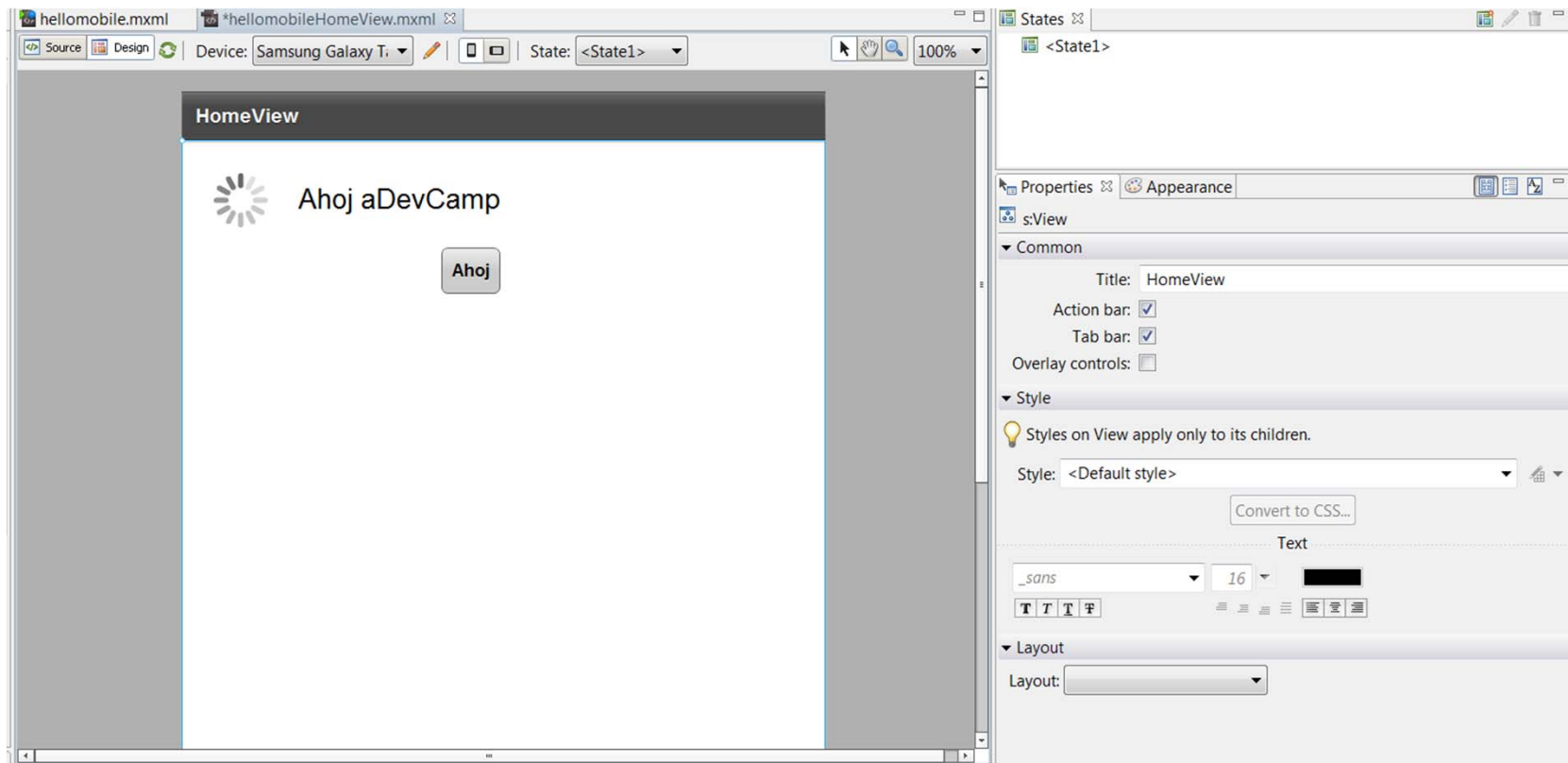
Mobile Wizard



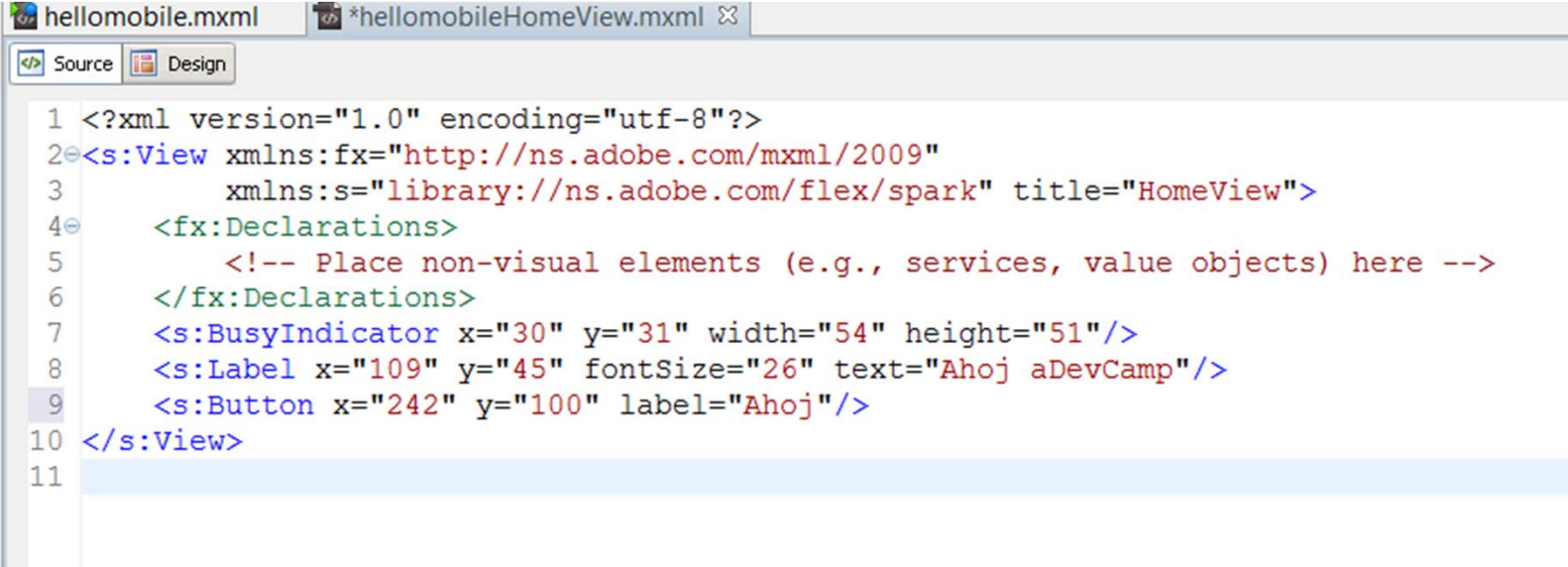
Backend, Config



Design View

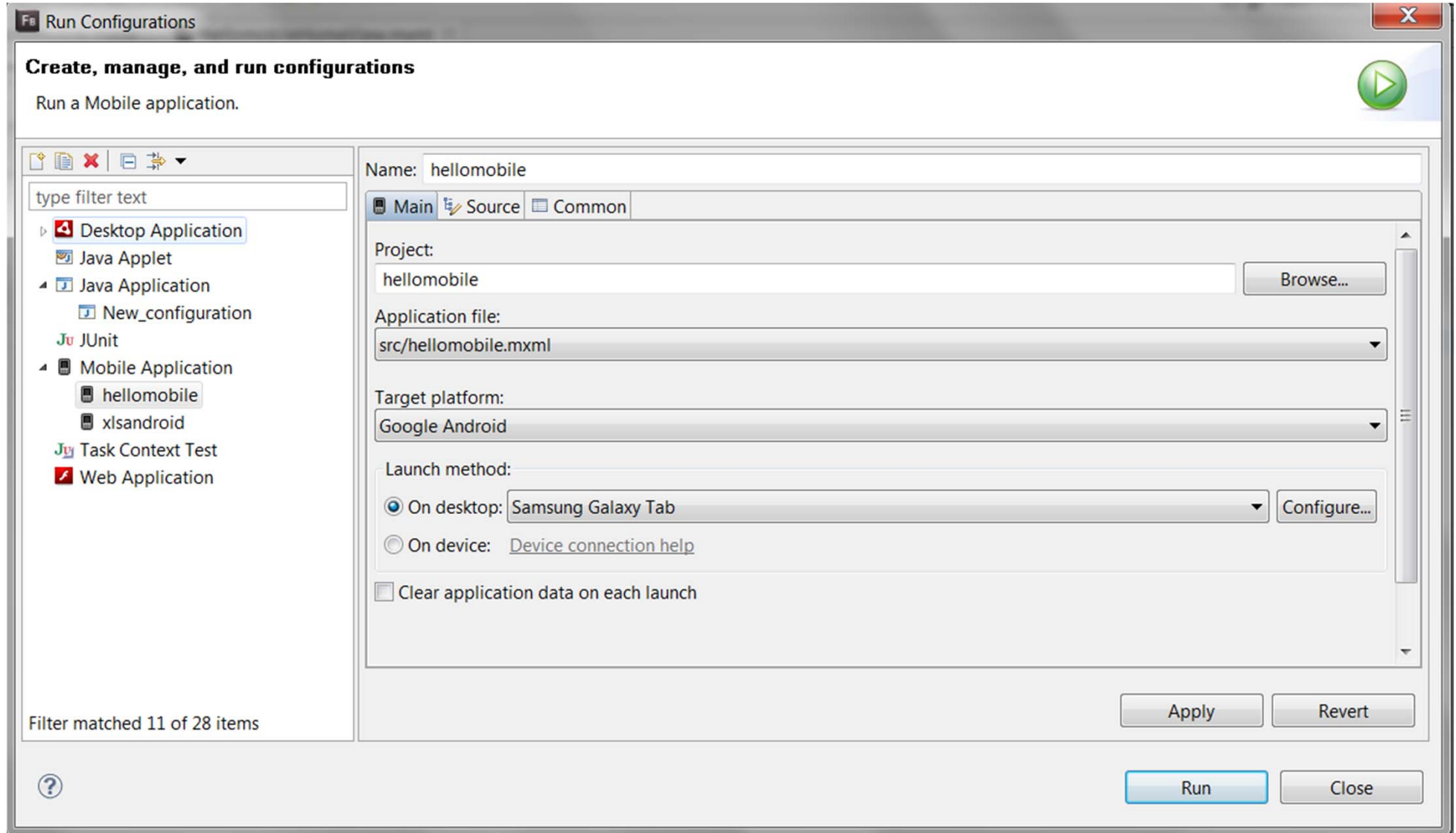


Source View

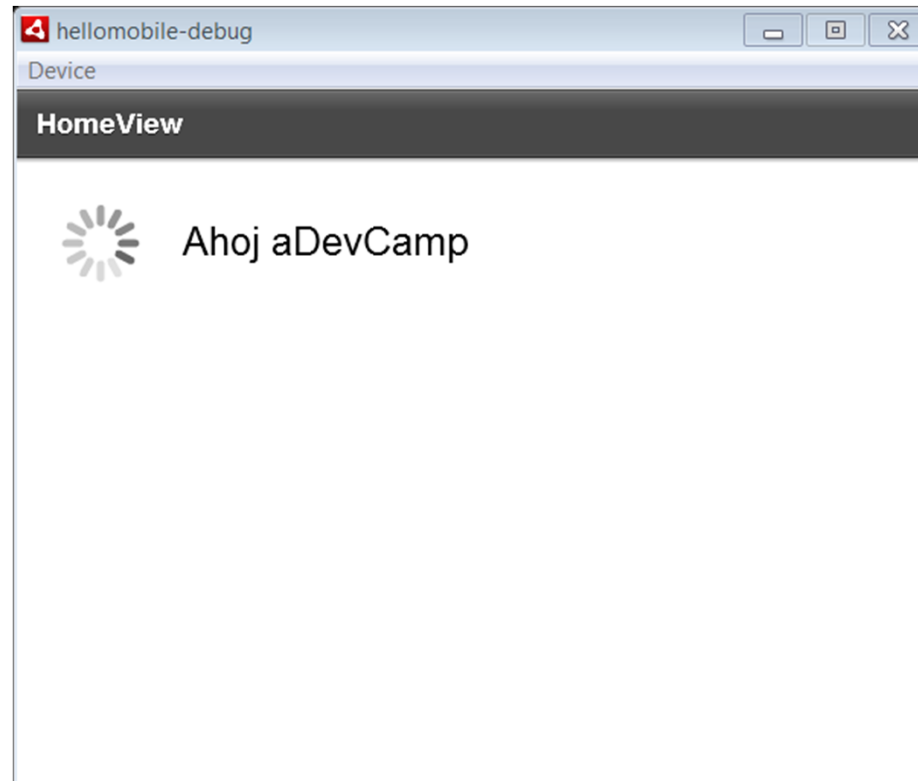


```
hellomobile.mxml *hellomobileHomeView.mxml
Source Design
1 <?xml version="1.0" encoding="utf-8"?>
2 <s:View xmlns:fx="http://ns.adobe.com/mxml/2009"
3   xmlns:s="library://ns.adobe.com/flex/spark" title="HomeView">
4   <fx:Declarations>
5     <!-- Place non-visual elements (e.g., services, value objects) here -->
6   </fx:Declarations>
7   <s:BusyIndicator x="30" y="31" width="54" height="51"/>
8   <s:Label x="109" y="45" fontSize="26" text="Ahoj aDevCamp"/>
9   <s:Button x="242" y="100" label="Ahoj"/>
10 </s:View>
11
```

Run configuration



Run - Desktop



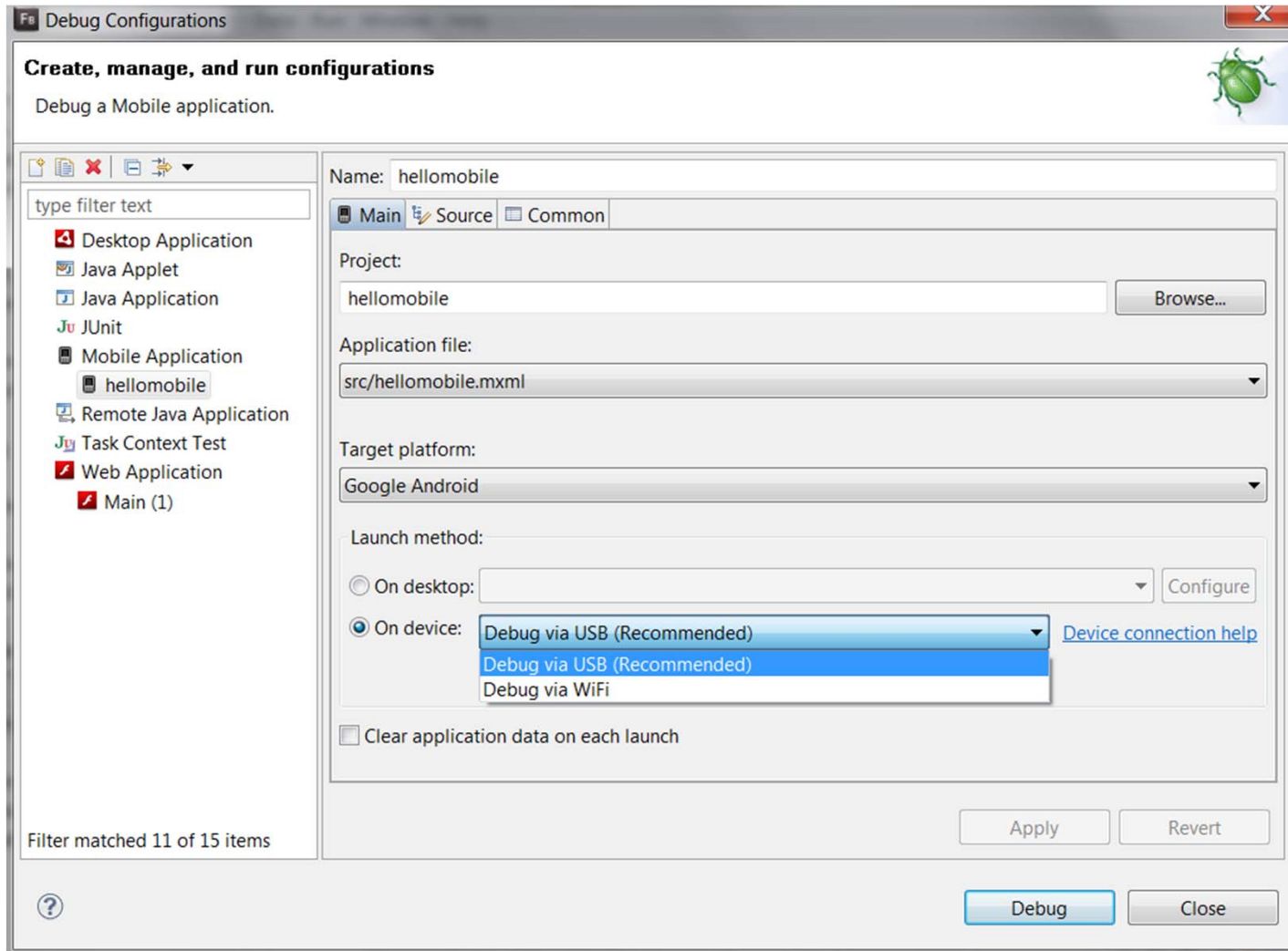
Debug

The screenshot shows the Flash Builder IDE in debug mode. The main window displays the source code of 'hellomobileHomeView.mxml' with a breakpoint set at line 9. The breakpoint is triggered, and the 'Variables' window shows the state of the 'this' object, including properties like 'ahojButton', 'ahojLabel', and 'event'. A 'hellomobile-debug (Not Responding)' window is overlaid on top, showing a loading spinner and the text 'Ahoj aDevCamp' and 'Ahoj'.

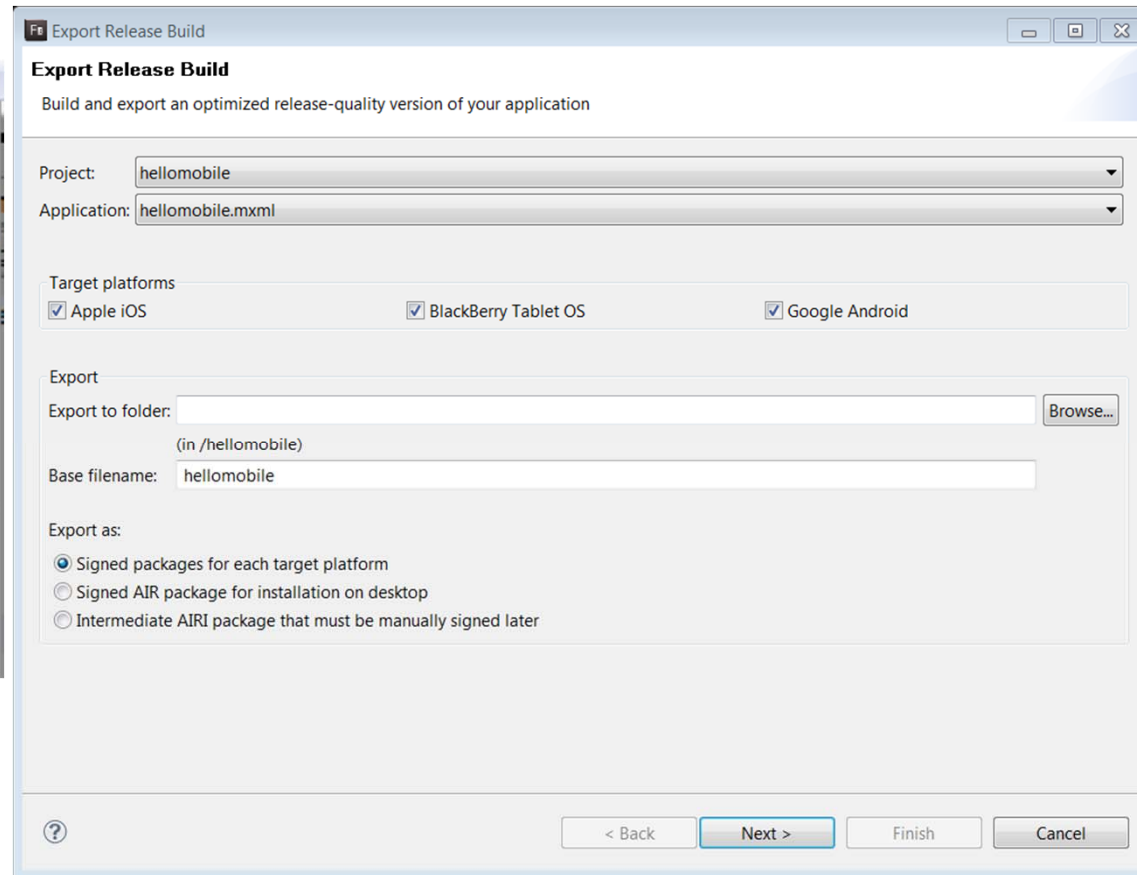
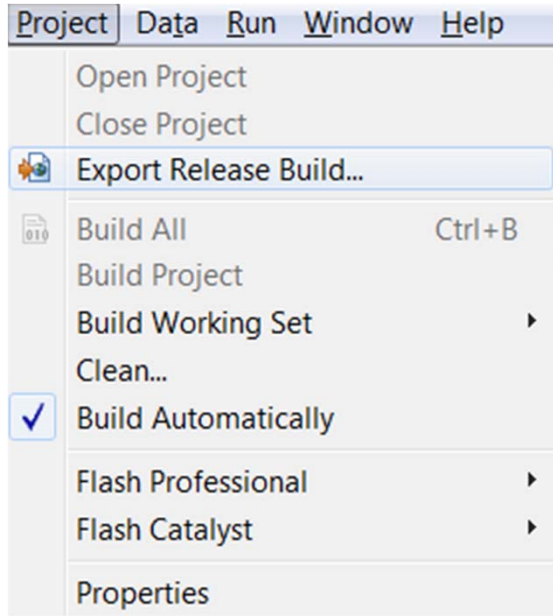
```
1 <?xml version="1.0" encoding="utf-8"?>
2 <s:View xmlns:fx="http://ns.adobe.com/mxml/2009"
3   xmlns:s="library://ns.adobe.com/flex/spark" title="HomeView">
4
5   <fx:Script>
6     <![CDATA[
7       protected function ahojButton_clickHandler(event:MouseEvent):void {
8         {
9           this.ahojLabel.text = "Hej hou!";
10        }
11      }
12    ]]>
13  </fx:Script>
14 </s:View>
```

Name	Value
this	views.hellomobileHomeView.mxml
[inherited]	
_175782866ahojLabel	spark.compo...
_887031316ahojButton	spark.compo...
ahojButton	spark.compo...
ahojLabel	spark.compo...
_moduleFactoryInitial	true
event	flash.events....
[inherited]	
altKey	false
buttonDown	false
clickCount	0
commandKey	false
controlKey	false
ctrlKey	false
delta	0
isRelatedObjectInAccess	false
localX	34 [0x22]
localY	25 [0x19]
m_altKey	false
m_buttonDown	false
m_clickCount	0
m_commandKey	false
m_controlKey	false

Debug na zariadení

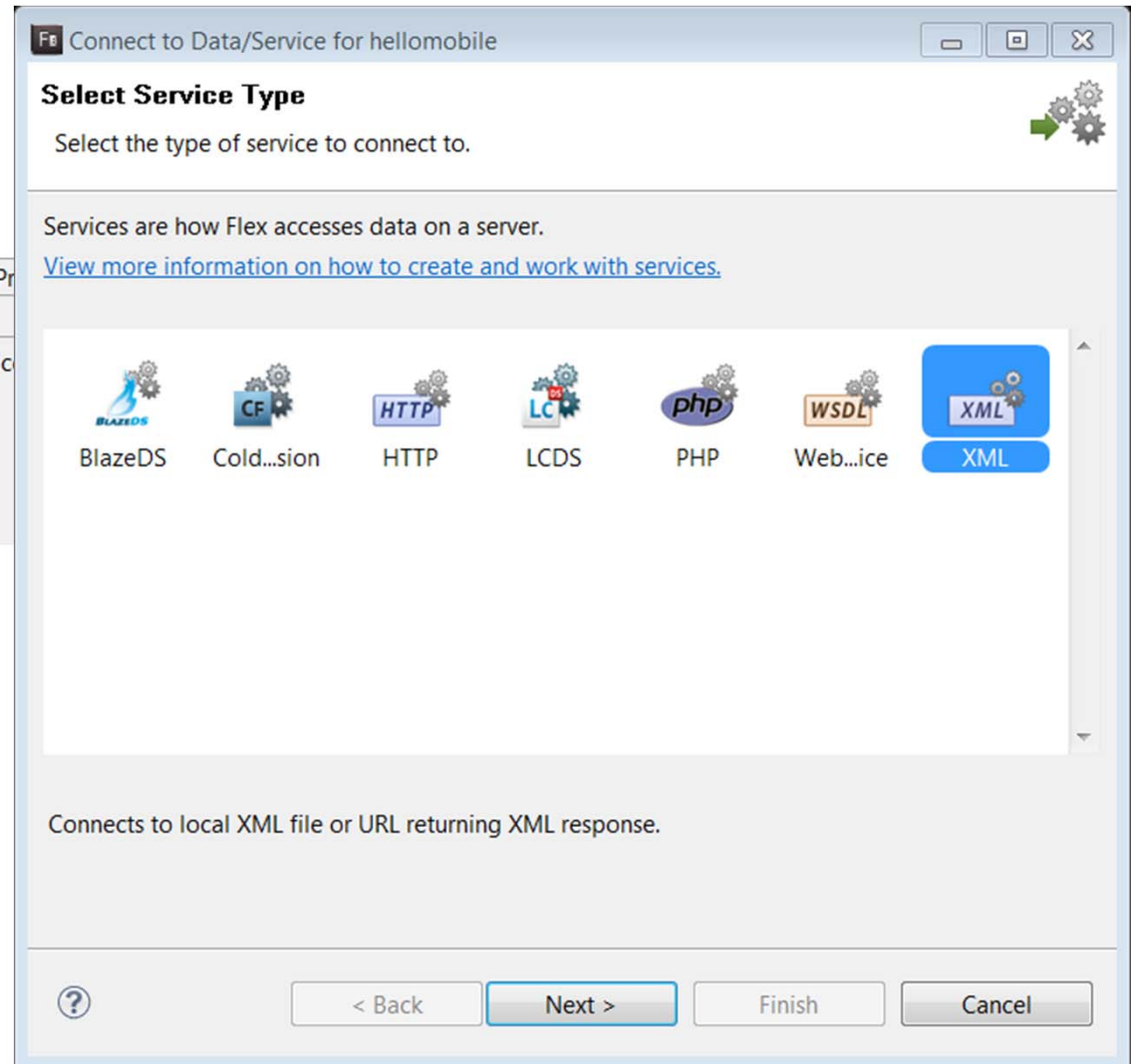
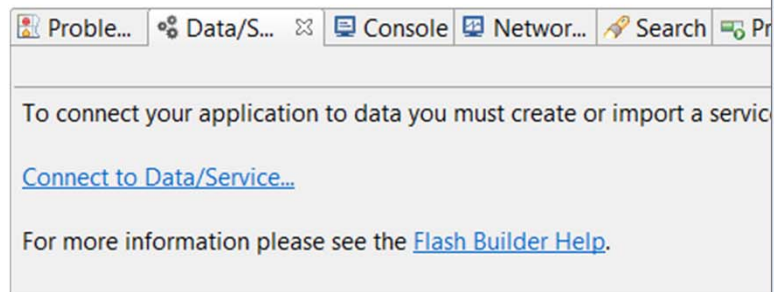


Export Release Build



hellomobile.apk

Data/Service discovery



Príklad: XML Service

The image displays two sequential screenshots of the 'Configure XML Service' dialog box in a software application. Both windows have the title 'Connect to Data/Service for hellomobile' and the subtitle 'Configure XML Service'. An information icon and a note are present at the top of each window: 'An operation by name "getData" shall be created with the return type as "rss"' (left) and 'An operation by name "getData" shall be created with the return type as "item[]"'. The left window shows the 'XML Source' set to 'URL' with the address 'http://localhost:8000/rss.xml' and the 'Select node' dropdown set to 'rss'. The 'Is Array?' checkbox is unchecked. The 'Service details' section contains: Service name: 'RssService', Service package: 'services.rssservice', and Data type package: 'valueObjects'. The right window shows the 'URL' as 'http://localhost:8000/rss.xml' with an 'Invoke' button. The 'Select node' dropdown is set to 'item' and the 'Is Array?' checkbox is checked. A tree view is open, showing the 'item' node expanded with sub-elements: 'pubDate', 'title', 'link', 'guid', 'description', and 'posterous_author'. The 'posterous_author' node is further expanded to show 'posterous_userImage', 'posterous_profileUrl', 'posterous_firstName', and 'posterous_lastName'. Both windows feature a footer with a help icon, '< Back', 'Next >', and 'Finish' buttons. The right window also includes a 'Cancel' button.

Napojenie na službu

The image shows a screenshot of an IDE interface. On the left, a UI design is visible with a header area containing a sun icon and the text "Ahoj aDevCamp", and a button labeled "Ahoj". Below the button is a large rectangular area with a blue border, containing a data binding expression: `getData() : Item[]`. A blue arrow points from this expression to the "Bind To Data" dialog box on the right.

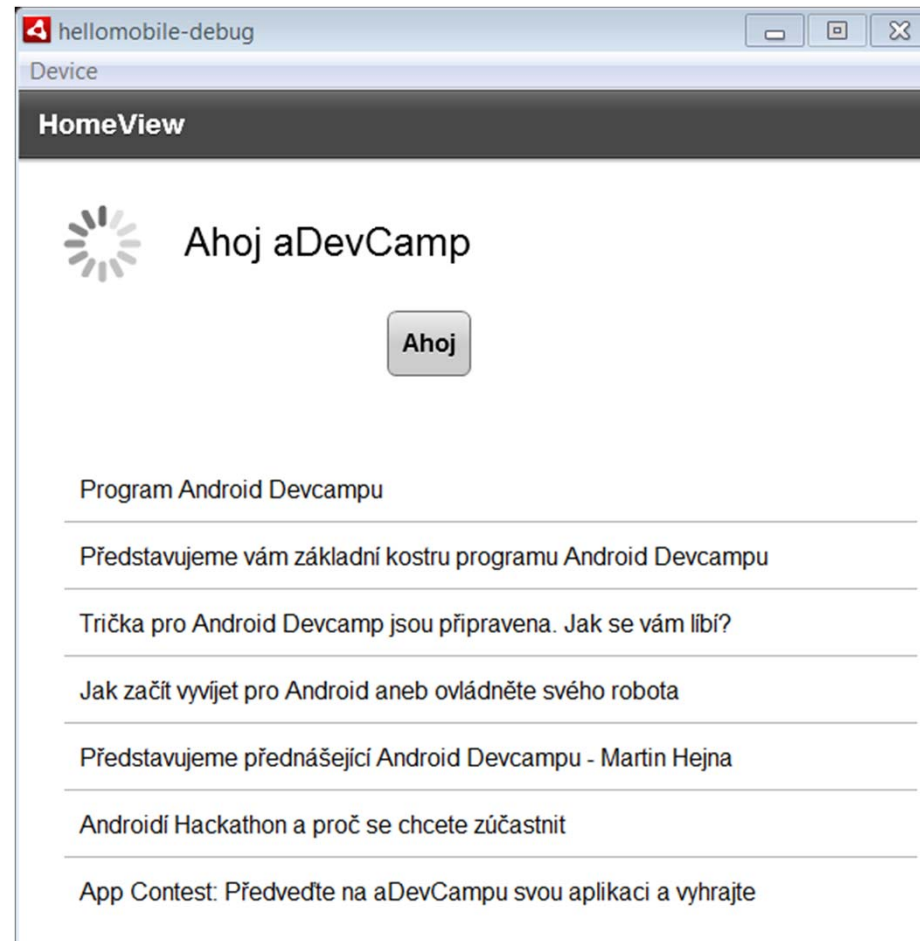
The "Bind To Data" dialog box is open and shows the following configuration:

- Operation to call:** New service call
- Service:** RssService
- Operation:** getData() : Item[]
- [Change return type...](#)
- Existing call result:
- Data provider:** Item[]
- List properties:**
- Label field:** description

At the bottom of the dialog box are "OK" and "Cancel" buttons.

At the bottom of the IDE, the "Data/S..." window is open, showing a tree view with "RssService" expanded to show "Data Types" and "getData() : Item[]".

Výsledek



Network monitor

The screenshot shows a network monitoring application window with the following components:

- Toolbar:** Contains icons for 'Proble...', 'Data/Se...', 'Console', 'Networ...', 'Search', 'Progress', 'Synchro...', 'Call Hie...', 'FlexUni...', 'Propert...', and 'ASDoc'.
- Status Bar:** Displays 'Recording...'.
- URL List:** A table with one entry:

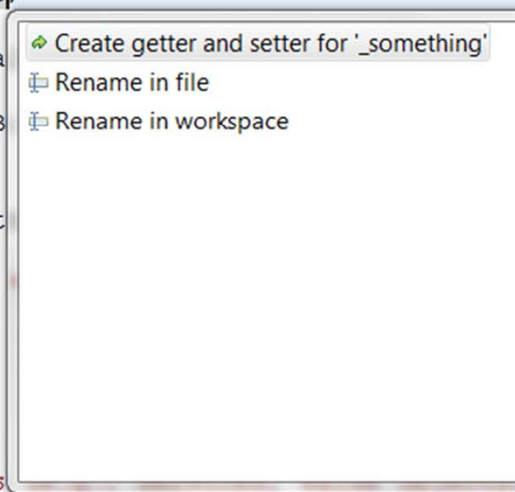
URL
● http://localhost:8000/rss.xml
- Tree View:** A table showing request details. The 'Request' tab is selected.

Name	Value
Status	OK
Id	9206A8D0-931D-E89C-B609-0F403AA08A47
Headers	
Request Size (bytes)	577
Request body	

FlexUnit pre mobile ☹️

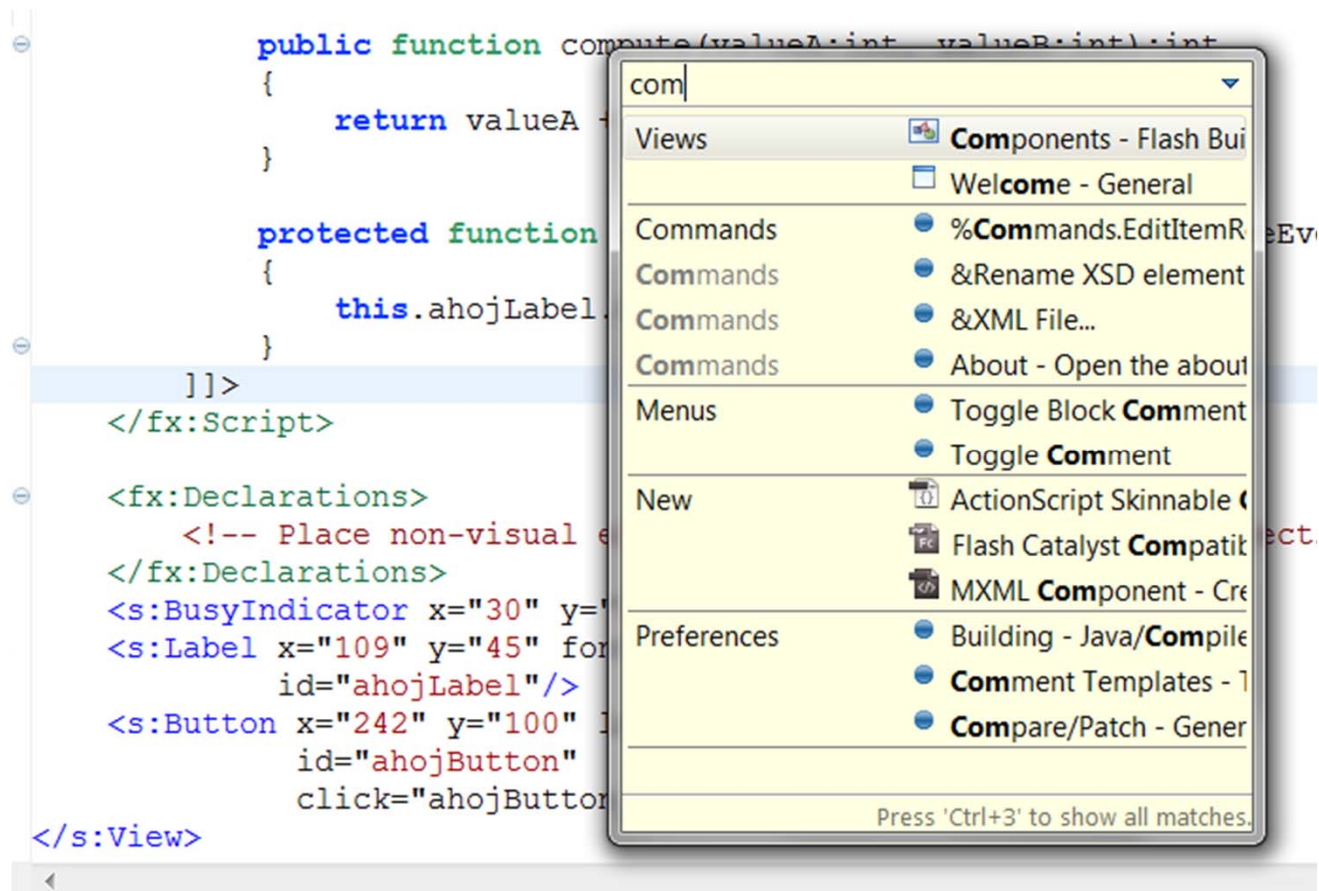
CTRL+1

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <s:View xmlns:fx="http://ns.adobe.com/mxml/2009"
3     xmlns:s="library://ns.adobe.com/flex/spark" title="HomeView">
4
5     <fx:Script>
6         <![CDATA[
7
8             private var _something:int;
9
10            public function compute (valueA:int, valueB:int):int
11            {
12                return valueA + valueB;
13            }
14
15            protected function ahojButtonClicked (event:MouseEvent):void
16            {
17                this.ahojLabel.text = "Ahoj";
18            }
19        ]]>
20     </fx:Script>
21
22     <fx:Declarations>
23         <!-- Place non-visual elements (e.g. ActionScript or other
24             classes) here -->
25     </fx:Declarations>
26 </s:View>
```



- ◆ Create getter and setter for '_something'
- 📄 Rename in file
- 📄 Rename in workspace

CTRL+3 – rýchle volanie



ALT+šipky - presun

```
5 <fx:Script>
6   <![CDATA[
7
8     private var _something:int;
9
10    public function compute(valueA:int, valueB:int):int
11    {
12        return valueA + valueB;
13    }
14
15    protected function ahojButton_clickHandler(event:MouseEvent):void
16    {
17        this.ahojLabel.
18    }
19    ]]>

```



```
1 <?xml version="1.0" encoding="utf-8"?>
2 <s:View xmlns:fx="http://ns.adobe.com/mxml/2009"
3   xmlns:s="library://ns.adobe.com/flex/spark" title="...eView">
4
5   <fx:Script>
6     <![CDATA[
7
8       private var _something:int;
9
10      protected function ahojButton_clickHandler(event:MouseEvent):void
11      {
12          this.ahojLabel.text = "Hej hou!";
13      }
14
15      public function compute(valueA:int, valueB:int):int
16      {
17          return valueA + valueB;
18      }
19    ]]>
20 </fx:Script>

```

CTRL+medzera – code hint

srobick-services 17 `this.ahojLabel.text = "Hej hou!";`

A convenience accessor for the description property in this UIComponent's accessibilityProperties object.

The getter simply returns accessibilityProperties.description, or "" if accessibilityProperties is null. The setter first checks whether accessibilityProperties is null, and if it is, sets it to a new AccessibilityProperties instance. Then it sets accessibilityProperties.description.

Language Version:
3.0

Player Version:
Flash 9, AIR 1.1

Product Version:
Flex 3

- accessibilityDescription : String - UIComponent
- accessibilityEnabled : Boolean - UIComponent
- accessibilityImplementation : AccessibilityImplementation - InteractiveObject
- accessibilityName : String - UIComponent
- accessibilityProperties : AccessibilityProperties - DisplayObject
- accessibilityShortcut : String - UIComponent
- activeEffects : Array - UIComponent
- alpha : Number - UIComponent
- automationDelegate : Object - UIComponent
- automationEnabled : Boolean - UIComponent
- automationName : String - UIComponent
- automationOwner : DisplayObjectContainer - UIComponent
- automationParent : DisplayObjectContainer - UIComponent
- automationTabularData : Object - UIComponent
- automationValue : Array - UIComponent
- automationVisible : Boolean - UIComponent
- baseline : Object - UIComponent
- baselinePosition : Number - TextBase
- blendMode : String - UIComponent
- blendShader : Shader - DisplayObject
- bottom : Object - UIComponent
- buttonMode : Boolean - Sprite
- cacheAsBitmap : Boolean - UIComponent

Press 'Tab' or click for focus All - Press 'Ctrl+Space' to show Templates

Code templates

fori CTRL+medzera

```
14
15     protected function ahojButton_clickHandler(event:MouseEvent):void
16     {
17         this.ahojLabel.text = "Hej hou!";
18         for (var i:int = 0; i < array.length; i++)
19         {
20             |
21         }
22
```

AIR Runtime pre Android

Adobe Flash Builder

Burrito/sdks/4.5.0/runtimes/air/android/emulator

Runtime.apk

```
adb install Runtime.apk
```

Release pre emulátor

Air packager:

```
adt -package -target apk-emulator -storetype pkcs12  
-keystore cert.p12 Main.apk Main-app.xml Main.swf
```

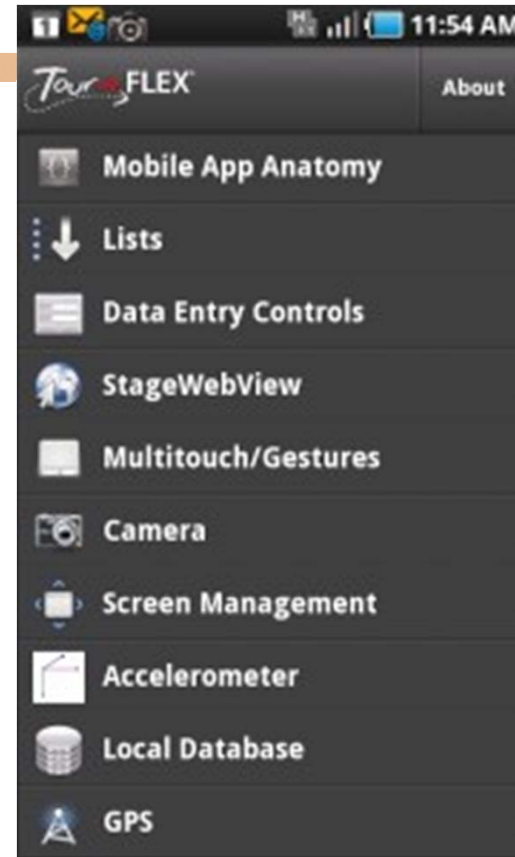
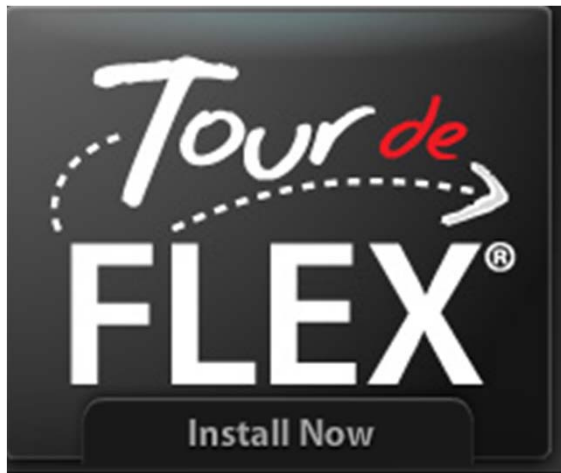
Install:

```
adb install Main.apk
```

Podrobný popis

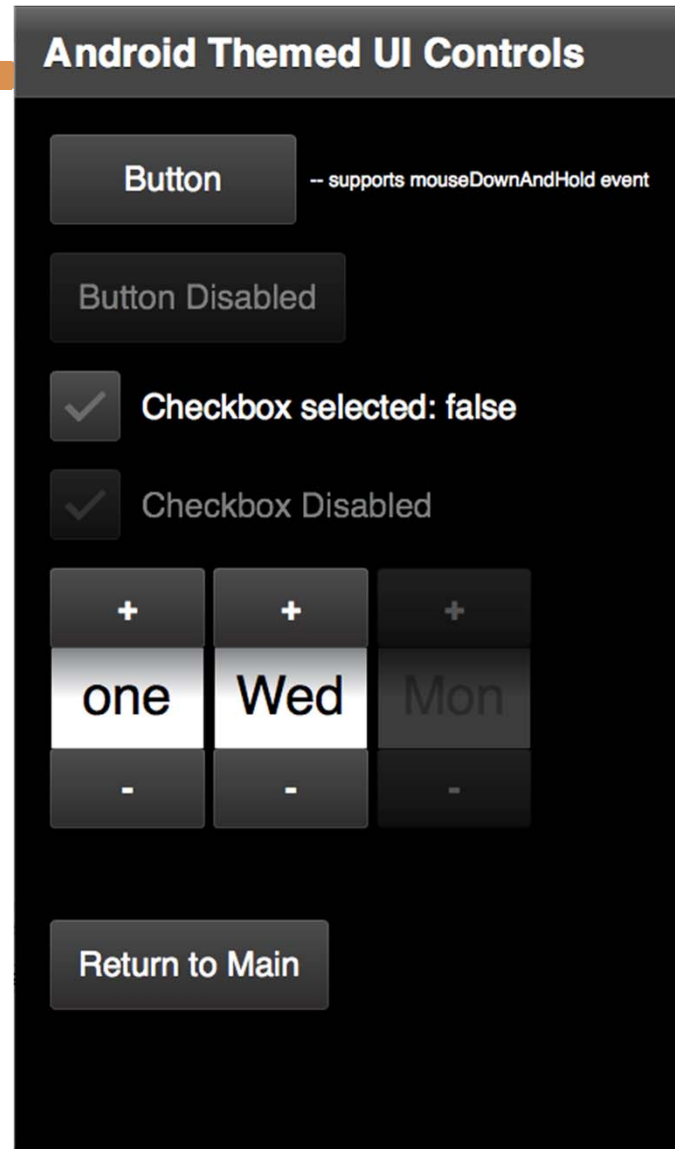
<http://georgik.sinusgear.com/2011/01/02/how-to-package-air-app-for-google-android-emulator/>

Tour de Mobile



<http://flex.org/tourmobile>

Flex 4.5 Android Component Lib



<https://github.com/olsonjj/Flex-4.5-Android-Component-Library>

Dynamic UI pattern

Back button

Title centered

Title left-aligned



Back button

```
@namespace s "library://ns.adobe.com/flex/spark";  
  
@media (os-platform:"IOS"){  
    s|ActionBar{  
        defaultButtonAppearance:"beveled";  
        titleAlign:"center";  
        chromeColor:"0x3333AA";  
        accentColor:"0x0000FF";  
    }  
}
```

<http://www.riagora.com/2011/05/dynamic-ui-patterns/>

Volanie externých app

<http://www.jamesward.com/2011/05/11/extending-air-for-android/>

Zaujímavosti



BlazeDS



Binárny protokol – AMF – Java Server

<http://www.jamesward.com/census2/>

<http://opensource.adobe.com>

Box2D Engine

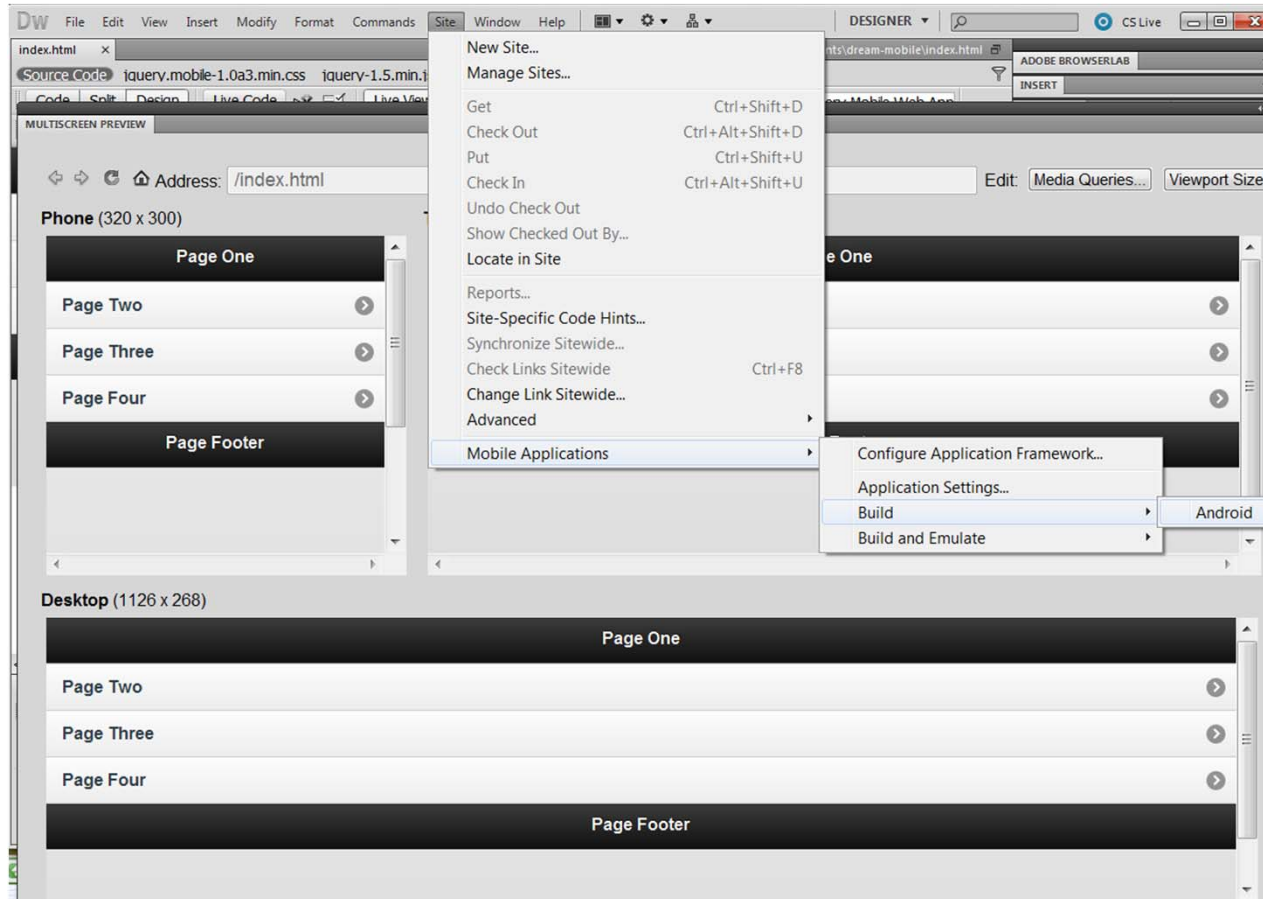


<http://www.box2d.org/>

Lee Brimelow

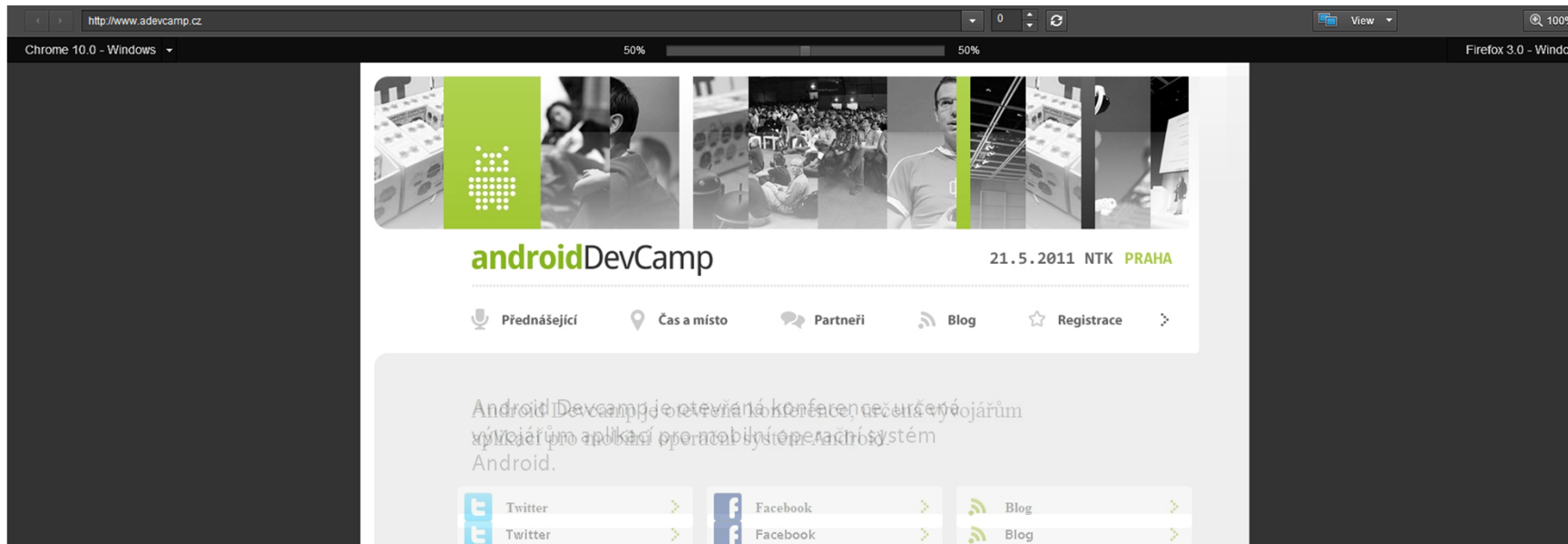
<http://www.gotoandlearn.com/>

CS5.5 Dreamwaver a JavaScript



zabalenie a deploy aplikácie priamo na Android

Browserlab.adobe.com

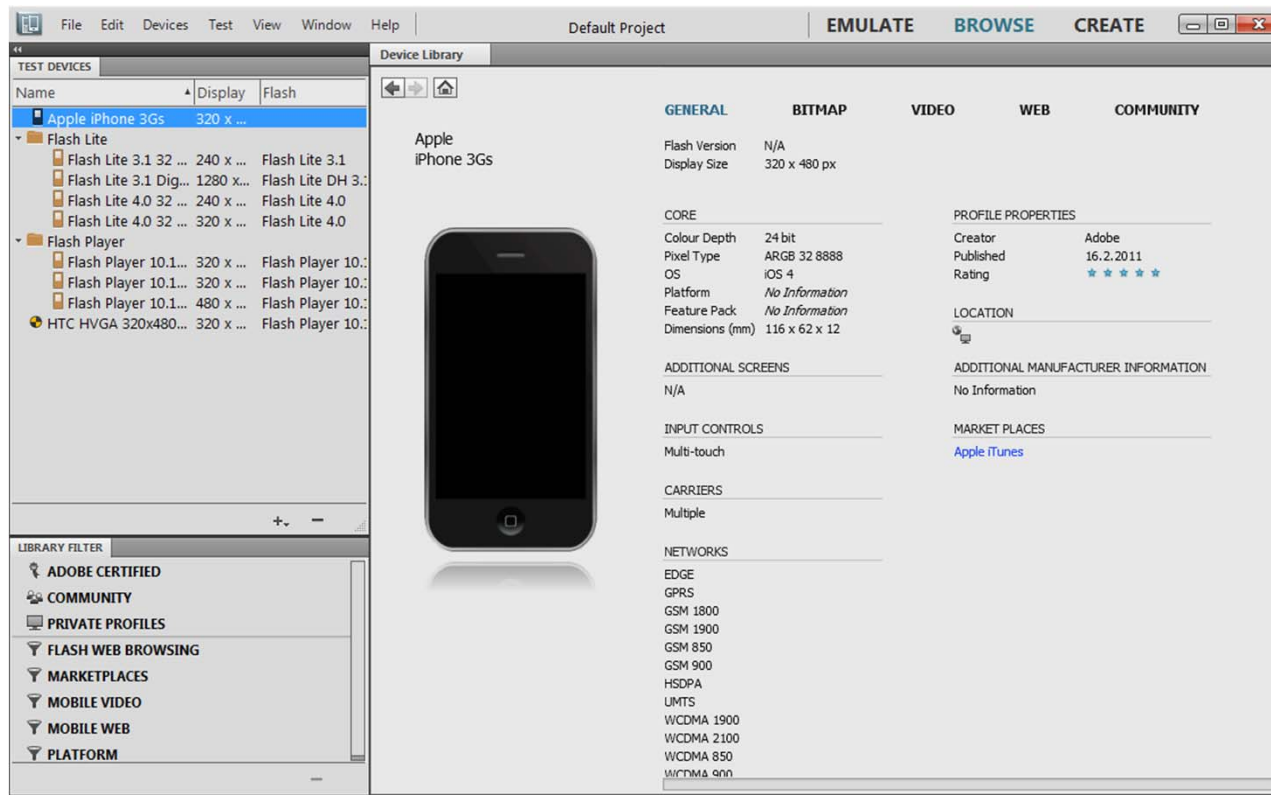


Google Chrome 10 vs Firefox 3 – onion skin

Air aplikácie pre Android

<http://www.appbrain.com/apps/adobe-air/>

Adobe Device Central



Flash aplikácie
väčšina mobilných platforiem

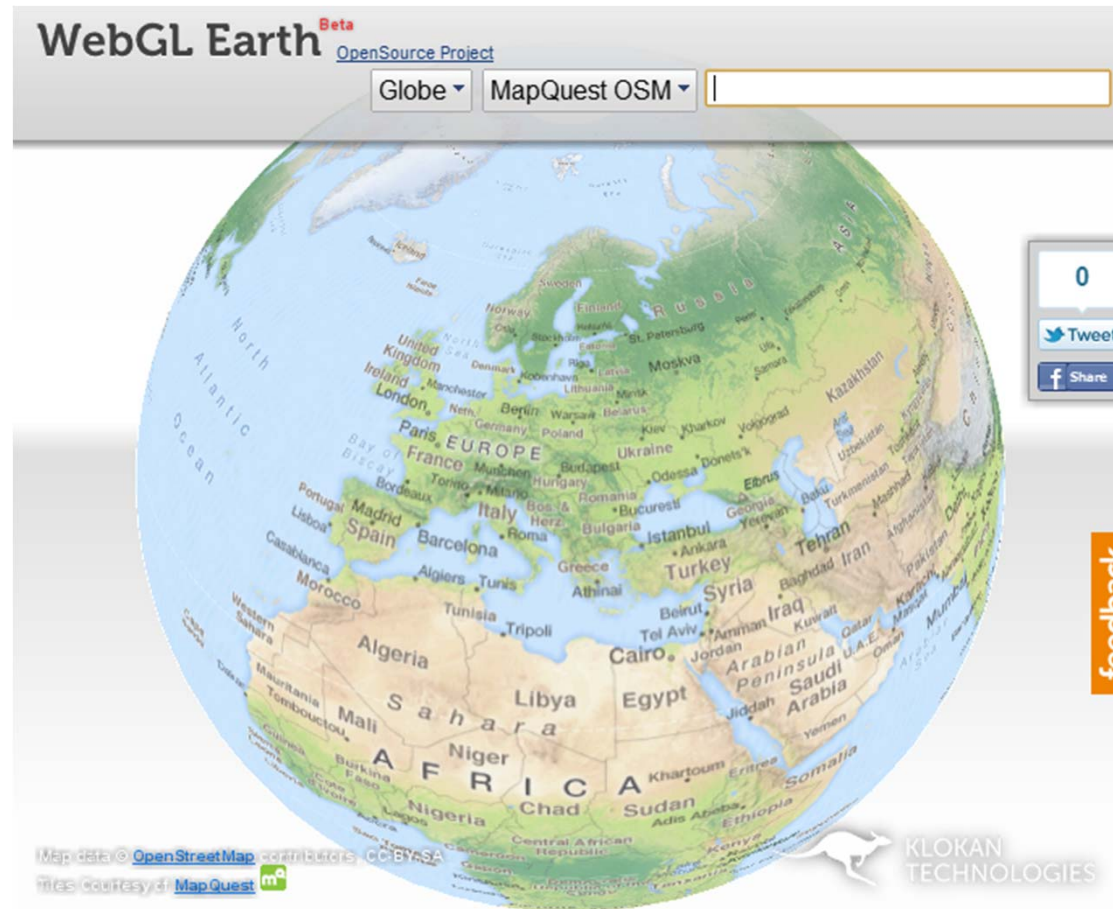
IntelliJ IDEA



Podpora pre Android

<http://www.jetbrains.com/idea>

WebGL Earth



<http://www.webglearth.com>

Jenkins

The screenshot displays the Jenkins Dashboard interface. On the left, there are navigation links for People, Build History, Project Relationship, and Check File Fingerprint. Below these are sections for Build Queue (showing no builds) and Build Executor Status (showing two idle executors). The main area features a table of jobs with columns for status (S for Success, W for Warning), job name, and last success time. The jobs listed are as3-signals, as3corelib, flixel, mate-framework, parsley-core, picasaflashapi, pushbuttonengine, robotlegs-framework, and swiz-framework. At the bottom, there is a link for icon sizes: S M L.

S	W	Job ↓	Last Success
		as3-signals	14 days (#36)
		as3corelib	14 days (#12)
		flixel	14 days (#11)
		mate-framework	14 days (#15)
		parsley-core	1 day 15 hr (#430)
		picasaflashapi	14 days (#54)
		pushbuttonengine	14 days (#12)
		robotlegs-framework	14 days (#13)
		swiz-framework	14 days (#16)

Icon: [S](#) [M](#) [L](#)

Continuous Integration – <http://ci.sinusgear.com>

Otázky?



Konzultácie a implementácie

Rád prednášam a školím RIA technológie.

;-)

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Blog: <http://georgik.sinusgear.com>