

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

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# INTRODUCTION

- About Intergral
- Show 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, show why you want to move to FusionReactor 5
  - What's new, different, and better

## ABOUT INTERGRAL

- Intergral GmbH, founded in 1998
- 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...
  - Speaking here both to those new to it and those who may have used it for years
- 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, etc.
- Low-cost license is per server (physical or virtual)
  - One license needed for all app servers/instances on a server
  - Available 14-day free trial

# 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](http://fusion-reactor.com)
  - Can also hire them (or myself) to help use it, solve problems with it
    - [CFConsultant.com](http://CFConsultant.com)
    - [CArehart.org/consulting](http://CArehart.org/consulting)

## 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.x, 5.2.x releases
- We have our work cut out: 11 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 5.0.1-4
  - Mostly just bug fixes
- Added in 5.0.5
  - Added support for Garbage Collection in Crash Protection alerts
  - Added detection of Solr for CF10 in Instance Manager
  - And more
- Added in 5.0.6
  - Added support to track CF sessions (see Metrics>Custom Series)
  - Better support of IE 8 in the FR HTML5 interface
  - And more

## WHAT'S NEW IN FUSIONREACTOR 5 (CONT.)

- Added in 5.0.7
  - Mostly just bug fixes
- 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
  - And ...

## WHAT'S NEW IN FUSIONREACTOR 5 (CONT.)

- Added in 5.0.9 (cont.)
  - Change to not log queries unless FA connector enabled
  - Change to track query location only for queries taking longer than 100 ms by default
  - More 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
- Added in 5.1.3
  - Performance improvement when using FR Crash protection

## WHAT'S NEW IN FUSIONREACTOR 5 (CONT.)

- Added in 5.2.0
  - Yeah! They added cols for avg time for RUNNING Req and JDBC requests in resource log
  - Request/Transaction Activity and History table sorting improvements
  - Added support for Java 8
  - And more
- 5.2.1-3
  - Just some bug fixes
  - Important one for 5.2.3, if using Java 1.7 and ColdFusion JDBC drivers
- Phew!
  - You can see that the guys are active about keeping FR updated!
  - More details in release notes at <http://www.fusion-reactor.com/support/kb/frs-314/>

## 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](http://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](http://fusion-debug.com)
- And there is coming yet one more new product from Intergral...

# FUSIONREACTOR CLOUD

- New implementation of FusionReactor
  - Brief explanation
  - Quick demo
  - Not available yet
  - See booth here at CFCamp for more info and extended demo

## GETTING HELP

- Again, can find more info at [fusion-reactor.com](http://fusion-reactor.com)
  - 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](mailto:support@fusion-reactor.com) or the discussion list)
  - [CFConsultant.com](http://CFConsultant.com)
  - [CArehart.org/consulting](http://CArehart.org/consulting)

## 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!
  - Did I achieve my objective?
  - Thank you, and enjoy the rest of the conference