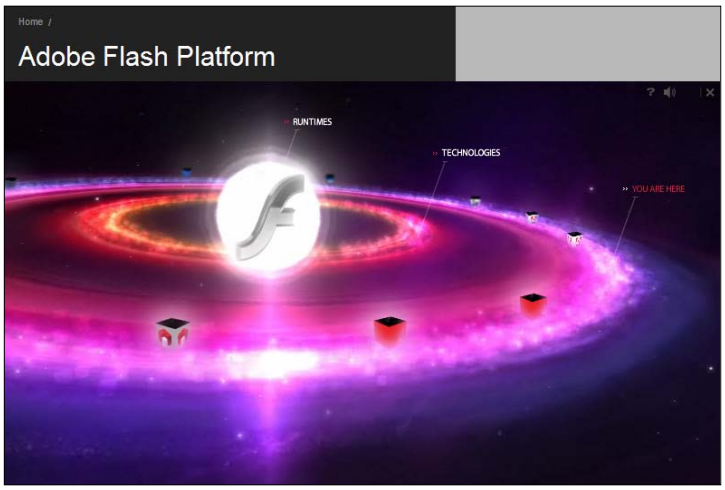
CGT 353: Principles of Interactive and Dynamic Media
Moving on: Other Aspects of the Flash Platform
Mobile Development, AIR, Flex, and Catalyst

The Adobe Flash Platform:



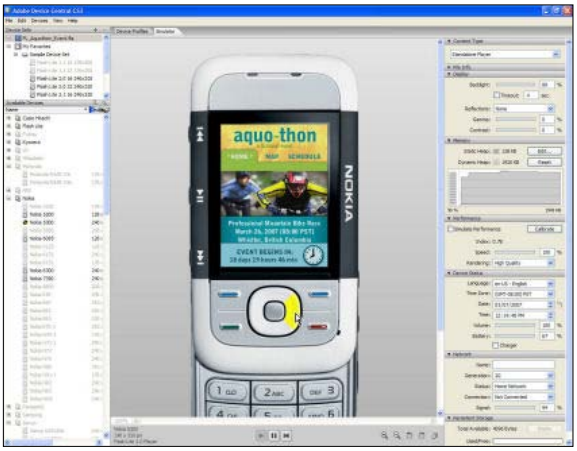
- What you have learned in this class is only the beginning…
- The entirety of the Flash Platform is enormous.
- Includes:
  - Flash
  - Flash Lite
  - AIR
  - Flex and FlexBuilder
  - Catalyst
  - BlazeDS Server
  - Adobe Flash Media Server family
- Continue to explore the platform more thoroughly in CGT 451…

Introduction to Mobile Development:

- Current version of Player is **Flash Lite 3.1**
- FL 3.1 does NOT provide support for AS 3.0
- FL 3.1 DOES provide support for Flash Player 8 and flv videos
- Version comparison: http://www.adobe.com/products/flashlite/version
- According to Strategy Analytics, the number of Flash Lite shipped devices will reach **1 billion in 2009 and more than 2.5 billion by the end of 2010.**
- See supported devices list: http://www.adobe.com/mobile/supported_devices
- See penetration statistics here.

- Checkout Adobe Device Central

- Also sign up for and install the **Device Profile Updater** on the Adobe Website – this will allow you to update the phones on your device central.



Resources:

- Adobe Mobile and Devices Center: http://www.adobe.com/devnet/devices

Going Wireless:

- Are over **2.5 billion mobile users today**!

- Consumers are now more likely to purchase a higher-end or smart phone than they are a computer.

- Mobile applications (games, etc…) are overtaking desktop/ browser based apps…

- Significant portion of CGT 451 is based on mobile Flash development…

Flash Lite 3.0:

- Released October 1st , 2008– whole new ball game

- Key features of 3.0:
  - FLV support
  - Improved web browsability support for most Flash 8 content
  - Faster performance
  - MMI extensions for UI design
  - Integrated authoring environment
  - Multiplatform support
  - Automated Testing System (ATS)
  - Dynamic XML data
  - Persistent data
  - Text enhancement
  - Shape-drawing ActionScript API

- Action Script 2.0 support
- Synchronized device sound
- Compressed SWF files
- Tighter device integration

- Key features of 3.1:

  - **H.264 video support** - same standard deployed in Blu-ray and HD-DVD high-definition video players and HD web videos.

  - **Improved Web browsability** — Flash Lite 3.1 is broadcast as a Flash 9, ActionScript® 2.0 compatible player

  - **Support for hardware acceleration** — Flash Lite 3.1 supports OpenVG 1.1 to improve flash rendering performance on capable devices.

  - **New object-oriented extension mechanism** — This mechanism provides easier and faster integration with device APIs.

- See version comparisons of Flash Lite here.

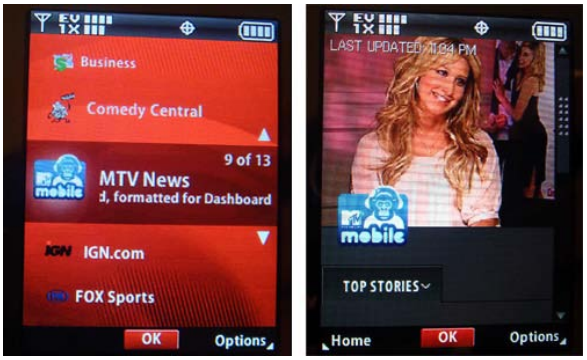
Three Flavors of Mobile Flash:

1. **Flash for Pocket PC:** PDA version
2. **Flash Lite:** mobile specific profile of the Flash Player
3. **FlashCast:** streaming technology that uses Flash Lite Player

Flash Lite:

- 1.0 and 1.1 are based on Flash 4 player
- 2.0 and 2.1 based on the Flash 7 player
- 3.0 based on the Flash 8 player
- 3.1 runs on Flash Player 9

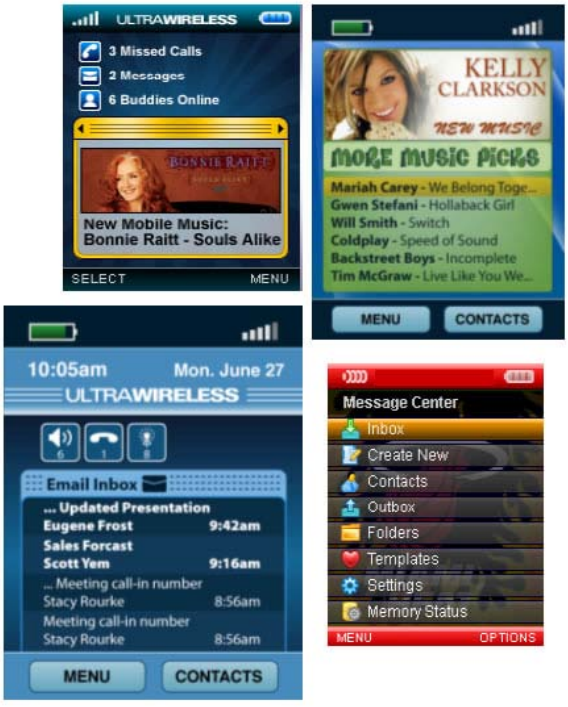
FlashCast:



- Currently in version 2.0 – See home page here
- Allows for distribution of rich media services over a dedicated mobile network.
- Able to deliver content updates over SMS, HTTP, and UDP.
- Server handles all of the billing info for content subscribers.
- Also manages **channels,** which provide a TV-like experience for delivering content.
- One of the key features are the "push and pull" mechanisms that allow for content update over a variety of media.

Distribution and Deployment Methods for Flash Mobile Applications:

1. Embed swf in a Web page (XHTML)
2. Install it in pre-determined mobile locations that local Flash player can utilize.
3. Create an installer that will integrate Flash file into mobile OS.

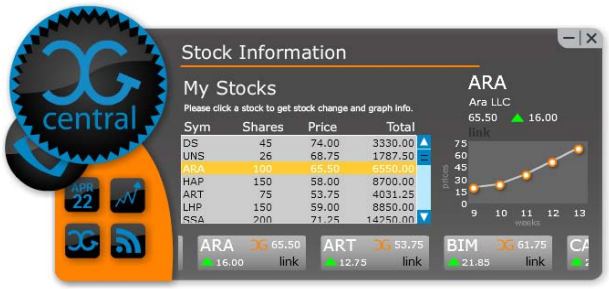


To test your .swfs on a device you will have to do the following:

1. Select a targeted device
2. Download the selected PC or MAC suite for file transfer via:
   - Bluetooth
   - Infrared
   - USB

Adobe AIR:

- **AIR - A**ctionScript **I**ntegrated **R**untime
- Originally code-named "**Apollo**"
- A cross-operating system runtime that lets developers combine HTML, Ajax, Flash, and Flex technologies to deploy **Rich Internet Applications** (RIAs) on the desktop.
- Can build AIR apps with Flash or Flex
- See Adobe AIR home page here
- See AIR marketplace here

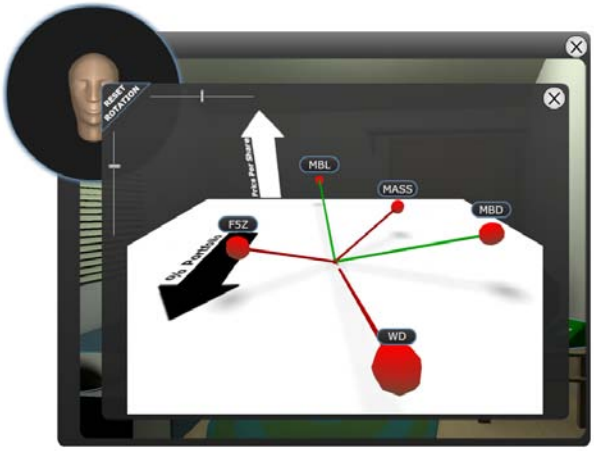


AIR Advantages:

1. No browser limitations
2. More persistent connection with users
3. Branded experiences with desktop functionality
4. Greater OS integration
5. Builds on prior knowledge of the ActionScript and platform
6. Brings together development teams (designers and developers)
7. Cross-platform

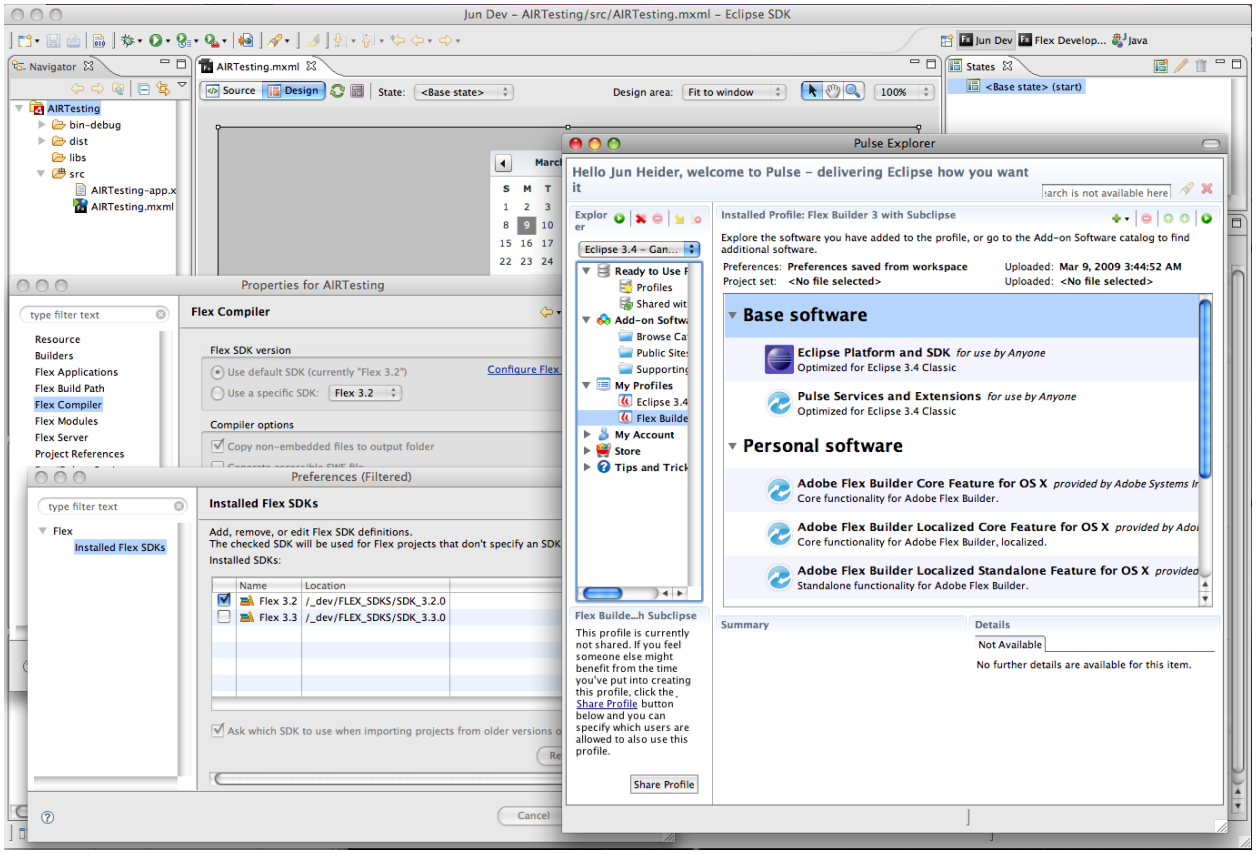
AIR Disadvantages:

1. Security issues
2. Have to download and install AIR as well as each app.
3. Competing technologies – Silverlight, Google Gears, etc….



Adobe Flex and FlexBuilder:

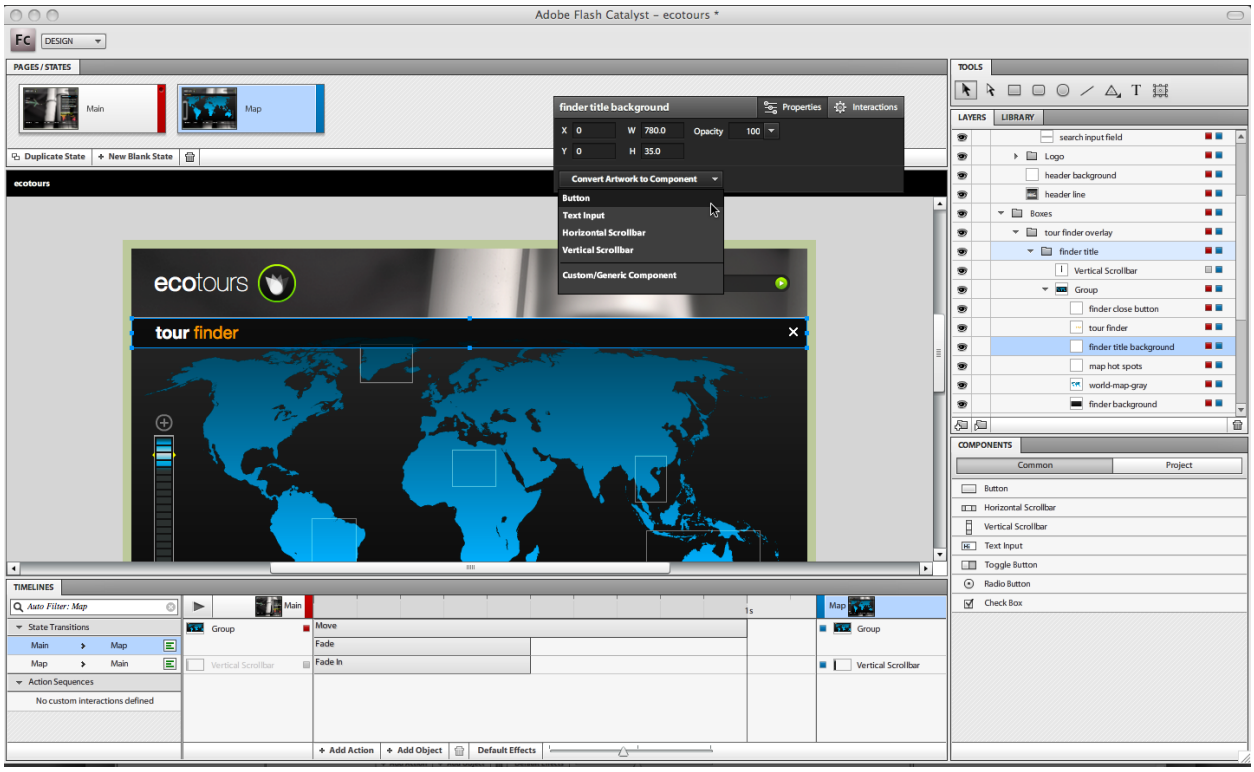
- **Flex** is an open source framework for building and maintaining sophisticated web applications.
- **FlexBuilder (3)** is an environment that allows you to develop Flex applications.
- Think Visual Studio for ActionScript….



- Uses **MXML**, a declarative XML-based language, is used to describe UI layout and behaviors.
- Heavily relies on using and extending ActionScript **components…**
- Also designed to work well with **Cold Fusion**….
- See Flex home page here….
- See FlexBuilder here…

Flash Catalyst:

- Originally code-named **“Thermo”**
- Allows designers to build interfaces for Flex applications…



- [See Catalyst home page here at Adobe Labs….]