



ColdBox Platform

3.0 and Beyond

ColdBox



Who am I?

- ✦ **Luis Majano** - Computer Engineer
- ✦ Born in San Salvador, El Salvador -->
- ✦ President of **Ortus Solutions**
- ✦ Manager of the IECFUG (www.iecfug.com)
- ✦ Creator of ColdBox, MockBox, LogBox, CacheBox, WireBox, CodexWiki, or anything Box!
- ✦ Documentation Weirdo!



What we will cover?

- ✦ History of ColdBox
- ✦ What is ColdBox?
- ✦ Why ColdBox?
- ✦ Major ColdBox Parts
- ✦ Demos



History & Facts

- ✦ Did not start as open source
- ✦ Designed and built for a high availability application in 2005
- ✦ 1st Conventions CFML Framework
- ✦ 1st Release July 2006
- ✦ 21 releases since July 2006
Really? Yes, Really!
- ✦ Build in Progress is 3.1
- ✦ Over 57,000 downloads
- ✦ Large Development Community



Professional Open Source

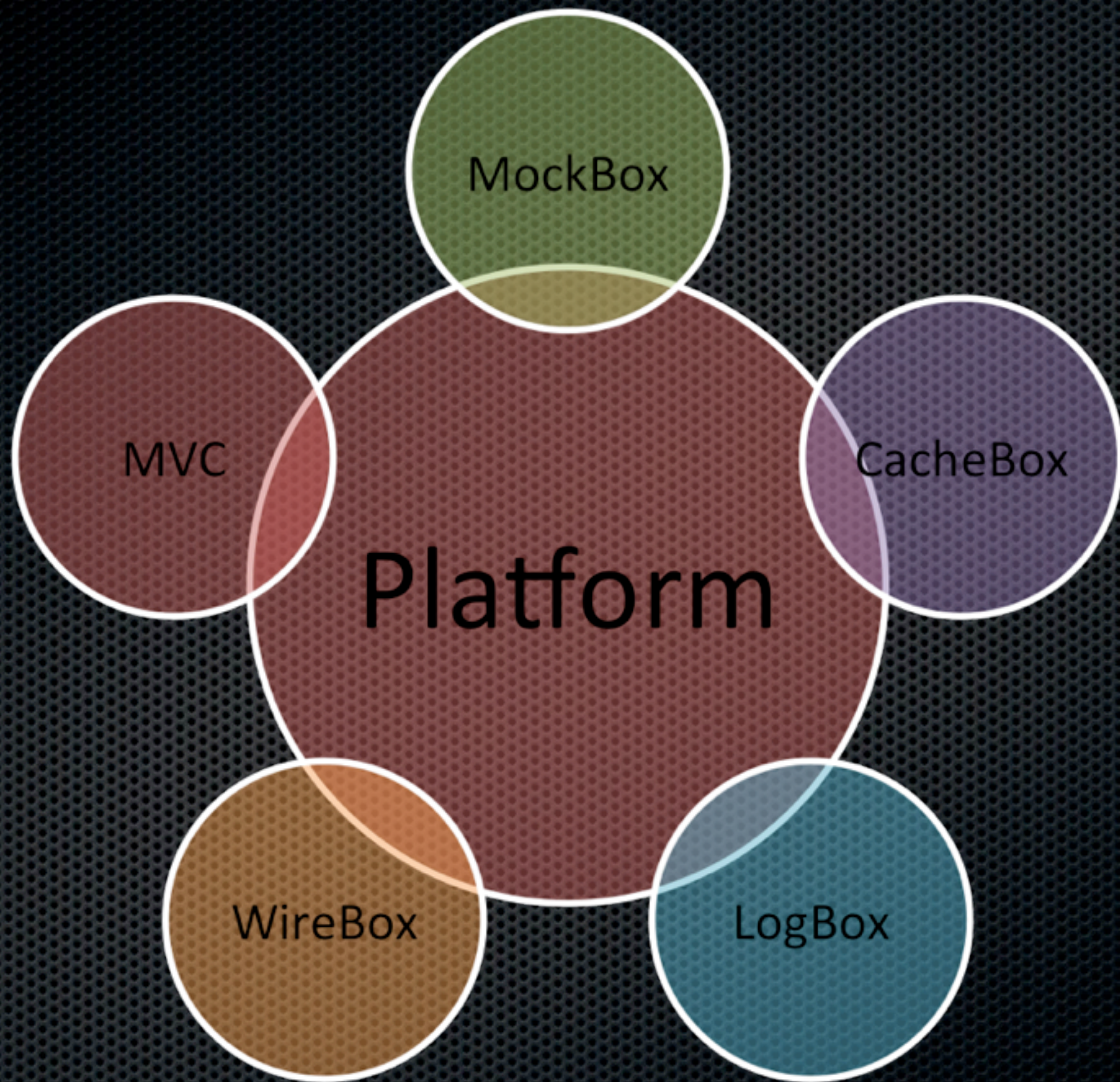
- ✦ **ColdBox Platform** is POSS
- ✦ Company backing and funding
- ✦ Professional Training Courses
- ✦ Books
- ✦ Support & Mentoring Plans
- ✦ Architecture & Design Sessions
- ✦ Code Reviews & Sanity Checks
- ✦ We can even brew coffee for you!



What is ColdBox?



That's where I put
my booze!!



“Address most infrastructure concerns of typical ColdFusion applications”

Why so many parts?

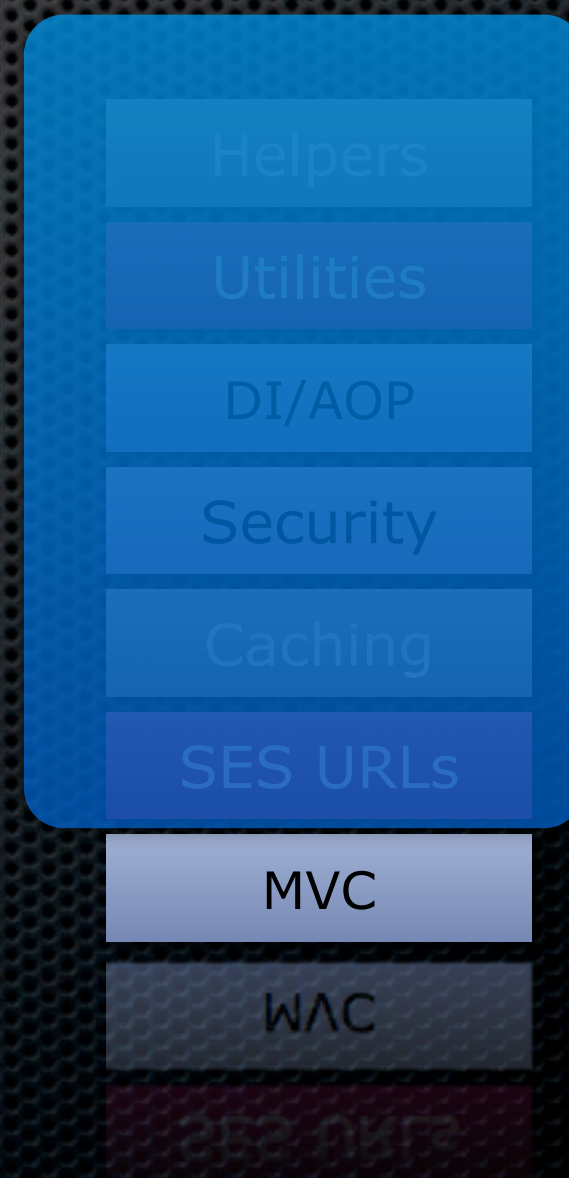


Hmm, good question!



How we build our apps?

- ✦ Usually start with a need for MVC
- ✦ Requirements > just MVC
- ✦ What about?
 - ✦ SES, Caching, DI, Extensions, Security, etc



So what do we do?

- Scrape for reuse or build it
 - Reinventing the wheel
 - Loose Time
 - Loose Patience
 - Loos Hair!



ColdBox To The Rescue



Modularity

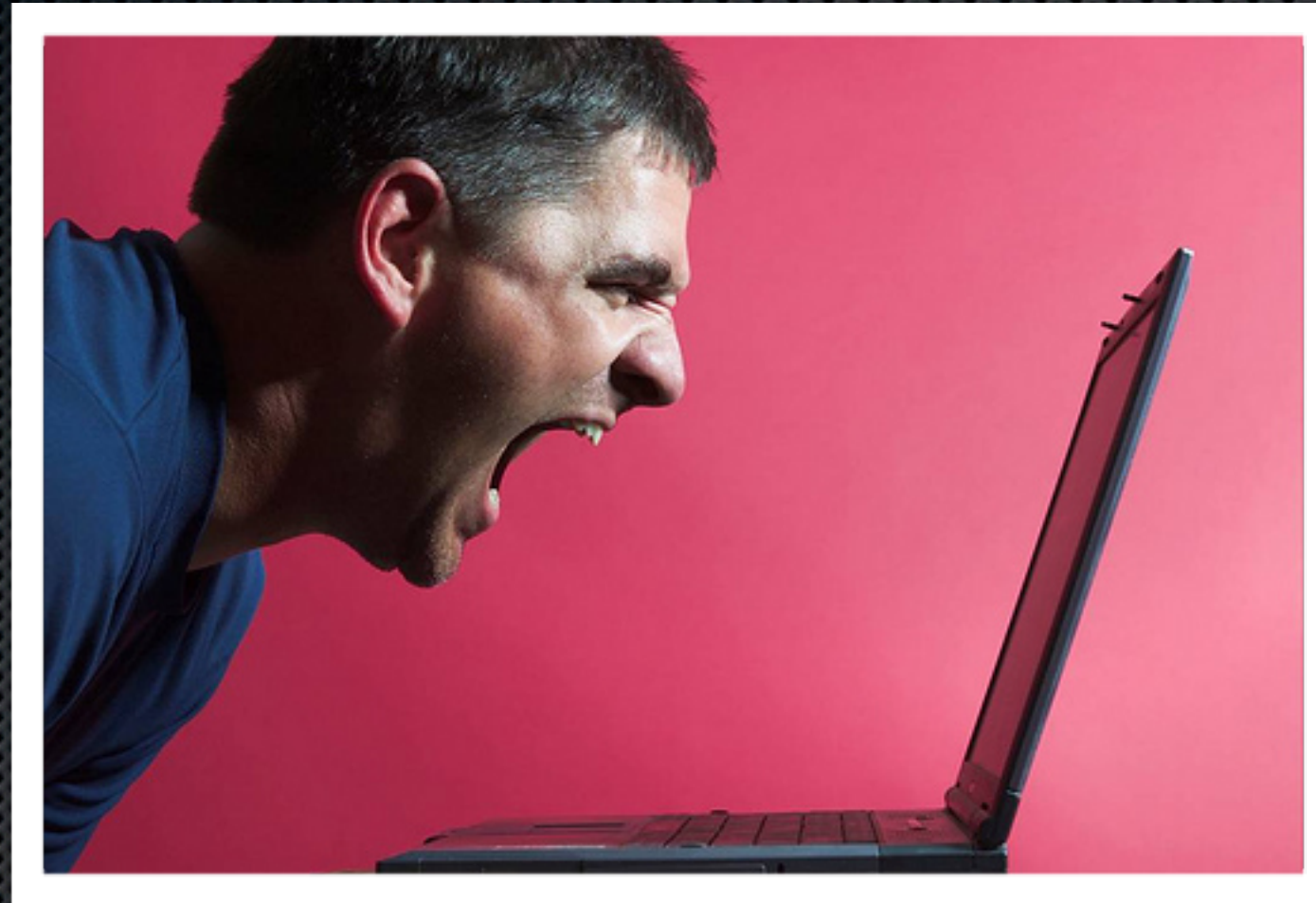
Extensibility

Utilities

Scalability

Flex/Air/
Remote

Debuggers



ColdBox

ColdBox

Let's Cover The Main Parts



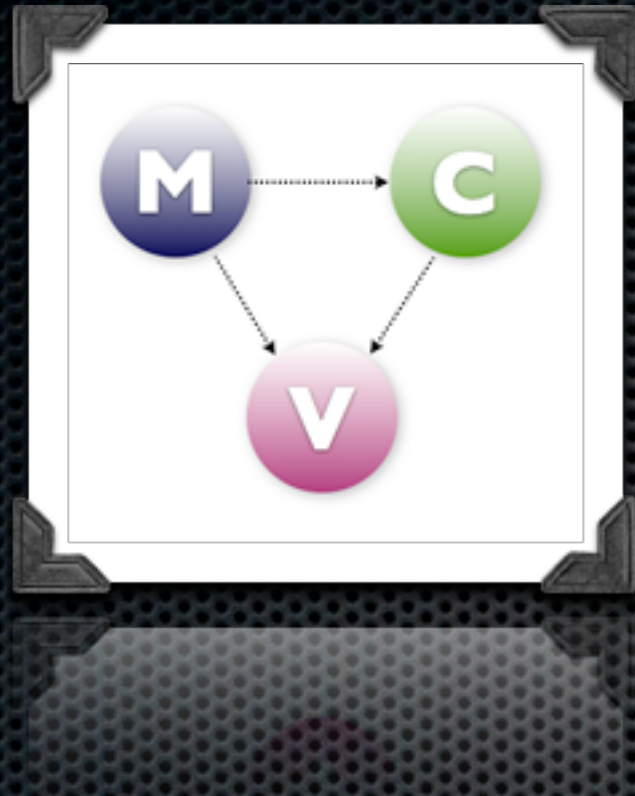
time for lunch?

From simple to guru

- ✦ Start with simple MVC
- ✦ Add more parts as your app evolves
- ✦ Pieces are brought on demand
- ✦ Use what you need
- ✦ Remember that software requirements ALWAYS change
- ✦ Plan ahead



Core MVC



- ✦ Conventions over Configuration
 - ✦ Events
 - ✦ Helpers
 - ✦ Views
 - ✦ Much More...
- ✦ RESTful services ready
- ✦ Plugin system available
- ✦ Layout engine built in
- ✦ HTML helper and generator
- ✦ Simplest app 2 folders and 3 files, really!

Code in CFML

```
1 <cffunction name="dspAddFeed" access="public" return
2   <cfargument name="Event" type="coldbox.system.be
3   <cfset var csPlugin = getPlugin("clientstorage")
4   <cfset var obj = "">
5   <cfset var rc = Event.getCollection()>
6   <!--- EXIT HANDLERS: --->
7   <cfset rc.xehAddFeed = "ehFeed.doAddFeed">
8   <cfset rc.xehNewFeed = "ehFeed.dspAddFeed">
9
10  <!--- Feed Validated? --->
11  <cfset rc.feedValidated = false>
12
13  <!--- Try to parse feed --->
14  <cfif Event.getValue("continue_button","") neq ""
15    <!--- Validate Feed --->
16    <cfif trim(len(rc.FeedURL)) eq 0 or not getP
17      <cfset getPlugin("messagebox").setMessage
18    <cfelse>
19      <cftry>
20        <cfset obj = getPlugin("ioc").getBea
21      <!--- Verify Feed in google feeds -->
```

- ✦ Simple CFCs
- ✦ Non-Intrusive, ColdBox is just an API
- ✦ New Event, New Function (Easy!)
- ✦ Drop And Play
- ✦ Flexible, Extensible and Reusable

Event Handler



```
component{

  // Dependencies
  property name="myService" inject;

  function index(event){
    event.setValue("welcome","Welcome to my awesome site");
    event.setView("main/index");
  }

  function sayHello(event){
    return "<h1>Hello Buddy!</h1>";
  }

  function renderJSON(event){
    event.renderData(data=myService.getData(), type="JSON");
  }

}
```


IDE-Debugging Tools



- ✦ ColdFusion Builder Extension
- ✦ Code & Tests generation
- ✦ Documentation Search
- ✦ Auto-Update
- ✦ Over 100 code snippets
- ✦ Code Insight
- ✦ Execution Monitors
- ✦ CacheBox Monitors
- ✦ Intercept Flex/Air/Ajax

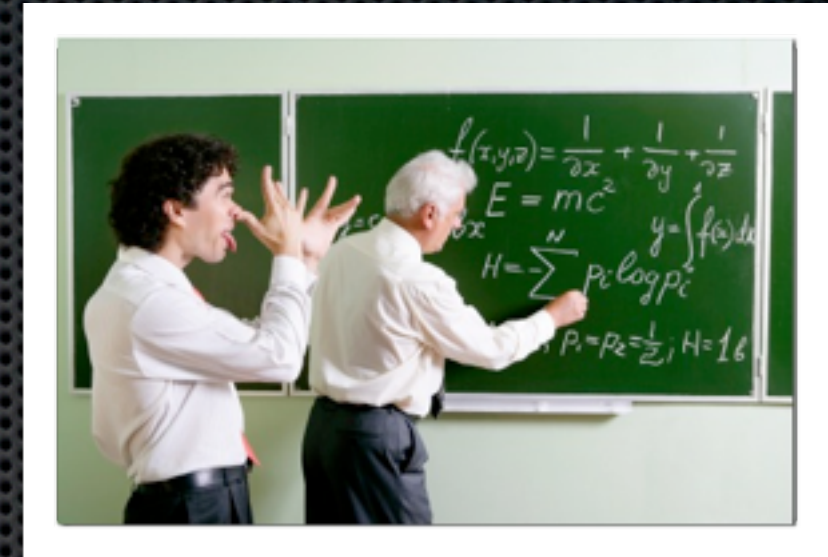
Framework Info: ColdBox 2.0.2 Philipians 3:7-11
Application Name: coldbox (production)
Memory: 24,834 KB / 47,948 KB (Free/Total)
Timestamp: Jul-11-2007 12:01:45 AM
Query String: fwreinit=1
Server Instance: jfetmac
Current Event: ehGeneral.dspHello
Current Layout: Layout.Main.cfm
Current View: vwHello

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]	...

Testing-Mocking Facilities

- ✦ Unit Testing via MXUnit
 - ✦ Plugins
 - ✦ Interceptors
 - ✦ Handlers
 - ✦ Model Objects
- ✦ Integration Testing & Automation
- ✦ Ability to simulate queries
- ✦ Mocking via MockBox
- ✦ Create stubs



Integration Testing



```
component extends="coldbox.system.testing.BaseTestCase" {

    function testIndex() {
        event = execute("general.index");
        assertEquals( "Welcome to my awesome site", event.getValue("welcome") );
    }

}
```

Model Testing

```
/**
 * @model myapp.model.MyService
 */
component extends="coldbox.system.testing.BaseModelTest" {

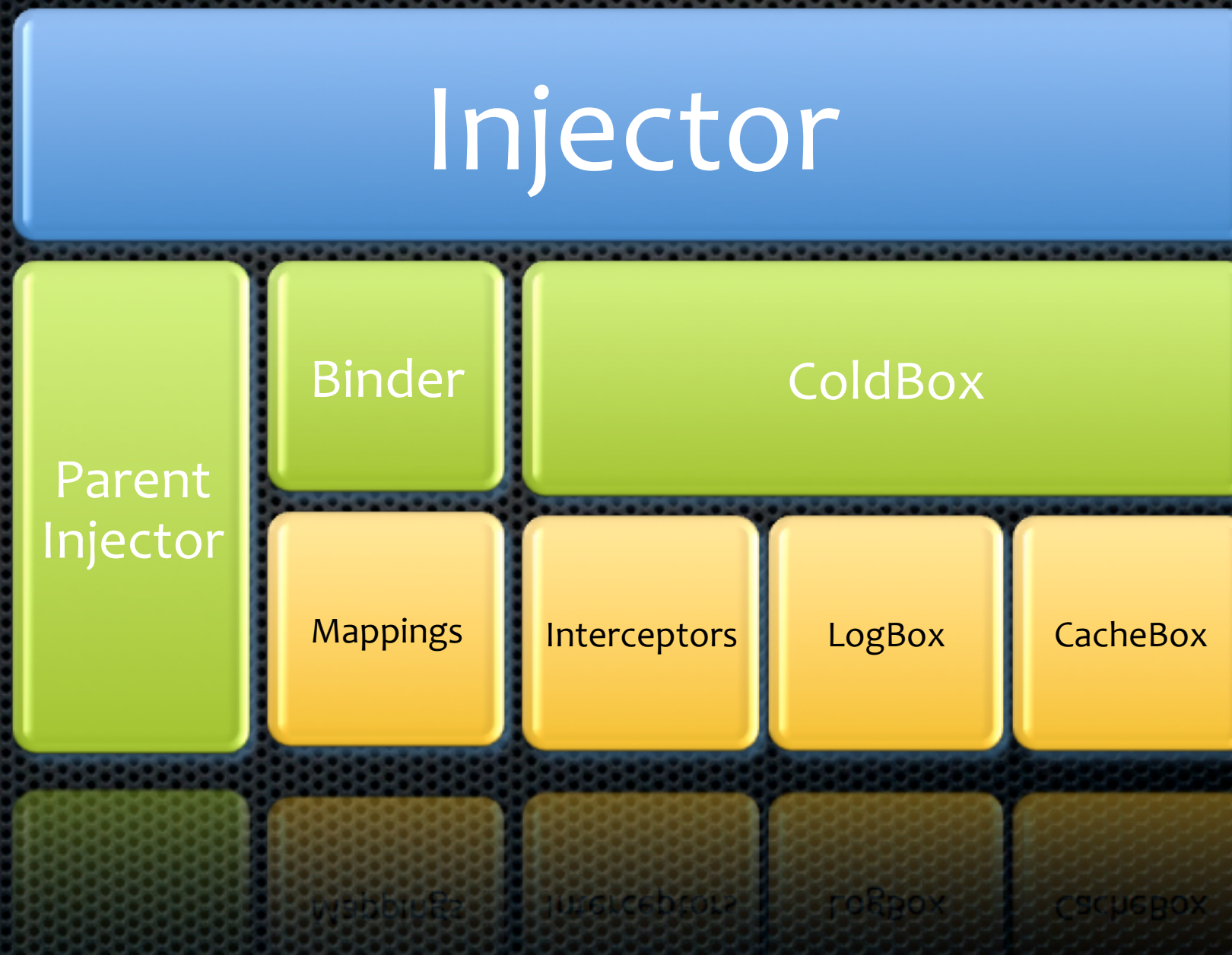
    function testGetData() {
        data = model.getData();
        assertTrue( data.recordcount );
    }

}
```


WireBox DI/AOP



Need dependency injection or Aspect Oriented Programming?

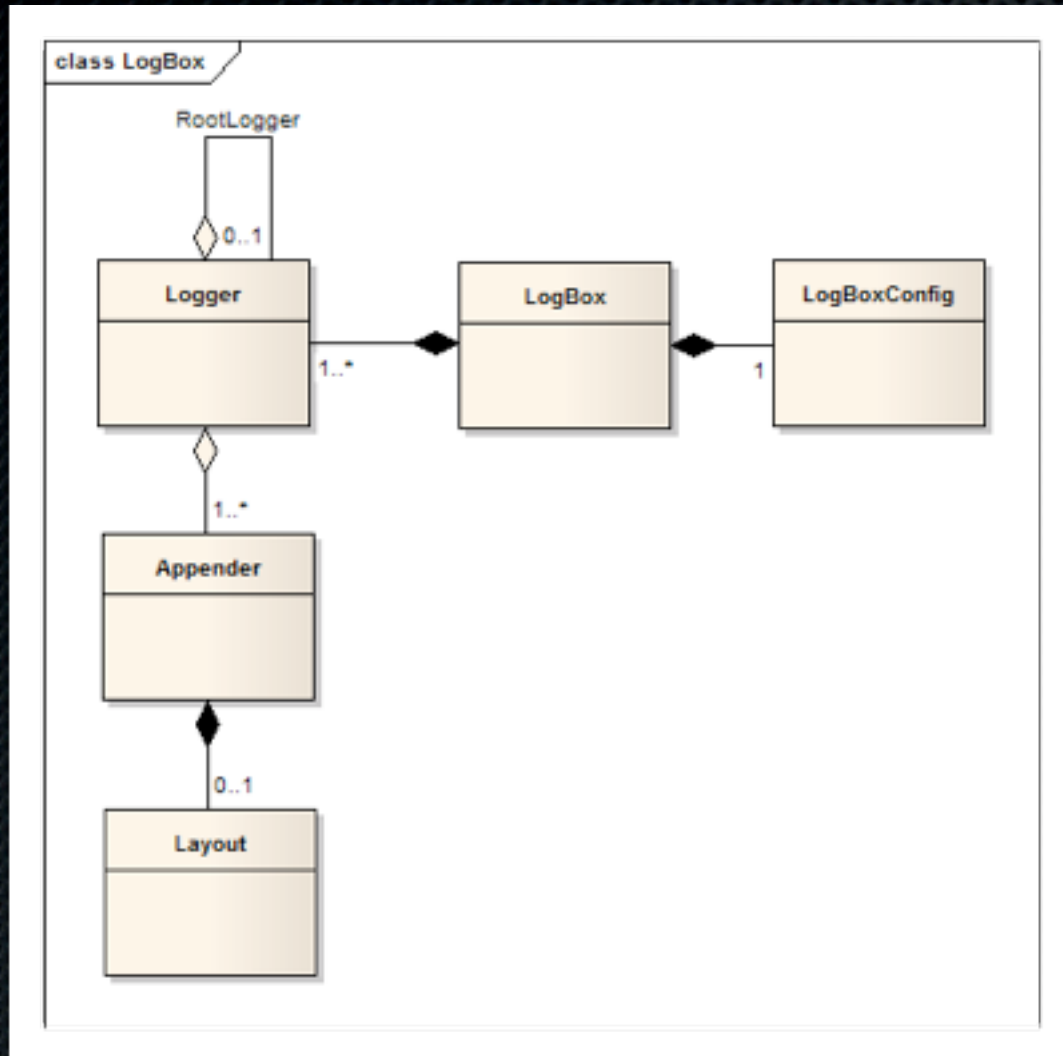


Features



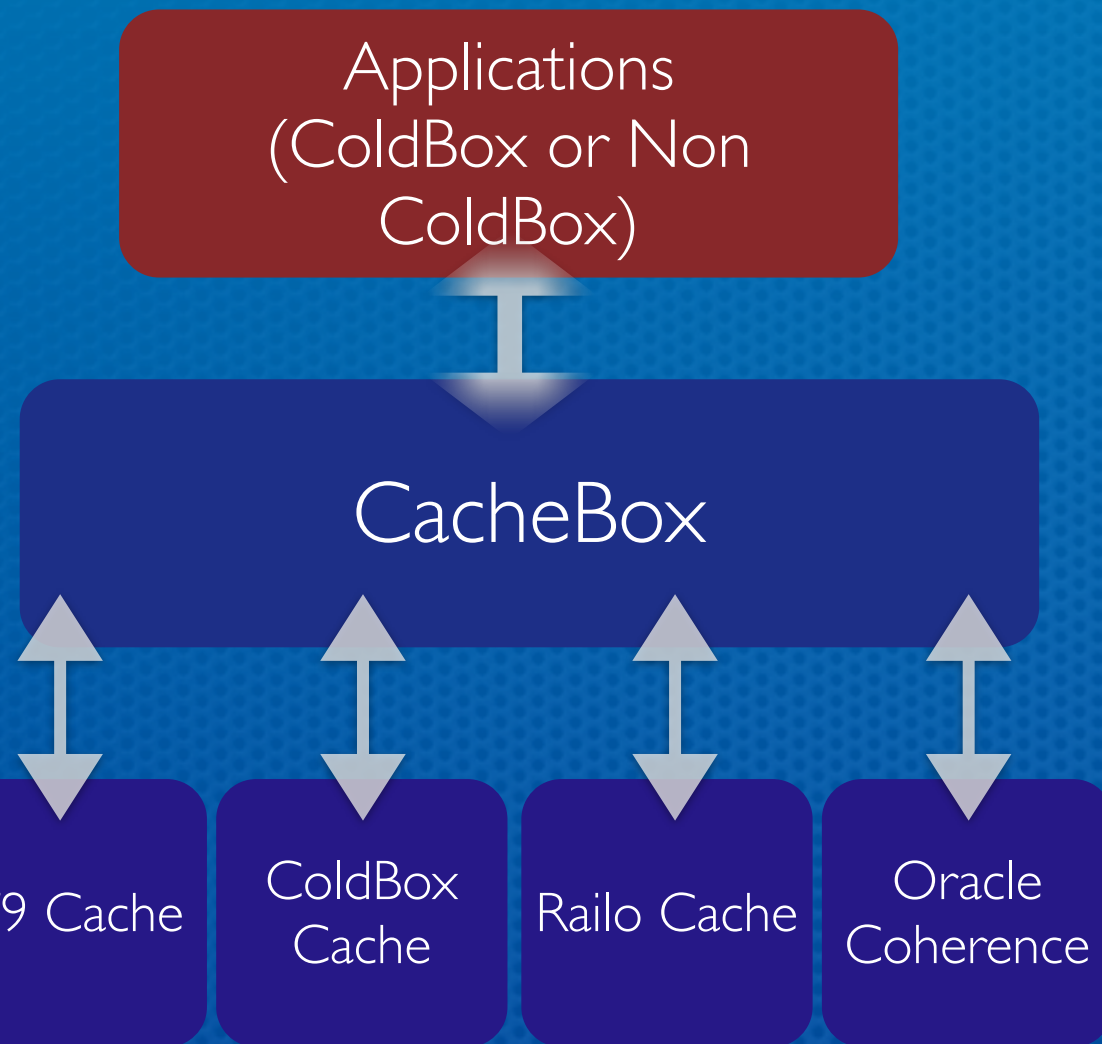
- ✦ Annotation driven DI
- ✦ 0 configuration or programmatic configuration mode (NO XML)
- ✦ Creation & DI of : CFCs, java, webservices, rss, constants, etc
- ✦ Multiple Injection Styles: setter, method, constructor, mixins
- ✦ Persistence scopes: singleton, session, request, cache, etc.
- ✦ Integrated logging via LogBox
- ✦ Parent Factories and adapters
- ✦ Object Life Cycle Events
- ✦ Automatic CF Scope registration

LogBox = Fun!



- ✦ Ready for the next step in logging?
- ✦ Enterprise Logging Library
- ✦ Inspired by Log4J
- ✦ 12 Appenders Included
- ✦ Extensible Appenders & Layouts
- ✦ Programmatic Configurations
- ✦ Category Inheritance

CacheBox



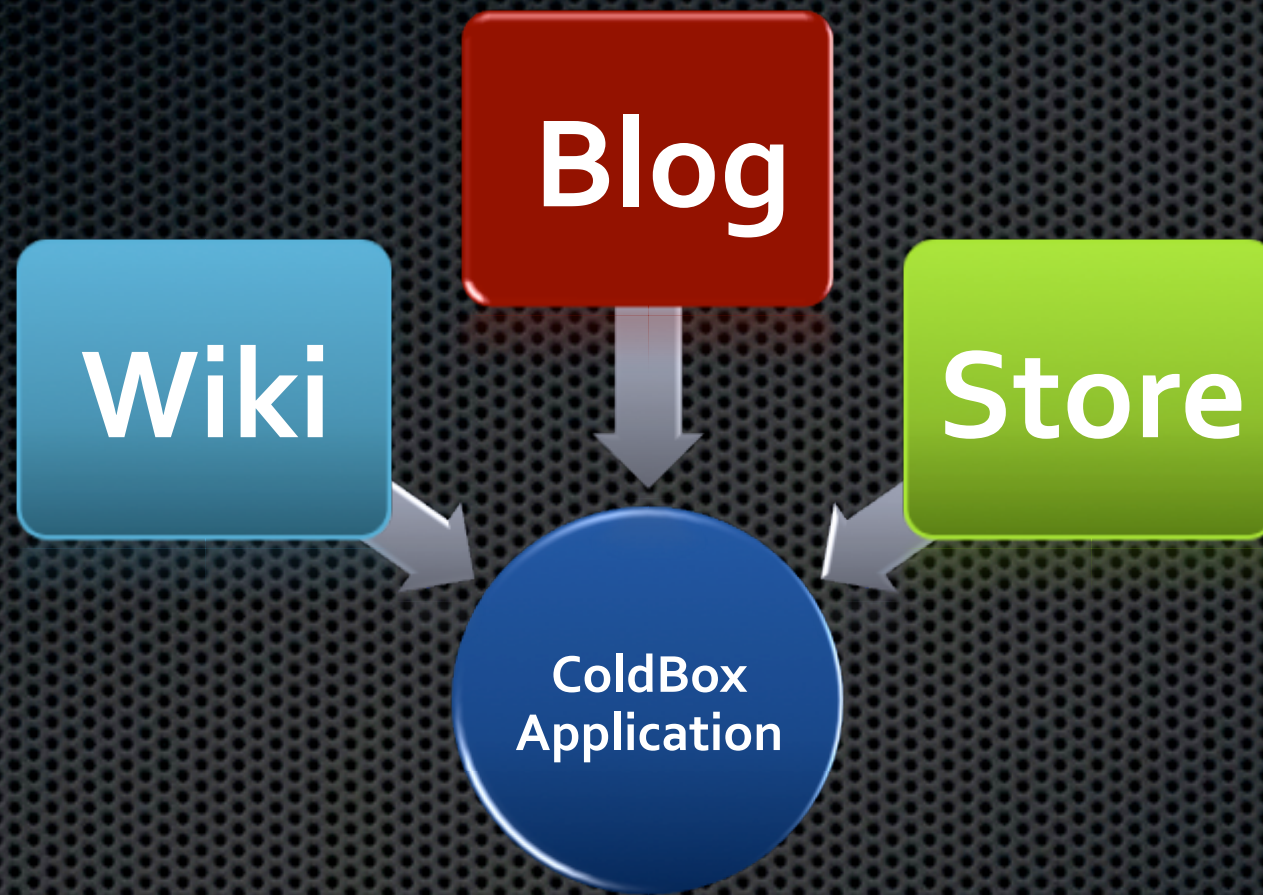
- ✦ Need enterprise caching?
- ✦ Cache Aggregator
- ✦ Cache Agnostic API
- ✦ Event Model
- ✦ Stats, Reports
- ✦ Interactive Console
- ✦ Memory aware
- ✦ Event-View Caching
- ✦ Use if needed

Beyond the basics!



There's more?

ColdBox Modules



- ✦ Modular Architecture instead of monolithic applications
- ✦ Drop and play: Conventions Baby!
- ✦ Module API for dynamic modules
- ✦ Standalone or module applications

Module Service API



ColdBox Modules

Reload All Unload All

Below you can see the loaded application modules.

Module	Author	Version	V.P.L	L.P.L	Load Time	CMDS
My Test Module A funky test module <i>No Entry Point Defined</i>	Luis Majano	1.0	Yes	Yes	May-24 01:30:07 PM	Unload Reload
ForgeBox A module that interacts with forgebox Open Module Entry Point	Luis Majano	1.0	Yes	Yes	May-24 01:30:07 PM	Unload Reload

* V.P.L = View Parent Lookup Order
* L.P.L = Layout Parent Lookup Order

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ORM



- ✦ Base service layers
 - ✦ GORM inspired
 - ✦ More functionality than what CF exposes
 - ✦ Caching
 - ✦ Hibernate criteria queries and projections (Mike McKellip Rocks!)
 - ✦ Hibernate metadata
- ✦ Virtual service layers binded to entities
- ✦ Annotation based hibernate transactions (AOP)
- ✦ Hibernate interceptors to ColdBox interceptors bridge

RESTful Web Services

- ✦ Easy creation of RESTful services
- ✦ Advanced URL Routing and Mappings
- ✦ RESTful actions: `action={get='list', post='create'}`
- ✦ Extension detection and configuration
- ✦ HTTP Method Security
- ✦ HTTP Basic Authentication
- ✦ Header/Content Helpers
- ✦ Auto marshalling of data: json, xml, wddx, custom
- ✦ ColdBox Relax

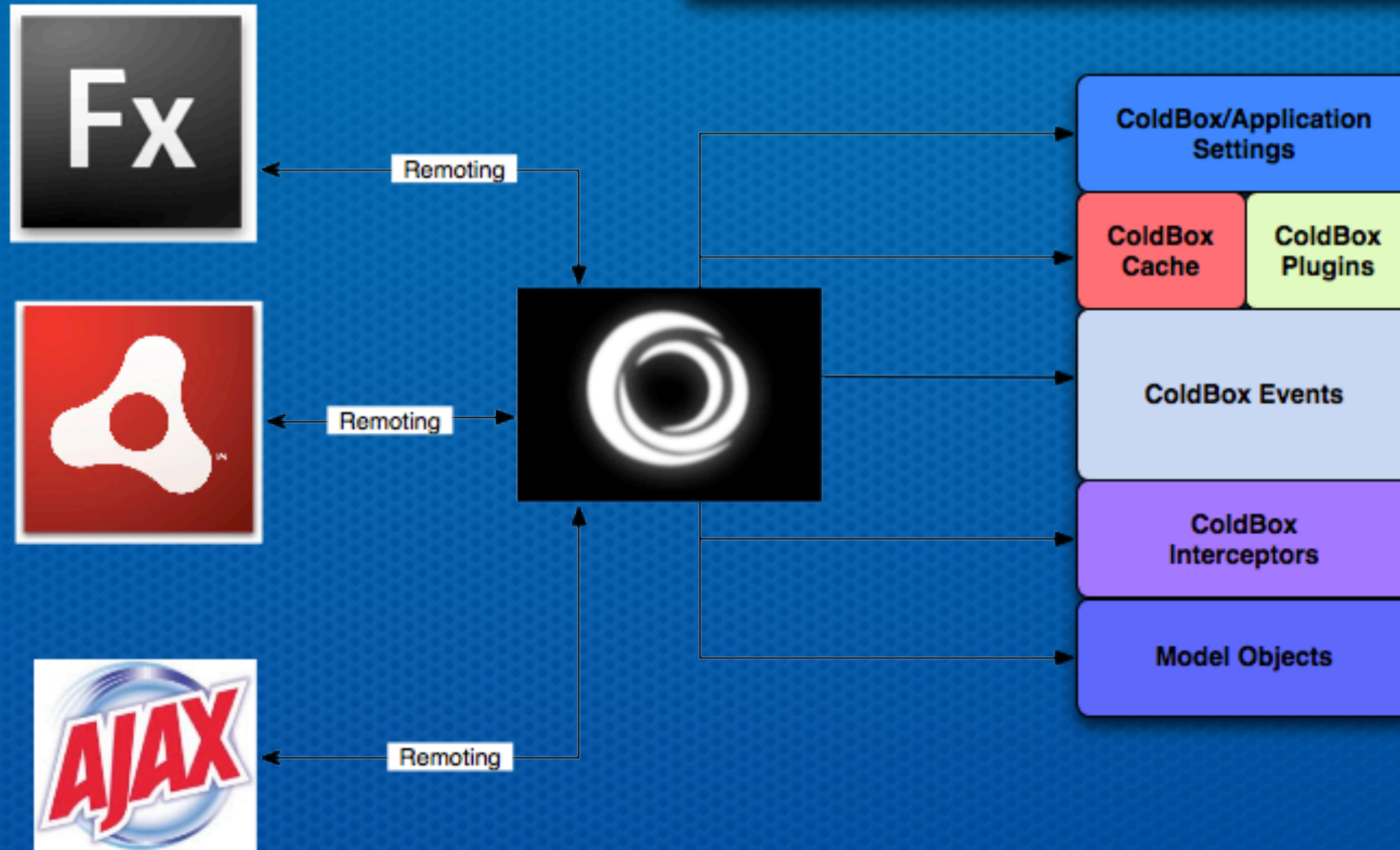


Flex/Air/Remote Integration



ColdBox Remote Proxy Event-Driven Remote Framework

The ColdBox Proxy allows for remote calls to be executed into ColdBox's event model. Once inside the ColdBox events, you can tap into any resource the framework provides you. You can even know when a remote call is executing or an HTML call. ColdBox becomes an event driven remote framework, no more MVC.



"One development framework - ANY GUI interface"

Beyond The Basics

- Several useful tools and plugins (Load when needed)
 - XSS Cleanup Tools
 - JavaLoader integration
 - ColdBox Security
 - ColdBox Tier Deployment Tools
 - JVM,File,Date Utilities
 - Storage Facades
 - Feed Helpers
 - HTML Helpers
 - i18n & Localization
 - Etc.



COLDBOX



Demo



ColdBox Resources

- ✦ Official Site
 - ✦ www.coldbox.org
- ✦ Documentation
 - ✦ wiki.coldbox.org
- ✦ Google Group
 - ✦ groups.google.com/group/coldbox
- ✦ Training
 - ✦ www.coldbox.org/training
- ✦ Professional Support
 - ✦ www.ortussolutions.com



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Q & A



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