Continuously Improve CF Code Quality, Server Availability & Application Stability

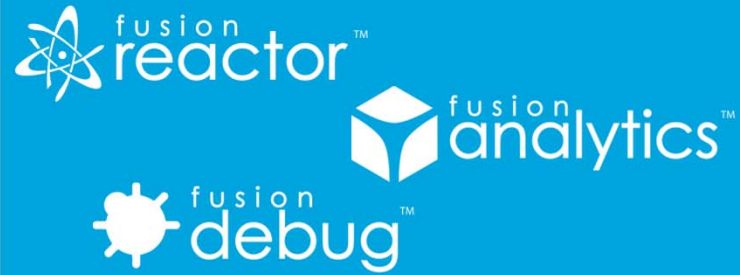**fusion reactor**™

fusion analytics™

fusion debug™

Charlie Arehart

Independent Consultant
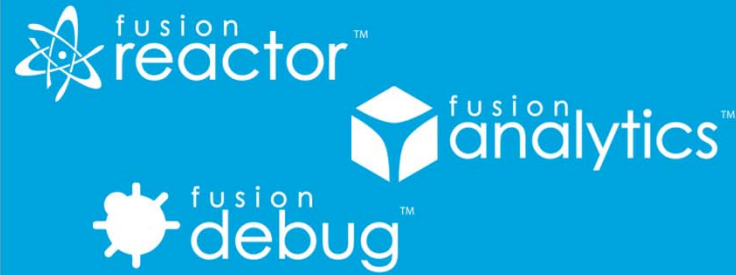
charlie@carehart.org

- To those viewing these slides who did not attend, note that the bulk of the presentation was live demos
  - For more information on the tools and techniques shown, see the offered URLs

Topics

- The CF Troubleshooting Spectrum
- A Suite of Tools to Help
  - FusionReactor 4
  - FusionAnalytics
  - FusionDebug 3.5
- Where to learn more

CF Troubleshooting Spectrum

- We have a range of problems to solve…
  - Some related to code, many related to server
  - Can affect availability, reliability
  - Some are apparent, some less obvious
  - Proper tools/diagnostics are vital
  - Need to find/resolve issues continuously
    - And continuously improve stability, quality, etc.

A Suite of Tools to Help

- Intergral offers three new or improved tools to help with this spectrum of challenges
  - Server Monitoring, Crash Protection, and more for CF/Railo/OpenBD/Any JEE server
    - FusionReactor 4 (now available)
  - Server Analytics (powerful request/resource analysis)
    - FusionAnalytics (now available)
  - Interactive Step Debugging for CF/Railo
    - FusionDebug 3.5 (Nov '10)
- Enough slides, let's see demos

Follow-up to Demos

- Some more points of consideration

New in FR 4

- FRAM
  - Separate server to install/watch monitored server(s)
  - Available with both FR Enterprise and Standard
- FREC: logging of key CF metrics
- Centralized archiving and logging

- Java memory spaces (heap/young/tenured/eden/permgen/codecache/more)
- AMF dissector (request and response)
- CPU Threading
- Plugin architecture
- And more

FR Updates

- Note that FR has been updated to 4.03
  - Various updates, some important
  - See complete list at KB 251:
    - http://www.fusion-reactor.com/support
- Coming tablet interface
  - Enterprise Dashboard

Why FusionAnalytics?

- Comprehensive analytics tool, ranging from per query/request to per hour/day/month/year/decade
- Help developers tune individual applications
- Help troubleshooters understand hotspots, trends
- Help managers observe reliability/performance, facilitate resource planning (memory, cpu, etc.)
  - Daily reports, sent by email or viewable online
  - With less technical perspective but measurable, actionable

FA Extensibility

- **First version is FA for FusionReactor (FA for FR)**
  - Processes FR logs
    - from CF, Railo, BD, any JEE server
    - Some features are only CF-specific for now
  - Provides powerful analytics for request, database, resources, other processing within server
  - Over 130 views, 300 metrics
- **FA is very extensible**
  - You can add new reports/visualizations
  - You can analyze any logs
  - Tool will evolve over time, users may contribute to it

Key FA for FR Features

- Analyze requests, database processing, memory, CPU
  - From per millisecond out to per decade
- Analyze hot-spots (memory, CPU, request, database)
- Analyze CF stats (hitcounts, scopes, DB pool stats)
- Analyze by application (or framework type)
- And much more (and more to come!)
- Daily Status and TAP Reports

Why FusionDebug?

- Why use FusionDebug when CF includes step debugging?
  - FD does not require use of RDS in CF
  - FD adds debugging features not in CFBuilder
  - FD is much faster stepping through code than CFBuilder (and Java!)
  - FD can work alongside of or within CFBuilder
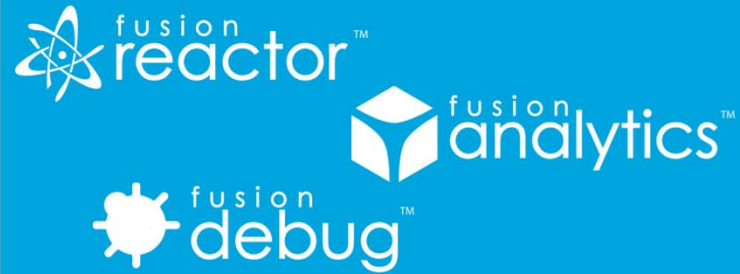 - FD can debug Railo requests, CFBuilder cannot

New in FD 3.5

- **New in 3.5**
  - Option to fire breakpoints only per a given IP address list
    - CFBuilder debugs whatever user requests a debugged page first
  - Supports Eclipse 3.2 to 3.6 (Helios)
  - And more
- **Note that 3.01 had added:**
  - HitCount, AutoStep ("FDTV")
  - Support for CF 9, integration with CFBuilder
- **And so much more that it's always done!**

Learning More About All 3

- Many resources online
  - http://www.fusion-reactor.com
  - http://www.fusion-analytics.com
  - http://www.fusiondebug.com
- Resources include
  - Documentation (installation, user guides), articles
  - Live demos
  - Videos, webinars (recorded and live)
  - And more

Getting Support

- Mailing lists (community and product teams)
  - http://groups.google.com/group/fusionreactor
  - http://groups.google.com/group/fusionanalytics
  - http://groups.google.com/group/fusiondebug
- Free install support by email
  - And available commercial support
  - Both at product web sites
- Available consultative help
  - http://www.cfconsultant.com

Intergral is an Adobe Partner

- Looking for a ColdFusion license?
- Looking for upgrade to CF Zeus?
  - Upgrade to 9 with Platinum support
- Interested in other Adobe products?
- Let's hear from David Tattersall, CEO
- More at sales@fusion-reactor.com

Conclusion

- We have a range of problems to solve
  - Some in code, many in configuration
  - Proper tools/diagnostics are vital
  - Need to find/resolve continuously
- A suite of tools to help
  - FusionReactor 4
  - FusionAnalytics
  - FusionDebug 3.5
- Questions? See support resources