HIDDEN GEMS IN CF11

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INTRODUCTION

- NOT discussing ALL that is new/updated in CF11!

  - Only the things that don't get much PR

- Adobe always lists a dozen or so key features

  - There's often a LOT more

- Some may have been documented, but you may miss them

  - No single document listing all new release changes. In many docs

- These slides are online at my site

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ABOUT CHARLIE AREHART

Independent Consultant

- 17 yrs CF experience (32 in Enterprise IT)
- Certified Adv CF Developer, Instructor
- Adobe Forum MVP, CF CAB member
- Frequent speaker to conf's worldwide
- Organizer, Online ColdFusion Meetup (coldfusionmeetup.com), 2800+ members
- Living in Alpharetta, Georgia (Atlanta)

Web home at www.carehart.org

- 100+ presentations, 80+ articles, 400+ blog entries
- UGTV: recordings of 600+ presos by 300+ speakers
- CF411.com: 1800+ tools/resources, 150+ categories
- CF911.com: CF server troubleshooting resources
- Hosting courtesy of EdgeWeb Hosting
- Consulting: available for CF troubleshooting, tuning
  - Remote or on-site; on-demand, single instance is ok

HOW MANY NEW/CHANGED FEATURES?

- Some people think CF didn't really add much

- So how many new features do you think can be named?
  - I don't mean counting every new/changed tag/function, but "features"
  - Try to list them right now..

- Hope to show you there is lots more to CF11 than you may think
  - Won't simply praise it. Will also point out some gotchas/traps/solutions

- Will also talk briefly about CFBuilder 3 and some hidden gems/tips/traps

- One other tip, if you're skipping 10
  - Don't miss my "Hidden Gems in CF10" and "CFB 2" and "CFB 1" talks
  - At "presentations" section of carehart.org

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DON'T MISS THE DOCS

- Online at https://wikidocs.adobe.com/wiki/display/coldfusionen/
    - Adobe ColdFusion CFML Reference   (3053 pp.)
    - Developing Adobe ColdFusion Applications   (2080 pp.)
    - Installing Adobe ColdFusion   (93 pp.)
    - Configuring and Administering ColdFusion   (215 pp.)
    - (New) Mobile Application Development   (72 pp.)
- Any guess of how many pages are in these docs?
- Yes, you can get PDF of each:
https://wikidocs.adobe.com/wiki/display/coldfusionen/Downloads

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MANY MORE RESOURCES ON WHAT'S NEW

- First chapter of CFML Ref and Dev Apps list "what's new/changed in 11"

- wikidocs.adobe.com/wiki/display/coldfusionen/New+in+ColdFusion

- https://wikidocs.adobe.com/wiki/pages/viewpage.action?pageId=140968014
  - "New and Changed Tags/Functions in ColdFusion 11"

- helpx.adobe.com/coldfusion/release-note/coldfusion-11-release-notes.html

- wikidocs.adobe.com/wiki/display/coldfusionen/ColdFusion+Language+Enhancements

- www.adobe.com/devnet/coldfusion/articles/security-improvements-cf11.html

- www.adobe.com/devnet/coldfusion/articles/language-enhancements.html

- And more

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INSTALLATION CHANGES

- New dev/production/prod+secure profile option

  - Secure profile added in CF11

    - Changes about 20 CF admin settings

    - Can now enable/disable later in Admin, all at once

  - Production profile: disables RDS, enforces complex passwords, provides later screen to disable some features (flash remoting, rds, wsrp, etc)

- New option to expose pdfg/solr as a remote service

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NEW "EXPRESS" EDITION

- AKA "getting started server"
  - Available as zip or EAR
  - Install instructions:
    https://wikidocs.adobe.com/wiki/display/coldfusionen/Installing+the+ColdFusion+Express
- Not intended for prod
  - All debugging settings are enabled
  - Development profile is enabled by default
  - Applying License is also disabled from the administrator to prevent use in production
  - Does not support:
    - SOLR
    - Microsoft .NET integration
    - Remote administration
    - PDF generation
    - Can configured with this server by installing standalone installers:
      - adobe.com/support/coldfusion/downloads.html

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ADMIN ENHANCEMENTS

- Lots of "little" things that can make a big difference

- Can now have more than one login to Admin at same time

  - Configurable in admin Security page

  - Also Admin API: setAllowConcurrentAdminLogin, isAllowConcurrentAdminLogin

- Secure profile page

  - Can turn on/off

  - Shows the ~20 admin settings affected, 3 cols of what is, would be, was

- Security>Allowed IP Addresses page

  - This affects more than just access to CF Admin (added in CF10)

  - Also adminapi, servermanager, wizards, RDS, and more

  - See new iprestriction.properties file in C:\ColdFusion11\config\wsconfig\nn

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SECURITY ENHANCEMENTS

- Secure Profile change
  - If enabled, default value for cflocation tag addToken attribute will be false
  - New adminapi methods: enableSecureProfile, disableSecureProfile, getAllSecureProfileSettingsInArray
- Antisamy
  - New isSafeHTML, getSafeHTML functions use antisamy policy file
- Oauth support (new functions, later)
- New Generatepbkdf2key function
  - "derive a cryptographically strong random key of any desired size from the humanly manageable password or passphrase"
- CFMail support of encrypted email
- JVM included with CF11 is 1.7.0_55 (you can update to more recent)
- …

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SECURITY ENHANCEMENTS (CONT.)

- CFHTTP now supports calling pages secured with Window Auth/NTLM
  - New authtype="ntlm" attribute
  - Also now supports server name indication (SNI) extension for TLS
- New encoding support for XML, XPATH processing
  - Also new encodeForXMLAttribute function
- CFLOGIN change regarding multiple concurrent users
  - Admin change really about this
  - As for apps, new allowConcurrent on CFLOGIN; session attr on CFLOGOUT
- CFInclude change
  - Can now limit what file extensions can be CFINCLUDEd
  - Can set in CF admin or in application.cfc/cfm
- Again, for more on these and others, see
  - adobe.com/devnet/coldfusion/articles/security-improvements-cf11.html

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LANGUAGE ENHANCEMENTS: NEW TAGS

- Again, see list of new/modified tags and functions here:
  - wikidocs.adobe.com/wiki/pages/viewpage.action?pageId=140968014
- Cfclient
  - Cfclientsettings
- Cfhtmltopdf (no longer Windows-only)
  - Cfhtmltopdfitem
- Cfimapfilter
- Cfoauth
- Cf_socialplugin

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LANGUAGE ENHANCEMENTS: NEW FUNCTIONS

- ArrayMap
- ArrayReduce
- CanDeSerialize
- CanSerialize
- Deserialize
- DeserializeXML
- EncodeForXMLAttribute
- EncodeForXpath
- GeneratePBKDFKey
- GetSafeHTML
- **ImageGetMetadata**
- InvalidateOauthAccesstoken
- InvokeCFClientFunction
- isSafeHTML

- IsValidOauthAccesstoken
- ListEach
- ListMap
- ListReduce
- **QueryExecute**
- **QueryGetRow**
- Serialize
- SerializeXML
- SpreadSheetAddAutofilter
- SpreadSheetAddPagebreaks
- StructMap
- StructReduce

LANGUAGE ENHANCEMENTS (CONT.)

- Other things
  - Member functions
  - Full cfscript parity with tags
  - Elvis operator
  - Built-in functions as first-class objects
- Again, see docs and what's new pages for more

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LANGUAGE ENHANCEMENTS (CONT.)

- Enterprise-only
  - PDF signature support
  - Full DDX support
  - WebSocket cluster support
  - REST multisite support
  - CFhtmltopdf cluster support

LANGUAGE ENHANCEMENTS (CONT.)

- New settings in application.cfc this scope or cfapplication attributes
  - datasources[] array (to support application-specific datasources)
  - strictNumberValidation (to change new default of stricter validation)
  - compileextforinclude (to control that CFINCLUDE change)
  - customSerializer (to support new REST custom serialization)
  - For more, see https://wikidocs.adobe.com/wiki/display/coldfusionen/cfapplication
- Custom/"pluggable" serializers (for rest web services)
  - See wikidocs.adobe.com/wiki/display/coldfusionen/RESTful+Web+Services+in+ColdFusion

OBSOLETED/DEPRECATED LANGUAGE/FEATURES

- With CF11, Adobe has started to be more vigorous in really obsoleting what before was just deprecated
  - Mostly old attributes, but some tags (cfgraph, cfservlet, etc.)
  - And has now deprecated some more things
- For more, see
  - https://wikidocs.adobe.com/wiki/display/coldfusionen/Deprecated+Features
  - http://webdevsourcerer.com/index.cfm/blog/post/slug/coldfusion-11-finally-deprecating-removing-things
  - http://webdevsourcerer.com/index.cfm/blog/post/slug/coldfusion-11-more-on-depricated-and-new-changes
  - http://cfmlblog.adamcameron.me/2014/03/coldfusion-11-adobe-have-finally.html

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THINGS NOW SUPPORTED IN STANDARD!

- This is great news for many, as they used to be Enterprise only

- CF archive (car) mechanism (to move CF admin settings from server to server)

- Security Sandbox (to lockdown what code in different directories can do)

- Web socket limit lifted

- HTML5 charts

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AGAIN, SOME NEW THINGS <u>ARE</u> ENTERPRISE ONLY

- PDF signature support

- Full DDX support

- WebSocket cluster support

- REST multisite support

- CFHTMLTOPDF cluster support

- Edition differences:
  - adobe.com/products/coldfusion-family/buying-guide.html
  - adobe.com/products/coldfusion-enterprise/buying-guide.html

GOTCHAS

- Note that you must switch from using cfdocument to cfhtmltopdf, to get pixel-perfect PDFs
    - And note that cfhtmltopdf stops page processing (I found)
- "Minor" change in how cfhttp works, in terms of the request it makes
    - Adds port to hostname header reported to destination (which may be significant to some destinations, like google)
    - Can override it by writing your own host header with cfhttpparam
    - See raymondcamden.com/2014/5/22/Important-note-about-ColdFusion-11-and-CFHTTP
- CF10 had introduced new access log, tracking every request
    - Provided via Tomcat AccessValve
    - Sadly, it's not enabled by default, but can be enabled in server.xml

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BUGS

- Sadly, there are indeed bugs (as with any new software), and no update yet

- One particularly nasty one

  - In IIS (7 and 8?), if you change any IIS setting, the worker process/app pool of any sites associated with CF will stall until recycle of app pool. Ugh

  - Adobe has a fix, posted in bug report (3777189)

- For that and other bug fixes, you can email cfinstal@adobe.com to get patch

- Bugbase: bugbase.adobe.com/index.cfm

OTHER THINGS

- Note that support for CF9 will end in Dec 2014

- CF10 installers were removed, but of course it's still supported
  - Issue was included libraries. Had to remove installers

- Can still find them, and most past CF installers, updates and docs
  - http://www.gpickin.com/cfrepo/
  - (Problem for now with tinyurl.com/cfdownloads)

- The Amazon instance has been updates for CF11
  - blogs.coldfusion.com/post.cfm/coldfusion-11-amis-now-available-on-amazon-ec2

- EULA: no major changes, but new clarification about VMs
  - wwwimages.adobe.com/www.adobe.com/content/dam/Adobe/en/legal/licenses-terms/pdf/AdobeColdFusionReportBuilderEULA_06-06-07-FINAL_Combined.pdf

CFBUILDER 3

- Rewritten entirely, no longer embedding Aptana
    - Most find it faster, better. Some encountering problems
    - New automatic update notification/implementation feature:
        - 3 updates so far: don't miss getting that done
    - Configurable editor toolbar
    - Creates new index.cfm on creating new CF project (pro or con)
    - New "template" feature, available when creating a new CF project
- Now runs on Linux!
- …

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CFBUILDER 3

- CFBuilder licenses now bundled with CF Server license purchase
  - Enterprise comes with 3 licenses of CF Builder
  - Standard comes with 1
- Builder also now includes option to bundle CF server within CFBuilder
  - Interesting option for those who wouldn't notice free Dev edition
  - Also preconfigured in CFB as a "server", helpful for those who might otherwise have missed how to do that
    - And the features that come only when a project is connected to a server
- Again, see available CFBuilder User Guide for more on CFB

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NO CF11 UPDATES YET

- Should be one coming soon

- When there is one, if you're new to CF10 and 11 and will run for first time, see

  - This blog entry from Adobe engineer Krishna P, with tips and traps

  - http://blogs.coldfusion.com/post.cfm/coldfusion-hotfix-installation-guide

  - Written after first update, and tweaked again after second update

  - Nearly 50 questions and answers!

MANY MORE "NEW" THINGS

- Again, this was not a list of "all that's new" but seeming hidden gems
  - See docs for more on so many things
    - …
    - And so much more
- Even more hidden gems, I'm sure
  - Are there any I've missed?

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WHERE TO LEARN MORE

- Again, the Adobe CF Docs
  - So much more than just the CFML Reference
- Some Key Adobe CF Blogs:
  - http://blogs.coldfusion.com
    - Sometimes links to blogs of the CF engineers
- Others who have blogged quite a bit about CF11
  - http://blog.adamcameron.me/
  - http://www.raymondcamden.com
  - http://www.bennadel.com/
- See also Akbar Sait's wonderful list of CFxx Tutorials
  - http://www.akbarsait.com/cf11tutorials.cfm

CONCLUSION

- Hope you agree that there's a lot more than just a dozen or so new features

- How many do you think we covered?

  - Over 40!

- How many were valuable to you?

  - We're done, so share your opinion by your applause, please! :-)

- Questions, if we have time?

  - And if I can help you with CF Server Troubleshooting, contact me below!

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