Stack Tracing CFML Requests to Solve Problems

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Session Outline

- Help, my server is hung...or is it? (& demo)
- Understanding and monitoring request threads (& demo)
- Using stack traces to see "line of code" execution (& demo)
- The value of multiple stack traces (& demo)
- Different tools (free and commercial) to generate stack traces (& demo)
- Getting stack traces sent automatically (& demo)
- When a stack trace may not point to a line of code (& demo)
- Common problems identified by stack tracing (& demo)
- Resources for learning more

- Notes (and slides) available online at carehart.org/presentations/
About Charlie Arehart

Independent Consultant
- 13 yrs CF experience (27 in Enterprise IT)
- Member, Adobe Community Experts
- Certified Adv CF Developer (4-8), Cert. Adobe Instructor
- Frequent speaker to user groups, conferences worldwide
- Run the Online ColdFusion Meetup (coldfusionmeetup.com)
- Living in Alpharetta, Georgia (Atlanta)

Web home at www.carehart.org
- Host ~300 blog entries, 70+ articles, 90+ presentations
- UGTV: recordings of 300+ presentations by ~200 speakers
- CF411.com – 1000+ tools/resources in 100+ categories
- Hosting courtesy of EdgeWeb Hosting
- Consulting: available for CF troubleshooting, tuning; training
  - Remote or on-site
Let me be clear on what I mean by “stack tracing”

- I am NOT referring to the stack trace information shown in error messages!
- I am referring instead to an interactive problem-solving feature available in CF (with the right tools)
  - Which shows exactly what line of code is running in a request, at any time
  - And which is thus valuable to solving many thorny problems
Help, my server is hung
...or is it?
Understanding and monitoring request threads
Using stack traces to see "line of code" execution

Dr. Dmitry Debugalov
Finds the bug on top of the Stack.
The value of multiple stack traces

Unconventional method to get rid of bugs: Introduce a hot lady bug
Different tools to generate stack traces

Dr. Debugalov tests his new invention "BugSlasher" the fuzzy logic bug hunting robot.
Getting stack traces sent automatically
When a stack trace may not point to a line of code

Sherlock Holmes ponders...

Hmm... rather unusually stacked dump...

Cartoons from dumpanalysis.org
Common problems identified by stack tracing

Unaware of cruelty inside his CPU and unaware of muffled screams of tortured processor, Dr. Debugalov wonders why his system is not responding.
Resources for learning more
Summary

- With the right tools, CF is no longer a black box
  - Many situations where CF seems hung can be resolved, or their root cause found and resolved

- We covered
  - Understanding and monitoring request threads
  - Using stack traces to see "line of code" execution
  - The value of multiple stack traces
  - Different tools (free and commercial) to generate stack traces
  - Getting them sent automatically
  - When a stack trace may not point to a line of code
  - Common problems identified by stack tracing
  - Resources for Learning More
Questions On Presentation

- Charlie Arehart
  - charlie@carehart.org
- I’d really appreciate your feedback
  - http://carehart.org/feedback/
- Available for ColdFusion troubleshooting
  - Remote or on-site
  - No time minimum, satisfaction guarantee
  - http://carehart.org/consulting/