



ColdBox

More Than MVC

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WHO AM I?



- Luis Majano - Computer Engineer
- Born in San Salvador, El Salvador
- Work for ESRI
(Environmental Systems Research Institute)
- Manager of the IECFUG (www.iecfug.com)
- Creator of ColdBox
- Co-Creator of CodexWiki - www.codexwiki.org

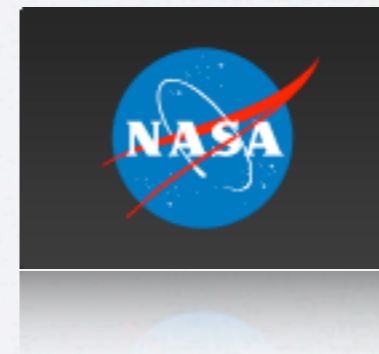


CERTIFIED PROFESSIONAL
Macromedia® ColdFusion® MX
Advanced Developer

HISTORY & FACTS



- Did not start as an open source project
- Designed and built for a high availability multi-tiered web application in 2005
- First Release in July 2006
- 16 releases since July 2006
Really? Yes, Really!
- Current Build is 2.6.4
- Build in Progress is 3.0.0 (4th Quarter)
- Large usage base with over 13000 downloads





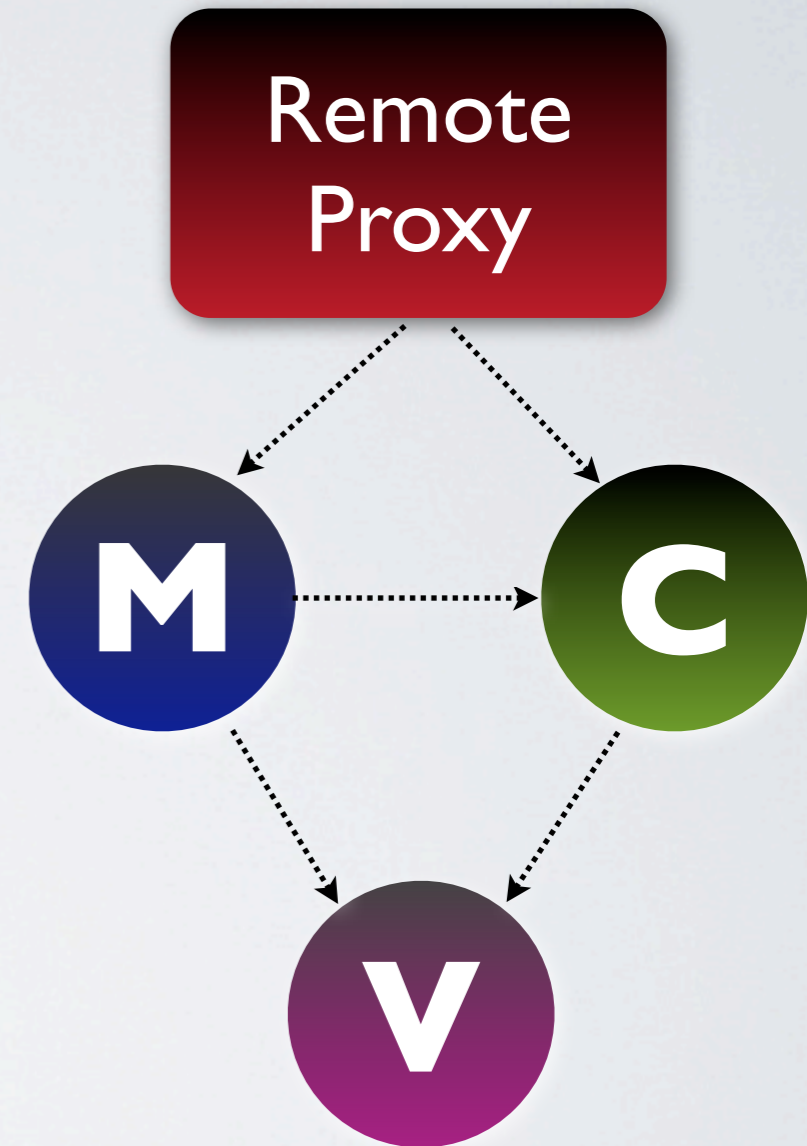
WHAT IS COLDBOX?



COLDBOX IS A ...

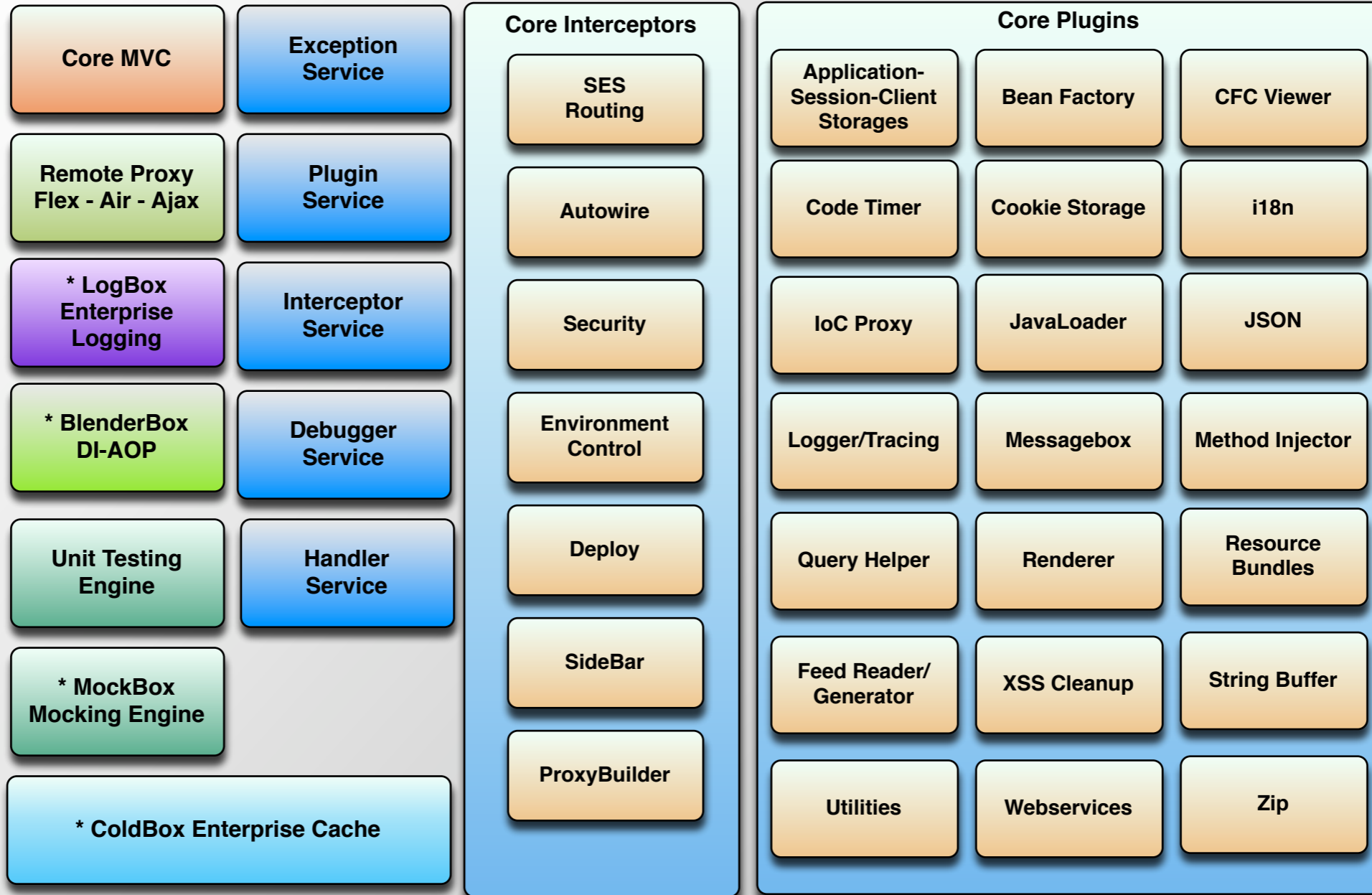


- **Proven** event-driven ColdFusion Development Platform
- Follows OO principles and best practices
- Conventions Based
- Built on a layered Modular Architecture
- More than MVC => **ColdBox Platform**
 - Software Toolkit, Remote Framework, Enterprise Cache, LogBox, MockBox, etc.
- Addresses most infrastructure concerns of typical ColdFusion applications



PLATFORM OVERVIEW

ColdBox Platform



ColdBox Tools



BENEFITS

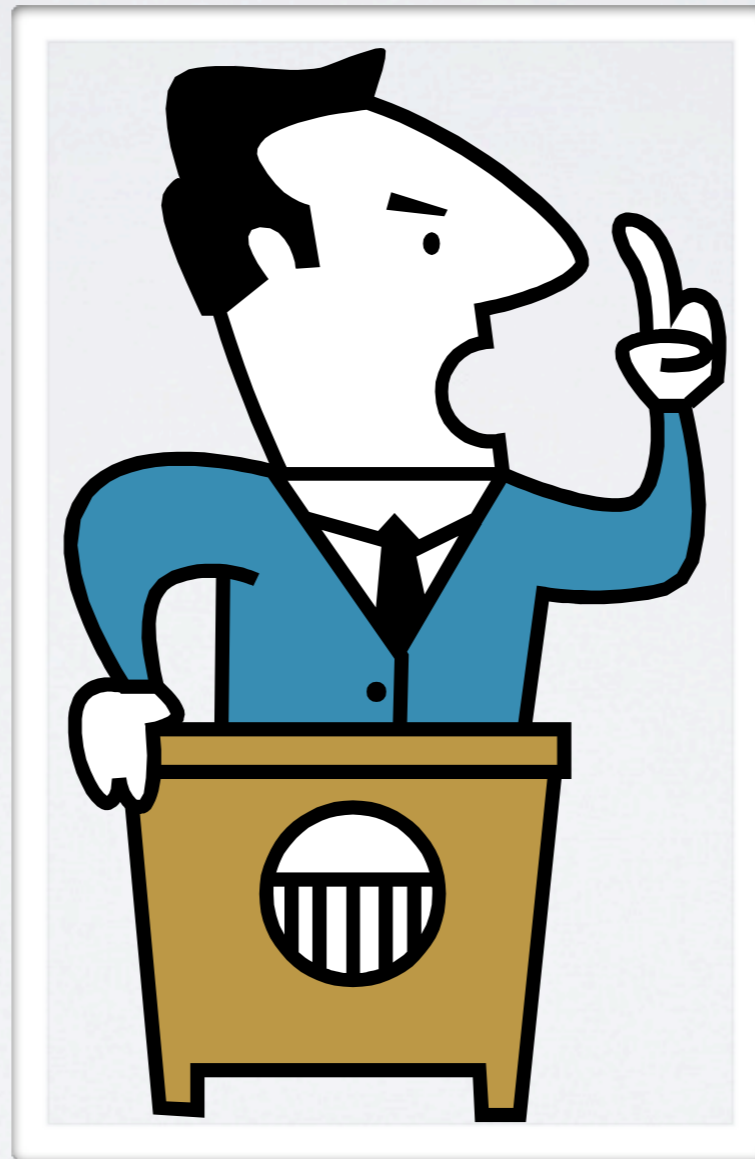


- Common Vocabulary
- Promotes Team Oriented Development
- Facilitates good programming practices
- Fosters Code Re-use
- Flexibility
- Extensibility

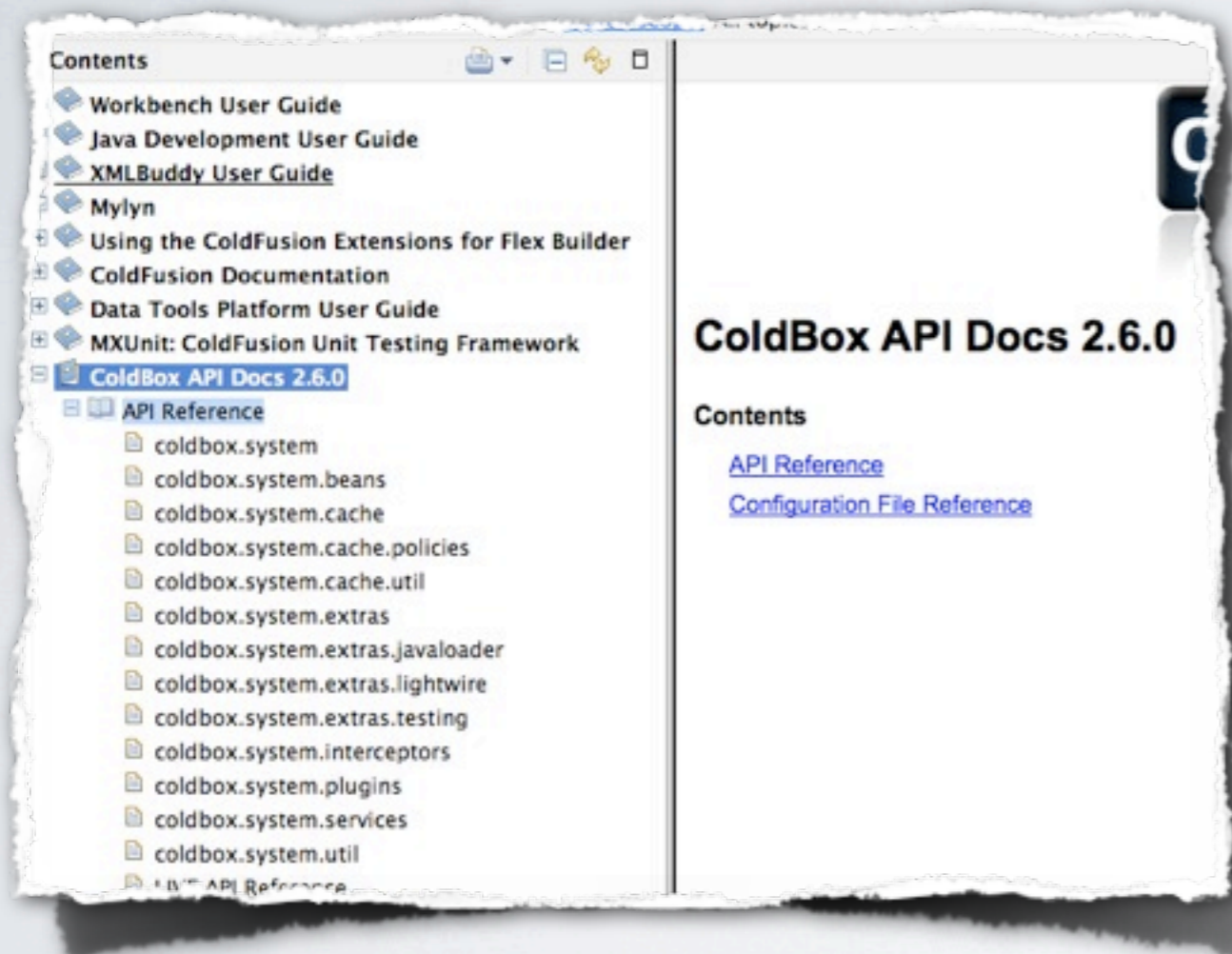




What Sets ColdBox Apart?



Documentation & Training



- Over 40 Step by Step Guides
- Over 600 pages worth of docs
- Professional Training
 - CBOX-100 : Intro To ColdBox
 - CBOX-101 : Core ColdBox
 - More on the way....
- 3 books on the way
- Eclipse Help Integration
- A “No Hair” Pulling Effect



Effects of Documentation

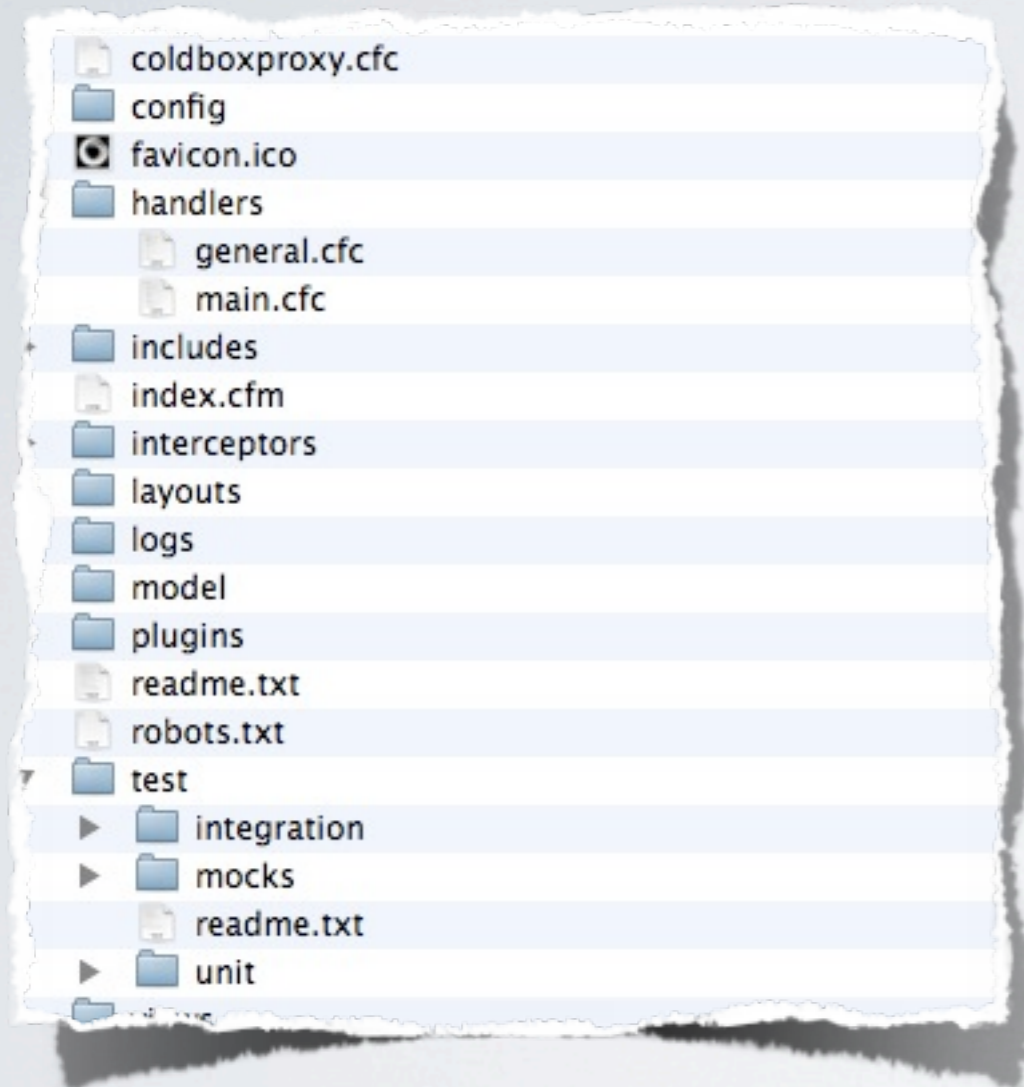


No Documentation!



Mark Drew on ColdBox!

All About Conventions



- No need of declaring logic or application flow in XML
- Uses folder & naming conventions
- Internal Conventions For:
 - Implicit Executions: Just create method signatures and you are ready to roll
 - Helpers by Convention
 - Plugins, helpers and much more

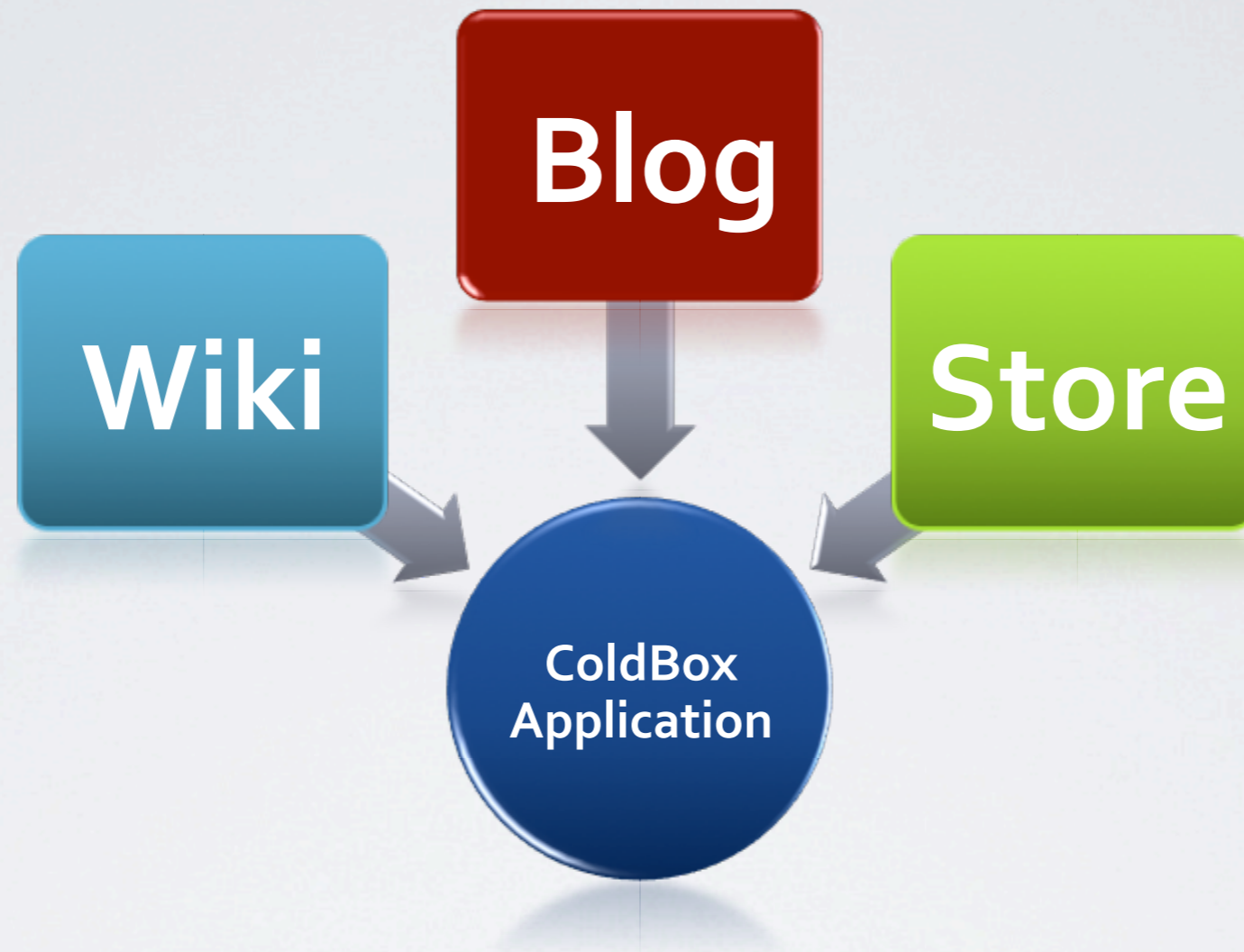
Code Controllers



```
1 <cffunction name="dspAddFeed" access="public" return
2
3 <cfargument name="Event" type="coldbox.system.be
4
5 <cfset var csPlugin = getPlugin("clientstorage")
6
7 <cfset var obj = "">
8
9 <cfset var rc = Event.getCollection()>
10
11 <!--- EXIT HANDLERS: --->
12
13 <cfset rc.xehAddFeed = "ehFeed.doAddFeed">
14
15 <cfset rc.xehNewFeed = "ehFeed.dspAddFeed">
16
17
18 <!--- Feed Validated? --->
19
20 <cfset rc.feedValidated = false>
21
22
23 <!--- Try to parse feed --->
24
25 <cfif Event.getValue("continue_button","") neq "">
26
27 <!--- Validate Feed --->
28
29 <cfif trim(len(rc.FeedURL)) eq 0 or not getPl
30
31 <cfset getPlugin("messagebox").setMessage
32
33 <cfelse>
34
35 <cftry>
36
37 <cfset obj = getPlugin("ioc").getBear
38
39 <!--- Verify Feed in user's feeds ---
```

- Code in ColdFusion (CFC's)
- New Event, New Function (Easy!)
- Flexible, Extensible and Reusable
- Built-in Unit Testing Framework
 - Integration Testing
 - MockBox
 - Object Mocking/Stubbing
- Increased Performance through smart caching

Multiple Applications



- No extra configuration files or nasty imports
- Organize controllers & views in packages
- Multiple external extension points: layouts, views, handlers, plugins, etc.
- Use state of the art SES URL routing

Debugging Tools



Framework Info:	ColdBox 2.0.2 Philipians 3:7-11
Application Name:	coldbox (production)
Free Memory:	24,834 KB / 47,948 KB (Free/Total)
Time Stamp:	Jul-11-2007 12:01:45 AM
Query String:	fwreinit=1
Server Instance:	jfetmac
Current Event:	ehGeneral.dspHello
Current Layout:	Layout.Main.cfm
Current View:	vwHello

Framework Method execution times in execution order.

Timestamp	Execution Time	Framework Method	RC Snapshot
12:01:43.743 AM	19 ms	invoking runEvent [ehGeneral.onApplicationStart]	View
12:01:43.757 AM	10 ms	invoking runEvent [preHandler] for ehGeneral.dspHello	View
12:01:44.161 AM	5 ms	New Instance Creation	...
12:01:44.543 AM	56 ms	Rendering View [vwQuote.cfm]	...
12:01:44.544 AM	786 ms	invoking runEvent [ehGeneral.dspHello]	View
12:01:44.551 AM	7 ms	invoking runEvent [postHandler] for ehGeneral.dspHello	View
12:01:45.66 AM	199 ms	Rendering View [navigation.cfm]	...
12:01:45.330 AM	38 ms	Rendering View [datasourcedump.cfm]	...
12:01:45.331 AM	265 ms	Rendering View [vwHello.cfm]	...
12:01:45.345 AM	792 ms	Rendering Layout [Layout.Main.cfm]	...

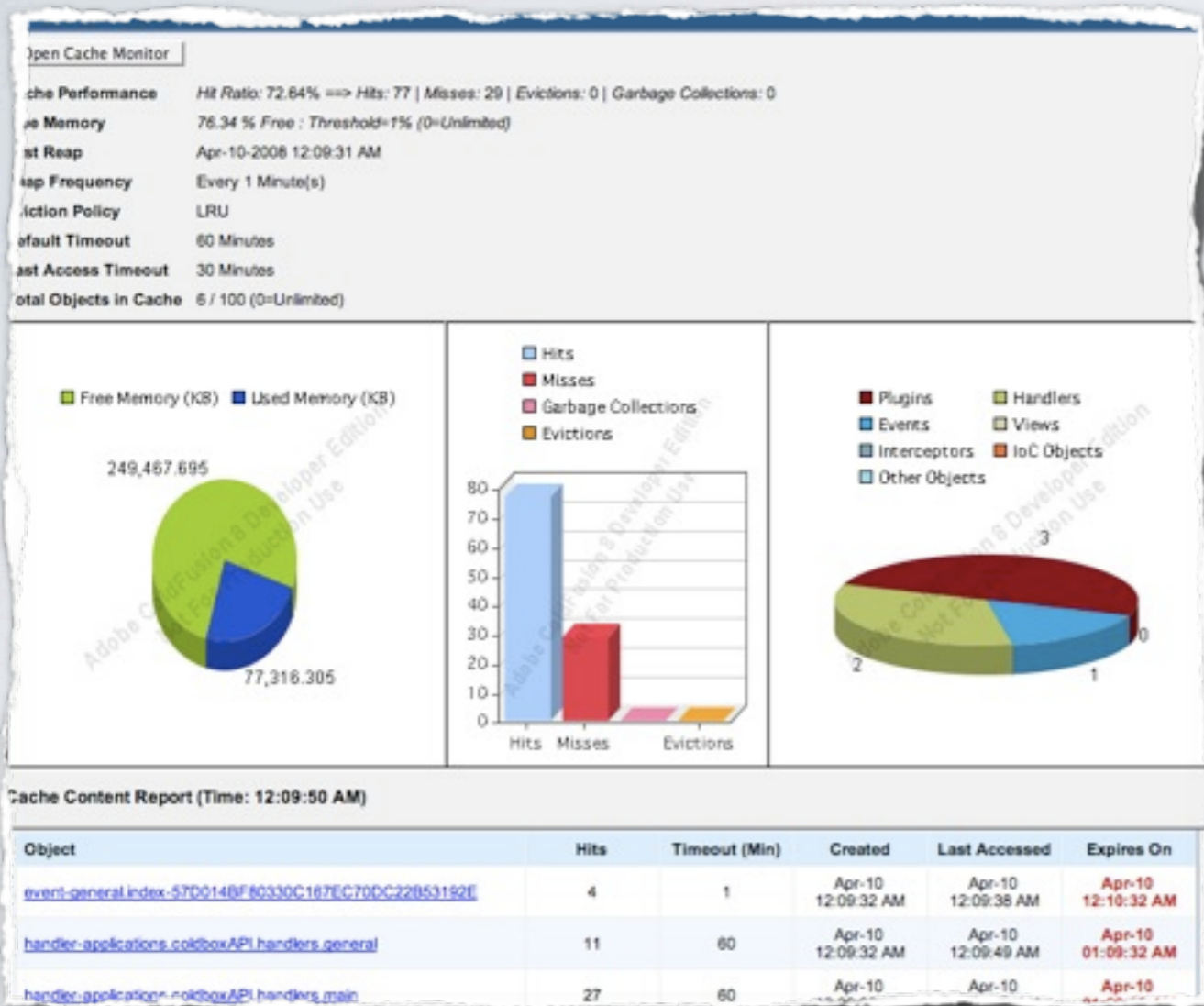
- Customizable Debugger
- Profiles your events
- Profiles your remote proxies
- Monitors
 - Cache
 - Remote Calls
 - Execution Profiler
- Logging Facilities

“A new way to debug and monitor your applications”

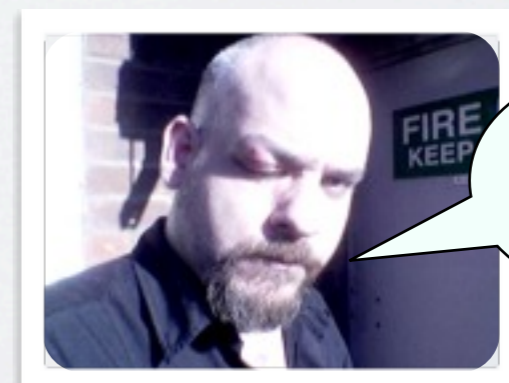
Smart Caching



- CF/Java Hybrid
- Memory Aware
- Object and Data Caching
- Event and View Caching
- Highly Customizable
- Monitor & Interactive Console
- Multi-Threaded
- Built-In Event Model



“3.0 will be cache agnostic”



I Likey!!



Event Caching

```
<cffunction name="entry" cache="true" cacheTimeout="40" cacheLastAccessTimeout="15" >  
....  
</cffunction>
```

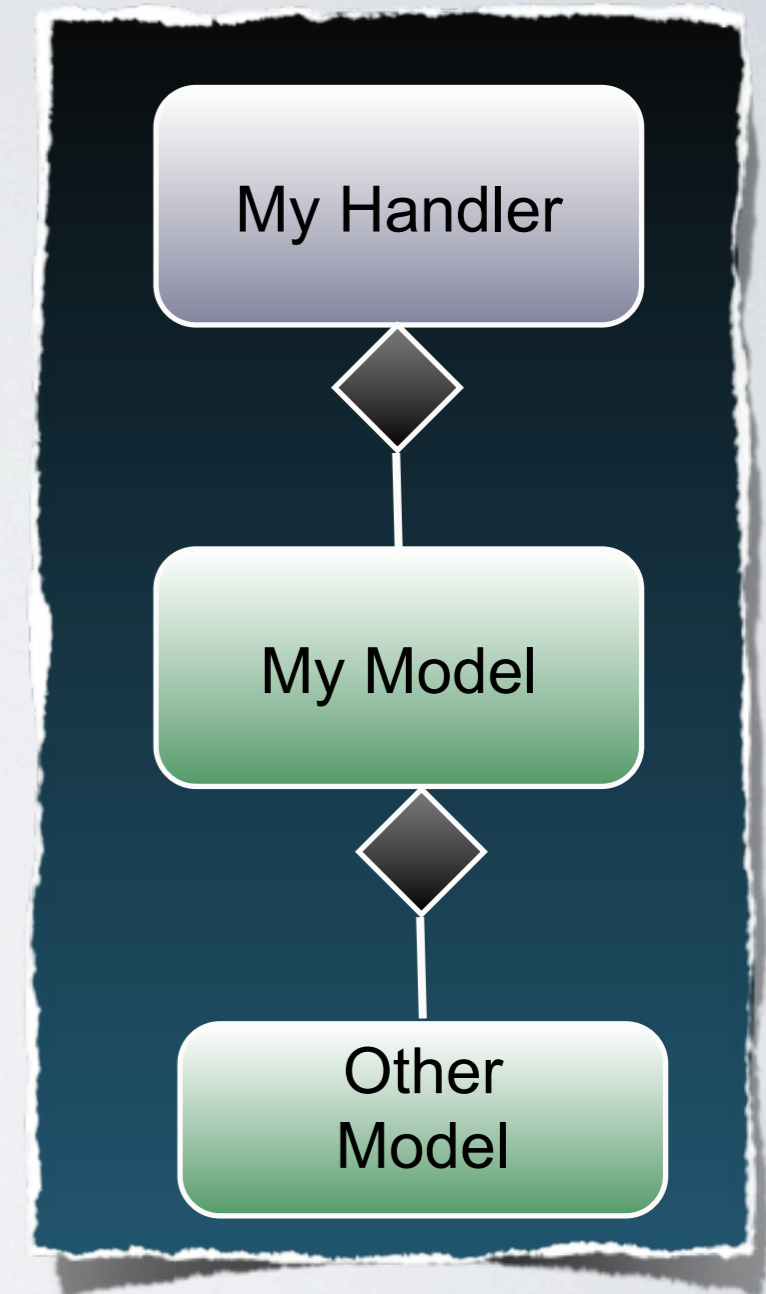
View Caching

```
<cfset event.setView(name="widget", cache="true", cacheTimeout="15") >  
  
<cfoutput>  
#renderView(view="viewlet/userDetail", cache="true", cacheTimeout="30") #  
</cfoutput>
```

MODEL INTEGRATION



- “An easy & maintainable way of managing your domain objects”
- Retrieved By Convention
- Manages Singletons, Transients & **Time Persisted** Objects
- Manage CFC's, Webservices, & Java objects (3.0)
- ColdBox Does Dependency Injection (IoC)
 - Autowiring, Factories, Object Aliases, Parent Hierarchies
 - Constructor, Setter or Metadata Injection
 - Scope Persistence: session, request, application, server (3.0)
- Custom Autowire DSL's (3.0)





Object Persistence

```
<cfcomponent name="UserService" singleton="true">  
  
<cfcomponent name="BlogEntry" cache="true" cacheTimeout="10">  
  
<cfcomponent name="TransientObject">
```

Dependencies DSL

```
<cfproperty name="UserGateway" type="Model" scope="instance" />  
<cfproperty name="Datasource" type="coldbox:datasource:myDSN" scope="instance" />  
<cfproperty name="MailTo" type="coldbox:setting:MailTo" scope="instance" />  
<cfproperty name="cache" type="coldbox:cacheManager" scope="instance" />  
<cfproperty name="logger" type="logbox:root" scope="instance" />
```

Software Toolkit



coldbox.log

Logs Clear Reload Mark Filter

"Severity","ThreadID","Date","Time","Application","Message"
"information","logger-plugin","07/11/2007","00:01:43","The log file has been initialized successfully by ColdBox. Log file: /Users/Imajano/Documents/MyDevelopment/applications/coldbox/src/logs/c
"infor
B41556
"infor
B41556
"infor
B8E19E
"infor
B8E19E
"infor
BE5F09
"infor
BE5F09

Login Form

Invalid Logon Information. Please try again

Locale:	th_TH
isBidi:	false
showLanguage:	Thai
showCountry:	Thailand
server timezone:	Pacific Daylight Time
Timezone(s):	Etc/GMT+12
using timezone:	America/Port-au-Prince (randomly chosen)
timezone offset:	-4 hours
uses DST:	YES
in DST:	YES
i18nDateTimeFormat:	วันศุกร์ที่ 13 กรกฎาคม พ.ศ. 2550, 3:48:36
i18nDateFormat:	วันศุกร์ที่ 13 กรกฎาคม พ.ศ. 2550
i18nTimeFormat:	3:48:36
i18nDateParse:	1184310000000 (original date: วันศุกร์ที่ 13 กรกฎาคม พ.ศ. 2550)
i18nDateTimeParse:	1184323716000 (original datetime: วันศุกร์ที่ 13 กรกฎาคม พ.ศ. 2550, 3:48:36)
getDateTimePattern:	d MMMM yyyy, H:mm' น.'
formatDateTime:	13 กรกฎาคม 2550 (using "d MMMM yyyy")
i18nDateDiff:	3 day(s) (1184590116917 1184312916917, randomly generated end date)
version:	I18NUtilVersion:=1.0.0 coldbox core java I18NUtilDate:=23-aug-2006 Java version:=1.4.2_12 JRE version:=1.4.2_12-269
locale:	Thai Language:=1'4'5'13-500 Thai Language:=1'4'5'13 I18NUtilDate:=23-aug-2006 I18NUtilDate:=1'0'0 coldbox core java
i18nDateDiff:	3 day(s) (1184200116917 1184312916917, randomly generated end date)
formatDateTime:	13 กรกฎาคม 2550 (using "d MMMM yyyy")

- LogBox: Enterprise Logging
- SES Pretty URL's
- Java & CF Utilities
- Query & Storage Helpers
- Internationalization
- Environment Settings & Detection
- Bug Reporting
- Application Security
- Server Deployment
- Create your own



DATA RENDERING



- Easily render data from your event handlers
- *event.renderdata()*
- Automatic Data Marshaling To:
 - JSON
 - XML
 - Plain (Anything)
- Easily create REST services

```
<cfset event.renderData(type="plain",data="<h1>Hello</h1>")>
```

```
<cfset event.renderData(type="json",data=qUsers)>
```

```
<cfset event.renderData(type="xml",data=qUsers)>
```

WHAT ABOUT SECURITY?



I know! Better than guarding this place

Listening to Shakira rocks man!!

<http://www.flickr.com/photos/carolyncoles/131618244>

- Event based security rule engine
- Protects external & internal event calls
- Authorize by user roles, permissions or custom
- Can use Regex Pattern Matching
- Easily validate integrate custom security implementations

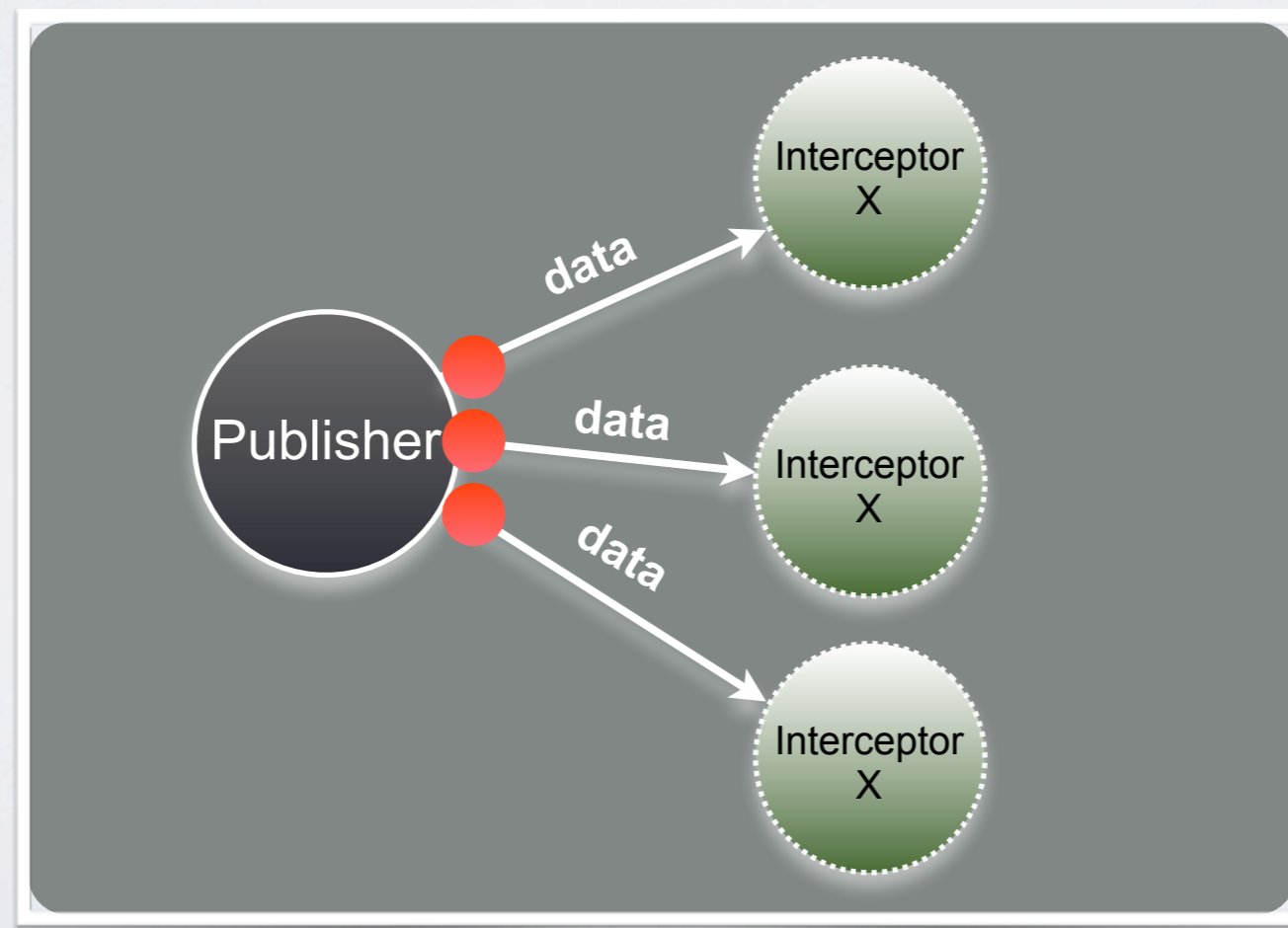
Damn You ColdBox!!



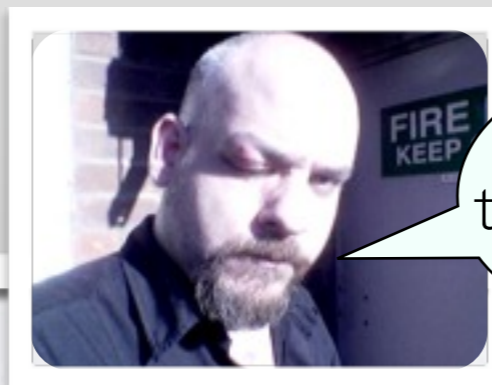
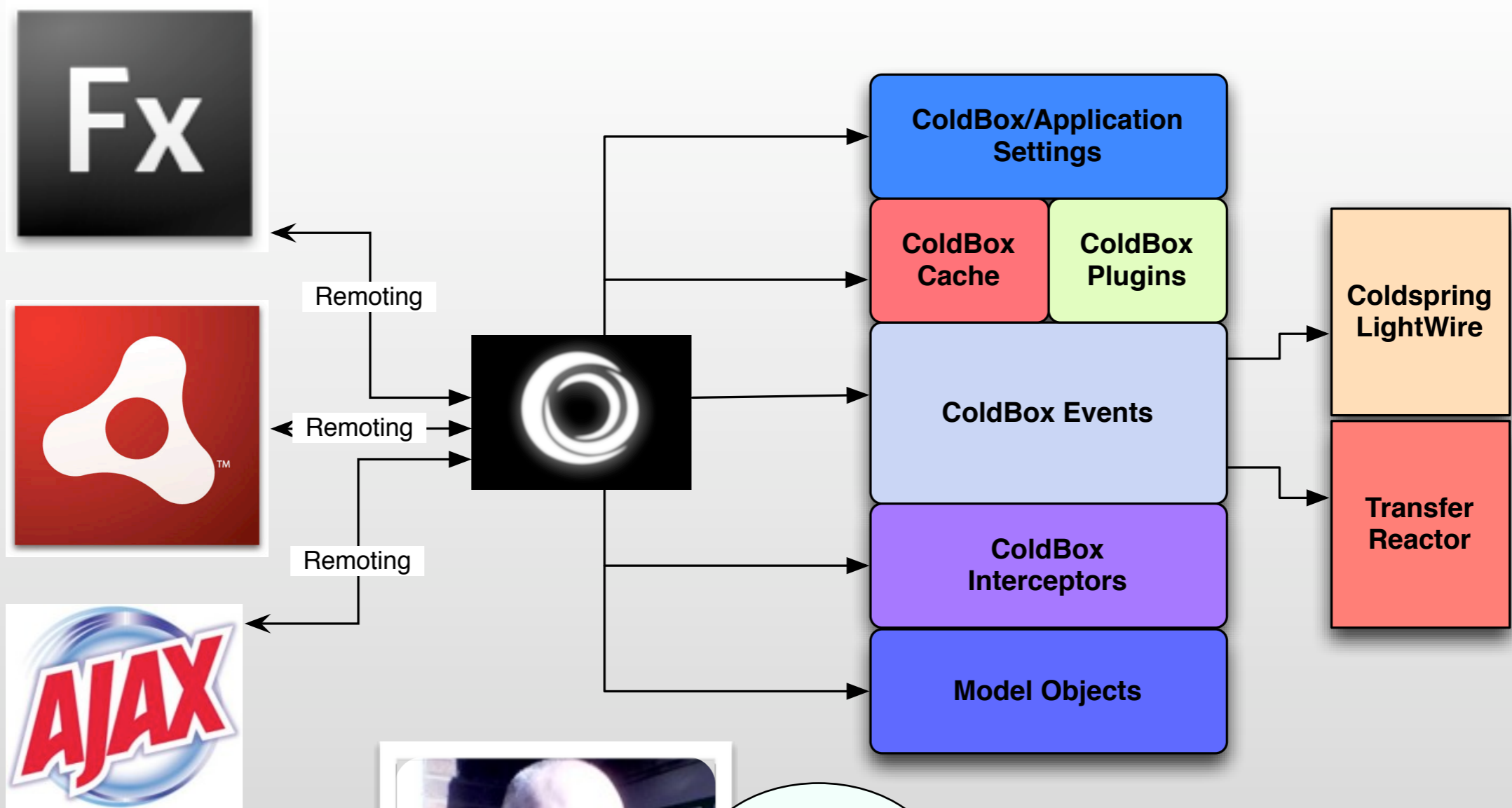


CUSTOM INTERCEPTORS

- Custom Interception Points (Observer-Observable) or Broadcasters
 - Observation Points by Conventions
 - Announce, Register, UnRegister via the API
 - Can also be chained
 - You can also send in a structure of intercepted data via the announcement
- A solid base to create event driven architectures



COLDBOX PROXY



Now
that's Cool!!

COLDBOX PROXY



- AJAX CFC data binding
- Event Driven Model - creates an enhanced service layer or
- Just tap into your services directly
- Access to:
 - Model Objects
 - IoC object factories : LightWire/ColdSpring
 - IoC Beans
 - Cache, Plugins, and more
- Monitors & Profiles ALL your remote calls, creates debuggers for you.
- A new way to develop headless applications

“One development framework - ANY GUI interface”

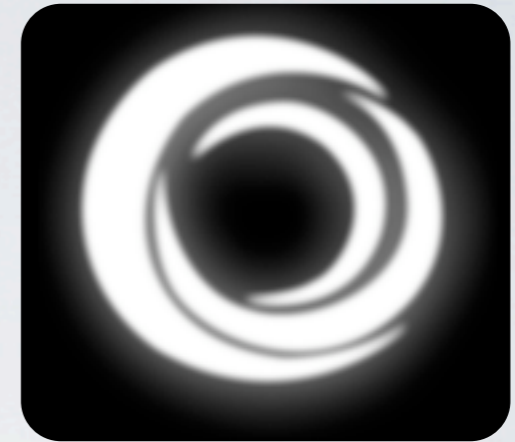


Demo Time



ColdBox Resources

- Official Site
 - <http://www.coldbox.org>
- Forums
 - <http://forums.coldbox.org>
- Wiki, Bugs, Trac Site
 - <http://ortus.svnrepository.com/coldbox>
- Google Group
 - <http://groups.google.com/group/coldbox>
- Training Courses
 - CBOX-100 (1-Day), CBOX-101 (2-Days)
 - <http://www.coldbox.org/index.cfm/training>



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Q & A



Bye Bye
Homies!!

Thanks!