

Riding Coattails to the Top

Using Open Source Flex/ActionScript Projects

by Doug McCune at CFUnited 2009

Hi, my name is Doug



- I work for **Universal Mind**
- I write code for **SpatialKey**
- I co-authored **Flex for Dummies**
- I used to **blog** a lot
- I wrote many of the **FlexLib** components
- I like **cool shit**

I'll be your curator today



Outline

- Overview and getting set up
- What's out there?
- Deeper dive:
 - Adobe OSMF (demo)
 - Axiis (demo)
 - Mapping
 - Sound
 - Computer Vision (demo)
- QA/Discussion

Finding Projects

- Google Code Hosting
 - <http://code.google.com/hosting/>
- Tour de Flex
 - <http://www.adobe.com/devnet/flex/tourdeflex/>
- RIAForge
 - <http://www.riaforge.org>
- **Blogs, Blogs, Blogs**

How Many?

- How many projects are we talking about?
- Tour de Flex: 55 open source samples
- Google Code Hosting (aka “The Motherload”):

Search Term	# of Proiects	Feb 2008	August 2007
as3	1,562	240	88
actionscript 3	455	91	
adobe flex	258	103	
flex	2,640	258	141

Q: What's your favorite
Eclipse plugin?

**Q: What's your favorite
Eclipse plugin?**

A: Subclipse!

SVN in FlexBuilder

- Install Subclipse
- Add SVN repository
- Checkout source as Flex Library Project
- Build SWC
- Add to your build path

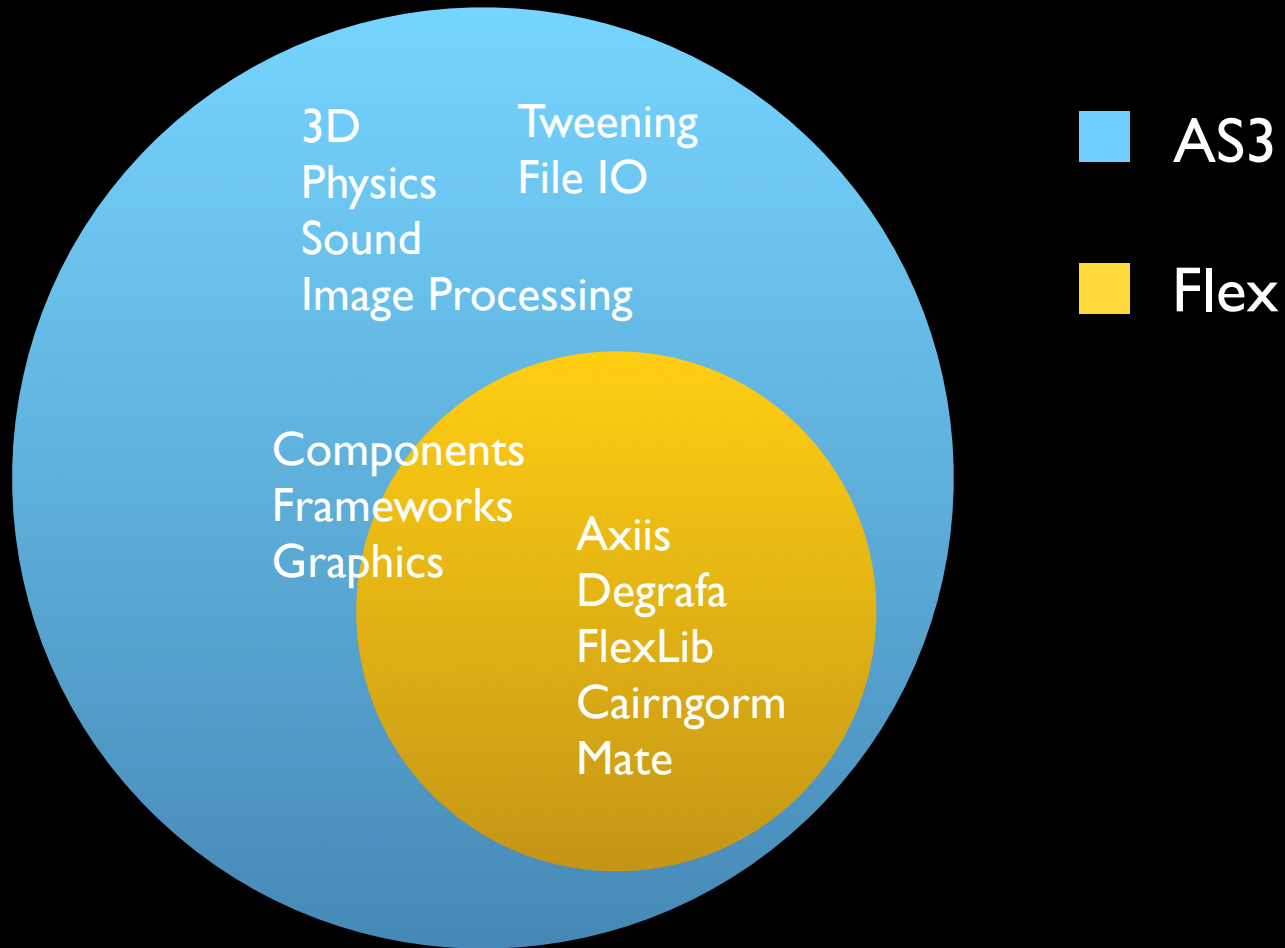
Open Source Licenses 101

- **Disclaimer: This is my uninformed personal opinion**
- Good: MIT, New BSD, Apache
- Bad: GPL
- I don't know: LGPL, BSD, Creative Commons

What do you want?

- APIs
- Components
- 3D
- Physics
- Animation
- Data processing
- Sound Processing
- Binary file loading
- 2D Graphics
- Mapping
- Data visualization
- Application Frameworks

AS3 or Flex?



What's the Hot Shit?

- Computer vision

Facial Detection (Marilena, deface), Augmented Reality (FLARToolit)

- Sound generation/
manipulation

StandingWave 2, AudioPhile

- Data visualization

Axiis

- Dependency injection frameworks

Mate, Swiz

- 3D Physics

JigLibFlash

- Adobe's Projects

Open Source Media Framework (OSMF), Text Layout Engine (TLF)

What am I demoing?

- Computer vision

Facial Detection (Marilena,
deface)

- Data visualization

Axiis

- Adobe's Projects

Open Source Media
Framework (OSMF)

Adobe OS Projects

- Open Source Media Framework (formerly Strobe)
 - <http://opensource.adobe.com/wiki/display/osmf/Open+Source+Media+Framework>
- Text Layout Engine
 - <http://labs.adobe.com/technologies/textlayout/>
- Blaze DS
 - <http://opensource.adobe.com/wiki/display/blazeds/BlazeDS>

Open Source Media Framework

- Adobe's attempt to consolidate "media players"
- Not just video players: can handle sound, images, any media
- AS3 (no Flex required, but Flex samples)
- You create "compositions" to define the playback
- It's 100% "trait-based"
 - This can be a bit of a mind fuck

Trait-based Composition

```
addTrait(MediaTraitType.VIEWABLE, viewableTrait);  
addTrait(MediaTraitType.SPATIAL, spatialTrait);  
addTrait(MediaTraitType.TEMPORAL, temporalTrait);  
addTrait(MediaTraitType.PLAYABLE, playable);  
addTrait(MediaTraitType.PAUSIBLE, pausable);  
addTrait(MediaTraitType.SEEKABLE, seekable);
```

Trait-based Composition

```
playable = new PlayableTrait();
playable.addListener(PlayingChangeEvent.PLAYING_CHANGE,
playingChangeHandler);

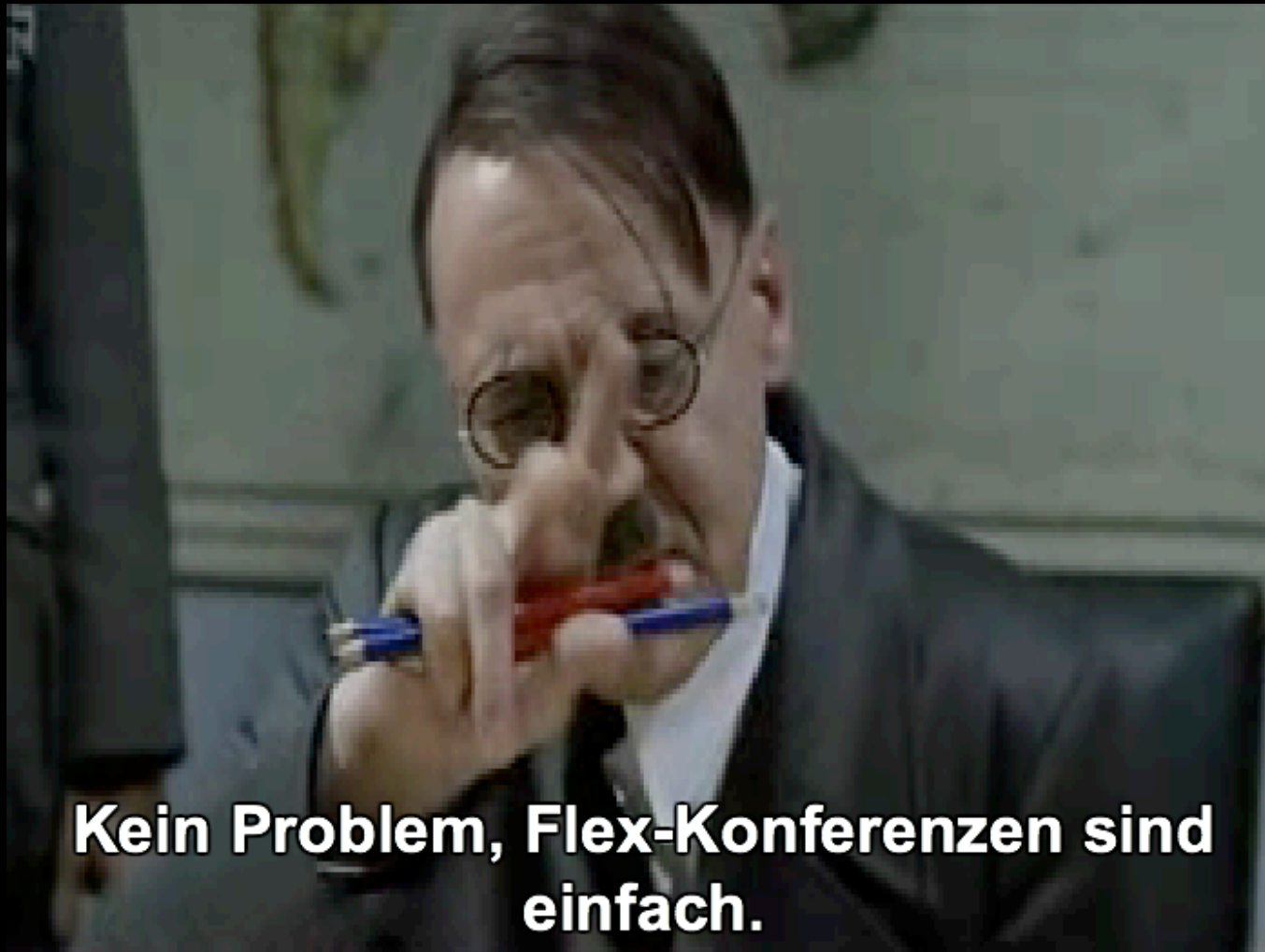
...

private function playingChangeHandler(event:PlayingChangeEvent):void {
    if (event.playing && pausable.paused) {
        pausable.resetPaused();
    }

    if(event.playing) {
        if(temporalTrait.position == temporalTrait.duration) {
            temporalTrait.position = 0;
        }

        timerStartPosition = temporalTrait.position;
        timerStartTime = getTimer();
        playTimer.start();
    }
    else {
        playTimer.stop();
    }
}
```

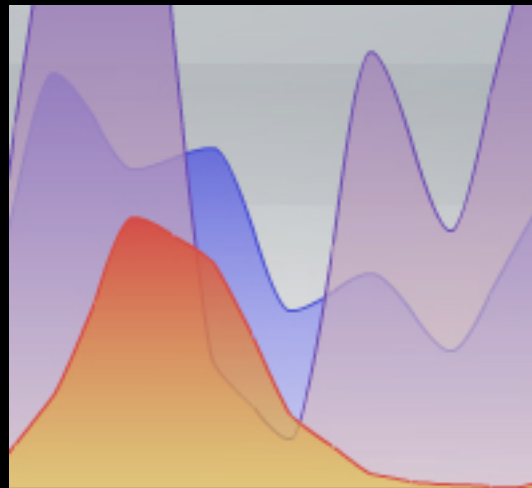
OSMF + flexlingo Example



**Kein Problem, Flex-Konferenzen sind
einfach.**

Axiis

- Data visualization framework based on Degrafa
- Flexible for custom chart types and renderings
- www.axiis.org



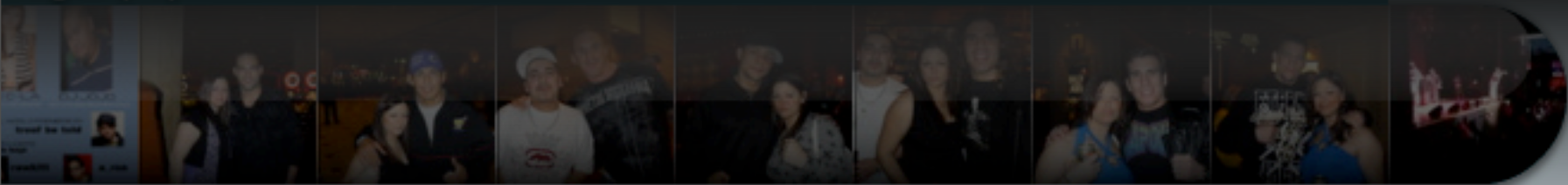
Axiis vs Flex Charts

- **Flex charting** is based on item renderers (cloned unique UIComponent instances)
 - If you work with Flex Lists or DataGrids with item renderers then you understand this
 - tons of work done for you (sometimes too much)
- **Axiis** is based on repeated recycled geometry renderers
 - This can be a bit of a mind fuck
 - You are in charge of all rendering

Axiis + TwitPic Example

- Axiis
 - <http://axiis.org>
- Tweetr
 - <http://code.google.com/p/tweetr/>

Vegas (78)



AT&T (81)



New York (89)

Mapping

- Modest Maps

- <http://modestmaps.com/>

- Mercator library

- <http://dev.dschini.org/mercator-swc/>

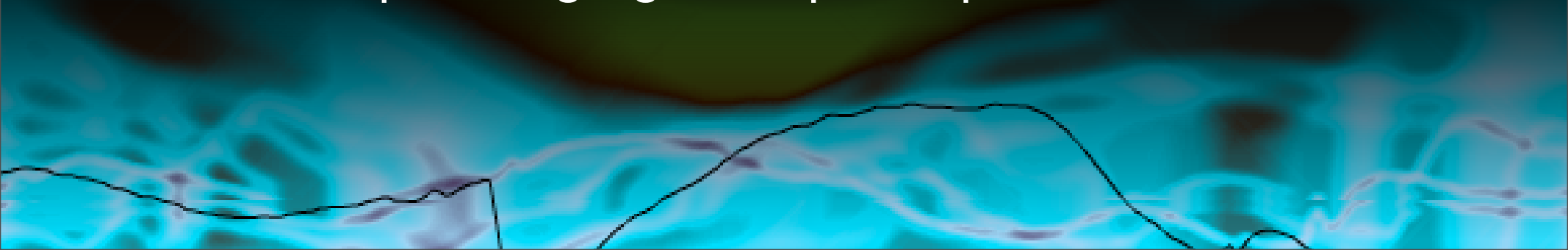
- SHP file parser

- <http://code.google.com/p/vanrijskom-flashlibs/>



Sound

- StandingWave2
 - created by Joe Berkovitz, used by NoteFlight
 - <http://code.google.com/p/standingwave/>
- AudioPhile and AudioVision
 - created by Ben Stucki, used by AudioSpike
 - <http://code.google.com/p/audiophile/>



Computer Vision

- Facial tracking
 - Marilena (part of Spark project)
 - deface
- Augmented Reality - FLARToolkit
- Multitouch - NUIGroup Community Core Vision

Safe Sexting Demo



Keeping up is hard

- This is an active, time consuming activity
- Staying up to date means:
 - reading more blog posts than is healthy
 - using lots of broken/indecipherable code
 - often no documentation

Why Bother?

- You are forced to stay current in your industry
- You exercise your brain and creativity
- You can't use the tools you don't know about
- Getting involved = making friends = getting favors

Thanks!

Q/A time!

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