

# INSTALLING COLDFUSION 2023: CHOICES, CHALLENGES, AND SOLUTIONS



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- ▶ Finding, downloading CF installers
  - ▶ Traditional full (“gui”) installer, and its installer choices
  - ▶ “Zip” installation option, and its cinstall script (cinstall), new since cf2021
- ▶ Other install aspects to be aware of
  - ▶ CF activation (if implementing CF license) and “deployment type”
  - ▶ Optional packages/modules management (cfpm)
  - ▶ CF Admin setting migration; Updating CF and JVM post-install, and more
- ▶ Alternatives ways to run CF without “installing” it
- ▶ Resources on related topics

- ▶ What's new in CF2023, why consider moving to it
- ▶ Compatibility issues
- ▶ Choosing between ColdFusion Enterprise And Standard
- ▶ Will share resources on these and other topics at end of talk

WHAT WE WON'T COVER TODAY

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- ▶ I 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**)
  - ▶ **Solve most problems in less than an hour**, teaching you also as we go
  - ▶ **Satisfaction guaranteed**
    - ▶ More on rates, approach, etc at [carehart.org/consulting](https://carehart.org/consulting)
- ▶ But to be clear, I'm not selling anything in this session! 😊
  
- ▶ Presentation online at [carehart.org/presentations](https://carehart.org/presentations)

# ABOUT ME

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# PRIMARY CF “INSTALL” MECHANISMS

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- ▶ Visit *coldfusion.com*
  - ▶ Choose free trial or developer edition (single installer for all these or licensed CF)
  - ▶ Login to site, fill in form
  - ▶ For your OS, choose full or zip installer (don't presume zip is best choice for you...)
- ▶ Those who buy CF can find installers here:
  - ▶ *account.adobe.com/products*
  - ▶ *licensing.adobe.com*
  - ▶ Or can use steps above
- ▶ Some might want to consider *cfmlrepo.com* as alternative
  - ▶ Managed by community members, installers back to CF1.5 (seriously!)
- ▶ Demos

## FINDING/DOWNLOADING CF INSTALL FILES

- ▶ This is the CF installer most have long used, and it's available for:
  - ▶ Windows, Linux, MacOS, Solaris
- ▶ Can run as GUI or via commandline prompt
- ▶ Either way, offers several pages of choices to consider
  - ▶ Not really the focus of this talk, but covered in docs
  - ▶ [helpx.adobe.com/coldfusion/user-guide.html/coldfusion/installing/installing-the-server-configuration.ug.html](https://helpx.adobe.com/coldfusion/user-guide.html/coldfusion/installing/installing-the-server-configuration.ug.html)
  - ▶ But let's take a look at those screens in docs
- ▶ On first installing CF on a Windows machine, will run Visual C++ Redist installer
- ▶ Silent install option available
  - ▶ [helpx.adobe.com/coldfusion/user-guide.html/coldfusion/installing/installing-coldfusion-silently.ug.html](https://helpx.adobe.com/coldfusion/user-guide.html/coldfusion/installing/installing-coldfusion-silently.ug.html)

## TRADITIONAL FULL (“GUI”) INSTALLER

- ▶ Comes as “core” engine, reducing size of “install” file to ~150mb
  - ▶ Zip available for each of Windows, Linux, MacOS, Solaris
- ▶ Simply unzip that, which includes a “ColdFusion” folder
  - ▶ Then must run **cfinstall** in its bin folder
    - ▶ offers prompts to configure, including choosing packages (more on this later)
- ▶ More:
  - ▶ [helpx.adobe.com/coldfusion/using/install-coldfusion-2021.html](https://helpx.adobe.com/coldfusion/using/install-coldfusion-2021.html)
  - ▶ [coldfusion.adobe.com/2020/12/coldfusion-2021-install-experience](https://coldfusion.adobe.com/2020/12/coldfusion-2021-install-experience)
- ▶ Silent install option available for this also
  - ▶ [helpx.adobe.com/coldfusion/using/install-coldfusion-2021.html#Silentinstallation](https://helpx.adobe.com/coldfusion/using/install-coldfusion-2021.html#Silentinstallation)

“ZIP INSTALL” OPTION (NEW WITH CF2021)



- ▶ Does not implement DotNet, Solr/PDFg services (can download, install them)
- ▶ Does not install Visual C++ redistributable runtime (affects some features)
  - ▶ You can install it yourself, and then those things will work (see last blog post for more)
- ▶ Does not cause running of migration wizard on first Admin launch
  - ▶ See [helpx.adobe.com/coldfusion/user-guide.html/coldfusion/using/install-coldfusion-2021.ug.html#main-pars\\_header\\_607718620](https://helpx.adobe.com/coldfusion/user-guide.html/coldfusion/using/install-coldfusion-2021.ug.html#main-pars_header_607718620)
- ▶ Does not implement CF's sample (Derby) databases
- ▶ Let's move on to related topics that apply to both installer options...

## “ZIP INSTALL” DIFFERENCES

# INSTALLATION CHOICES/OPTIONS

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- ▶ Among first choices is whether to run as Trial or Developer, or to use serial #
  - ▶ Trial runs as like Enterprise edition, for 30 days
    - ▶ If serial number is not entered then, reverts to free Developer edition
  - ▶ Free developer edition runs like Enterprise edition
    - ▶ With limit of no more than 2 concurrent requests from more than one IP address
  - ▶ Enterprise edition license is priced per 8 cores
    - ▶ And serial number can be used also on one non-prod machine (test, qa, dev, stage, DR)
  - ▶ Standard edition license is priced per 2 cores
    - ▶ Serial number can be used on non-prod, once for every TWO licenses bought
- ▶ Again, same installer (GUI/full or zip) for all these different editions

# CF EDITIONS

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- ▶ Since CF2021, if/when you put in a CF license, that will need to be “activated”
  - ▶ Over the internet
  - ▶ Server without internet access will require manual activation (see docs)
- ▶ Activation does NOT apply to free Development or Trial editions
- ▶ New CF Admin section (last button on bottom left) can view/manage this
  - ▶ Includes new tab to view license use, including Docker image license use
- ▶ More:
  - ▶ I've not yet done a talk on this, but could/should
  - ▶ [helpx.adobe.com/coldfusion/user-guide.html/coldfusion/using/coldfusion-licensing-activation.ug.html](https://helpx.adobe.com/coldfusion/user-guide.html/coldfusion/using/coldfusion-licensing-activation.ug.html)

# LICENSE ACTIVATION FEATURE

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- ▶ Related to previous activation feature, you are asked during install to choose:
  - ▶ Production, development, staging, testing, QA, disaster recovery
  - ▶ Tells CF (if/when you add license and activate) how this server will be used
  - ▶ Covered in activation docs
- ▶ Not to be confused with “server profiles” (existing since CF10):
  - ▶ Development, Production, Production+Secure (“secure profile”)
  - ▶ [helpx.adobe.com/coldfusion/installing/understanding-coldfusion-server-profiles.html](https://helpx.adobe.com/coldfusion/installing/understanding-coldfusion-server-profiles.html)

“DEPLOYMENT TYPE” INSTALL CHOICE

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- ▶ Another change as of CF2021: for many, this discussion may not matter
  - ▶ For others, they may THINK it's very important but might just get confused by change
- ▶ To be clear: full/gui CF installer **installs ALL packages by default**
  - ▶ Zip installer **implements virtually NONE by default** (same with CF Docker images)
    - ▶ Again, cinstall script asks if you want to implement any
    - ▶ There are about 50 packages/modules, some affecting code, others admin
- ▶ Concept makes sense (use only what you need)...

## PACKAGES/MODULES CAPABILITY

- ▶ Practical implication: tends not to save as much on resources as some hope
  - ▶ Many stumble in trying to properly make choices, control versions, etc
- ▶ More:
  - ▶ I've not yet done a talk on this, but could/should
  - ▶ [helpx.adobe.com/coldfusion/user-guide.html/coldfusion/using/coldfusion-package-manager.ug.html](https://helpx.adobe.com/coldfusion/user-guide.html/coldfusion/using/coldfusion-package-manager.ug.html)
- ▶ Package installation can be changed any of several ways
  - ▶ Can be done either from command line, via Admin, or as Docker env var...

- ▶ Via cmd line, new **cfpm** script (bat or sh, in cfusion/bin folder)
  - ▶ Can run interactively or not, with several commands (see docs below, cli help)
  - ▶ Available feature to scan your code to identify (and even install) needed packages
  - ▶ Available downloadrepo command, for those in offline environments
- ▶ In CF Admin, new “package manager” section on lower left
  - ▶ See its two pages, “Packages” and “Settings”
- ▶ CF Docker images now add installModules env var (comma-sep list of pkgs)
  - ▶ And related importModules (to name a file listing packages to import)

## MANAGING PACKAGES/MODULES

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# POST-INSTALLATION STEPS

- ▶ You likely ran a previous CF version, whether on same or another machine
  - ▶ There are multiple ways to migrate in CF Admin settings
- ▶ On first launch of Admin, CF will detect any prior version on same machine
  - ▶ Offers to pull in all of its CF Admin settings
- ▶ CF admin also offers CF Archive (“CAR”) UI to export/import settings
- ▶ Since CF2021, new cfsetup tool (more in a moment)
- ▶ Resource:
  - ▶ “Migrating/ Comparing CF Admin Settings, between instances, versions, engines”
  - ▶ [carehart.org/presentations/#migrating\\_admin](https://carehart.org/presentations/#migrating_admin)

## MIGRATING IN PREVIOUS CF ADMIN SETTINGS

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- ▶ Available as cfsetup script (.bat or .sh, in CF “config/cfsetup” folder)
  - ▶ Cli tool to view, change CF Admin settings; can export/import json file of settings
- ▶ Yes, similar to Commandbox CFConfig module
  - ▶ No, not as powerful as it (can't use it across CF and Lucee)
    - ▶ Can use across CF versions
  - ▶ Is valuable for what it does, especially scripted installation of CF2021 and above
- ▶ CF Docker images now have new importCFSettings env var to pull in such settings
- ▶ More:
  - ▶ [helpx.adobe.com/coldfusion/user-guide.html/coldfusion/using/cfsetup-configuration-tool.ug.html](https://helpx.adobe.com/coldfusion/user-guide.html/coldfusion/using/cfsetup-configuration-tool.ug.html)
  - ▶ [carehart.org/presentations/#cfsetup\\_tool](https://carehart.org/presentations/#cfsetup_tool)

## CLI/JSON ADMIN CONFIG VIA “CFSETUP”

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- ▶ You will likely need to perform CF updates after installation
  - ▶ Depending on when you got the CF2023 installer/zip file
- ▶ There have been 6 updates as of Nov 2023
  - ▶ Original installer came out in May 2023
  - ▶ New installer (including update 5) came out in Oct 2023
- ▶ Will likely need to update JVM that CF runs atop
  - ▶ CF2023 runs on Java 17, comes with 17.0.6
  - ▶ Latest update (as of now) is 17.0.9, from Oct 2023
- ▶ As for doing updates, and dealing with issue, choices, and more, see my talk
- ▶ Resources:
  - ▶ [carehart.org/presentations/#keeping\\_cf\\_updated](https://carehart.org/presentations/#keeping_cf_updated)
  - ▶ [carehart.org/presentations/#updating\\_java](https://carehart.org/presentations/#updating_java)

# UPDATING CF AFTER INSTALLATION

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- ▶ Each of these is worthy of their own session
  - ▶ Web server connector configuration
  - ▶ Running two or more CF versions at once
  - ▶ CF Lockdown (guide or tool)
- ▶ Beyond the scope of this session to detail, but again each covered in own docs
  - ▶ And I hope to do a talk on each
- ▶ And do you HAVE TO install CF? Technically, no...

## OTHER RELATED TOPICS

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# “INSTALL” ALTERNATIVES

- ▶ Commandbox
  - ▶ [ortusolutions.com/products/commandbox](https://ortusolutions.com/products/commandbox)
- ▶ AWS AMI, Azure VMI (machine images), purchased per hour
  - ▶ Includes CF Enterprise license
  - ▶ [aws.amazon.com/marketplace/search?searchTerms=coldfusion](https://aws.amazon.com/marketplace/search?searchTerms=coldfusion)
  - ▶ [azuremarketplace.microsoft.com/en-us/marketplace/apps?search=coldfusion](https://azuremarketplace.microsoft.com/en-us/marketplace/apps?search=coldfusion)
- ▶ Docker images (from Adobe and Ortus)
  - ▶ [carehart.org/presentations/#comparing\\_cf\\_docker\\_alternatives](https://carehart.org/presentations/#comparing_cf_docker_alternatives)
  - ▶ [carehart.org/presentations/#cf\\_docker\\_images\\_evolution](https://carehart.org/presentations/#cf_docker_images_evolution)
  - ▶ [coldfusion.adobe.com/2019/08/getting-started-adobes-coldfusion-docker-images/](https://coldfusion.adobe.com/2019/08/getting-started-adobes-coldfusion-docker-images/)
  - ▶ [github.com/carehart/awesome-cf-compose](https://github.com/carehart/awesome-cf-compose)
- ▶ ...

# “INSTALL” ALTERNATIVES

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- ▶ JEE deployment
  - ▶ [helpx.adobe.com/coldfusion/installing/installing-the-jee-configuration.html](https://helpx.adobe.com/coldfusion/installing/installing-the-jee-configuration.html)
- ▶ Hosted deployment of CFML
  - ▶ Whether shared or dedicated, often includes cost of CF license
  - ▶ [cf411.com/cfhosts](https://cf411.com/cfhosts)
- ▶ *“The Many Ways to Run CF or Lucee”*
  - ▶ [carehart.org/presentations/#runmanyways](https://carehart.org/presentations/#runmanyways)
- ▶ Many other topics, related to installing CF but outside scope of this talk...

## “INSTALL” ALTERNATIVES (CONT.)



- ▶ “Differences between ColdFusion Enterprise And Standard”
  - ▶ [carehart.org/presentations/#differences\\_std\\_ent](https://carehart.org/presentations/#differences_std_ent)
- ▶ “Migrating apps to ColdFusion 2023 from earlier versions”
  - ▶ [carehart.org/presentations/#cf2023\\_migration](https://carehart.org/presentations/#cf2023_migration)
- ▶ “Hidden Gems in CF2023”
  - ▶ [carehart.org/presentations/#cf2023gems](https://carehart.org/presentations/#cf2023gems)
- ▶ “ColdFusion: More modern than most realize”
  - ▶ [carehart.org/presentations/#cf\\_moremodern](https://carehart.org/presentations/#cf_moremodern)
- ▶ Any CF installation topics I’ve missed?
  - ▶ Any questions on anything I’ve discussed today?

RELATED TOPICS I’VE GIVEN AS TALKS

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- ▶ Hope you may be more informed about installing CF2023
  - ▶ Whether full installer or new “zip install” option/cfinstall
  - ▶ Installation choices: activation, packages
  - ▶ Post install steps: CF Admin setting migration; updating CF /JVM, etc.
  - ▶ Alternatives to “installing” CF
- ▶ Again, my contact info for follow-up:
  - ▶ Charlie Arehart
  - ▶ [charlie@carehart.org](mailto:charlie@carehart.org)
  - ▶ @carehart (Tw, Fb, Li, Slack, Skype, GitHub)
  - ▶ Slides: [carehart.org/presentations](http://carehart.org/presentations)

## SUMMARY