MONITOR, TROUBLESHOOT & PROTECT YOUR CF/RAILO SERVERS WITH FUSIONREACTOR 5

Charlie Arehart
Independent Consultant

charlie@carehart.org / @carehart
INTRODUCTION

• With only about 50 minutes, with time for questions, can’t cover everything
  • Two primary goals
• Why I use FusionReactor and help people use it daily
  • And why I think everyone using CF and Railo should be
• For those already using it, why you want to move to FusionReactor 5
  • What’s new, different, and better
• Note: this is a “sponsor session”
ABOUT INTERGRAL

- Intergral GmbH, founded in 1998
- Privately and jointly owned by
  - David Tattersall (CEO)
  - Darren Pywell (CTO)
- Headquarters located in the Technology & Business Park, Stuttgart, Germany
  - Other offices in UK (Intergral Ltd. - 2008), USA (Intergral Inc. – 2011)
- Global customer base – 3500+ customers
- Frequent sponsor, contributor to CF events around the world
WHY USE FUSIONREACTOR

• A few key points before live demo…
• More than just a monitor
  • Can watch what's going on now as well as historically
    • In interface and in substantial logs
  • FR can automatically watch for when certain common problems arise
    • Can alert you and even possibly protect server
  • Can view details of currently running request down to line of code
  • All this is vital to understanding real nature of problems
WHY USE FUSIONREACTOR (CONT.)

- Can monitor running request details, as well as queries, memory, cpu and much more
  - Can monitor any query processing: not just cfquery, cfstoredproc, but ORM, etc.
- Options to attempt to kill requests, via interface or automatically via alerts
- FR is intended for use constantly on production servers
- Can monitor more than just ColdFusion: including Railo, OpenBD
  - As well any JEE server or Java app, including Solr
- Low-cost license is per server (physical or virtual)
  - One license needed for all app servers/instances on a server
DEMOS

- Monitoring running requests
- Monitoring request history
  - Recent, longest-running since startup, recently slow, and by return code
- Leveraging logs (for postmortem and more details)
- Stack Traces
- Alerts
- Enterprise Dashboard (web, AIR, and mobile)
- Still many more features, but no time to cover them all
FOR MORE INFO ON FR...

- We’ll next explore specifically what’s new in FR 5+
- Goal to this point has been to encourage you to explore, purchase
  - Can find more info at fusion-reactor.com, or at Intergral booth here at conference
  - Can also hire them (or myself) to help use it, solve problems with it
    - cfconsultant.com
WHAT’S NEW IN FUSIONREACTOR 5

• Am now talking to those using FR, or who knew about it, but as FR 4 or earlier
• Will cover first main improvements in FR 5
• Then various key improvements in subsequent 5.0.x, 5.1, 5.1.x releases
  • We have our work cut out: 9 slides worth of improvements!
WHAT’S NEW IN FUSIONREACTOR 5

• Main improvements
  • No longer based on Flash, but HTML 5 instead
    • Also general overall UI improvements, reorganization
    • Some pages have context menu in top right (i.e., Requests>Response Codes)
  • FR now java agent-based, as opposed to previous servlet filter-based
  • You no longer need to wrap datasources: FR now automatically monitors all DSNs
  • New User Experience Monitoring tracking
  • New licensing portal: easier activation/deactivation/transfer of licenses among machines
WHAT’S NEW IN FUSIONREACTOR 5 (CONT.)

• Other improvements
  • Each page now has own URL (can use browser refresh to reload, can bookmark, etc.)
  • Can now display info back to a week (or CF restart, whichever comes first)
  • “History” pages now each keep their own detail history!
    • recent, longest-running since startup, recently slow, by return code, etc.
  • Pages with errors now show error details within request details
  • Can track CF sessions within FR
WHAT'S NEW IN FUSIONREACTOR 5 (CONT.)

- Other improvements (cont.)
  - Can track details of cfhttp, web service invocations (as “transactions” in FR)
  - Can track heap/non-heap memory, gc's, classloading, and more
  - Option to track user's ip address based on x-forwarded-for
    - (as when passed from load balancer)
    - See Requests>Settings>Proxy>Proxy Header
  - Option to track user-agent in request log
  - Option to download logs via FR UI
WHAT’S NEW IN FUSIONREACTOR 5 (CONT.)

• Other improvements (cont.)
  • Custom metrics (Metrics>Custom Series)
  • Customizable metrics dashboard (see gear icon on Web Metrics graphs)
  • Crash protection settings improved
    • On running request and memory alerts, can optionally trigger “after x seconds"
    • On memory alert, can optionally do a garbage collection
  • Profilebox (ColdBox-specific integration, offering lower levels of detail within request)
  • And still more
WHAT’S NEW IN FUSIONREACTOR 5 (CONT.)

• Added in 5.0.8
  • Support for tracking details within requests such as cflock time
    • See http://www.fusion-reactor.com/support/kb/frs-325/
  • And more

• Added in 5.0.9
  • Daily Report email
  • UEM tracking now per request
  • Change to not log queries unless FA connector enabled
  • Change to track query location only for queries taking longer than 100 ms by default
WHAT’S NEW IN FUSIONREACTOR 5 (CONT.)

• Added in 5.0.9 (cont.)
  • Improvements for running on IE 8
  • Fixed problem of filepaths reported without slashes in CP alert emails
  • Fixed problem of aggressive UI caching
  • Tracking of query of queries disabled by default
  • and still more
WHAT’S NEW IN FUSIONREACTOR 5 (CONT.)

• Added in 5.1.0
  • Considerable usability enhancements for instance manager wizard
  • Restored ability to manage multiple instances at once (such as to update)
  • Fixed UI problems with "test email" functionality in FR settings page
  • Fixed text-wrapping display problems on lower resolution monitors
  • Now possible to configure time at which daily report runs
  • Better wording when referring to jdbc activity (transactions vs requests)
  • By default, JDBC logging is disabled
WHAT’S NEW IN FUSIONREACTOR 5 (CONT.)

• Added in 5.1.0 (more)
  • Users can configure proxy settings for licensing/activation
  • CP alert now lists running queries in any running request (listed at end of line in summary of running requests)
  • CP alert now shows content-length for a request (if available)
  • CP alerts now have option (if killing requests) to do so without checking for ownable synchronizers (optionally)
• Support for CF11
• And still more
WHAT’S NEW IN FUSIONREACTOR 5 (CONT.)

• Added in 5.1.1
  • No longer need license key to use instance manager for adding/removing instances
  • And more
• Added in 5.1.2
  • Support for Windows Server 2012 R2
  • And more
• Phew!
  • You can see that the guys are active about keeping FR updated!
CONSIDER ALSO FUSIONANALYTICS AND …

• Focus of talk has indeed been FR, and its interface (and logs and alerts)
  • But what if you want to analyze information over weeks, months, years?
  • Or in more ways than FR currently provides in interface (but does log)?

• FusionAnalytics is another solution from Intergral
  • For more, see fusion-analytics.com
    • live demo, docs, online videos, discussion list and more

• For better, faster interactive step debugging through CFML code, consider FusionDebug
  • See fusion-debug.com

• And there is coming yet one more new product from Intergral…
SUMMARY

• Again, had two primary goals
  • Introduce it to those new to it, to appreciate how useful it can be
  • Provide updated info for those who’ve used FR4 or below
    • Or maybe have moved to FR 5 and did not realize all that was new!

• Again, can find more info at fusion-reactor.com, or at Intergral booth here at conference
  • Docs, technotes, videos, blog, discussion list, live demo, and more

• Don’t struggle with understanding how to install, use, solve problems with FR
  • Search, read, ask (support@fusion-reactor.com or the discussion list, or me)