

CFMythBusters: Skewering Sacred Cows (Pecha Kucha edition)

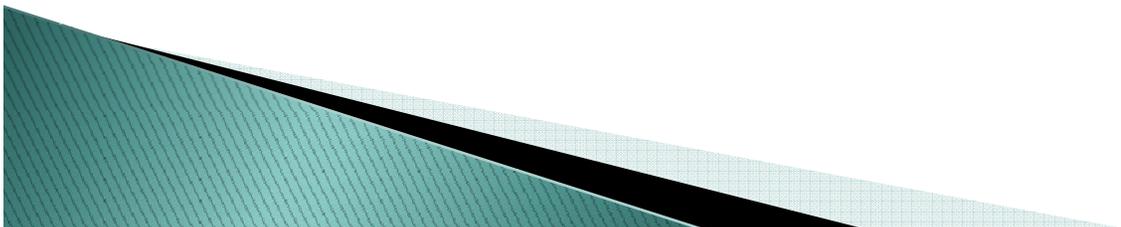


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Produced April 24, 2010

Why the confusion?

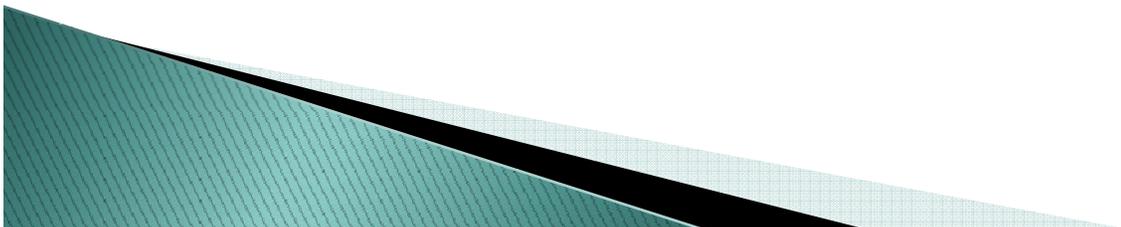
- ▶ Many old wives tales / myths about CF
 - Generally come from incomplete understanding of something
 - Will identify about a dozen key ones
 - Many more, and details of each, in talk at <http://www.carehart.org/presentations/#cfmyth>
 - Hope everyone learns at least something new and surprising



When we download CF (7, 8, 9) to install it, we get the absolute latest available version

▶ **False:**

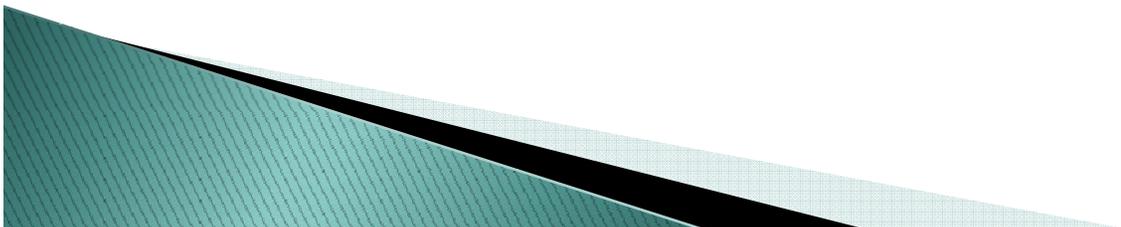
- Installers rebuilt only for updaters within a release
 - Hotfixes -> Cumulative hotfixes -> Updaters
- Between Updaters, you must apply hotfixes or CHFs
- See:
 - http://www.adobe.com/support/coldfusion/downloads_updates.html



When we apply a cumulative hot fix, it includes all the hotfixes available at the time

▶ **False:**

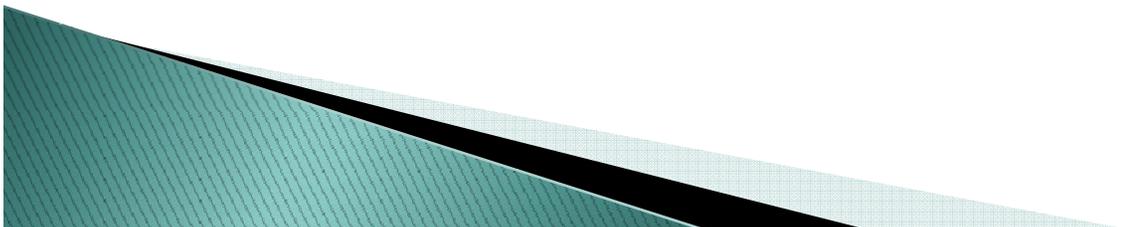
- Often some hotfixes must still be applied manually
 - Might not be listed on later CHF, so look at all CHFs for a given release
- For instance, image fix listed only in 8.0.1 CHF 3
 - See http://kb2.adobe.com/cps/511/cpsid_51180.html
- Or the file upload fix in 7.02
 - More on that at <http://www.adobe.com/go/kb401239>



If we set page timeouts (in admin or by CFSETTING), CF will always terminate pages when they exceed that duration

▶ **False:**

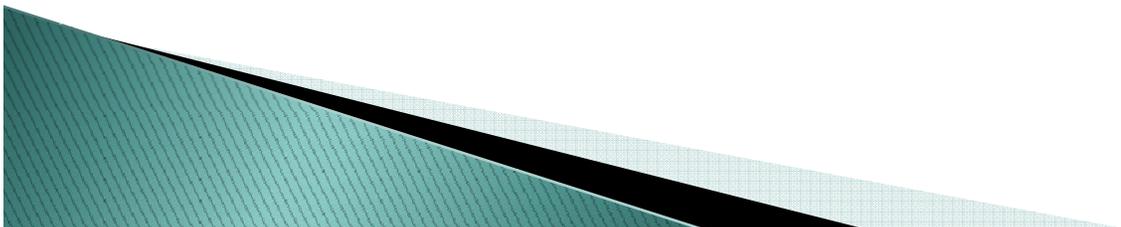
- CF/JVM can't interrupt pages in java native method
 - Commonly happens in tags/functions that talk to resources outside of CF/jvm:
 - cfquery, cfhttp, cfinvoke of web svc, call to com object, file i/o, and more
- So page may run “forever” and seem hung, and will eventually timeout, however...



When CF does timeout page, it tells us the tag that caused it to exceed that max duration

▶ **Generally not:**

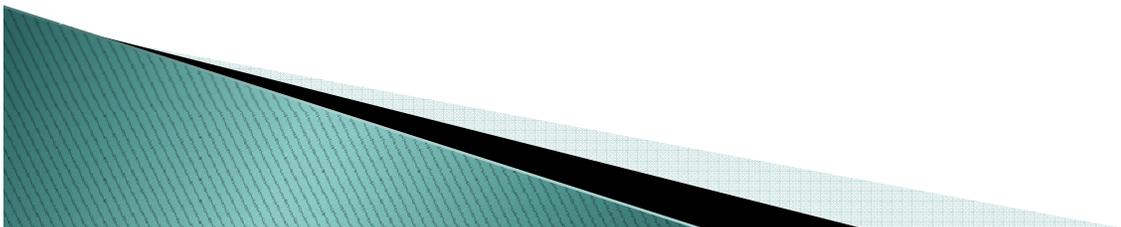
- In above instances, CF will terminate request after returning from long tag/function
 - So it reports on next tag that would have been executed
 - Ever wondered why CF reports cfoutput exceeding time limit?



If CF pages are not responding, CF must be down

▶ **Generally not:**

- Could be that CF requests are just all hung
 - Need to see details of what requests are hung, how long, etc.
 - See tools like CF 8/9 Enterprise Server Monitor, FusionReactor, SeeFusion, for such details



CF 8 Enterprise Server Monitor is a hog

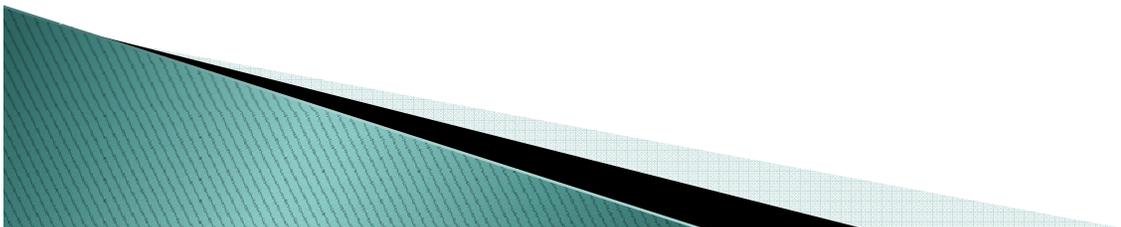
▶ **Not necessarily:**

- Many features are useful even with no “start” buttons enabled
- “Start memory tracking” has high overhead, yes
 - Though not always
- Still, there is much “zero-cost” information
 - See
http://www.carehart.org/blog/client/index.cfm/2007/6/15/cf8_hiddengem_monitoring_incredibleinfo

Once I close the Server Monitor interface, it has no more overhead

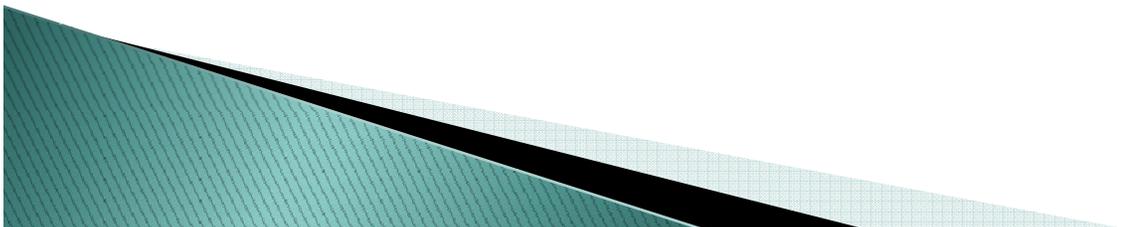
▶ **False:**

- The interface is just that, an interface!
- “start” buttons, once enabled, cause data gathering
 - Will even remain enabled over CF restarts!



More on Server Monitor...

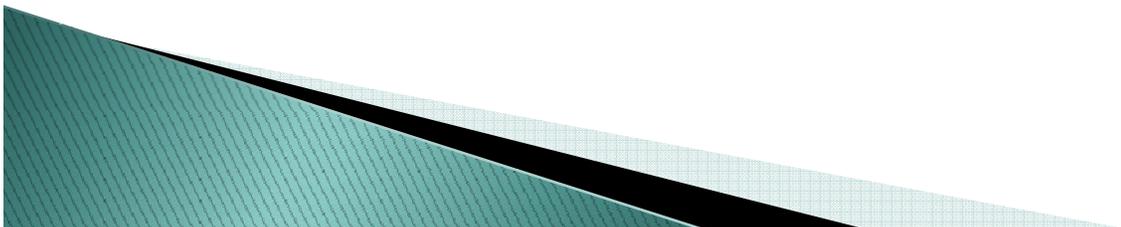
- ▶ Could do whole session on CF8 Server Monitor surprises
 - Requests don't appear in Active Requests without "Start Monitoring"
 - Query details don't appear without "Start Profiling"
 - Alerts don't fire without "Start Monitoring"
 - In Memory Usage Summary, top line report of "Total Memory" may not be Max memory (-Xmx)
 - if $xmn < xmx$, it shows current allocation!
 - And more



Even knowing a request is hanging, there's no way to know exactly what it's doing

▶ **False:**

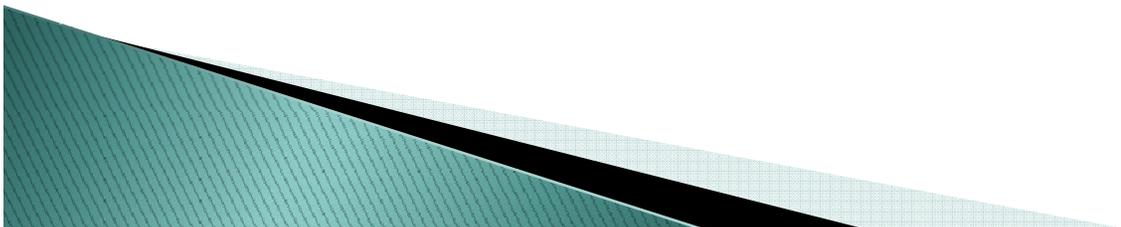
- Use monitoring tools (CF8, FR, SF) to view “stack trace”
 - Shows exact line number of code running at that moment
- For CF8 Server Monitor, must “start profiling”
 - Then click on running request
 - stack trace shown in middle of request detail page
- For FusionReactor, SeeFusion
 - Click available stacktrace button on request to see its stack trace



By keeping an eye on the [cf]/logs directory, we can know of all CF errors

▶ **False:**

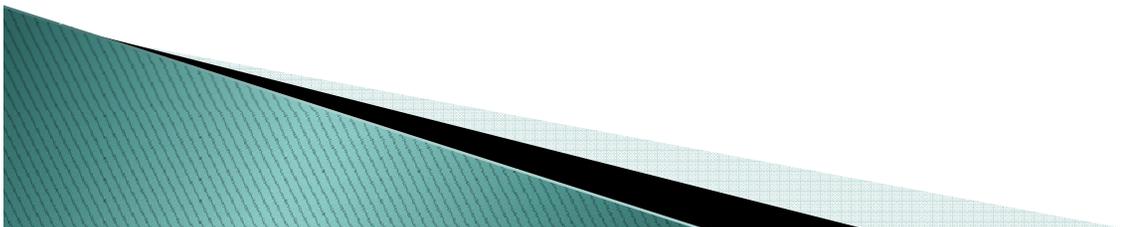
- Some reported only in [cf]/runtime/logs
 - Or [jrun4]/logs on multiserver deployment
 - Or [cf]/logs/cfserver.log on *nix
- Also, keep an eye on Event log (on Windows)



There is no way to track how many CF sessions are currently active

▶ **False:**

- Many ways to see count of current sessions
 - JRun Metrics (but this tracks only J2EE session use)
 - CF 8 Server Monitor (no need for any “start” buttons)
 - coldfusion.runtime.SessionTracker undocumented object
 - See Mark Lynch’s ServerStats for simple tool using this
 - <http://www.carehart.org/blog/client/index.cfm/2009/1/22/>



We don't "use" client variables, so we don't need to worry about them

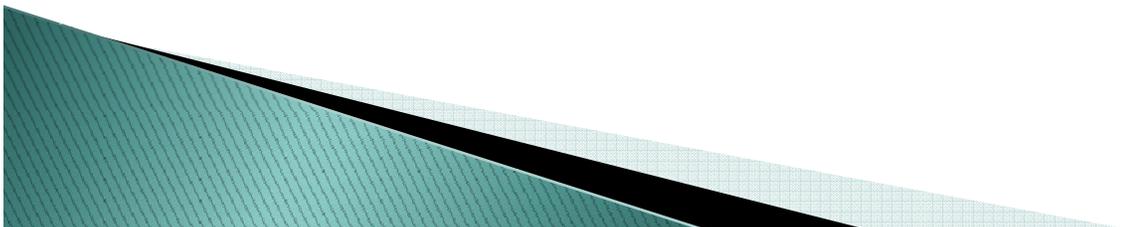
▶ False:

- Too much to explain in brief
- If you use ClientManagement="yes/true/on/etc" in cfapplication/application.cfc
 - Then by default each page visit by each user updates client var repository
- Spiders, bots, ping tools, etc. exacerbate this problem
 - See http://carehart.org/blog/client/index.cfm/2006/10/4/bots_and_spiders_and_poor_CF_performance

CFQueryParam will always make SQL perform better

▶ **Not always:**

- Beware of possible query plan compilation challenge
 - Too much to explain in brief
- See
 - <http://www.codersrevolution.com/index.cfm/2008/7/26/cfqueryparam-its-not-just-for-security-also-when-NOT-to-use-it>
 - <http://carehart.org/presentations/#dbplancaching>



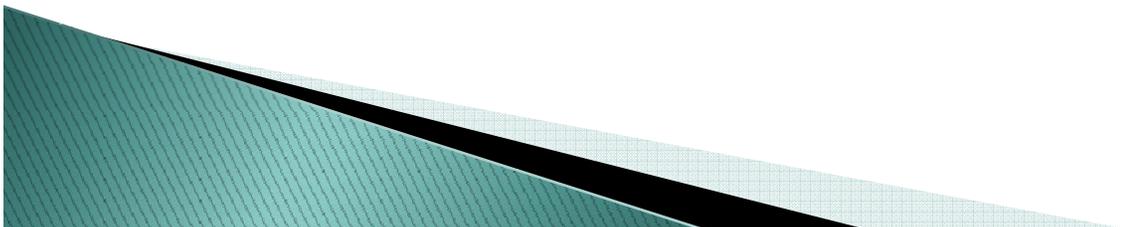
CFQueryParam is the best way to handle SQL Injection problems in CFML

- ▶ **Not necessarily:**
 - May be better to handle before getting to your query!
 - Several alternatives:
 - CFML Application-level Injection Protection Tools
 - Web Server-level Injection Protection Tools
 - Web Application Firewall-level Injection Protection Tools
 - Hardware Firewall-level Injection Protection Tools
 - See more at <http://www.cf411.com/#injectprotect>

Using CreateTimeSpan(0) for cachedwithin will reset all the cached queries

▶ **False:**

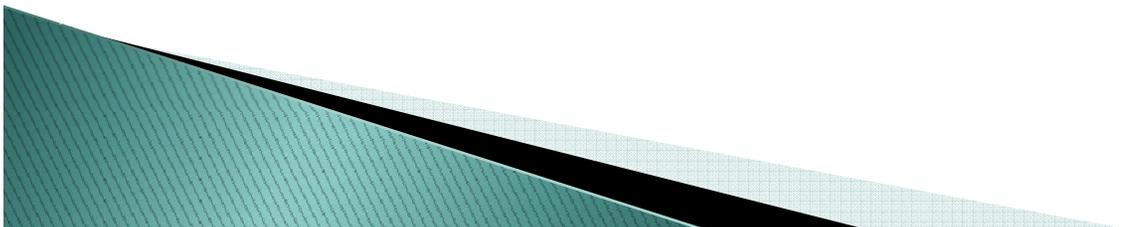
- Only for those SQL statements executed while that's set to 0!
 - must re-execute all SQL variants while this is set, which is hard to do
 - Leads to next question...



There's no way to easily clear the query cache of all cached query results

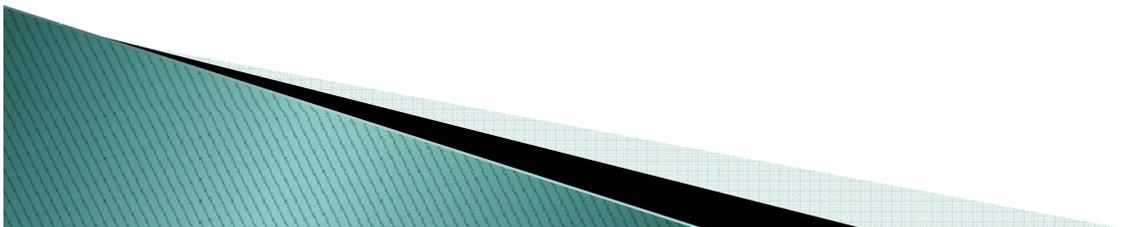
▶ **False:**

- Can use `<CFObjectCache action="clear">`
 - but it does clear all caches for all apps, which may be brute force
- Would be nice to have way to clear only some, or based on some dependencies



Many more...

- ▶ Again, see my full presentation for more
 - More myths in each category
 - Sometimes more on each myth
 - Many CFLOCK myths, Doc/help myths as well
 - So did you learn something today?



Feedback welcome

- ▶ I'd really appreciate your feedback
 - at charlie@carehart.org
 - Am available for ColdFusion troubleshooting, setup, implementation consulting
 - Remote or on-site
 - For as little as days, hours, even 15 minutes
 - <http://carehart.org/consulting/>

