



FRESH AIR: Developing AIR applications with Aptana Studio

Mark Drew

4th-6th June 2008
Edinburgh, Scotland

SCOTCH ON THE ROCKS

What's this about then?

- Getting a “breath” of AIR (Adobe’s Integrated Runtime)
- Getting Aptana Studio up and running for AIR development
- Writing a real application using technologies ColdFusion developers already know: JavaScript (JQuery) and HTML
- Mainly a coding demo (so you might want to move closer rather than going blind)

What's this not about?

- Using FlexBuilder or CFEclipse
- Writing ColdFusion
- Open Sourcing a CFML Engine
- A JQuery tutorial (although I shall show you some of what it can do)
- A slide rich environment. (sorry if you like looking at pretty slides)



Who is Mark Drew?

- CFEclipse's Lead Developer
- Product Manager at Design UK
<http://www.designuk.com>
- LavaSuite Content Management System
- UK ColdFusion User Group's Co-Manager
- A ColdFusion Developer since '97 and Web developer since '94
- An occasional presenter on topics such as CFEclipse, ColdFusion, Ajax, ColdSpring and ModelGlue
- A guy with very little 'air



 CFEclipse

designuk



Top Secret

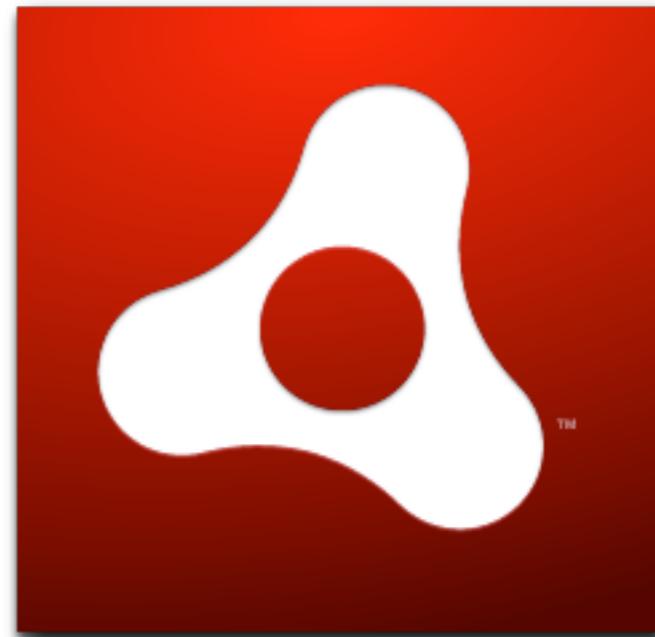


- Don't tell anyone but....
- This is only my second AIR application.
- So don't laugh.
- Be kind.



What is AIR?

- Bringing Rich Internet Applications (RIAs) to the desktop
- Flex/Flash and HTML/JavaScript on the Desktop
- Mac/PC and soon Linux
- Provides access to the filesystem, SQL light database, network functions, custom chrome, drag and drop and more...
- How can we build these applications?

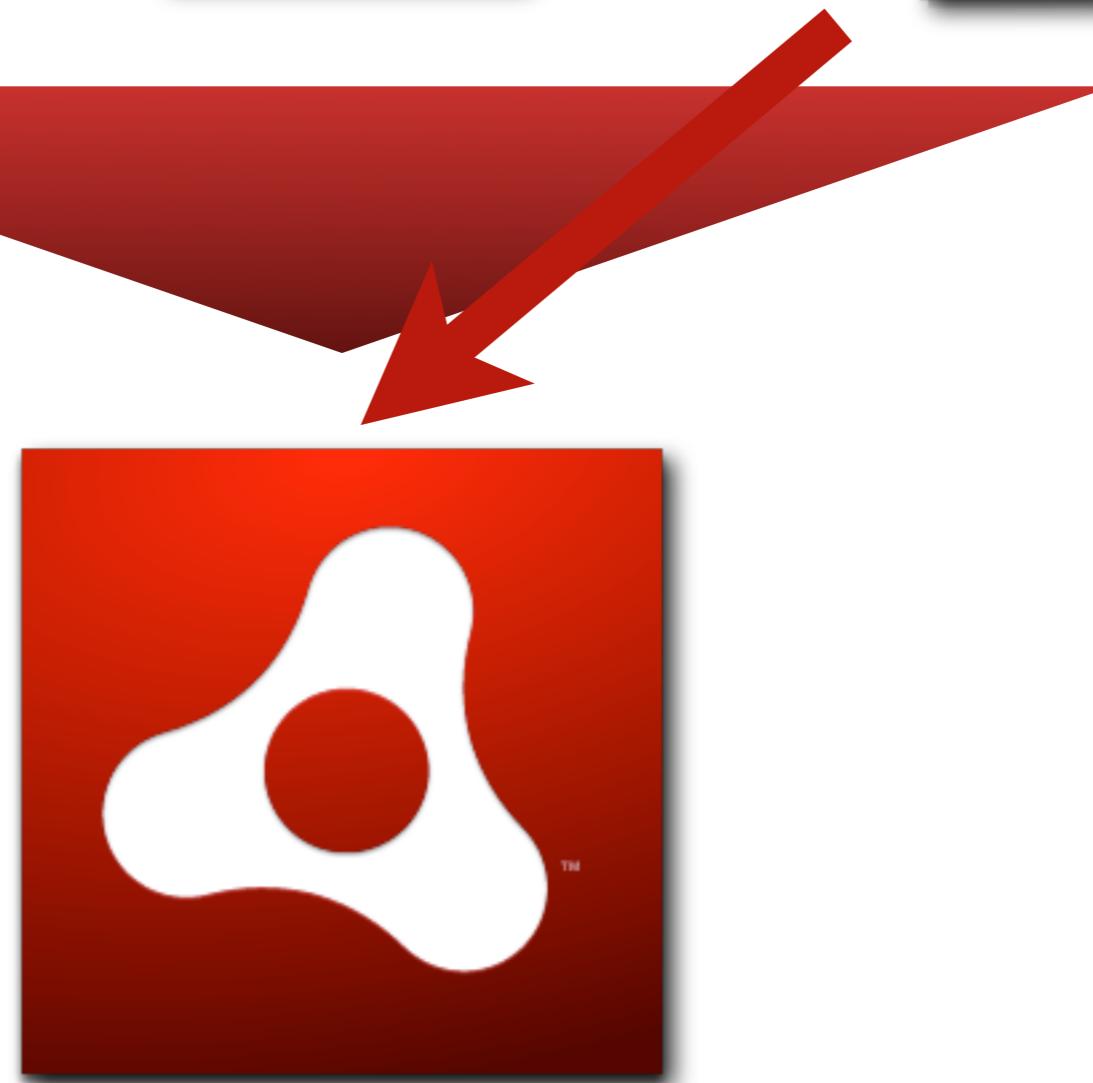


Flex, Flash or HTML?



```
<!DOCTYPE html PUBLIC
<html>
<!-- created 2003-12-12 -->
<head><title>XYZ</title>
</head>
<body>
<p>
    voluptatem accusantium do
    totam rem aperiam eaque
</p>
</body>
</html>
```

HTML



Use what you know

- As a web developer you can leverage your current knowledge
- HTML, JavaScript, JavaScript libraries
- Use your weapons of choice

Enter:Aptana Studio

- HTML, JavaScript, SQL, CSS, XML, etc IDE
- AutoMagically handles **most** JavaScript libraries
- Develop iPhone, PHP and RoR Applications
- ... and of course, HTML AIR applications



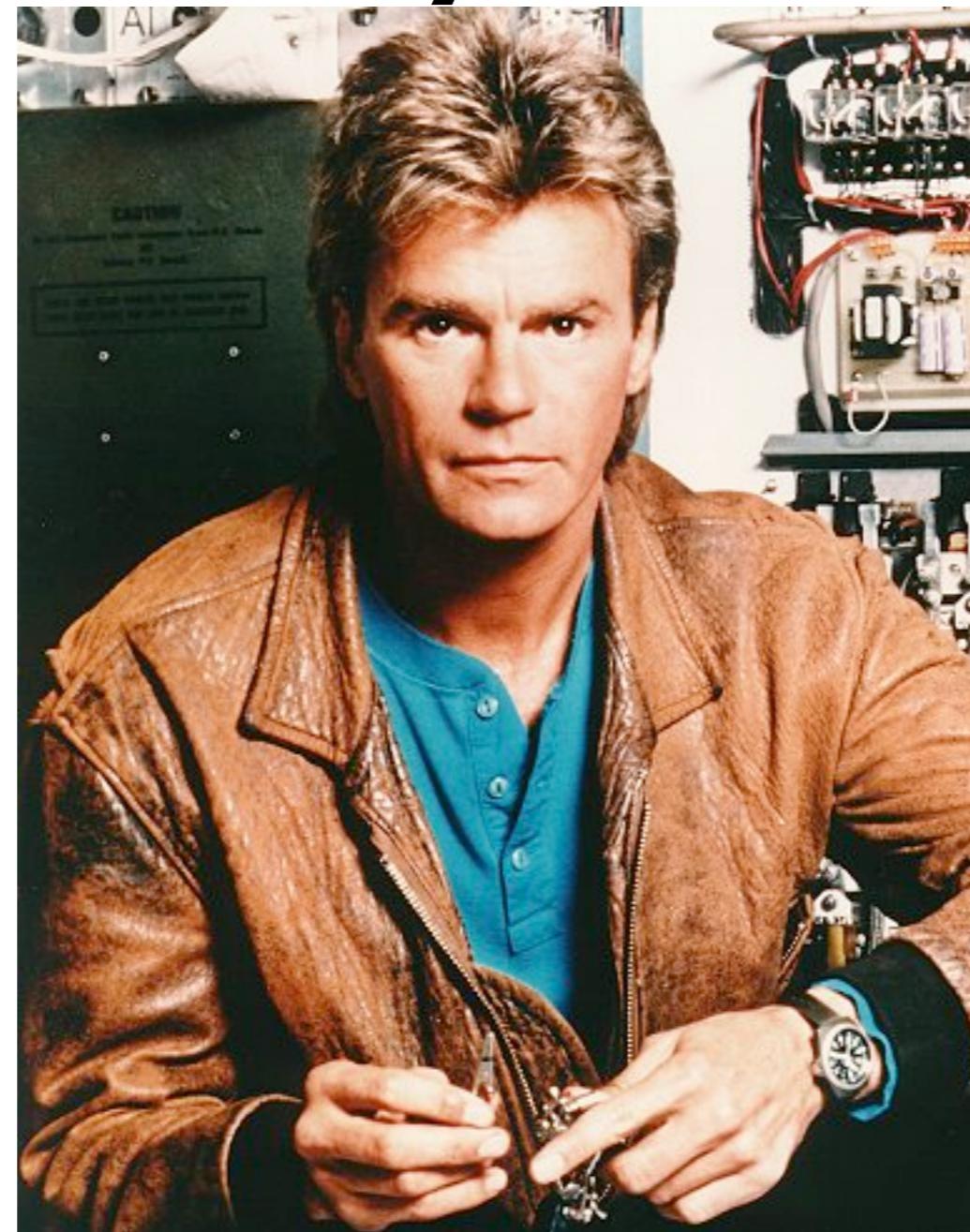
Before we go, jQuery!

- JavaScript framework with a difference
- Its a fast, concise way to access the DOM and perform manipulations, transformations, animations and Ajax
- Uses the CSS selector syntax to get objects
- E.g.

```
$(".someclass #withID").text();
```

```
$(".p.surprise").addClass("ohmy").show("slow");
```

JQuery Demo



Paperclip and chewing gum not required

Back on topic with AIR

- Will be building an application from scratch...
- Well no, there will be one I prepared earlier



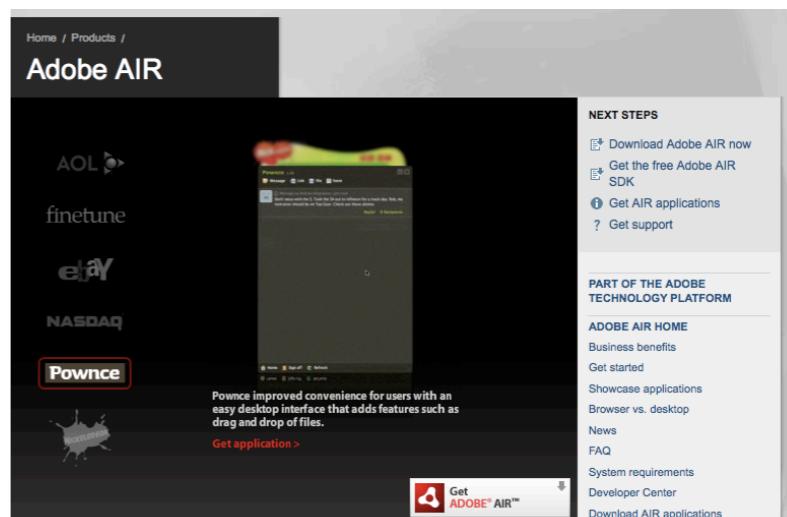
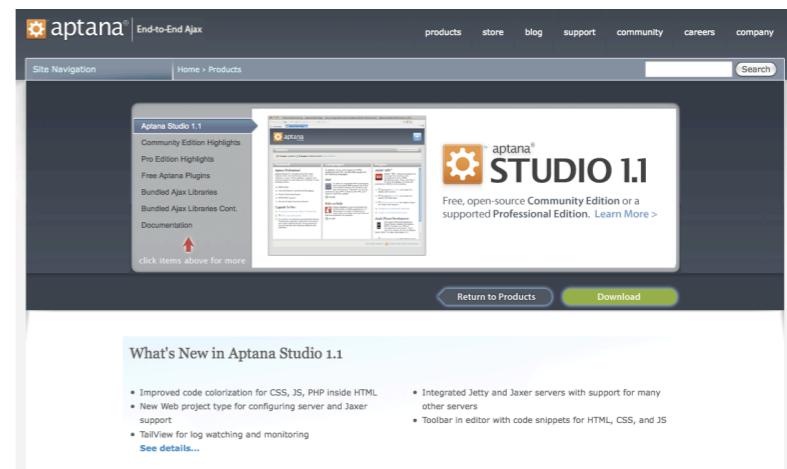
What are we going to build?



- YafTc
- (Yet another funky Twitter client)
- Uses Twitter's JSON API to get and send messages
- Uses features of AIR as a client
- Stores and Sends offline messages

Installation

- Install Aptana Studio
(<http://www.aptana.com/studio>)
- Install AIR and AIR SDK
(<http://www.adobe.com/products/air/>)
- Install Aptana's AIR Plugin using the IDE's Homepage



Building our Application

- Create a new AIR Application
- Choose the window options
- Add application icons
- Choose the JavaScript library



Getting the UI ready

- Copy over all the images/ styles
- Changing the Chrome in Application.xml
 - Custom
 - Sizes
- Changing the Transparency



Adding Window Controls

- **Move:** `nativeWindow.startMove();`
- **Minimize:** `window.nativeWindow.minimize();`

- **Close:**

```
var closing = new air.Event(air.Event.CLOSING, true, true);

window.nativeWindow.dispatchEvent(closing);
if(!closing.isDefaultPrevented()){
    nativeWindow.close();
}
```

- **Resize:**

```
window.nativeWindow.startResize(air.NativeWindowResize.BOTTOM_RIGHT);
```



Checking Network Status

- Add servicemonitor.swf
- setup our request
- add a monitor
- add a listener to
`air.Event.NETWORK_CHANGE`
- Respond to changes



Get external data

- JavaScript is sandboxed in browsers
- AIR has a different set of sandbox rules.
- Main change is that we can access external websites via AJAX
- Lets do that!

Send External Data

- Send messages to twitter, update them of our status!
- Posting AJAX(AJAJ really) to a remote server

Saving to the file system

- Messages need to be stored when you are not online
- When you go back online, we need to send the messages
- Lets add some File IO Functionality

And its that easy!



Finally...

- You know how to get the tools to develop AIR Applications
- You can leverage your existing knowledge to build desktop apps
- You saw how to create a fairly complex AIR application

Q&A

- mark.drew@gmail.com
- Mark Drew <http://www.markdrew.co.uk>
- Aptana <http://www.aptana.com>
- Adobe AIR <http://www.adobe.com/air/>