Step Through Your CFML Code
With FusionDebug

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Topics

- Introduction to Step Debugging
- FusionDebug Features
- FusionDebug Demo
- Other Features, Learning More, Gotchas, Pricing, FAQs, etc.
About Charlie Arehart

- Independent consultant since April 2006
- 10 yrs CF experience (25 in Enterprise IT)
  - Member, Adobe Community Experts
  - Certified Adv CF Developer (4 - 7), Cert. Adobe Instructor
  - Frequent speaker to user groups, conferences worldwide
  - Contributor to Ben Forta’s CF8 books, past *ColdFusion MX Bible*
  - Run the Online ColdFusion Meetup (coldfusionmeetup.com)
  - Living in Alpharetta, Georgia (north of Atlanta)
- Web home at www.carehart.org
  - Hosts 175+ blog entries, 50+ articles, 70+ presentations, more
  - UGTV: recordings of presentations by over 100 CFUG speakers
  - AskCharlie: per-minute telephone & web-based CF support
Introduction to Step Debugging

- Understanding interactive debugging
  - What can it do for you?
    - Step through code line-by-line (where needed)
    - View variables, in all scopes, at that point
    - Watch particular expressions, to observe changes
    - Even change variables on the fly during execution
    - And more

- FusionDebug from Integral
  - www.fusiondebug.com
  - CFML step debugging for CFMX 6.1/7+
  - Based on Eclipse, but don’t let that scare you!
FusionDebug Demo

Let’s see it in action
Demoed Features

- Set breakpoints, stepped through code
- Enabled watches and setting variables
  - can do with right-click on var/expression
- Showed simple cf code (CF Example Apps)
  - Set variables on the fly
  - Showed query data in variables pane
- Showed CFC-based code (Model Glue)
  - Showed scopes available in CFC methods
    - var and this scopes
  - Showed how stack is interactive
    - click to jump to lines in chain above current instruction
- Showed debugging web service, Flex, Ajax apps
- Showed debugging inside CFSCRIPT
  - And yes, it can debug code within tags like CFOUTPUT, CFMAIL, CFSAVECONTENT, etc.
What’s New in 2.0?

- Vastly improved source code file lookup
- New preconfigured FusionDebug perspective in Eclipse
- New complete standalone installer
  - Eclipse 3.2, CFEclipse 1.3 and FusionDebug 2.0
  - (or can still be installed as plugin)
- New server configuration wizard
- New Inspect Expressions feature
- Speed improvements and bug fixes
About Underlying Eclipse

- Is an Eclipse (3.1, 3.2) plug-in
  - You don’t NEED to use Eclipse for editing
  - Why did they build it atop Eclipse?
  - Easy to install Eclipse plug-in, or
    - New available standalone installer

- Easy to install FusionDebug
  - New installation wizard makes minor change in JVM config for CFMX server
  - Configures Eclipse to enable debugging
  - All of the above is well-documented in the FusionDebug User Guide, free online
Benefits Over CFOUTPUT/CFDUMP

- Can debug when a CFOUTPUT/CFDUMP may not be possible
  - What are some examples?
    - CFCOMPONENT/CFFUNCTION OUTPUT=false
    - CFSILENT
    - When generating XML

- Ever forget to remove debugging output?

- And a dozen other reasons
  - See more details on all these at:
    - http://carehart.org/blog/client/index.cfm/2006/9/7/fusiondebug_part2_why_use_versus_cfdump
  - And that’s not even all of them
  - See more at http://www.fusion-reactor.com/fusiondebug/about.html
Tips and traps

- CF Admin setting for “timeout requests in x seconds” will halt long debugging sessions
  - Either disable or increase the value
  - Or use CFSETTING RequestTimeout=“xx”

- Debugging against a central server: beware
  - Multiple users requesting a debugged page all wait
  - Multiple developers can’t debug one server
  - No built-in security of debugger port used

- If breakpoints fail to fire as expected
  - See [link](http://www.fusion-reactor.com/fusiondebug/support.html#breakpoints4)

- More tips and traps at
  - [link](http://carehart.org/blog/client/index.cfm/2006/10/2/fusiondebug_part4_tips_and_traps)
Learning More

- Documentation (very good) available online
  - www.Fusiondebug.com
  - User guide walks through configuration of the CF Server, Eclipse, and use of FusionDebug
- Several Captivate demos
Learning More

- Other resources
  - September 2006 CFDJ has 2 FD articles:
    - “Taking a First Look at FusionDebug”, Jeff Houser
      - http://coldfusion.sys-con.com/read/289634.htm
    - “FusionDebug Tips, Tricks, and Traps”, Charlie Arehart
      - http://coldfusion.sys-con.com/read/289652.htm
  - I also have a long intro article in FusionAuthority Quarterly Update
    - “FusionDebug Explained: Interactive Step Debugging for CFML”
      - http://www.fusionauthority.com/quarterly/
  - Again, I’ve done a series of blog entries on FD
    - http://carehart.org/blog/client/index.cfm/fusiondebug
Pricing, Discounts, Trials

- Available free trial (20 days)
- List price: US$ 249
  - Dropped from $299, 1 Aug 07
  - Available 10% discount code: CFCOMMUNITY
- Non-commercial Community edition
  - US$99 (dropped from $124)
- FD is priced per developer, available volume discounts
  - Multiple developers each need their own license
  - But one developer can debug multiple servers with one license
- More details at
FAQs

- Does FusionDebug work with BlueDragon? Railo?
  - Not currently. They are in talks
  - But you could install free Dev edition of CFMX and debug against that

- Does it work with CF4 or 5?
  - No, it is specific to CFMX

- Does it run on Linux? OS X?
  - Absolutely (see FAQ for a minor caveat if debugging Java, too)

- Must I use/learn how to use Eclipse?
  - Nothing more than what I’ve shown here, really

- Must I give up my favorite CFML editor?
  - No, you can use your favorite CFML editor (Dreamweaver, HomeSite, CF Studio) to edit
  - Just use Eclipse and FusionDebug to do debugging

...
FAQs

Does it support debugging Javascript? Actionscript? Java?

- No, that’s left to others.
- Eclipse already can debug Java, and FlexBuilder can debug ActionScript. Other tools offer Javascript debugging inside Eclipse

  **JavaScript Eclipse Debugger Plug-ins:**
  - http://www.aptana.com/
  - http://www.myecclipseide.com/ContentExpress-display-ceid-70.html#jsdebug

  **ActionScript debugging in FlexBuilder:**
FAQs

- How do I get support?
  - New FusionDebug mailing list
    - http://groups.google.com/group/fusiondebugdebug
  - Integral offers free email support:
    - support@fusion-reactor.com
Conclusion

- Great solution, finally, for CFML debugging
- Yes, it’s based on Eclipse
  - But again, you can continue to use your favorite editor, and just use FD for debugging
- Sure, it costs money, but will pay for itself if you’ll benefit from debugging
  - Try it for yourself and see if it doesn’t help
  - The challenge is simply remembering to use it!
Available Day-Long Training

- For those desiring more in-depth coverage, tips, tricks, and traps (including installation)
  - Split between FusionDebug and FusionReactor
- Offered publicly and on-site
  - Learn more, signup at http://www.fusion-reactor.com/fastTrack.html
- Cost is US$249, or $149 for either ½ day portion
  - Includes 20% discount on one of the products
Questions on presentation

- Charlie Arehart
  - charlie@carehart.org

- I’d really appreciate your feedback
  - http://carehart.org/feedback/

- Also available for setup and implementation consulting
  - Also other developer productivity coaching, system admin and tuning support, and more
  - Remote or on-site

- Giveaway of license(s)