



# Adobe ColdFusion (2018 Release) Migration Guide

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## Overview:

There are many ways to migrate your ColdFusion 2016/11/10 server to Adobe ColdFusion (2018 release). After you decided to upgrade your ColdFusion 2016/11/10 server environment to Adobe ColdFusion (2018 release), follow the migration paths specified in this guide for a quick and seamless migration. As always, contact the Adobe Support team, if you need clarifications on any particular step. The support team provides guidance and assistance through this migration process

## Migration Process:

The two critical paths involved in migrating your server from ColdFusion 2016/11/10 to Adobe ColdFusion (2018 release) are as follows:

1. Migrating the server environment (Server along with the user-defined configurations)
  - Installing latest version of ColdFusion
  - Migrating the ColdFusion settings
2. Migrating the deployed applications (user-defined applications) or the web repository.

Migrating the server environment involves upgrading your production server to the latest version of ColdFusion. In this step, your production server gets migrated along with other server configurations like web services, data sources, scheduled tasks. For migrating the server, you have to run the latest ColdFusion installer.

After you have migrated the server, you can analyze, refactor and redeploy your applications on the new ColdFusion server. You can use the built-in ColdFusion Code Analyzer tool to analyze your application code for refactoring.

## Migrating the server (installing latest version of ColdFusion)

This section describes the process to migrate your server using the ColdFusion Migration wizard provided by the ColdFusion installer.

During the installation, do not configure the connector with the production website (if they both are on the same server). There may be a conflict, as there would be two different connectors (one from the previous ColdFusion installation and another from the new ColdFusion server) configured to the same website. You can configure it with built-in server(co-exists) and complete the installation. Once your installation is complete, you can remove the existing connector with the previous ColdFusion installation and disable the built-in server, which was enabled during the installation. Then, recreate the connector between ColdFusion and the web server, for example, IIS, Apache and so on, which are running on the production site.

To migrate your server, perform the following steps:

1. Stop a previous version of ColdFusion server.
2. Take a backup of all neo-\*.xml files available under <CF\_INSTALLDIR\_>/lib from the previous installation. Run the Adobe ColdFusion (2018 release) installer and follow the installation steps.
3. While you are installing Adobe ColdFusion (2018 release), you have two options:
  - a. Allow Adobe ColdFusion (2018 release) server to co-exist with ColdFusion 2016/11/10 server.
  - b. Configure your server for Adobe ColdFusion (2018 release) only.

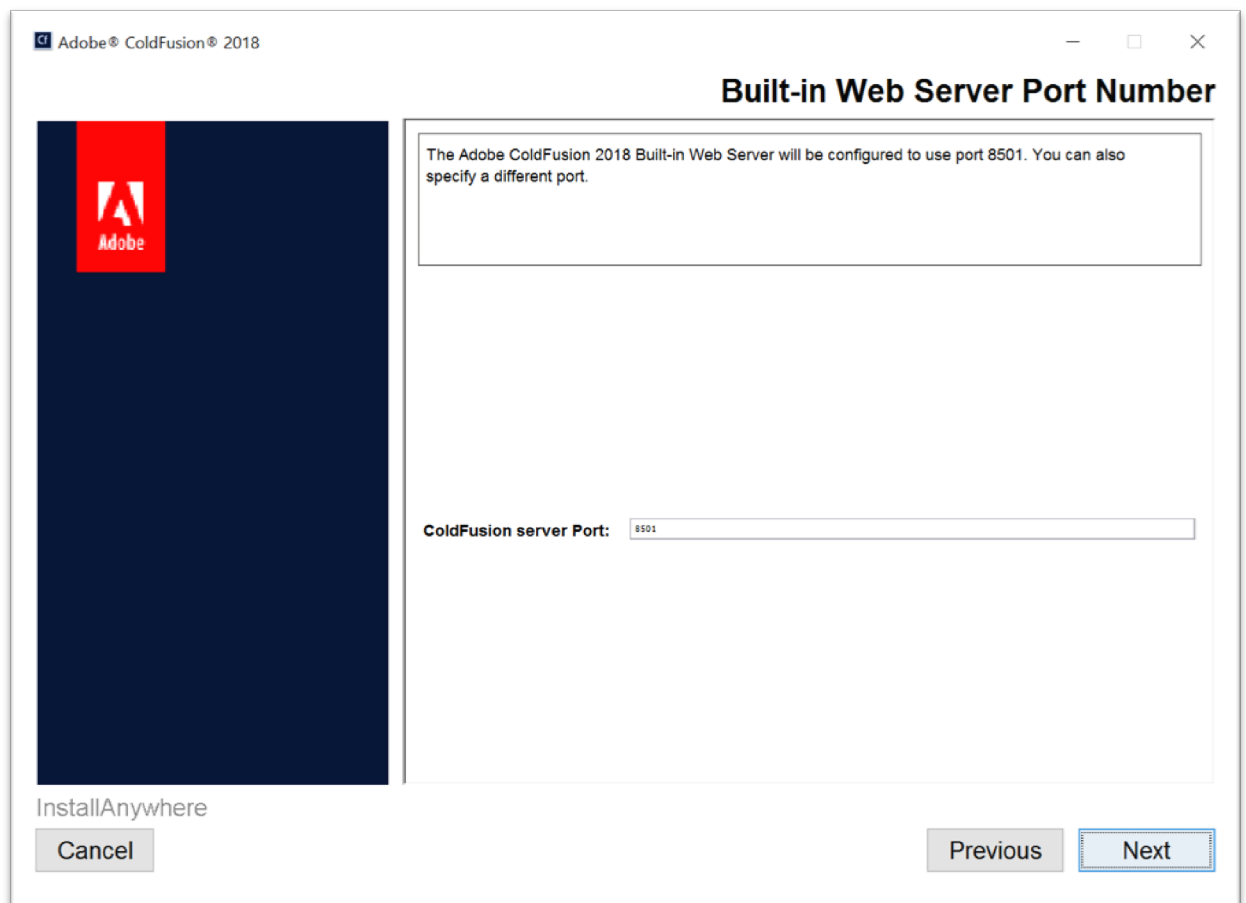
The option you choose, depends on your production requirements.

4. Click next to continue

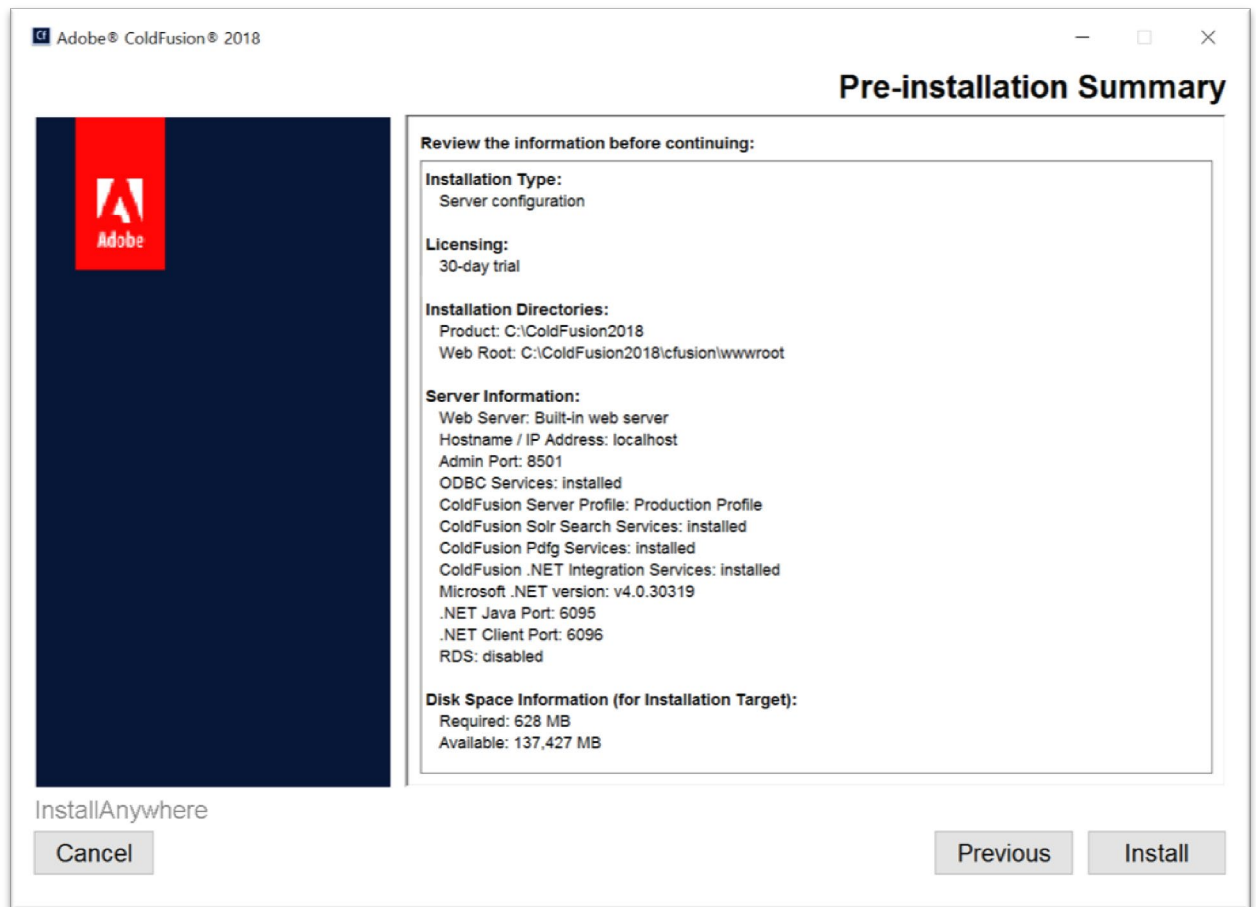
The Built-in webserver port number dialog appears.

**Important:** If you have not shut down the previous of ColdFusion server, the built-in webserver is configured to use a non-default port. This action results in two instances of web server running on your machine, one from old server and another from Adobe ColdFusion (2018 release)

Click next to continue.



5. The last dialog displays the Pre-installation summary. Click install



Now, the ColdFusion Migration wizard guides you in migrating your server configuration to adobe ColdFusion (2018 release)



# Adobe ColdFusion (2018 Release)

## Configuration and Settings Migration Wizard

ColdFusion has been successfully installed. This wizard will guide you through the remaining server configuration steps and, if applicable, migrate settings from a previous version of ColdFusion.

To guarantee the security of your server, please enter your ColdFusion Administrator password.

Password

Login

Follow the steps, confirm, and complete the migration.



# Adobe ColdFusion (2018 Release)

Configuring Server, please wait. This may take a few minutes.

- » **Configure Server**
- Migration
- Export Settings
- Import Settings
- Finish

If this screen doesn't refresh in a few minutes, click on this link to Continue



## Adobe ColdFusion (2018 Release)

- Configure Server
- » Migration
- Export Settings
- Import Settings
- Finish

ColdFusion will now migrate existing settings and resources, including data sources and Custom tags. NOTE: If you skip this step, applications that require these resources will not run correctly until you have defined them in the ColdFusion Administrator.

If you require additional data before continuing, you can stop the Migration Wizard at any time and make the changes. Once done copy the config files (neo-\*.xml) from <oldColdFusionRoot>/lib to <newColdFusionRoot>/lib. When you are ready to

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## Adobe ColdFusion (2018 Release)

- Configure Server
- Migration
- Export Settings
- » Import Settings
- Finish

The following items have been successfully migrated.

- Encryption
- Charting
- Client Stores
- Datasources
- Debugging
- Event Gateways
- Fonts
- Solr Settings
- Logging

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## What is Migrated?

The ColdFusion Migration Wizard automatically migrates the following server configurations:

- Encryption
- Charting
- Client Store
- Data sources
- Debugging
- Event Gateways
- Fonts
- Logging
- Mail
- Solr Settings
- Monitoring
- Probes
- Runtime
- Scheduled Tasks
- Security Sandboxes
- Web Services
- Rest Services
- Websocket

**Note: Value for Max Pooled Statements is set to 100 for following drivers- DB2, Informix, Oracle, Microsoft SQL Server, MySQL (DataDirect), Sybase**

## What is not Migrated?

The following server configurations available in the webroot of the previous installation are not migrated (automatically):

- Database
- Custom tags
- CFX tags
- Fonts

ColdFusion has updated the corresponding settings. However, any other data files (such as databases, Custom Tags, CFX Tags and fonts) under your old Webroot have not been migrated and the corresponding settings still point to their original locations. If you have such files, make sure that you move them and update the settings before deleting your old installation directory. The Solr Home is set corresponding to the default jetty locations. If you have a different jetty installation, update this setting appropriately in SOLR setting page in admin.

## Installation directory structure:

Instead of JRun, Tomcat is embedded with a stand-alone Adobe ColdFusion (2018 release) installation. Previous versions (ColdFusion 9 and prior) of ColdFusion installer allow you to create multi-server



installations. However, the Adobe ColdFusion (2018 release) installer lets you install only a stand-alone installation. After installing ColdFusion in stand-alone mode, you can create multiple instances and clusters, provided, you have an Enterprise or Developer License.

Directory	Description
-----------	-------------

cfusion	<p>Contains the following directories:</p> <ul style="list-style-type: none"> <li>• bin: Programs for starting, stopping and viewing information for ColdFusion. It also contains the password reset script for server administrator</li> <li>• cfx: Sample C++ and Java CFX files with their supporting files</li> <li>• charting: Files for the ColdFusion graphing and charting engine.</li> <li>• Custom Tags: Repository for your custom tags.</li> <li>• db: The sample Apache Derby databases for all platforms</li> <li>• gateway: Files for ColdFusion ebent gateways</li> <li>• jetty: Solr configuration files and files related to remote instance start and stop</li> <li>• jintegra: This is for windows only. Jintegra programs, libraries, another supporting files.</li> <li>• Jnbridge: Files for .NET Integration Services.</li> <li>• lib: JAR, XML, property and other files that are foundation for ColdFusion.</li> <li>• logs: Repository for ColdFusion log files. JRE-specific log files are in the runtime/logs directory. Console outputs are logged in to start.log instead of cfserver.log</li> <li>• mail: repository for spooled mail and mail that cannot be delivered.</li> <li>• META-INF: XML metadata for ColdFusion Administrator</li> <li>• Registry: This feature is available only on UNIX. This a Flat file to store registry settings</li> <li>• Runtime: programs and supporting files for the ColdFusion runtime. Also, it contains the Tomcat libraries. The conf directory in runtime contains all Tomcat configuration files</li> <li>• Stubs: webservices files</li> <li>• wwwroot: Default webroot directory</li> <li>• cache: repository for temp ColdFusion files</li> </ul>
Config	<p>Contains instance.xml and connector configuration files. Also, contains cluster</p>

	configuration file and cluster.xml
Jre	Java runtime files
Uninstall	Files to uninstall ColdFusion

## Modifications to the Directory Structure

By default, Adobe ColdFusion (2018 release) is your installation directory. The following table describes the directory structure.

ColdFusion 9	Adobe ColdFusion (2018 release)
ColdFusion9\runtime\lib\wsconfig	ColdFusion2016\config\wsconfig
C:\ColdFusion9\wwwroot\	C:\ColdFusion2016\[Instance Name]\wwwroot
ColdFusion9\runtime\jre	ColdFusion2016\jre
C:\ColdFusion9\runtime\bin	C:\ColdFusion2016\[Instance Name]\bin

## Migrating the ColdFusion settings (manual migration)

This section refers to the ColdFusion settings within the ColdFusion administrator, such as Datasources, Scheduled Tasks, Web Services and so on. If you are installing the new ColdFusion server on the same server (where you already have the previously installed ColdFusion server), then, you will be prompted to "Migrate" the settings during installation itself. Follow these steps to manually migrate the ColdFusion settings from the earlier version of ColdFusion to Adobe ColdFusion (2018 release).

- Stop the Adobe ColdFusion 2018 Application service.
- Take a backup of all neo-\*.xml files available under <CF\_INSTALLDIR\_>/cfusion/lib.
- For ColdFusion 2016.x, create a "cf2016settings" directory under {ColdFusion2018-Home}/{instance\_name}/lib or {cfusion2018-ear-home}/cfusion-war/WEB-INF/cfsuion/lib directory.
  - For ColdFusion 11.x, create a "cf11settings" directory
  - For ColdFusion 10.x, create a "cf10settings" directory
- Copy all the neo-\*.xml files from {ColdFusion-Home}/lib or {cfusion-ear-home}/cfusion-war/WEB-INF/cfusion/lib of the previous install to the cf2016 settings or cf11settings or cf10settings directory.
- Open the adminconfig.xml file at: {ColdFusion2016-Home}/{instance\_name}/lib or {cfusion2016-ear-home}/cfusion-war/WEB-INF/cfusion/lib, and make necessary changes to the properties in the following example.
- Do not copy these properties to the "adminconfig.xml".
- Set "runmigrationwizard" value to "True", to force ColdFusion administrator to run the migration.
- Set "migratecf2016" or "migratecf11" or "migratecf10" to "True", based on version of the previous installation. Keep all other settings in the adminconfig.xml the same.

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<setupconfig>
```

```
<runsetupwizard>>false</runsetupwizard>
<runmigrationwizard> false </runmigrationwizard>
<runmxmigrationwizard>>false</runmxmigrationwizard>
<runsecureprofile>>false</runsecureprofile>
<migratecf2016> false </migratecf2016>
<migratecf11>>false</migratecf11>
<migratecf10>>false</migratecf10>
<setuptools>
  <sampleapps> false </sampleapps>
  <odbc> false </odbc>
  <enablerds>>false</enablerds>
</setuptools>
</setupconfig>
```

- Save the file and close it.
- Start Adobe ColdFusion 2018 Application service
- To complete the migration, launch Adobe ColdFusion 2018 Administrator and follow the migration steps

## Packaging:

The Packaging and Deployment section of the Administrator lets you create and deploy CAR files. You can also create J2EE or WAR files that include an existing ColdFusion application and the ColdFusion runtime system.

### [ColdFusion archives page \(CAR package\):](#)

The ColdFusion Archives page includes tools that let you archive and deploy ColdFusion applications, configuration settings, data source information, and other types of information to back up your files faster. If your new ColdFusion server installation is on a different server, then you can create CAR file. This feature is only available in Enterprise/Developer edition of ColdFusion, until version 10. ColdFusion 11 onwards, it is available in all editions and hence in Adobe ColdFusion 2018 as well. The complete list of archival information includes the following:

- Archive information
- Assoc. Files/Dirs
- Server Settings
- CF Mappings
- Data Sources
- CF Collections

- Scheduled Tasks
- Event Gateways
- Java Applets
- CFX Tags
- Web Services
- Rest Services
- PDF Services
- Archive to Do List
- Archive Summary

After you archive the information, you can use the Administrator to deploy your web applications to the same ColdFusion server or to a ColdFusion server running on a different computer. Also, you can use these features to deploy and receive any ColdFusion archive file electronically.

The Archive settings page lets you configure various archive system settings that apply to all archive and deployment operations. For more information, see the Online Help.

### Build an archive:

To build an archive, perform the following steps:

1. To access the ColdFusion Archives page, select Packaging and Deployment > ColdFusion Archives in the left navigation pane of the ColdFusion Administrator.
2. On the ColdFusion Archive page, locate the name of the archive definition that you want to archive, and then click the Build Archive icon. The Archive Wizard appears.
3. In the archive Wizard, review the archive summary information, and then click Next to continue. The Choose Archive File Location page appears.
4. In the Choose Archive File Location page, perform the following steps:
  - a. In the File Name text box, specify the full path where you want to store the archive, followed by the name of the archive. The archive name must have a .car extension.
  - b. For UNIX users only: If you must run this archive as a privileged user, select the Run This Archive As A Specific User option, and then enter any system account name and password in the Username and Password text fields. The user name and password must match the existing user name and password for this system. The archive process runs for that user. If the user name and password do not match the existing user name and password for this system account, the build process fails.
5. Click Next to create the archive

When the archive operations completes, one of the following archive messages appears:

- **Build Successful:** The archive was successfully created and stored in the location that you specified in step 4. Click OK and then click Close of the wizard page.
- **Build Failed:** The archive was not created. To determine the cause of the problem, review the information appearing on the page, and click Details to further analyze the cause of the problem.

## J2EE archives:

ColdFusion lets you create an EAR or WAR file that contains an entire application. This archive file contains the ColdFusion web application, settings for ColdFusion (such as data source definitions), the CFM pages used by your applications (text or compiled Java), and optionally, the ColdFusion Administrator. This feature lets you quickly create an archive file that a J2EE administrator can use to deploy your ColdFusion applications.

J2EE archives are different from ColdFusion Archives (CAR) files.

Context root:

Because the J2EE environments supports multiple, isolated web applications running in a server instance, each J2EE web applications running in a server is rooted at a unique base URL, called a context root (or context path). The J2EE application server uses the initial portion of the URL (that is, the portion immediately following <http://hostname>) to determine which web applications process an incoming request.

For example, if you are running ColdFusion with a context root of cfm, you can display the ColdFusion Administrator using the URL <http://hostname/cfm/CFIDE/administrator/index.cfm>.

Most of the J2EE Archives page lets you create an enterprise applications archive (EAR) file or web application archive (WAR) file that contains the following items:

- The ColdFusion web application
- Server settings, such as data sources and custom tag paths.

The CFML pages of your applications are stored in the root directory of the ColdFusion web application, use this page to create WAR or EAR files required to create each of the servers in the cluster.

You can create a J2EE archive regardless of whether you are running ColdFusion MX in the server configuration or the J2EE configuration. However, you must be running the J2EE configuration to deploy an EAR or WAR file.

Option	Description
Archive Name	Specifies a name for the J2EE archive definition. This is also the name given to EAR to WAR file
Application	Specifies the location of the CFM files to be included beneath the webroot of ColdFusion web application
Directory	Specifies the directory where ColdFusion places the EAR or WAR file
Distribution Directory	ColdFusion uses the name archivename.ear or archivename.war, depending on the archive type.

Archive Type	If you create an EAR file, you can optionally specify a context root for the ColdFusion web application. The default is an empty context root. If you create a WAR file, the context root is handled in an application-server-specific manner. In some application servers, the default context root is the name of the WAR file; in others, you specify the context root using the deploy tool or through a server-specific configuration file.
Serial Number	Specifies a valid serial number for ColdFusion Enterprise Edition.
Previous Serial Number (if Upgrade)	Specifies the serial number of the previous ColdFusion installation
Include COM support	Specifies whether to include the modules that provide COM support. Omitting COM support reduces the size of the archive by about 12 MB
Disable Debugging	Specifies whether to disable debugging in the ColdFusion web application
Include CFML source	Specifies whether to use the original CFM files or to convert the page to Java bytecode
Include CF Administrator	Specifies whether to include the modules and directories for the ColdFusion Administrator (the CFIDE directory structure). Omitting the ColdFusion Administrator reduces the size of the archive by about 2MB
Configure Data Sources to be Included in Archive	Specifies the data sources to include in the J2EE archive. Use the right and lefty arrow buttons to select and remove data sources. Use the Double Arrow buttons to select and remove all data sources with once click.

## Migrating the deployed applications:

After installing the ColdFusion server and migrating the ColdFusion settings, you can then migrate your applications manually to the new server. This is the actual process of migrating your server repository or the website files. If the migration involves setting up of a new server/webserver, then the easiest way is to copy the web files from the older webroot to the new webroot, under the new website. You can also use any third party utility to migrate the files and the settings (if any, at the webserver level) provided, your webserver supports the utility. If the website resides on the same server and the installation only involves ColdFusion server upgrade/migration, then you can skip this section. You have to remove the connector from the previous ColdFusion server and create the connector to the new ColdFusion server.

## Using the Code Analyzer:

The Code Analyzer helps in migrating your applications to Adobe ColdFusion 2018 from earlier versions of ColdFusion (i.e ColdFusion 2016, ColdFusion 11, ColdFusion 10).

The code Analyzer reviews the CFML pages that you specify and informs you of any potential compatibility issues. It detects unsupported and deprecated CFML features, and outlines the required implementation changes that ensure a smooth migration.

The Code Analyzer has the following purposes:

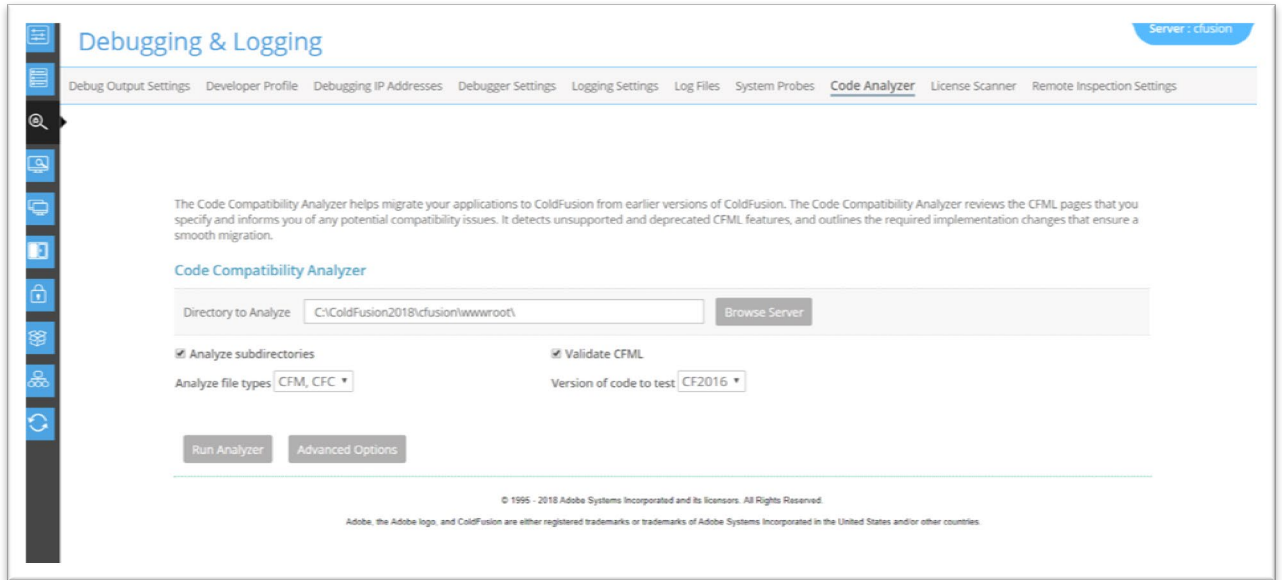
- The can validate the CFML syntax if your application. To do so, the analyzer runs the ColdFusion compiler on your pages, but does not execute the compiled code. It reports errors that the compiler encounters
- It provides information about the incompatibility (and its severity), and suggests a remedy wherever, it is required
- It can identify areas where ColdFusion behaves differently than previous versions. The analyzer identifies the following the following kinds of features:
  - No longer supported: Their use results in errors. For example, the closable attribute is not supported for the tag `cflayoutarea` in border layout (`cflayout withtype="border"`).
  - Deprecated: They are still available, but their use is not recommended and they are not available in future releases. Deprecated features might also behave differently now than in previous releases. For example, in `cfcachetag` the following attributes are deprecated: `directory`, `cachedirectory`, `port` and `protocol`.
  - Modified behavior: They behave differently than in previous versions. For example, if you use `cfcachetag` in ColdFusion 2016 without end tag (`</cfcache>`), then instead of caching only the current page (which was the behavior in the previous releases), the entire request is cached.
  - New: If you use `throw` as a user-defined function in a CFM, analyzer informs that `throw` is a built-in ColdFusion function and suggests you to rename. If you use `throw` as a user-defined function in a CFC, analyzer informs that `throw` is a built-in function and suggests you to prefix it with object scope.

You can run the Code Analyzer from the ColdFusion Administrator. Select Code Analyzer from the list of Debugging & Logging pages.

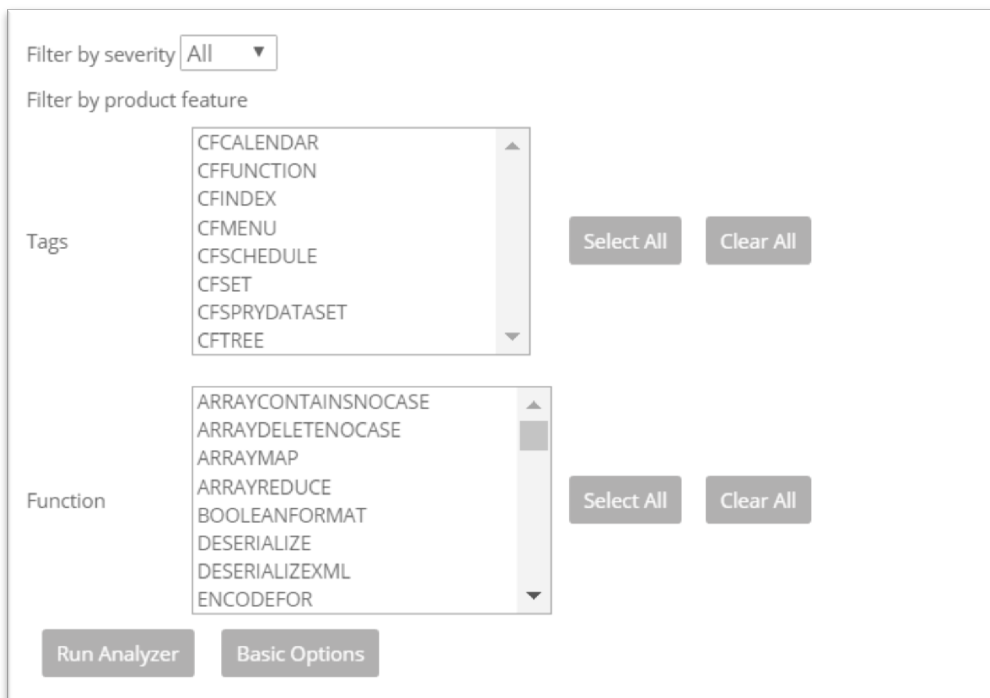
To run the Code Analyzer, performs the following tasks:

1. Go to ColdFusion Administrator
2. Go to Debugging & Logging > Code Analyzer





3. Browse and select the ColdFusion2016/ColdFusion11/ColdFusion 10 installation directory containing the ColdFusion applications.
4. (Optional) Click Analyze subdirectories to analyze CFML pages in the subdirectories.
5. (Optional) Click Advance Settings and manually select the tags and functions to analyze:



6. Click Run Analyzer
7. Review the results and fix your CFML code accordingly.

## Migration Issues:

The following section describes the most common migration issues:

### CFCs not recognized in Dreamweaver:

When you migrate from an earlier version of ColdFusion 2016/11/10 to Adobe ColdFusion 2018, the CFC's do not appear in the components panel of Dreamweaver.

Solution:

Check the mappings and update them as necessary.

### Installation fails:

On Unix and Linux systems, when you try to install ColdFusion on systems where the /tmp partition is mounted noexec, the installation fails.

Solution:

This is because the install to use /tmp directory for unpacking and running the installer runtime. To avoid this issue, set the IATEMPDIR environment variable to directory on the system that has execute permissions before running installer.

### Out of Memory error:

When you try to install ColdFusion, the installation fails and generates the error:

```
"java.lang.OutOfMemoryError Invocation of this Java Application has been caused an InvocationTargetException. This application will now exit.(LAX) "
```

Solution:

You must clean up the directory to which the installer is trying to extract the JRE, for example, /tmp.

Error While verifying migrated ODBC data sources to CF2018 from CF2016/11/10

This could be due to ODBC Socket port Conflict.

Solution:

### Connection verification failed for data source: TestDSN

```
Java.sql.SQLException:[Macromedia][SequeLink JDBC Driver]TCP/IP error, connection refused.
```

The root cause was that: java.sql.SQLException:[Macromedia][Sequel JDBC Driver]TCP/IP error, connection refused.

1. Navigate to cf\_root\[Instance name]\lib\for ColdFusion 2016 /ColdFusion11 and open neo-drivers.xml with text editor, such as Notepad.
2. Check the ODBCsocket port. For e.g. 19998 or 20000 or 20002.
3. Navigate to cf\_root\[Instance Name]\lib\ for Adobe ColdFusion 2018 and open neo-drivers.xml with text editors.

4. Update the ODBCsocket port from 20000 to 20004(next available port no, in the same series).
5. Restart the ColdFusion Services
6. Edit the data source and Re-submit.

### Data Source not recognized

When you migrate from an earlier version of ColdFusion2016/11/10 to Adobe ColdFusion 2018, your application does not recognize datasource.

Solution:

Redefine the data sources.