

HIDDEN GEMS IN FUSIONREACTOR 6

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- ▶ In this talk, we'll uncover hidden gems of FR 6
 - ▶ We have another talk with hidden gems in FR that are NOT new to 6
 - ▶ This talk is not "all that's new in FR6"
 - ▶ We'll cover here both some new (but not highlighted) features AND "hidden gems"
- ▶ Session is being recorded
 - ▶ Link to that and these slides will be shared with those who registered
- ▶ Let's start with a couple of quick polls

HOPING YOU LEARN A TON

- ▶ Remember, FR can be used with any CFML engine
 - ▶ ColdFusion, Lucee, Railo, BlueDragon
- ▶ Or any Java application or server
 - ▶ Tomcat, JBoss, Wildfly, Jetty, WebSphere etc.
 - ▶ Or java applications: Solr, Confluence, etc.
- ▶ And is a low-cost, low-impact, reliable tool
 - ▶ Trusted for over 10 years by thousands of companies (over 30K servers world-wide)

QUICK POINTS ABOUT FR

- ▶ Charlie Arehart, independent consultant
 - ▶ Focused on CF server troubleshooting, primarily
 - ▶ Also helping those using Railo, Lucee, or JEE app servers
- ▶ Have served clients through my own consulting for 10 years (CArehart.org)
 - ▶ But also provide Intergral consulting (cfconsultant.com)
 - ▶ As well as FR training and occasional assistance with FR support

WHO AM I?

- ▶ Two key new major features we'll introduce but won't detail here
 - ▶ Other resources (including videos) do highlight these in more detail
- ▶ Both offered only in new "Ultimate Edition"
 - ▶ Production Profiler
 - ▶ Production Debugger

MAJOR NEW FR 6 FEATURES

- ▶ Low overhead Production Profiler
 - ▶ Lets you see where the most time is spent within a request
 - ▶ Tracked automatically for requests slower than 3 second (by default)
 - ▶ Samples at 200ms intervals (by default). Both values can be changed
 - ▶ More:
 - ▶ fusion-reactor.com/production-java-profiler/
 - ▶ fusion-reactor.com/evangelism/introducing-fusionreactors-production-java-profiler/
 - ▶ docs.intergral.com/display/FR62/Profiler
- ▶ ...

KEY NEW FEATURES IN FR 6

▶ Production Debugger

- ▶ Lets you interactively step through code, view and change variables
- ▶ All without bother of setting up an IDE
 - ▶ And yet totally safe for even PRODUCTION use! (Patented)
- ▶ Includes options to trigger emails (with details), break on exceptions, conditions, and more
- ▶ More:
 - ▶ fusion-reactor.com/production-debugger
 - ▶ Videos: fusion-reactor.com/videotuts/?filter=prodDebug
 - ▶ www.fusion-reactor.com/latest-fr-document.php?type=debug
 - ▶ docs.intergral.com/display/FR62/Debug+Examples

KEY NEW FEATURES IN FR 6 (CONT.)

- ▶ On more thing only in Ultimate (AND Enterprise) editions: System Resources
 - ▶ Via *System Resources* option on left
 - ▶ Track system CPU, memory usage, network traffic and disk I/O
 - ▶ Track all running processes in OS
- ▶ Rest of items are in all license editions, unless indicated otherwise
- ▶ ...

OTHER NEW FR 6 FEATURES

- ▶ Applications view (*Requests>Applications*)
 - ▶ View breakdown of requests, within a selected application
 - ▶ Tracking count, total/ag duration, total/avg memory, total/avg cpu of requests
 - ▶ per last 1/10/30 minutes, last hour, since restart
 - ▶ Great for finding where most resources are being used, per aggregate of requests
 - ▶ More:
 - ▶ fusion-reactor.com/news/announcing-fusionreactor-6-2/

OTHER NEW FR 6 FEATURES (CONT.)

- ▶ CF Metrics and CF System Metrics
 - ▶ Track CF metrics like db pool stats, template cache size, query cache size, more
 - ▶ Some values shown only if CF Enterprise Svr Mon features enabled
 - ▶ Via *Metrics* option on left
- ▶ ...

OTHER NEW FR 6 FEATURES (CONT.)



- ▶ Memory use now tracked PER request, query, transaction
 - ▶ Viewable in request/query/trx details, and new *Requests>Req. by Mem*
 - ▶ Do beware, is total mem used over life of request (not peak at any one time)
 - ▶ More: www.fusion-reactor.com/evangelism/Transaction-Memory-Values-Explained
- ▶ Improved stack trace page
- ▶ ...

OTHER NEW FR 6 FEATURES (CONT.)

- ▶ Improved Relations tab (on request details)
 - ▶ Breaks down kinds of operations within a request (that FR monitors queries, httpclient, etc.)
 - ▶ And new Aggregates tab, to more simply aggregate that info
- ▶ Can view aggregate totals of CFHTTP/httpclient URLs across ALL requests:
Transactions>External Resources
- ▶ ...

OTHER NEW FR 6 FEATURES (CONT.)

- ▶ New weekly, monthly reports (in Enterprise, Ultimate editions)
 - ▶ Tracking counts of requests, queries, their durations, 404s, sessions, etc
 - ▶ Daily report available in FR Standard, since FR 5
 - ▶ FR6 offers extended daily report in Enterprise/Ultime
 - ▶ More:
 - ▶ www.fusion-reactor.com/daily-report-email/
 - ▶ www.fusion-reactor.com/evangelism/FusionReactor-Daily-Reports
- ▶ ...

OTHER NEW FR 6 FEATURES (CONT.)

- ▶ Can now export FR logs from archives in UI (by default in FR6)
 - ▶ See *Logging>Log Archive*
- ▶ Changes to style of FR CP email alerts
 - ▶ Html formatted, tabular layout
 - ▶ “Query running” info, request thread id now offered with list of request details at top
- ▶ Now on to what may be considered more as “hidden gems” in FR6...

OTHER NEW FR 6 FEATURES (CONT.)

- ▶ Sessions now tracked in *User>Sessions*
 - ▶ Was previously hidden in *Metrics>Custom Series*
 - ▶ Now includes tracking of session creation, removal, option to view per application
 - ▶ Can show sessions per application. See bottom of page
 - ▶ Can control with *User>Settings>Sessions*
- ▶ For the graph pages for time and activity
 - ▶ Can choose to switch between “time” to “activity” with button in top right
- ▶ New tail feature in FR UI log viewer (for current hour logs)
 - ▶ See *FusionReactor>Logs*, then “Tail” button in top right of UI
- ▶ ...

FR 6 HIDDEN GEMS

- ▶ Debugger can send emails (with vars) rather than pause request
 - ▶ And you can click line number in stack trace to set breakpoint there
 - ▶ Also in error details or profiler display of template names/line numbers
- ▶ Debugger hidden gem
 - ▶ Can set conditions, and a useful one is IP address (`cgi.http_addr`)
 - ▶ to break only on requests from one ip address

FR 6 HIDDEN GEMS (CONT.)

- ▶ New option to track CFML line execution times
 - ▶ Provided as option for CF as of FR 6.0.4, and Lucee/Railo as of FR 6.2
 - ▶ AKA “line performance profiler”, tracks execution/duration of every line
 - ▶ Can have high performance impact, so **disabled by default**
 - ▶ Enabled via *FusionReactor>Plugins>Active Plugins*
 - ▶ Impact is during enabling, using, then also disabling the feature
- ▶ Available tool to view its saved result
 - ▶ github.com/intergral/cfperformanceexplorer
 - ▶ Can be used as a code coverage tool
- ▶ docs.intergral.com/display/FR62/FusionReactor+ColdFusion+Line+Performance+Profiler
- ▶ docs.intergral.com/display/FR62/FusionReactor+Lucee+and+Railo+Plugin

FR 6 HIDDEN GEMS (CONT.)

- ▶ Option to obfuscate SQL in UI (hides customer data w/in the sql)
 - ▶ *JDBC>settings>transaction settings>obfuscate sql data*
 - ▶ Affects only UI, not logs
- ▶ Option to generate JDBC SQL Explain Information on very slow queries
 - ▶ *JDBC>settings>query plan settings*
- ▶ Can customize the daily/weekly/monthly reports
 - ▶ Can control many aspects of reports
 - ▶ Can set different emails for reports (as opposed to CP Alerts)
 - ▶ *FusionReactor>plugins>active plugins>FusionReactor Reports Config*
- ▶ ...

FR 6 HIDDEN GEMS (CONT.)

- ▶ Can “stop profiling” a running request (button on far right)
 - ▶ Can change profiler default triggering at > 3 seconds; change poll interval (200 ms)
 - ▶ *FusionReactor>plugins>active plugins>FusionReactor Low Cost Profiler*
- ▶ New default to not count “untracked requests” against CP threshold
 - ▶ *Protection>settings>web request quantity settings>untracked requests*
- ▶ Improved Notification Center
- ▶ Improved support for Java Frameworks – Spring, Struts

FR 6 HIDDEN GEMS (CONT.)

- ▶ Still more gems we could identify
 - ▶ But we're out of time
- ▶ If you find that something I said should appear does not appear for you:
 - ▶ Consider first that it may have been added in some point release. Update to latest
 - ▶ Check out documentation, which may explain when a specific feature was added
 - ▶ Note that the docs are also version-specific. Change doc URL to 6.2 to cover 6.2.xx
- ▶ Finally, if any question or concern about any feature, send email to support@fusion-reactor.com

FR 6 HIDDEN GEMS (CONT.)

CONCLUSION



