

# HIDDEN GEMS IN CF2016



Charlie Arehart, Independent Consultant  
CF Server Troubleshooter  
charlie@carehart.org  
@carehart (Tw, Fb, Li, Slack)

Updated Apr 19, 2017

- ▶ Major features of CF2016 (quick overview)
- ▶ Hidden gems in many areas
  - ▶ Installation, administration, web server config
  - ▶ New/changed features, new language constructs, new member functions
  - ▶ New/changed CFML functions, tags
- ▶ As well as other topics:
  - ▶ Updates to underlying libraries' version numbers
  - ▶ Deprecated/obsoleted features
  - ▶ What's new in Standard vs Enterprise
  - ▶ Pricing, licensing, end of life support
  - ▶ And more
- ▶ Slides [carehart.org/presentations](http://carehart.org/presentations)

## TOPICS

- ▶ Focus on CF server troubleshooting, as an independent consultant
  - ▶ Assist organizations of all sizes, experience levels
  - ▶ Work remotely 99% of the time, safe, secure, easy (via shared desktop)
  - ▶ Focus is not just solving problems but educating you
  - ▶ Satisfaction guaranteed. More on rates, approach, etc at [carehart.org/consulting](http://carehart.org/consulting)
- ▶ Love to share info, with my clients and the community
  - ▶ Active blogger
  - ▶ Speaker at nearly every CF conference
  - ▶ Contributor to/creator of many CF community resources
    - ▶ Online CFMeetup, CF411.com, UGTV, CF911.com, CFUpdate.com, and more
- ▶ I also happen to be manning the FusionReactor booth on and off. Stop by

## ABOUT ME

- ▶ How many have started using CF2016 in prod? In dev?
  - ▶ At least seen resources about it?
  - ▶ Not surprised if not all or most: people often wait
- ▶ Anyone “waiting for first point release”?
  - ▶ Have been 3 updates already
- ▶ How many likely won't use it until next release (CF2018, or whatever)?
  - ▶ I do these talks, not just for those making the move now, soon, or have already
  - ▶ But also those who may see it in future 😊
- ▶ Anyone know when I started doing hidden gems in CF?
  - ▶ 4.0.1 in 1999
- ▶ So, let's look first only BRIEFLY at the major new features

## SOME INTRO QUESTIONS FOR YOU



API Manager

Security Code Analyzer

PDF Improvements (redaction, sanitization, more)

CFML language improvements (tags, functions, and more)

Security improvements (especially more NTLM support)

Performance improvements

Now, on to the more "hidden" gems!

# MAJOR FEATURES OF CF2016

- ▶ Removal of Akamai Download Manager!
- ▶ Unfortunately, CF install had gotten huge (1GB) because of API Manager
  - ▶ Especially tragic if you'd be using CF Standard: by license can't use API Mgr
- ▶ **Finally fixed.** New installer in Dec 2016:  
*[blogs.coldfusion.com/post.cfm/coldfusion-2016-installer-refreshed](https://blogs.coldfusion.com/post.cfm/coldfusion-2016-installer-refreshed)*
- ▶ Next: hidden gems in CF Admin

## INSTALLATION CHANGES

- ▶ CF Admin option to store CF sessions in redis (cache) rather than heap memory
  - ▶ Gotcha: works only with CF sessions, not “J2EE sessions”
    - ▶ Those using “j2ee sessions” could modify Tomcat (underlying CF) on their own
    - ▶ [blog.svajlenka.com/post/125784752315/redis-and-coldfusion-because-why-not](http://blog.svajlenka.com/post/125784752315/redis-and-coldfusion-because-why-not)
- ▶ New applicationintent field, in DSN settings for SQL Server
- ▶ New admin setting to disable “REST discovery” by API Manager
  - ▶ See Settings page, last setting

## ADMINISTRATION CHANGES

- ▶ CFscripts folder now moved to its own directory, no longer within CFIDE!
- ▶ CF Admin now available only via CF's internal web server by default
- ▶ For more on these admin and config changes, see
  - ▶ [carehart.org/blog/client/index.cfm/2016/2/23/cf2016\\_CF\\_Admin\\_changes](http://carehart.org/blog/client/index.cfm/2016/2/23/cf2016_CF_Admin_changes)
- ▶ Next: gems regarding Web Server Config...

## ADMINISTRATION CHANGES (CONT.)



- ▶ Many new fixes and improvements related to the web server config tool...
- ▶ Fixed: no longer any need to manually reconfigure connectors after update, it seems
- ▶ Fixed: for those using multiple instances (in CF Enterprise/Trial/Dev)
  - ▶ Wsconfig UI finally offers option to pick instance name to connect to (like CF9<)!)
  - ▶ In CF10/11, we had to start wsconfig in instance's runtime\bin to connect site to it
- ▶ Fixed: if you open wsconfig UI while already open, you no longer get blanks
  - ▶ You get warning that you may already have it open

## WEB SERVER CONFIG TOOL (WSCONFIG) CHANGES

- ▶ Improved: Wsconfig UI now offers config option for all 3 connector “tuning” args
- ▶ Also better defaults now
- ▶ And for IIS: better connector tuning settings for 2-site setup by default
  - ▶ `Connection_pool_size` (500), `max_reuse_connections` (250):
  - ▶ Sadly, for now, this is not so for Apache configs, but is due to be fixed in upcoming update

## WEB SERVER CONFIG TOOL (WSCONFIG) CHANGES (CONT.)

- ▶ Sadly, CF installer web config step still doesn't offer such config of "tuning" options
- ▶ And neither wsconfig tool or installer offers any help to tune "correctly" for your site setup
- ▶ Wsconfig does now offers both an "all" option (for all sites) and an "all - individually"

## WEB SERVER CONFIG TOOL (WSCONFIG) CHANGES (CONT.)

- ▶ “Advanced Settings” now also offers “skip iis custom errors” option
  - ▶ Disabled by default. Useful for some scenarios
  - ▶ Needed to add manually to `isapi_redirect.properties` file in CF10/11
- ▶ Nice to see all these improvements to the `wconfig`, which has been a source of heartburn in CF10 and 11.
- ▶ Let’s move on to other gems...

## WEB SERVER CONFIG TOOL (WCONFIG) CHANGES (CONT.)

- ▶ New command-line interface (CLI)
  - ▶ Allows cmd line CFML execution by pointing to a cfm file, via cf.bat
- ▶ For more, see
  - ▶ [helpx.adobe.com/coldfusion/2016/command-line-interface.html](http://helpx.adobe.com/coldfusion/2016/command-line-interface.html)

NEW CF CLI

- ▶ CF Admin “enable whitespace management” option now suppresses whitespace at compile time as well as runtime
- ▶ Swagger doc generation (for restful api's and API Manager)
  - ▶ [helpx.adobe.com/coldfusion/2016/swagger-document-generation.html](http://helpx.adobe.com/coldfusion/2016/swagger-document-generation.html)
- ▶ Now on to language enhancements...

## OTHER ADMIN CHANGES

- ▶ New application-level controls
  - ▶ *searchImplicitScopes*, *passArrayByReference*
  - ▶ Each can change long-standing behavior for these operations, **vastly improving performance** (5x and 25x, respectively)
  - ▶ Set as either cfapplication attributes or via this scope in application.cfc
  - ▶ See:
    - ▶ [adobe.com/devnet/coldfusion/articles/language-enhancements-cf-2016.html](http://adobe.com/devnet/coldfusion/articles/language-enhancements-cf-2016.html)
    - ▶ [helpx.adobe.com/coldfusion/2016/language-enhancements.html#Scopesearch](http://helpx.adobe.com/coldfusion/2016/language-enhancements.html#Scopesearch)
    - ▶ [helpx.adobe.com/coldfusion/2016/language-enhancements.html#Arraysbr](http://helpx.adobe.com/coldfusion/2016/language-enhancements.html#Arraysbr)

## CHANGED LANGUAGE FEATURES

- ▶ New argument for `structnew()`, **ordered**, maintains insertion order
  - ▶ Looping over such a struct will also return in insertion order
  - ▶ All other forms of creating new structs keep same order as before
  - ▶ Also support for creating empty ordered struct
  - ▶ [helpx.adobe.com/coldfusion/2016/language-enhancements.html#CollectionsupportOrdered](http://helpx.adobe.com/coldfusion/2016/language-enhancements.html#CollectionsupportOrdered)

CHANGED LANGUAGE FEATURE (CONT)



- ▶ Safe navigation operator (?.)

- ▶ Used when accessing members of a struct or values of an object
- ▶ Used instead of ".", to prevent exception if not defined, null, etc.
- ▶ Simplified code, versus nested isdefined tests

- ▶ *Examples:*

- ▶ `<cfoutput>#employee?.firstname#</cfoutput>`
  - ▶ Will output empty string if firstname does not exist/null
- ▶ `Writeoutput(employee?.name?.firstname?.trim());`
  - ▶ Will output empty string if all 3 are undefined/null

# NEW LANGUAGE CONSTRUCTS

- ▶ For more info and examples (including setting variables with safe navigation):
  - ▶ [helpx.adobe.com/coldfusion/2016/language-enhancements.html#Safenavigation](https://helpx.adobe.com/coldfusion/2016/language-enhancements.html#Safenavigation)
  - ▶ [helpx.adobe.com/coldfusion/developing-applications/the-cfml-programming-language/using-coldfusion-variables/using-periods-in-variable-references.html#Usingthesafenavigationoperator](https://helpx.adobe.com/coldfusion/developing-applications/the-cfml-programming-language/using-coldfusion-variables/using-periods-in-variable-references.html#Usingthesafenavigationoperator)
  - ▶ [blog.adamcameron.me/2015/10/coldfusion-12-it-goes-to-show-you.html](http://blog.adamcameron.me/2015/10/coldfusion-12-it-goes-to-show-you.html)
  - ▶ [adobe.com/devnet/coldfusion/articles/language-enhancements-cf-2016.html](https://adobe.com/devnet/coldfusion/articles/language-enhancements-cf-2016.html)

## NEW LANGUAGE CONSTRUCTS (CONT.)

- ▶ Many new member functions (expanding on the new feature in CF11)
  - ▶ These are functions you append to the end of a variable, like `fname.ucase()`
  - ▶ Intro: [helpx.adobe.com/coldfusion/developing-applications/building-blocks-of-coldfusion-applications/using-the-member-functions.html](http://helpx.adobe.com/coldfusion/developing-applications/building-blocks-of-coldfusion-applications/using-the-member-functions.html)
- ▶ New array member functions: `arrayDeleteNoCase`
- ▶ New string member functions:
  - ▶ `encrypt`, `paragraphFormat`, `replaceListNoCase`
  - ▶ `decodeFromURL`, `decodeForHTML`, `encodeForHTML`, `encodeForHTMLAttribute`
  - ▶ `encodeForXML`, `encodeForXMLAttribute`, `encodeForXPath`
  - ▶ `encodeForCSS`, `encodeForJavaScript`, `encodeForURL`
  - ▶ `getSafeHTML`, `isSafeHTML`
  - ▶ `urlDecode`, `urlEncodedFormat`

## NEW MEMBER FUNCTIONS

- ▶ New datetime member functions:
  - ▶ `LSDateFormat`
  - ▶ `setSecond`, `setMinute`, `setHour`
  - ▶ `setDay`, `setMonth`, `setYear`
- ▶ New query member functions:
  - ▶ `queryEach`, `queryKeyExists`, `queryFilter`, `queryMap`, `queryReduce`, `querySort`, `valueArray`
- ▶ New display and formatting member functions:
  - ▶ `booleanFormat`, `yesNoFormat`
- ▶ The aforementioned intro doc on member functions indicates those new for CF2016 (with \*)
- ▶ ...now on to changes in CFML functions and tags...

## NEW MEMBER FUNCTIONS (CONT.)

▶ New CFML functions

- ▶ `arrayContainsNoCase`, `arrayDeleteNoCase`, `valueArray`
- ▶ `querySort`, `queryEach`, `queryFilter`, `queryKeyExists`, `queryMap`, `queryReduce`
- ▶ `booleanFormat`, `floor`, `isPDFArchive`, `replaceListNoCase`, `spreadsheetGetColumnCount`

▶ Changed functions:

- ▶ `arraynew`, `cacheRemove`, `dateFormat`, `timeFormat`, `createDateTime`
- ▶ `replace`, `replaceList`, `spreadsheetAddRows`, `writeoutput`

▶ More info, links to details on new/changed CFML functions:

- ▶ [helpx.adobe.com/coldfusion/2016/other-enhancements.html](http://helpx.adobe.com/coldfusion/2016/other-enhancements.html)
- ▶ [helpx.adobe.com/coldfusion/2016/language-enhancements.html#ArrayFindNoCase](http://helpx.adobe.com/coldfusion/2016/language-enhancements.html#ArrayFindNoCase)

# NEW/CHANGED CFML FUNCTIONS

- ▶ Changed CFML tags...
- ▶ CFLOOP
  - ▶ New *item* attribute, for use with loops over list, array, or file
  - ▶ Named *item* var will hold element looped over
  - ▶ Named *index* var (optional) will hold index value, if any
- ▶ Link to docs on these and the rest will follow

## CHANGED CFML TAGS

## ▶ CFMAILPARAM

- ▶ New, optional **filename** attribute, to give different name for file attached to email when using **cfmailparam** file attribute
- ▶ **File** points to name *as on server*, **filename** points to name *as shown in email*

## ▶ CFOUTPUT

- ▶ New **encodefor** attribute: names encoding type to be used for strings within it tags, if not otherwise surrounded by an **encodefor** function (types: html, htmlattribute, url, javascript, css, xml, and so on)

# CHANGED CFML TAGS (CONT.)

- ▶ CFSEARCH (Solr searching)
  - ▶ New **Type** attribute values (for parser): **Standard, Dismax**
  - ▶ Old verity-based types no longer supported
    - ▶ *simple, explicit, internet, internet\_basic, natural*
- ▶ CFCOLLECTION
  - ▶ **path** attribute is now ignored
  - ▶ All collections are created in the **collections** directory at the location specified in **Solr\_Home** field in the ColdFusion admin
- ▶ CFSOCIALPLUGIN
  - ▶ See comments in [ColdFusion2016]\cfusion\CustomTags\socialplugin.cfm

## CHANGED CFML TAGS (CONT.)



▶ More info on changed tags, with links to details:

▶ [helpx.adobe.com/coldfusion/2016/other-enhancements.htm](http://helpx.adobe.com/coldfusion/2016/other-enhancements.htm)

▶ [helpx.adobe.com/coldfusion/2016/language-enhancements.html](http://helpx.adobe.com/coldfusion/2016/language-enhancements.html)

CHANGED CFML TAGS (CONT.)

- ▶ Many enhancements to PDF support
  - ▶ Mentioned before sanitization, redaction, but also:
    - ▶ Export/import of comments, metadata
    - ▶ Archiving, including newer PDF/A-2b and -3b standards
    - ▶ Support for attachments, stamps
  - ▶ For more, see substantial article with examples, and code download
    - ▶ [adobe.com/devnet/coldfusion/articles/pdf-enhancements.html](http://adobe.com/devnet/coldfusion/articles/pdf-enhancements.html)
  - ▶ Not mentioned on that page:
    - ▶ CFPDF adds new encrypt attribute values: AES\_256R5 and AES\_256R6
- ▶ Phew, so that's it for language, feature, admin and config changes
- ▶ Think we're done discussing "all that's different" / hidden gems?
  - ▶ Not yet!

## MORE PDF ENHANCEMENTS

- ▶ We are more than half-way home. But areas remaining include...
  - ▶ Deprecated features
  - ▶ Updates to underlying libraries' versions numbers
  - ▶ What's new in Standard vs Enterprise
  - ▶ Pricing
  - ▶ Updates since initial release
  - ▶ And more!

OTHER TOPICS

- ▶ Deprecated features (nothing obsolete)
  - ▶ These may (will likely) be obsolete in later releases, but are still supported
- ▶ Language features:
  - ▶ CFCHART format="flash"
  - ▶ CFFILEUPLOAD Flash component
  - ▶ CFMEDIAPLAYER
  - ▶ CFTABLE
  - ▶ UI Tags based on YUI toolkit - CFTREE, CFCALENDAR, CFAUTOSUGGEST, CFMENU
    - ▶ These uniquely are also "no longer supported"/updated
    - ▶ Watch out: as of
- ▶ Report Builder

## DEPRECATED FEATURES

- ▶ Certain admin features deprecated
  - ▶ Event gateways - Jabber, Flash Media server
  - ▶ Portlets
  - ▶ System Probes
  - ▶ Server Manager
  - ▶ Server Monitor (was listed as deprecated, but will not be)
- ▶ For more on deprecation, dropping of support for some things
  - ▶ [helpx.adobe.com/coldfusion/deprecated-features.html](http://helpx.adobe.com/coldfusion/deprecated-features.html)
  - ▶ [carehart.org/blog/client/index.cfm/2016/2/22/cf2016\\_deprecated\\_features](http://carehart.org/blog/client/index.cfm/2016/2/22/cf2016_deprecated_features)
- ▶ Now, how about the status/versions of CF's underlying Java libraries?

## DEPRECATED FEATURES (CONT.)

- ▶ Antismy 1.5.3 (OWASP security library)
- ▶ Axis 2 1.7.0 (web services library, and note that's "Axis 2" v 1.7.0, not "Axis")
- ▶ Derby 10.11 (embedded DB)
- ▶ Ehcache 2.10.0 (caching library)
- ▶ Esapi 2.1.0 (OWASP Enterprise Security API)
- ▶ Ext JS 4.1 (JS library which underlies various UI tags)
- ▶ Ewsapi 1.1.5 (MS Exchange API)
- ▶ Hibernate 4.3.10 (ORM library)
- ▶ HttpClient 4.4.1 (underlies CFHTTP and more)
- ▶ Jetty 9.3.6v20151106 (underlies Solr, HTMLTOPDF, and more)
- ▶ Java 1.8.0\_72 (the JVM which underlies all of CF)
- ▶ JDBC Drivers 5.1.4.000138 (the built-in Merant DB drivers, such as for SQL Server, Oracle, and even MySQL. CF no longer includes the MySQL-provided driver, but you can add it yourself)
- ▶ jQuery 1.6.1 and jQuery UI 1.8.16 (JS library which underlies various UI tags and Admin interface features)
- ▶ Lucene 5.2.1 (underlies Solr, embedded search engine in CF)
- ▶ OpenSSL 1.0.2h (as of CF 2016 Update 2)
- ▶ POI 3.12 (underlies MS Office Integration features)
- ▶ PostgreSQL 9.4-1201 (db driver)
- ▶ Quartz 2.2.1 (underlies CF Schedule tasks)
- ▶ Servlets 3.1 (underlies CF/Tomcat processing)
- ▶ Solr 5.2.1 (the embedded search engine, used by CFSEARCH/CFINDEX/CFCOLLECTION, etc.)
- ▶ Tomcat 8.0.27.0, 8.0.32 as of Update 1 (the application server which underlies CF, when deployed in traditional "Server" configuration)
- ▶ YUI 2.3.0 (JS library which underlies various UI tags)

See:

[carehart.org/blog/client/index.cfm/2016/2/17/what\\_are\\_cf2016\\_embedded\\_library\\_version\\_numbers](http://carehart.org/blog/client/index.cfm/2016/2/17/what_are_cf2016_embedded_library_version_numbers)

## UPDATES TO UNDERLYING LIBRARIES' VERSIONS NUMBERS

- ▶ Referring here only to what's new/changed in CF2016 and in Enterprise only
  - ▶ API Manager
  - ▶ Security Analyzer
- ▶ These do not work with CF 2016 Standard, nor even Developer edition!
  - ▶ They do work with the CF Trial edition
  - ▶ And you **can** take an enterprise license key and use it on a “dev” machine, of course
- ▶ More:
  - ▶ [carehart.org/blog/client/index.cfm/2016/2/25/cf2016\\_enterprise-only\\_features](http://carehart.org/blog/client/index.cfm/2016/2/25/cf2016_enterprise-only_features)

## WHAT'S NEW IN STANDARD VS ENTERPRISE

	Base Price	Upgrade Price				
		From CF12 Standard	From CF11 Standard	From CF11 Enterprise	From CF10 Standard	From CF10 Enterprise
CF 2016 Standard	\$1499	n/a	\$749	n/a	\$899	n/a
CF 2016 Enterprise	\$8499	\$7599	\$7599	\$4249	\$7599	\$5099

- ▶ For more, including how I found this info, see [carehart.org/blog/client/index.cfm/2016/2/24/pricing\\_for\\_coldfusion\\_2016](http://carehart.org/blog/client/index.cfm/2016/2/24/pricing_for_coldfusion_2016)

## PRICING



- ▶ Some debate/confusion initially about aspects of new EULA
- ▶ See it for yourself
  - ▶ [www.images.adobe.com/content/dam/acom/en/legal/licenses-terms/pdf/ColdFusion-2016.pdf](http://www.images.adobe.com/content/dam/acom/en/legal/licenses-terms/pdf/ColdFusion-2016.pdf)
- ▶ Reach out to CF Product Mgr, Rakshith Naresh, with any questions
  - ▶ [rakshith@adobe.com](mailto:rakshith@adobe.com)

LICENSING/EULA

- ▶ CF10 support **not** terminating at end of this year
  - ▶ As happened with CF9 in 2014 when 10 came out
  - ▶ Instead, ends May 2017 (extended support, May 2019)
- ▶ CF11 support ends April 2019 (“extended support” April 2021)
- ▶ CF9 “extended support” ended 12/31/16
- ▶ More: [adobe.com/support/products/enterprise/eol/eol\\_matrix.html#63](https://adobe.com/support/products/enterprise/eol/eol_matrix.html#63)

END OF LIFE/END OF SUPPORT

- ▶ There have been 3 updates to CF2016 since release (as of this date)
- ▶ Updates can be easily applied in CF Admin, “Server Update” page
  - ▶ Updates are cumulative, need only apply latest
  - ▶ If you have troubles applying CF updates (in 2016, or 10/11), see my blog post:
    - ▶ [carehart.org/blog/client/index.cfm/2016/9/6/solve\\_common\\_problems\\_with\\_CF\\_updates\\_in\\_10\\_and\\_above](http://carehart.org/blog/client/index.cfm/2016/9/6/solve_common_problems_with_CF_updates_in_10_and_above)
- ▶ As for updating CFBuilder, should be prompted about available update
  - ▶ But you can implement it manually
  - ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-builder-2016-update-2.html#Installation](http://helpx.adobe.com/coldfusion/kb/coldfusion-builder-2016-update-2.html#Installation)
- ▶ There’s sometimes a fair bit that’s included in CF updates
  - ▶ Bug fixes, security improvements, and sometimes even minor new/changed features
  - ▶ Let’s take a look at them

## UPDATES SINCE RELEASE OF CF2016

- ▶ Update 1 was released in May 2016, 3 months after initial release
  - ▶ Tomcat was updated to 8.0.32
  - ▶ Various updates to Security Analyzer
  - ▶ Several important bug fixes for security, core language features, server, and other areas (20 total bug fixes)
- ▶ CF Builder 2016 Update 1 released concurrently
  - ▶ Primarily addressed issues related to Security Code Analyzer and its performance

## UPDATE 1

## ▶ Update 1 resources

### ▶ Overview

- ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-2016-update-1.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-2016-update-1.html)
- ▶ [helpx.adobe.com/coldfusion/kb/bugs-fixed-coldfusion-builder-2016-update-1.html](http://helpx.adobe.com/coldfusion/kb/bugs-fixed-coldfusion-builder-2016-update-1.html)

### ▶ Release notes (covers all updates)

- ▶ [helpx.adobe.com/content/help/en/coldfusion/release-note/coldfusion-2016-updates-release-notes.html](http://helpx.adobe.com/content/help/en/coldfusion/release-note/coldfusion-2016-updates-release-notes.html)

### ▶ Bug fixes and known issues

- ▶ [helpx.adobe.com/coldfusion/kb/bugs-fixed-coldfusion-2016-update-1.html](http://helpx.adobe.com/coldfusion/kb/bugs-fixed-coldfusion-2016-update-1.html)

### ▶ Blog posts

- ▶ [blogs.coldfusion.com/post.cfm/updates-for-coldfusion-2016-coldfusion-11-and-coldfusion-10-released](http://blogs.coldfusion.com/post.cfm/updates-for-coldfusion-2016-coldfusion-11-and-coldfusion-10-released)
- ▶ [blogs.coldfusion.com/post.cfm/coldfusion-builder-2016-update-1-released](http://blogs.coldfusion.com/post.cfm/coldfusion-builder-2016-update-1-released)

# UPDATE 1 (CONT.)

- ▶ Update 2 was released in June 2016
  - ▶ Allowed specifying the type of data when serializing structs or arrays
  - ▶ New member functions:
    - ▶ ArrayDeleteNoCase
    - ▶ BooleanFormat
    - ▶ YesNoFormat
  - ▶ Introduction of CK Editor/deprecation of FCKEditor
    - ▶ In cftextarea, ajax form controls
  - ▶ Can configure SSL in API Manager: access API Mgr portals over HTTPS

## UPDATE 2

- ▶ Change related to new NTLMDomain attribute
  - ▶ [helpx.adobe.com/coldfusion/2016/ntlm-support.html](http://helpx.adobe.com/coldfusion/2016/ntlm-support.html)
- ▶ OpenSSL libraries upgraded to version 1.0.2h
- ▶ Addressed vulnerability mentioned in the security bulletin APSP16-22
- ▶ Several important bug fixes (77, total bug fixes)
  - ▶ Security, core language features, server, and other areas
- ▶ CF Builder 2016 Update 2 released concurrently
  - ▶ Standalone edition upgraded underlying Eclipse from Kepler to Mars
  - ▶ Important updates to Security Analyzer, updated FTP/SFTP support in import/export project, several bug fixes (especially performance), PhoneGap upgraded to 5.2

## UPDATE 2 (CONT.)

## ▶ Update 2 resources

### ▶ Overview

- ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-2016-update-2.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-2016-update-2.html)
- ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-builder-2016-update-2.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-builder-2016-update-2.html)

### ▶ Release notes (covers all updates)

- ▶ [helpx.adobe.com/content/help/en/coldfusion/release-note/coldfusion-2016-updates-release-notes.html](http://helpx.adobe.com/content/help/en/coldfusion/release-note/coldfusion-2016-updates-release-notes.html)

### ▶ Bug fixes and known issues

- ▶ [helpx.adobe.com/coldfusion/kb/bugs-fixed-coldfusion-2016-update-2.html](http://helpx.adobe.com/coldfusion/kb/bugs-fixed-coldfusion-2016-update-2.html)

### ▶ Blog post

- ▶ [blogs.coldfusion.com/post.cfm/updates-for-coldfusion-2016-coldfusion-builder-2016-coldfusion-11-and-coldfusion-10-released](http://blogs.coldfusion.com/post.cfm/updates-for-coldfusion-2016-coldfusion-builder-2016-coldfusion-11-and-coldfusion-10-released)

# UPDATE 2 (CONT.)



- ▶ Update 3 released in Oct 2016
  - ▶ Added support for Websphere 9, IIS 10 (in Windows 10)
    - ▶ But as for support for Windows 2016, due to be released late Sept 2016, that will follow in time
  - ▶ Support for sorted structs
    - ▶ New arg to StructNew(), including callback feature
    - ▶ New StructToSorted()
  - ▶ New argument in ArraySum(): ignoreUndefined
    - ▶ If true, ignores null or "" values when adding array elements
  - ▶ New **language** attribute for CFHTMLTOPDF, defaults to “English”
  - ▶ CFHTMLTOPDFITEM tag has new **evalAtPrint** attribute
    - ▶ If true, content of CFHTMLTOPDFITEM evaluated AFTER PDF is generated, page numbers available
    - ▶ Allows conditional code inside CFHTMLTOPDFITEM

## UPDATE 3

- ▶ Also
  - ▶ New domain/user/password support in CFOBJECT, CreateObject()
  - ▶ New **useSecureJSONPrefix** arg for SerializeJSON()
  - ▶ New QueryGetResult(), returns metadata about queries
  - ▶ Several date-related changes in several functions, new IsDateObject()
  - ▶ Also 180 bug fixes (100+ as reported by users)
- ▶ CF Builder 2016 Update 3 released concurrently
  - ▶ PhoneGap updated to 6.0
  - ▶ 25 bug fixes, including for an important security fix and Security Analyzer
  - ▶ Enhancements to editor

## UPDATE 3 (CONT.)

## ▶ Update 3 resources

### ▶ Overview

- ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-2016-update-3.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-2016-update-3.html)
- ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-builder-2016-update-3.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-builder-2016-update-3.html)

### ▶ Release notes (covers all updates)

- ▶ [helpx.adobe.com/content/help/en/coldfusion/release-note/coldfusion-2016-updates-release-notes.html](http://helpx.adobe.com/content/help/en/coldfusion/release-note/coldfusion-2016-updates-release-notes.html)

### ▶ Bug fixes and known issues

- ▶ [helpx.adobe.com/coldfusion/kb/bugs-fixed-coldfusion-2016-update-3.html](http://helpx.adobe.com/coldfusion/kb/bugs-fixed-coldfusion-2016-update-3.html)

### ▶ Blog post

- ▶ [blogs.coldfusion.com/post.cfm/updates-for-coldfusion-2016-and-coldfusion-builder-2016-is-available-now](http://blogs.coldfusion.com/post.cfm/updates-for-coldfusion-2016-and-coldfusion-builder-2016-is-available-now)

# UPDATE 3 (CONT.)

- ▶ Lists updates, links to technotes, and offers jar download links!
  - ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-2016-updates.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-2016-updates.html)
- ▶ Also available for CF 11 and 10:
  - ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-11-updates.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-11-updates.html)
  - ▶ [helpx.adobe.com/coldfusion/kb/coldfusion-10-updates.html](http://helpx.adobe.com/coldfusion/kb/coldfusion-10-updates.html)
- ▶ Again, updates are cumulative, need only apply latest!

SINGLE PAGE LISTING ALL CF2016  
UPDATES

- ▶ Mentioned previously new installer for CF2016, released Dec 2016
  - ▶ Main benefit was removal of API Manager
  - ▶ Also incorporates all 3 updates and updates JDK to version 1.8.0\_112
  - ▶ Still other changes
- ▶ But it also removes some libraries underlying certain deprecated features: Portlets, YUI, Spry
  - ▶ Used by cfcalendar, cfinput "autosuggest"/"datefield", cfmenu, cftooltip, cfsprydataset
    - ▶ These will now break
  - ▶ If you want to use them you have to go get the libraries
    - ▶ Links offered on blog post below or at <https://helpx.adobe.com/coldfusion/deprecated-features.html>
- ▶ ...

## NEW CF2016 INSTALLER IN DEC 2016

- ▶ See [blogs.coldfusion.com/post.cfm/coldfusion-2016-installer-refreshed](https://blogs.coldfusion.com/post.cfm/coldfusion-2016-installer-refreshed)
  - ▶ And [helpx.adobe.com/coldfusion/kb/coldfusion-2016-update-3-installer-refresh.html](https://helpx.adobe.com/coldfusion/kb/coldfusion-2016-update-3-installer-refresh.html)
- ▶ Wrapping up, on to "Traps/Gotchas"...

## NEW CF2016 INSTALLER IN DEC 2016 (CONT)

- ▶ Can no longer access CF11 installers on Adobe site
  - ▶ Look to *cfmlrepo.com* (community-run site)
- ▶ Can't even license CF11 anymore
  - ▶ Must buy CF2016 and request "backward license" to CF11
  - ▶ *blogs.coldfusion.com/post.cfm/adobe-coldfusion-backward-licensing*
- ▶ Annoying: while there are PDFs of CF docs... (*helpx.adobe.com/coldfusion/home.htm*)
  - ▶ They generally show only one level within a section, then offer a link to online page for more detail (sometimes confusing)
  - ▶ Then even in the online docs, there are no features to move among sections
  - ▶ Vote for my bug reports: *tracker.adobe.com/#/view/CF-4155931*
    - ▶ And related: *tracker.adobe.com/#/view/CF-4160535*

# TRAPS/GOTCHAS

- ▶ Gotchas mentioned previously
  - ▶ Security Analyzer works only with CF Enterprise (or trial)
    - ▶ Also requires CF installed in “Developer mode”, with RDS enabled
  - ▶ New redis-based session vars support only CFML sessions, not j2ee sessions
  - ▶ CF Installer web server config step does not yet offer tuning options
- ▶ See other (few) “known issues” listed in original release and update docs
- ▶ Be sure to apply updates before believing web reports of “known bugs”. May since have been fixed!
  
- ▶ That’s it. Now on to resources for learning more...

## TRAPS/GOTCHAS (CONT.)



- ▶ In addition to many resources mentioned so far (do see them also), see these
  - ▶ [adobe.com/devnet/coldfusion/articles/whats-new-cf-2016.html](http://adobe.com/devnet/coldfusion/articles/whats-new-cf-2016.html)
  - ▶ [helpx.adobe.com/coldfusion/whats-new.html](http://helpx.adobe.com/coldfusion/whats-new.html)
  - ▶ [helpx.adobe.com/coldfusion/2016/topics/features.html](http://helpx.adobe.com/coldfusion/2016/topics/features.html)
  - ▶ [helpx.adobe.com/coldfusion/release-note/coldfusion-2016-release-notes.html](http://helpx.adobe.com/coldfusion/release-note/coldfusion-2016-release-notes.html)
  - ▶ Video on CF2016 (8-minute overview): [youtube.com/watch?v=Bm6dJjNSPNg](https://youtube.com/watch?v=Bm6dJjNSPNg)
  - ▶ [helpx.adobe.com/coldfusion/home.htm](http://helpx.adobe.com/coldfusion/home.htm) (CF2016 docs)

RESOURCES FOR MORE ON CF2016

▶ And these:

- ▶ [adobe.com/products/coldfusion-standard/features.html](http://adobe.com/products/coldfusion-standard/features.html)
- ▶ [helpx.adobe.com/pdf/Cf2016-standard-datasheet.pdf](http://helpx.adobe.com/pdf/Cf2016-standard-datasheet.pdf)
- ▶ [helpx.adobe.com/pdf/Cf2016-standard-comparison.pdf](http://helpx.adobe.com/pdf/Cf2016-standard-comparison.pdf) (compares to previous releases)
  
- ▶ [adobe.com/products/coldfusion-enterprise/features.html](http://adobe.com/products/coldfusion-enterprise/features.html)
- ▶ [helpx.adobe.com/pdf/Cf2016-enterprise-datasheet.pdf](http://helpx.adobe.com/pdf/Cf2016-enterprise-datasheet.pdf)
- ▶ [helpx.adobe.com/pdf/Cf2016-enterprise-comparison.pdf](http://helpx.adobe.com/pdf/Cf2016-enterprise-comparison.pdf) (compares to previous releases)

RESOURCES FOR MORE ON CF2016  
(CONT.)

▶ And these:

- ▶ [helpx.adobe.com/coldfusion/standard/system-requirements.html](http://helpx.adobe.com/coldfusion/standard/system-requirements.html)
- ▶ [helpx.adobe.com/coldfusion/enterprise/system-requirements.html](http://helpx.adobe.com/coldfusion/enterprise/system-requirements.html)
  
- ▶ [helpx.adobe.com/pdf/coldfusion2016-support-matrix.pdf](http://helpx.adobe.com/pdf/coldfusion2016-support-matrix.pdf) (web servers, OS's, DB's supported)
  
- ▶ [adobe.com/products/coldfusion-standard/buying-guide.html](http://adobe.com/products/coldfusion-standard/buying-guide.html)
- ▶ [adobe.com/products/coldfusion-enterprise/buying-guide.html](http://adobe.com/products/coldfusion-enterprise/buying-guide.html)

RESOURCES FOR MORE ON CF2016  
(CONT.)

▶ And these whitepapers

▶ CF2016 Security audit report:

▶ [blogs.coldfusion.com/post.cfm/coldfusion-2016-release-security-audit-report](https://blogs.coldfusion.com/post.cfm/coldfusion-2016-release-security-audit-report)

▶ CF2016 Performance report:

▶ [www.images.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/cf2016/CF2016\\_Performance.pdf](http://www.images.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/cf2016/CF2016_Performance.pdf)

▶ CF2016 lockdown guide:

▶ [www.images.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/coldfusion-2016-lockdown-guide.pdf](http://www.images.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/coldfusion-2016-lockdown-guide.pdf)

▶ CF2016 migration guide:

▶ [www.images.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/cf2016/cf2016-migration-guide.pdf](http://www.images.adobe.com/content/dam/acom/en/products/coldfusion/pdfs/cf2016/cf2016-migration-guide.pdf)

RESOURCES FOR MORE ON CF2016  
(CONT.)

- ▶ And still other resources for CF2016:
  - ▶ Adobe CF team blog: [blogs.coldfusion.com](http://blogs.coldfusion.com)
  - ▶ Anit (Dir of CF Support) blog: [coldfusionsolution.wordpress.com](http://coldfusionsolution.wordpress.com)
  - ▶ Akbarsait's CF2016 meta resource guide:  
[akbarsait.com/blog/index.cfm/2016/2/21/ColdFusion-2016-Tutorials-and-Articles-by-ColdFusion-Community/](http://akbarsait.com/blog/index.cfm/2016/2/21/ColdFusion-2016-Tutorials-and-Articles-by-ColdFusion-Community/)
  - ▶ My sites: [cf411.com](http://cf411.com), [cf911.com](http://cf911.com), [cfupdate.com](http://cfupdate.com) (and [carehart.org](http://carehart.org))
    - ▶ I often link to the resources of others in the community, past/present
    - ▶ I can help you with any CF server troubleshooting/admin challenges

SOME RESOURCE GEMS FOR CF2016  
AND EARLIER

- ▶ So, how many changes did we cover? Any guesses?
  - ▶ I counted about 80! (not including bug fixes)
  - ▶ As is often the case, most can name only a few
- ▶ Hope you may be more motivated—and informed—to consider CF2016
  - ▶ To understand if and how it may work for you
  - ▶ Or at least where things stand regarding it as of now
- ▶ Again, my contact info for followup:
  - ▶ Charlie Arehart
  - ▶ [charlie@carehart.org](mailto:charlie@carehart.org)
  - ▶ @carehart (Tw, Fb, Li, Slack)
- ▶ And hope you'll stop by the FusionReactor booth ...

## SUMMARY



FusionReactor Proud Sponsors of  
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**INTERGRAL**  
information solutions

 fusion  
**reactor**

## FusionReactor Highlights

- FusionReactor is the #1 Performance Monitor for Adobe ColdFusion
- FusionReactor launched in 2005 – Version 7 planned for release in 2017
- 5,000+ customers – in almost all industries and segments (incl. Government)
- 25,000+ Servers running FusionReactor in production
- Visit our booth for a demo, more information + Keep Calm mug
- All attendees are eligible for a special 30 day extended trial of FR Ultimate

Our customers rate FusionReactor: ★★★★★ (4.8 / 157 reviews) Powered by **feefo** 