



## Flash for CFers: Getting Over the Hump

Charles Arehart  
Founder/CTO, SystemManage

carehart@systemmanage.com  
<http://www.systemmanage.com>

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## Goals For This Talk

- Help change perspectives about what Flash can do for web developers
- Show simple examples within our reach
- Describe challenges getting started
- Point to key resources you need to get started
- Walk through quickly building one simple but useful example
  - Not teaching Flash or ActionScript needed
- Help you persuade mgt, clients, co-workers
- Where to learn more

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## About Your Presenter

- 6 yrs CF, 20 yrs IT experience
- Consultant/Trainer/Frequent Speaker to User Groups, Conferences worldwide
- Member of Team Macromedia
- Tech Co-Editor ColdFusion Dev Journal Magazine
  - Frequent writer for them & Macromedia DevCenter
- Macromedia Certified Instructor, Certified Advanced Developer
- ColdFusion User Group Manager
  - Southern MD CFUG (PAX)
- Member of Macromedia Customer Advisory Board
- Am based in the DC area
- Founder/CTO SystemManage



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## Setting the Stage






- Integrating Flash into your web apps can be very compelling
  - But many are confused about whether and how to proceed
  - Developers, clients, project managers may have bad taste from past Flash experiences
- Flash for web app integration is very different from Flash movies, animations, "skip intros"
  - Have you seen any examples?

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## Some Simple Examples

- Have you seen some simple but compelling examples of Flash/server integration?
  - Single screen drill-down interface 
  - Tree-based drill down interface 
  - List-swap interface 
  - Introducing useful animation 
  - Pet Market 
- Will show you resources to learn to build (or simply download) these

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## What Is So Compelling?

- Create rich user interface controls that offer greater functionality and usability for end-users
  - Without relying on JavaScript, DHTML
  - Flash interfaces play back consistently across the most popular client platforms and browsers
- Elimination of page refresh
  - Only the element updated changes
- Tremendous reduction of data transmitted
  - Need only download enough data to display
    - In DHTML apps, might preload all data
- Continued reduction on subsequent requests
  - Only the data requested is downloaded
    - In traditional web apps, the entire web page is downloaded with each request

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## Is Flash a Risk?

- Flash Player is free, very widely distributed
  - Estimated to be in 98% of all browsers
    - As well as PDAs, phones, Sony PlayStation
  - And more than 70% have latest player, Flash 6
- Flash file format (SWF) is vector based, compressed
  - downloads quickly over low-bandwidth connections
- With over 500,000 users, the Flash authoring tool is the industry standard for delivering high-impact Web experiences

## “The Challenge” for Web Developers



- Flash can seem intimidating, even daunting
- Have you felt it was beyond your reach?
  - Have you tried to follow along with Flash remoting articles?
  - But been stumped by their expecting Flash experience?
- Have you tried to read beginner Flash books?
  - Only to be frustrated by their focus on drawing, graphics, animation, sound, video?
  - Or by their wading through EVERY part of the Flash interface?

## Designer vs. Developer

- “The challenge” to getting started with Flash as a web developer is not our fault
- Partly due to Flash’s heritage as design tool
  - And recent additions of many features for developers
  - Bringing together two worlds, designer and developer
- Resources are challenged to present the fundamentals appropriately to each audience
  - Similar challenge exists for Dreamweaver MX

## Getting Over the Hump

- You CAN integrate Flash
  - easily and effectively
- Simply need a hand up
  - High but short initial learning curve
- Start simple
  - Add knowledge over time
- After getting down basics
  - All the articles and books make sense
  - Can then learn all the ins and outs
- Key challenge is finding right starting point



## Some Resources to NOT Start With

- Some seemingly obvious resources may not be suitable for newcomers to Flash doing web app integration
- Most are too designer oriented
  - Flash MX Manual: Using Flash MX
    - Also available at Help>Using Flash
  - Help>Tutorials>Intro to Flash MX
    - Also offered inside Help>Using Flash
  - Help>Samples
- Or presume prior Flash experience
  - Flash Remoting Documentation
  - Reality ColdFusion: Flash MX Integration
  - ActionScript: The Definitive Guide (even latest ed.)

## The Missing Link

- We need an introduction that
  - Doesn't presume Flash experience
  - Doesn't focus on designer aspects of Flash that are secondary to our needs
  - Doesn't focus on aspects of Flash interface that we don't need, at least for a while
  - Does show the least we need to know, not skipping any steps or needed interface features
  - Does show how to connect Flash to server in a useful way

## Great Starting Point: Recent CFDJ Article by Ben Forta

- "Data Entry reFORMed", ColdFusion Developers Journal, November 2002
  - <http://www.systemmanage.com/coldfusion/article.cfm?id=528>
    - Available free at this address. Don't need to subscribe
    - Get this, print it out (use "print article" button)
  - Doesn't presume any Flash exp.
  - Builds a typical "two-selects related" interface that's hard to do in HTML
    - Even with javascript, involves caching data on the client, and may not work on all browsers
    - Easy in Flash, "once you know the secret"
- Let's walk through building it ([link](#))

## Another Excellent Starting Point

- Chapter 23 in Ben Forta's "ColdFusion MX Web Application Construction Kit"
  - Chapter written by Nate Weiss
  - Incredible intro to Flash and CF integration
    - Covers far more than Ben's article
    - But like his it never loses you
    - Nor bores you with Flash stuff you don't need
    - Even shows some simple, useful animation ([link](#))
  - May justify the cost of the book alone
    - \$35 at buy.com (a little cheaper than Amazon)
      - <http://www.buy.com/retail/product.asp?sku=30964103&loc=106>

## Still More Useful Examples

- Flash FunKit from Daemon Consulting ([tree example](#), [Duelling Selects](#))
  - <http://www.daemon.com.au/index.cfm?objectid=BA0AE767-DOB7-4CD6-F965322A4EE69AE7>
- PetMarket is often shown, but not trivial ([link](#))
  - <http://www.macromedia.com/desdev/mx/blueprint/>
- Macromedia Example Sites
  - [http://www.macromedia.com/resources/business/sample\\_apps/](http://www.macromedia.com/resources/business/sample_apps/)
  - [http://www.macromedia.com/desdev/topics/sample\\_apps.html](http://www.macromedia.com/desdev/topics/sample_apps.html)

## Challenges Running Various Examples

- Must be aware of hard-coded dependencies for URLs in Flash Remoting
- Code in movie's ActionScript may be written as:
  - `NetServices.setDefaultGatewayURL("http://localhost:8500/flashservices/gateway");`
  - `gw = NetServices.createGatewayConnection();`
  - `employeeService = gw.getService("devcenter.employees", this);`
- Expects to find `employees.cfc` in `[webroot]\devcenter`
  - If you've installed the app in another directory?
    - Movie will display but won't show any connection to server. No error message. Can be confusing
    - Only see error if NetConnection Debugger is open
- Solution:
  - Either move server code to `[webroot]\devcenter`
  - Or create a mapping in CF Admin to point `\devcenter` to location where you installed the CFC

## Beware URL Used to Open Page

- Beware also that domain name used in connection to server must be same as that used on the URL loading the SWF
  - Again, movie simply won't connect to server
- For instance, if ActionScript connects to 127.0.0.1, but you browse the SWF (or page loading SWF) using localhost
  - Will get no error. Just doesn't work
  - Netconnection Debugger simply shows no response from server
- Must open SWF from same domain it's trying to connect to
  - See more at my blog:
    - [http://cfmxplus.blogspot.com/2003\\_02\\_09\\_cfmplus\\_archive.html#90297434](http://cfmxplus.blogspot.com/2003_02_09_cfmplus_archive.html#90297434)

## NetConnection Debugger Your Friend

- Learn more about NetConnection Debugger
  - [http://www.macromedia.com/support/flash\\_remoting/ts/documents/netcondebugger.htm](http://www.macromedia.com/support/flash_remoting/ts/documents/netcondebugger.htm)
- Can loading it without opening Flash IDE
  - [http://cfmxplus.blogspot.com/2003\\_02\\_02\\_cfmplus\\_archive.html#90296849](http://cfmxplus.blogspot.com/2003_02_02_cfmplus_archive.html#90296849)

## Other Points to Consider

- Also, be aware of Remoting Checklist from MM
  - [http://www.macromedia.com/support/flash\\_remoting/ts/documents/cfm\\_fr\\_checklist.htm](http://www.macromedia.com/support/flash_remoting/ts/documents/cfm_fr_checklist.htm)
- Things to learn about soon
  - UI components, debugging, troubleshooting
- Things we can ignore for now
  - Drawing, sound, video, etc.
- Things to learn about later
  - Layers, frames, animation, more actionscript, etc.

## Other Points to Consider (cont.)

- Macromedia's Developer Resource Kits (DRKs)
  - Offer several useful new components, demos
    - <http://www.macromedia.com/software/drk/>
    - Calendar, grid, and many more useful components
- Flash Communications Server
  - Something else to consider adding to your arsenal
  - Shown primarily as streaming audio/video tool
  - Much more powerful: about live shared data apps
  - <http://www.macromedia.com/desdev/mx/flashcom/>

## Other Points to Consider (cont.)

- Possibly consider Flash Component Kit for CF
  - <http://www.macromedia.com/v1/handlers/index.cfm?ID=20983>
  - Provides some pre-built components designed to integrate with CF
    - Abstracts them into CF Custom tags
    - Don't need to use Flash authoring tool
  - Just be aware that these are pre-CFMX and pre-Flash MX
    - Not that they won't work with CFMX and/or FlashMX
    - But they may not be as necessary

## Integration is More than Remoting

- Flash Remoting is one way in Flash MX to connect to servers
  - Supported only for CFMX, ASP.NET, J2EE servers
    - Free only with CFMX, Macromedia JRun
    - What about other servers? CF4/5? PHP? Etc
- Flash 4/5 have had other LoadVariables method
  - Will point later to articles showing that method
  - Still works in Flash MX
- But Flash MX also adds new LoadVars object
  - Even better for connecting to servers that don't support Remoting or where it hasn't been installed

## Selling Folks on the Idea

- Maybe you need to sell the idea of Rich Internet Apps to management, clients, co-workers
  - Without installing software
  - With focus on business benefits, mgt issues, etc.
- Macromedia has several such resources:
  - Executive Presentation
    - <http://www.macromedia.com/software/mx/presentation/>
  - Business Impact of RIA
    - [http://www.macromedia.com/resources/business/rich\\_internet\\_apps/](http://www.macromedia.com/resources/business/rich_internet_apps/)
  - RIA Starter Kit (5 Steps to Your First Pilot Project)
    - [http://www.macromedia.com/resources/business/rich\\_internet\\_apps/starterkit/](http://www.macromedia.com/resources/business/rich_internet_apps/starterkit/)
  - Selling Management on Rich Internet Apps
    - [http://www.macromedia.com/desdev/logged\\_in/rmurff\\_ria.html](http://www.macromedia.com/desdev/logged_in/rmurff_ria.html)

## Where to Learn More: Articles

- Articles at the Macromedia DesDev Site
  - Macromedia Flash MX Remoting: Open the gate for rich, dynamic content – by Kevin Towes
    - <http://www.macromedia.com/desdev/mx/coldfusion/articles/remoting.html>
  - Getting Started with Flash Remoting - by Mike Chambers
    - <http://www.macromedia.com/desdev/mx/coldfusion/articles/startremoting.html>
  - Flash Remoting Basics for ColdFusion Developers – by Lucas Sherwood
    - <http://www.macromedia.com/desdev/mx/flashremoting/articles/cfexample.html>
  - Also, see more at DesDev sites listed later

## Where to Learn More: Articles

- CFDJ (these are all feature articles available free)
  - Get Connected with Flash Debugging - by Dennis Baldwin (Vol: 04 Issue: 10)
    - <http://www.sys-con.com/coldfusion/article.cfm?id=513>
  - Flash Up Your Forms with Components - by Dennis Baldwin (Vol: 04 Issue: 06)
    - <http://www.sys-con.com/coldfusion/article.cfm?id=451>
  - Building the Development Team in Flash MX and ColdFusion MX - by Kevin Towes (Vol: 04 Issue: 06)
    - <http://www.sys-con.com/coldfusion/article.cfm?id=448>

## Where to Learn More: Articles

- CFDJ (more recent, not yet listed as feature articles)
  - Web Services in a Flash - by Dennis Baldwin (Vol: 05 Issue: 01)
  - The Flash MX Calendar Component - by Mike Britton (Vol: 05 Issue: 01)
  - Tales from the List - by Simon Horwith (Vol: 05 Issue: 01)
  - Flash Remoting with Macromedia's DesDev Feed - by Dennis Baldwin (Vol: 04 Issue: 12)

## Where to Learn More: Articles

- CFDJ (older CF5/Flash 5 features)
  - Macromedia Flash 5 and ColdFusion 5 - by Mike Chambers (Vol: 03 Issue: 11)
    - <http://www.sys-con.com/coldfusion/article.cfm?id=366>
  - ColdFusion-Driven Flash Content - by R. Drisgill and J. Montilla (Vol: 03 Issue: 09)
    - <http://www.sys-con.com/coldfusion/article.cfm?id=347>
  - Getting CF Into Flash - by Randy H. Drisgill and Jason Montilla (Vol: 03 Issue: 08)
    - <http://www.sys-con.com/coldfusion/article.cfm?id=346>
  - ColdFusion Meets Flash - by Dennis Baldwin ((Vol: 03 Issue: 08)
    - <http://www.sys-con.com/coldfusion/article.cfm?id=309>

## Where to Learn More: Books

- Books for Starting Out
  - Again, Chap 23 of CFMX Web App Const Kit
  - Great Flash basics book
    - Foundation Macromedia Flash MX ("friends of ed")
      - Free first chapter online:
        - [http://www.friendsofed.com/books/foundation/flashmx/Found\\_MX\\_Chapter\\_01.pdf](http://www.friendsofed.com/books/foundation/flashmx/Found_MX_Chapter_01.pdf)
  - Surprisingly decent books on Flash/Server integration
    - Macromedia MX eLearning; Advanced Training from the Source
    - Mobile Macromedia Flash MX
- After those, and with a little experience
  - Reality ColdFusion MX: Flash MX Integration
  - ActionScript: The Definitive Guide

## Where to Learn More: Books

- To become a Flash ActionScript guru:
  - Object-Oriented Programming with ActionScript
- Some Books to Avoid:
  - Flash MX App Design and Development
    - Reviews say it's horribly buggy
  - Macromedia Flash MX: Creating Dynamic Applications
    - Title sounds so promising
      - Again, not designed for newcomers to Flash
    - Builds poll, guest book, msg board, chat tool, games, instant messenger tool, email client

## Where to Learn More: Sites

- Desdev centers
  - <http://www.macromedia.com/desdev/mx/flashremoting/>
  - <http://www.macromedia.com/desdev/mx/coldfusion/>
  - <http://www.macromedia.com/desdev/mx/flash/>
  - <http://www.macromedia.com/desdev/mx/flashcom/>
  - [http://www.macromedia.com/desdev/rich\\_media\\_ads/](http://www.macromedia.com/desdev/rich_media_ads/)
    - This is brand new
- Getting Started with Flash (web videos)
  - <http://www.macromedia.com/software/flash/productinfo/tutorials/gettingstarted/>
  - Includes one on accessibility features of FlashMX

## Where to Learn More: Sites

- Sources with articles, mailing lists, links, more
- Flashcfm.com
- Devmx.com
- Flash-remoting.com
- Whatisflash.com
- FlashForProgrammers.com
- Flash-db.com
- Actionscript.org
- Flashmagazine.com
- Flashguru.co.uk
- Actionscript-toolbox.com
- Flashsupport.com
- Flashkit.com
- And many more

## Where to Learn More: Other

- Macromedia Video Tips of the Week
  - <http://www.macromedia.com/desdev/tip/archive.html>
- Working with CFMX in Flash MX
  - [http://www.macromedia.com/support/flash/programs\\_cf.html](http://www.macromedia.com/support/flash/programs_cf.html)
- Macromedia Flash/Web Integration Samples
  - [http://www.macromedia.com/desdev/topics/sample\\_apps.html](http://www.macromedia.com/desdev/topics/sample_apps.html)
  - Many offered, all with articles and tutorials
- Help>Samples (within Flash)
  - Mostly designer-oriented, animations, games

## Where to Learn More: Courses

- Courses
  - Macromedia "Developing Rich Internet Applications"
    - Just released, presumes no prior Flash experience
    - Rather heavy ActionScript emphasis
    - Should be just what most of us need
  - I'm planning one myself...

## One Day Seminar

- Planning one day seminar, "Flash for Web Developers"
- Much more:
  - Integrating Flash with CFMX, ASP.NET, J2EE
    - Also how to use with CF 5/PHP/Perl/any app server
  - Debugging and troubleshooting
  - Learning about and adding key Flash features
  - More about ActionScript
  - Other possibilities beyond traditional web apps
  - Intro to Flash Communications Server
  - Tips and hidden gems, useful extensions
  - Where to learn more

## My Own Other Planned Resources

- Possible 2-3 day class in addition to seminar
- Book, focused on this basic sort of intro
- Articles on various related topics
- A support area on systemanage.com
- More blog tips
  - Either my current cfmplus.blogspot.com
  - Or a new blog devoted to Flash/server integration

## Conclusion

- We've seen some simple, useful examples of Flash/server integration
  - And the best resources for understanding how we as web developers can get started
  - Several other resources for you, management, clients, co-workers
  - Some gotchas to watch out for
- We can do this stuff! It's fun, powerful
  - Lots more to learn about
  - Common challenges being solved all the time
  - It's finally time, and things will surely get better

## Contact Info

- For questions, comments on presentation
  - Charlie Arehart
  - Founder/CTO, SystemManage
  - carehart@systemmanage.com
  - www.systemmanage.com