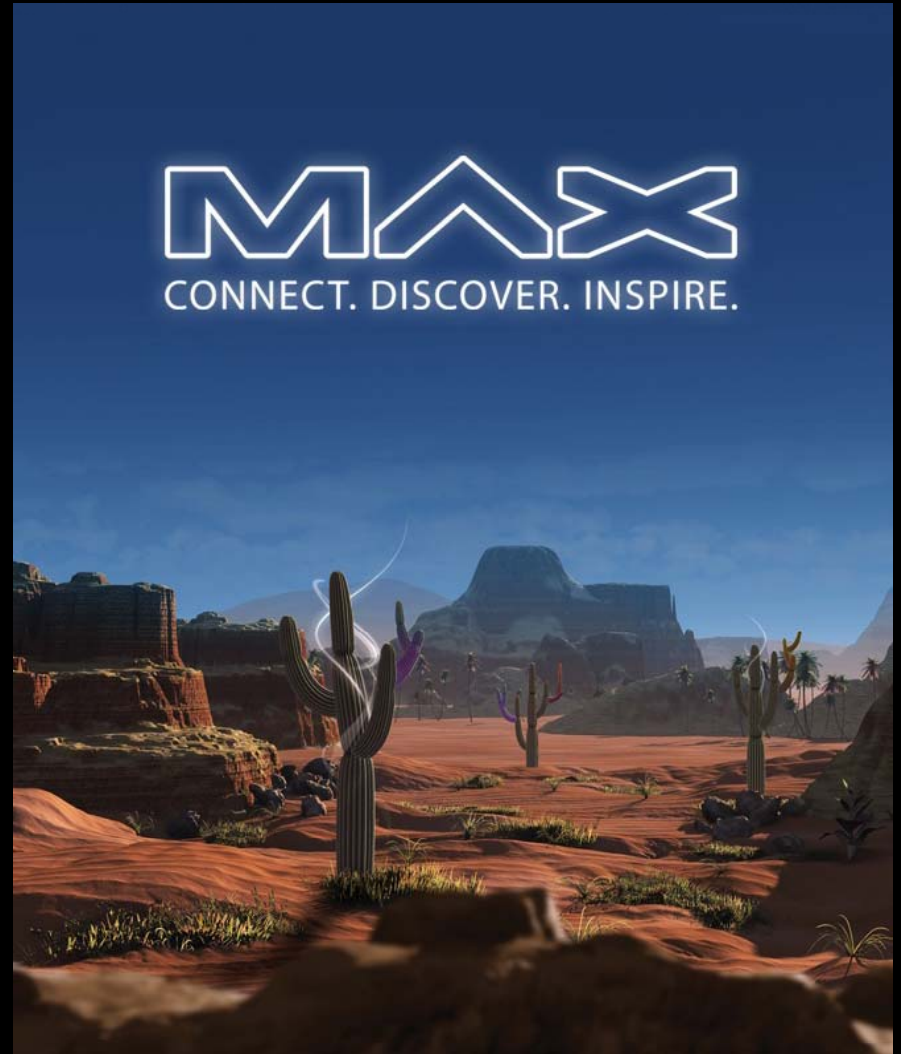


# ColdFusion 8: Best-Kept Secrets

Charlie Arehart

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- Coding Gems
- DB-oriented Gems
- UI-oriented Gems
- CFC-oriented Gems
- Web Svc-related Gems
- Security-oriented Gems
- Admin-oriented Gems
- Tags/Functions You Might Have Missed
- Editor Gems
- Performance Gems
- Server Monitor Gems
- Resources/Learning More

# About Your Speaker



- 11 yrs CF experience (26 in Enterprise IT)
  - Independent consultant since April 2006
  - Member, Adobe Community Experts
  - Certified Adv CF Developer (4 - 8), Certified Adobe Instructor
  - Writer in FAQU, Adobe DevCenter, CommunityMX, CFDJ, more
  - Contributor to all three Ben Forta CF8 books
  - Frequent speaker to user groups, conferences worldwide including
    - Adobe Max, cf.Objective, CFUnited, Scotch on the Rocks, webDU, webManiacs
  - Run the Online ColdFusion Meetup (coldfusionmeetup.com)
  - Living in Alpharetta, Georgia (north of Atlanta)
  
- Web home at [www.carehart.org](http://www.carehart.org)
  - Hosts ~300 blog entries, 70+ articles, 80+ presentations, more
  - UGTV: recordings of 300+ presentations by ~200 CFUG speakers
  - CF411.com - 700+ tools/resources in 100+ categories
  - Consulting: available for troubleshooting, tuning, training
    - For as few as days, hours; remote or on-site

- Features vs Hidden Gems
- Generally documented, but missed
  - CFML Reference, or CF Developer's Guide (both 1100+ pages!)
  - Release Notes, What's New docs
- CF has a history of such hidden gems (small by mighty)
- Some hidden gems in 8.01, changing original 8.0 features

- **Per Application Settings**

- For mappings, custom tags
- Feature can be enabled/disabled in Admin (enabled by default)

- **Implicit array and structure creation**

```
<CFSET myArray=[ "Adam" , "Ben" , "Tim" ]>
```

```
<CFSET myStruct={product="ColdFusion" , version=8}>
```

- 8.01 adds support for nesting structure and array creations

```
<CFSET a=[[1,2],[3,4],[5,6,7],[a=2]]>
```

- **Javascript-style operators**

- Following can be used anywhere in CFML

- ++, --, %, +=, --+, \*=, /=, %=, &&, &=, ||, !

- Following can be used within CFSCRIPT code

- ==, !=, <, <=, >, >=

- CFDUMP enhancements

- Now provides greater control over what's shown in a dump
- Can indicate which columns of query (or keys in struct) to display:
  - Show/hide attribute accepts list of query column or structure key names

- Examples:

```
<cfdump var="#aquery#" show="colA,colB">
```

```
<cfdump var="#aquery#" hide="colX,colY">
```

```
<cfdump var="#astruct#" show="keyA,keyB">
```

```
<cfdump var="#astruct#" hide="keyX,keyY">
```

- And how many keys of struct to display:

```
<cfdump var="#astruct#" keys="4">
```

- And whether or not to list UDFs (showUDFs=yes|no)

- More CFDUMP enhancements
  - Can control whether to show output to browser, console, or a file
    - OUTPUT=browser|console|filename
    - Defaults to browser
    - Console will be to:
      - Runtime log file, if CF running as service
      - Otherwise to command line where CF is started
  - New FORMAT attribute: HTML or Text
    - Useful when dumping to other than browser
  - Dump of query shows a little more data
    - # records found, execution time SQL generated, any cfqueryparam values, and whether the query was retrieved from cache
    - To prevent this, use new METAINFO="no"

- Arrays

- CFLOOP ARRAY="#arrayname#" index="indexname"
- ArrayIsDefined - Testing for array element existence
- ListToArray() – new option to include empty elements

- File processing

- Can loop over File, either per line

```
<cfloop file="c:\simplefile.txt" index="line">
```

- Or for a number of characters

```
<cfloop file="c:\simplefile.txt" index="chars"  
characters="12">
```



- Can now pass tag attributes as collection (attributescollection)

```
<cfset mailAttrs = {To = "charlie@carehart.org",From =  
    "charlie@carehart.org",  
    Subject = "Test Subject"} />  
  
<cfmail attributescollection="#mailAttrs#">  
    Test message  
</cfmail>
```

- Limitation:
  - 8.0: can't use any other attributes on a tag, if using this feature
  - 8.01: This limitation was lifted
  - See docs for handful of tags on which this feature can't be used

- Can now use cfqueryparam within a cached CFQUERY
- Can now use CachedWithin or CachedAfter with CFSTOREDPROC
- CFDBINFO lets you get information about data sources
  - database names, tables, columns, stored procedures, indexes, primary & foreign keys, driver version

```
<cfdbinfo type="tables" datasource="exampleapps"
  name="tables">
```

```
<cfdump var="#tables#">
```

```
<cfdbinfo type="columns" datasource="exampleapps"
  table="employees" name="columns">
```

```
<cfdump var="#columns#">
```

- Auto-Generated key retrieval on insert
  - Accessible via the RESULT struct if defined on CFQUERY
- Transaction save points
  - CFTRANSACTION action="savepoint"
  - lets you roll back portions of a transaction
- Apache Derby database embedded
  - For more, see my talk this afternoon, 4:30-5:30
    - Using Apache Derby, the Open Source Database Embedded in ColdFusion 8

- New popup calendar in HTML forms
  - CFINPUT type="datefield"
- CFGRID Format="html"
  - HTML-based grid (no java, flash)
- CFINPUT Type="autosuggest"
- CFTEXTAREA Richtext="Yes"
  - 8.01 adds support for spell check, file upload/browse server opts, via fckconfig.js file
- Using CFSELECT for dueling select lists (aka "2 selects related")
- Don't miss as well CFDIV, CFLAYOUT, CFPOD, CFWINDOW, and more
  - Features to update only a portion of a page: no full screen refresh
- Several demos at Code Snippets Explorer:  
[http://examples.adobe.com/cf8gettingstarted/experience/index\\_content.cfm](http://examples.adobe.com/cf8gettingstarted/experience/index_content.cfm)

- Note that Ajax features can call either CFML or CFC pages
- Ajax features include option to generate debugging window
  - Add cfdebug=true on querystring (and enable in Admin)
- Various Spry-related CF integration, including CFSpryDataset
- Other Ajax-related features you may have missed
  - New Ajaxlink function
    - Used to cause href link destination to show in current control
    - Used with cfdiv, cflayoutarea, cfpod, or cfwindow control
  - CFAjaxProxy
    - Creates a JavaScript proxy for a ColdFusion component
  - SerializeJSON, DeserializeJSON functions
  - Available Verifyclient attribute of CFFUNCTION and related verifyClient function
  - Available SecureJSON attribute for CFAPPLICATION

- Component metadata without instantiation

```
<cfset meta = GetComponentMetaData("CFIDE.adminapi.runtime")>  
<cfdump var="#meta#">
```

- onMissingMethod for CFCs
- CFC serialization and ability to duplicate
- CFARGUMENT Type, CFFUNCTION ReturnType as “component”
- CFC Interfaces supported via CFINTERFACE
- IsInstanceOf() – test if var holds instance of given CFC/interface/class
- CFFUNCTION has new ReturnFormat attribute
  - Datatype returned to remote caller (plain, wddx, json)
  - Can also pass in on query string (URL parameter)

- Ability to refresh Web Service proxy for called web services
  - New RefreshWSDL attribute on CFINVOKE/CFOBJECT/createobject
- Ability to pass args to WSDL2Java tool generating Java stubs for web service call
  - New Wsd2javaArgs attribute on CFINVOKE/CFOBJECT/createobject
- For both, with CreateObject, pass in using new ArgStruct
  - This also enables a feature ONLY on createobject:
    - SaveJava: save java proxy stub source
    - Saves in <coldfusion8>\stubs\ under dir for web service

- CFFTP supports Secure FTP (SFTP)
- CFHTTP has new ClientCert, ClientCertPassword attributes
- CFMAIL
  - Priority attribute
  - useSSL and useTLS attributes
  - Now honors SERVER attribute (or Admin setting) in creating Message-ID
- New security functions
  - GetUserRoles, IsUserInAnyRole, IsUserLoggedIn
- New attributes for web service invocation
  - password, proxyPassword, proxyPort, proxyServer, proxyUser, userName, and wspotname
- New CF Admin Mail security options



- OnMissingTemplate support
  - Implemented as method in application.cfc
  - Invoked when ColdFusion encounters a file not found condition for requests for CF files (.cfm, .cfc, etc.)
- CFDIRECTORY has some new attributes
  - Listinfo="name|all"
  - Type="file|dir|all"
- CFLOCATION now permits you to use 301 statuscode

- Multiple user accounts in the CF Admin and for RDS
  - can have fine-grained control over who has access to Admin, RDS
  - also, RDS sandboxing
    - so each different RDS user has access to just selected parts of the file system or just selected datasources
- Clearing template cache no longer an all or nothing proposition
  - See Admin API: `CFIDE.adminapi.runtime.clearTrustedCache (templateList="...")`
- New means to extend the CF Admin menus
- "Disable access to internal ColdFusion Java components"
- CFSCCHEDULE Action attribute has new PAUSE value, to pause a specified task
  - Admin also supports this
- New default documents name list feature for built-in web server

- LiveCycle Data Services Express, optional at install, free
- Improved reporting (Report Builder and CFREPORT)
- CFCONTENT change
  - Tries to figure out mime-type if TYPE is not provided
- Can now delete attachments after sending via CFMAIL (8.01)
- Several CFDOCUMENT enhancements
  - And still more in 8.01
- CFLOCK has new Request option for Scope
  - Primarily for use with CFTHREAD
  - See “Locking thread data and resource access” at [http://livedocs.adobe.com/coldfusion/8/htmldocs/help.html?content=threads\\_4.html](http://livedocs.adobe.com/coldfusion/8/htmldocs/help.html?content=threads_4.html)

- **CFZIP**

- ZIP compressed files into an archive file
- UNZIP extracts files from an archive file
- LIST lists the contents of an archive file
- DELETE deletes one or more files from an archive file
- READ reads the contents of an archived file into a variable
- READBINARY reads the contents of a binary archived file into a variable

- **CFPRINT**

- Send PDFs to printer accessible to CF Server
- Related GetPrinterInfo() function

- CFFEED
  - Read RSS and ATOM feeds, write RSS feeds, all very easily
- CFPRESENTATION to create Adobe Acrobat Connect presentations on the fly
  - And note that it can save the presentation to disk (no need for CF, can send to others to view)
- CFTHREAD
- And still more

- Locale-specific functions have new locale argument
  - DayOfWeekAsString, MonthAsString, all the LS... functions
- New encryption functionality
- XMLSearch
  - supports returning any valid XPath result, not just arrays of XML object nodes
- Sleep() – pause a request for x seconds
- GetFileInfo()
- REMatch, REMatchNoCase functions
- PrecisionEvaluate() for arbitrary precision decimal handling
- 14 new file I/O functions
- 54 new image functions

- Adobe Eclipse extensions for CF 8
  - Adds Ajax Application Generation Wizard, Log Viewer, CF Debugger, CF8 help
    - to previous 7.02 extensions with RDS support, query viewer, services browser, Flex/CRUD/CFC/AS wizards
    - Update since release, for query viewer on Eclipse 3.3
- CF8 support for Dreamweaver, HomeSite+/CF Studio (tag insight, editors, help)
  - Available on the download page with CF8
- CFEclipse CF8 tag updates coming
- Interactive step debugger

- Dramatic change in CFFILE Action="upload" memory usage
- CF now deployed atop JDK 1.6
  - fixes some past problems, adds some new features
  - adds substantial performance increases
  - Unfortunate JVM bug with class loading
    - Fall back to Java 1.5
    - Some have also updated to 1.6 update 10, though unsupported by Adobe
- Otherwise, improvement within CF in CFC instance creation
- General performance improvements



- Adobe Observations of CF8 over CF7
  - Most applications average 30-40% performance gain
    - some applications 3 or 4 times better
  - Structure manipulation in CF 8 twice as fast as CF 7
  - List manipulation three times faster
  - CFSET more than four times faster
  - CFPARAM tag 35 times faster
  - Date functions about 6 times as fast
  - Regular expression functions more than twice as fast
  - CFC instantiation over 20 times faster

- Learn more in my 4-part Adobe Dev Center series, starts at:
  - [http://www.adobe.com/devnet/coldfusion/articles/monitoring\\_pt1.html](http://www.adobe.com/devnet/coldfusion/articles/monitoring_pt1.html)
- Some hidden gems
  - Still useful without any “Start” buttons on (Monitoring, Profiling, Memory Tracking)
    - Yet some features are indeed only enabled with certain buttons turned on
  - Closing the monitor does NOT stop it monitoring (take care leaving buttons started)
  - Don’t miss active sessions graph (click icon to right of screen) : very informative
  - Can configure it to monitor only (or not monitor) code in certain directories
  - Can configure it to alert (email, log) when resource use is excessive
    - Or kill or queue requests in such instances, or you can kill them manually
  - Can create thread dump (using snapshots)
  - Can configure it to track front controllers (*index.cfm?action=getrecs* becomes *getrecs*)
- More at <http://carehart.org/presentations/#cf8mongems>

- JDK 1.6 support
- Support for JBoss, Intel Mac, Windows Vista
- 64-bit support (Solaris in 8.0; Windows, Linux, Mac in 8.01)
- Built-in support for Mysql 4/5
- PostgreSQL 8.x support
  - Now ships the org.postgresql.Driver and provides admin configuration
- DataDirect 3.6 JDBC DB driver updates
  
- Bonus point: CF now free for educational use
  - <https://freeriatools.adobe.com/coldfusion/>

- 8.0.1 released April 3, 2008
  - Free for 8.0 users
  - Enterprise, 64-bit support for new platforms
    - Windows, Mac OS X, Linux in 8.01; Solaris in 8.0
  - Improvements to AJAX functions, CFPDF, CFIMAGE, CFDOCUMENT, CFMAIL, CFEXECUTE error handling
  - Updated several software libraries
    - FCKEditor 2.5, Ext 1.1, YUI 2.3, Spry 1.6
  - Various other improvements; 8 pages of issues fixed
  - [http://www.adobe.com/support/coldfusion/downloads\\_updates.html#cf8](http://www.adobe.com/support/coldfusion/downloads_updates.html#cf8)
- Cumulative Hotfixes Available
  - Three CHF's for CF 8.0, one CHF for 8.01
    - <http://www.adobe.com/go/kb402604>

- CF8 Docs
  - <http://livedocs.adobe.com/coldfusion/8/>
  - CFML Reference
    - See "Tag changes since ColdFusion 5" to view what was added in CF8, and 7 and point releases
  - Developer's Guide: 18 new chapters
- Release notes: CF 8, CF 8.01
  - <http://www.adobe.com/support/documentation/en/coldfusion/releasenotes.html#8>
  - <http://www.adobe.com/support/documentation/en/coldfusion/releasenotes.html#801>
- CF8 Getting Started Experience
  - [http://examples.adobe.com/cf8gettingstarted/experience/index\\_content.cfm](http://examples.adobe.com/cf8gettingstarted/experience/index_content.cfm)
- Various bloggers highlighted new and hidden features
  - Ben Forta ([forta.com/blog](http://forta.com/blog)), Ray Camden ([coldfusionjedi.com](http://coldfusionjedi.com)), and more

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- Please fill out the evaluation
- Available for ColdFusion troubleshooting, setup, implementation consulting
  - Also other developer productivity coaching, system admin and tuning support, and more
  - Remote or on-site
  - Again, for as little as days, hours, even 15 minutes
  - <http://carehart.org/consulting/>