ArcGIS API for Flex
Advanced Topics
Lloyd Heberlie
Yann Cabon
Introduction

- Lloyd Heberlie
  - @lheberlie
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- Yann Cabon
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Agenda

- State of Flex / Flash / AIR
- What’s new and resources
- Mobile
- Markings / Advanced Symbols
- Application profiling
- Road ahead
- Additional resources
State of Flex / Flash / AIR

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Apache Flex

- dev list (avg 1,600 emails / month)
- Website (~1,600 visitors/day)
- > 22,000 4.9.x SDK downloads
Adobe Flash Player & AIR

- Desktop apps and web browsers
- Mobile devices
- Gaming
- Multimedia

- Flash Player 11.5 AIR 3.5 February
- Flash Player 11.6 AIR 3.6 March
- Flash Player 11.7 AIR 3.7 June
- Flash Player 11.8 AIR 3.8 Beta
ArcGIS for Flex
API and Viewer

- Well established
- Very active user community
- Consistent release schedule

Version 3.2
March 2013

Version 3.3
April 2013

Version 3.4
July 2013
What’s new and resources
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What’s new

- AttributeTable
- Map Rotation
- Web Tiled Layer
- CSVLayer
- Geocoder
- Directions
What’s new (cont.)

- IdentityManager
- Map center property (center + level)
- CallResponder
- Data Validation (fieldClasses)
- Portal for ArcGIS support
- Sign in with OAuth
- Custom Symbol (wrap around)
- Custom FieldInspector
State of ArcGIS for Flex

- GitHub
  - FlexViewer
  - API samples
  - Application Builder

- developers.arcgis.com/en/flex
GitHub

- Two repos: Viewer, Builder, and Samples
  - Source code
    - branches
  - Issues
    - Open or Closed
    - Assigned to milestones
Mobile

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ArcGIS for Flex mobile

• API samples on GitHub
  - https://github.com/Esri/arcgis-samples-flex/tree/develop/mobile

• Building Mobile Applications with ArcGIS API for Flex
  - Video

• github.com/lheberlie/building-mobile-apps-flex
Mobile

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An mx free world

Yann Cabon
Getting rid of MX

- The AttributeInspector has dependencies on MX components.
  - To display dates
  - To edit memo strings
- Flex Mobile projects do not embed MX components by default.
- 3.4 improvements on AttributeInspector skinning
  - Be able to define what components used for each field types
An mx free world

Yann Demo
Markings
Advanced symbols for your apps
Yann Cabon
Markings

- Presented last year at UC as a pet project.
- “Make a road looks like a road”
Markings

Yann
Markings

• Geometry manipulation done for you.
  - Projection in screen coordinates
  - Clipping

• Drawing is done by you through line parts
  - A “layer” on the line drawing
  - 3 implementations out of the box
    - SolidLinePart
    - DashedLinePart
    - IconPart
Markings

- Line parts use the Flex SDK graphics and primitives classes
  - Strokes: mx.graphics.*
    - SolidColorStroke
    - LinearGradientStroke
    - RadialGradientStroke
  - GraphicElements: spark.primitives.*
    - Line
    - Rect
    - Ellipse
    - BitmapImage
    - Path (SVG)
<mk:AdvancedLineSymbol id="lineSymbolRoad">  
<s:ArrayList>  
  <!-- White outter stroke -->  
  <mk:SolidLinePart>  
    <s:SolidColorStroke color="#FFFFFF" weight="10"/>  
  </mk:SolidLinePart>  
  <!-- Gray inside stroke -->  
  <mk:SolidLinePart>  
    <s:SolidColorStroke color="#AAAAAA" weight="6"/>  
  </mk:SolidLinePart>  
  <!-- Lane separation -->  
  <mk:DashedLinePart pattern="[5, 5]">  
    <s:SolidColorStroke color="#FFFFFF" weight="2"/>  
  </mk:DashedLinePart>  
  <!-- The car -->  
  <mk:IconPart offset="0" rotate="true">  
    <s:BitmapImage width="22" height="15"  
      source="assets/voiture1.png"/>  
  </mk:IconPart>  
  </s:ArrayList>  
</mk:AdvancedLineSymbol>
**Advanced symbols**

- **Hosted on Github**
  - Library code
  - API reference
  - Samples
    - Explorer
    - Elevation Data
- **Fork it!**
  - [http://ycabon.github.io/markings](http://ycabon.github.io/markings)
Application Profiling

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Application profiling

• Helps developer detecting resource hogs
  - Memory leaks
  - Long AS3 execution times

• Tools
  - Profiler in FlashBuilder premium
  - Adobe Scout
  - MonsterDebugger
Application profiling

- Adobe Scout
  - Made for game developers as part of the Gaming SDK.
    - But good for us too!
    - Downloadable for free from Creative Cloud.
  - Frame by frame telemetry
    - The Flash Player output telemetry data
    - On Flash Player debug or release.
  - Enable telemetry with SWF Scout Enabler
Profiling using Adobe Scout

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Road ahead
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Road ahead - 2013

- Rapid release cycles
- ArcGIS.com
- Portal for ArcGIS
- Geoenrichment
- Offline / Sync
Additional resources
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More information

- Esri
  - developers.arcgis.com/en/flex
- GitHub
  - esri.github.io
- Apache
  - flex.apache.org
- Adobe
Where can I get more info?

- **Esri**
  - [http://resources.arcgis.com](http://resources.arcgis.com)
    - documentation, forums, samples
  - [http://links.esri.com/flexviewer](http://links.esri.com/flexviewer)

- **Adobe**
Esri training for Web developers

- [http://www.esri.com/training](http://www.esri.com/training)

- **Instructor-Led Courses**
  - Building Web Applications Using the ArcGIS API for Flex (3.x)
  - Migrating to ArcGIS 10.2 for Server
  - ArcGIS for Server: Sharing GIS Content on the Web (10.1)

- **Online Training Seminars**
  - Extending the ArcGIS Viewer for Flex (3.x)
  - Free, one-hour presentation and demos by Esri technical experts
  - Live seminar broadcast on a new topic every month
UC Agenda: Flex Technical Workshops

• ArcGIS API for Flex – An Introduction
  - Tues. 7/9; 1:30-2:45 – Rm 15A
  - Wed. 7/10; 1:30-2:45 – Rm 15B

• ArcGIS Viewer for Flex – An Introduction
  - Wed. 7/10; 8:30-9:45 – Rm 14B

• ArcGIS Viewer for Flex – Advanced Topics
  - Wed. 7/10; 10:15-11:30 – Rm. 14B
  - Thurs. 7/11; 1:30-2:45 – Rm 31C

• ArcGIS API for Flex – Advanced Topics
  - Wed. 7/10; 3:15-4:30 – Rm. 15A
  - Thurs. 7/11; 8:30-9:45 – Rm. 15A
Thank you...

Please fill out the session evaluation

First Offering ID: 1353
Second Offering ID: 1427

Online – www.esri.com/ucsessionssurveys
Paper – pick up and put in drop box