

# CFEclipse CFExplained

by Robert Blackburn



**M**eet Joe. Joe doesn't know much about computers, but has a grandson who does. One day Joe finds that his computer is acting funny, and promptly calls in his grandson for assistance. His grandson finds that the computer has a virus, most likely introduced while surfing the web. He runs the anti-virus program, cleans up the computer, and does what any geek would do these days; he tells his grandfather to start using Firefox.

**"But I don't know how to use this Firefox thing," Joe says.**

"Don't worry, Granddad, it's great," his grandson replies. He then proceeds to explain all of the great features in Firefox — tabbed browsing, plug-ins, skins, the toolbar search — the whole nine yards. But the next day when he pays a visit, he sees his grandfather using Internet Explorer again.

**"Why are you using IE, Granddad?"**

"Because that Firefox was too complicated."

What went wrong? Well, all Joe needed to know was how to use Firefox. His grandson got so excited and wrapped up in the Firefox features that Joe got the impression that Firefox was complicated. In reality, Firefox is no more difficult to use than Internet Explorer; it's just a bit different at times. Had his grandson simply explained how to use Firefox, Joe probably would have grown comfortable with it and learned about all of its great features later.

Many ColdFusion developers encounter a similar problem. They are accustomed to using their traditional development IDE. They see the value in switching to CFEclipse, but when they try to switch over they find that things are so different, they get frustrated and fall back

to their previous IDE. But just as Firefox is no harder to use than IE, CFEclipse is not really any harder to use than the traditional ColdFusion IDEs. It's just different and will take some time to adjust to. Yet, like Joe's grandson, many of us start out using CFEclipse by focusing in on all of the cool features when we simply need to understand how to use it.

In this article, I will attempt to provide a clear and comfortable path to CFEclipse. In the first part of the article, I will clarify what CFEclipse is and explain some of the new terms and concepts you'll encounter. In the second part, I will walk you through some typical work scenarios within CFEclipse. By doing this I will not only give you the keys to success, I will show you how to use them.

## What is CFEclipse?

CFEclipse is a plug-in to Eclipse, an Integrated Development Environment (IDE) platform that is popular among Java developers but also includes support for many of the most popular programming languages. Eclipse is extremely flexible and customizable, which is one of the reasons it has become so popular among so many different development communities. And I'm sure the fact that it's free has also contributed to its success.

If you have been developing ColdFusion applications using an IDE like Homesite+, CFStudio, or Dreamweaver MX, you probably already have a development environment for your site. If you don't, you will need to set one up (ColdFusion Server developer edition is free). Once your site's development environment is set up, you will need to install Eclipse and CFEclipse.

## Installing Eclipse

You can install Eclipse by downloading the most recent version from the Eclipse download page (<http://www.eclipse.org/downloads>). Then unpack and run the install.

## Installing the CFEclipse Plug-in

Once you have installed Eclipse, you will need to install the CFEclipse plug-in. You can find the easy-to-follow directions on the CFEclipse download page (<http://www.cfeclipse.org/go/project/downloads>). Simply follow the directions in the “Installing the Stable Build” section.

## Definitions and Terminology

As I said earlier, there are some differences between CFEclipse and previous code editors for ColdFusion. In CFEclipse, you will find a number of new terms and concepts, but you will primarily want to become familiar with these:

- Workspace
- Project
- Workbench
- View
- Perspective

Let’s take a minute to look at these new terms.

### Workspace

A workspace is a collection of projects, files, and folders. Files and folders are nothing new, but projects are, and they will be explained later.

One of the handiest features of Eclipse is the ability to have more than one workspace on your computer. Each workspace is kept separate from the other workspaces, segregating your work. For example, if I were asked to do a presentation in which I needed to show some code, I might set up a separate workspace for that demonstration. That way, only the files I use in my presentation would be visible to my audience; no other files would clutter the screen. A consultant might use a different workspace for each client. Another developer might choose to always use the same workspace. What you do is up to you.

Each time you open Eclipse, you will be prompted for the location of the workspace



Figure 1: Selecting a Workspace

you would like to use. Don’t stress about where to set up your workspace (See Figure 1) initially; you can always change your mind later. If you can’t decide, I suggest using your development server’s web root.

### Project

A project is used to organize your work in Eclipse. It is essentially a collection of files and folders. What each project contains is entirely up to you. For example, a project can contain an entire web site or a single application, depending on your business model and development style. If you are a consultant, you might use projects differently than a corporate developer.

Projects are not only a way to organize your work; they also provide the Eclipse plug-ins with a way to view and access your work. This means that in order to use Eclipse to its fullest potential, everything you work on must first be in a project. I think that is why projects are often the largest stumbling block for ColdFusion developers; you can’t just open and edit a file. This can feel very frustrating and confining at first. It did for me. But once I adjusted to it, I actually began to prefer working that way.

Don’t worry if project still seems like a foreign concept. Later in this article, I will cover typical workflows in CFEclipse. That should give you a much better understanding of how a project works.

### Workbench

The workbench is the main work area in Eclipse. It contains all of the panes and panels used to edit resources within your workspace. Let’s take a look at the basic anatomy of a workbench.



Figure: 2 Workbench

## View

Views are all of those panels surrounding the main editing pane. When you install the CFEclipse plug-in, you get seven new views specific to working with ColdFusion:

- Browser View
- Dictionary View
- File Explorer
- FTP Log View
- Methods View
- Package View
- Snip Tree View

Some of these are fairly self-explanatory, but if you want to know more, I will be covering CFEclipse features in detail in another series of articles coming soon.

The wide variety of views, and the fact that there are even more available online, provides you with enormous flexibility for customizing your working environment. Views can be toggled on and off whenever you like by clicking "Window" > "Show View" in the menu.

## Perspective

Perspectives offer different ways of looking at the work you do. Each perspective is completely customizable to fit your own development style. CFEclipse comes with a default perspective, but you can create your own perspectives. For example, you may have a different perspective for your Java, Flex, and ColdFusion projects — and each of those can have different plug-ins, views, or features enabled, depending on what you find useful for that type of work. For example, the Browser view might be enabled for the ColdFusion perspective but not the others. As you switch between perspectives, it's almost like you're switching between completely different tools.

You can switch between perspectives by clicking on the appropriate icon in the perspective tab at the top right corner of the workbench or by clicking "Window" > "Open Perspective" in the menu. Feel free to customize the perspectives as much as you like. You can always set the perspective back to its original state by clicking "Window" > "Reset Perspective."

## Typical Work Scenarios

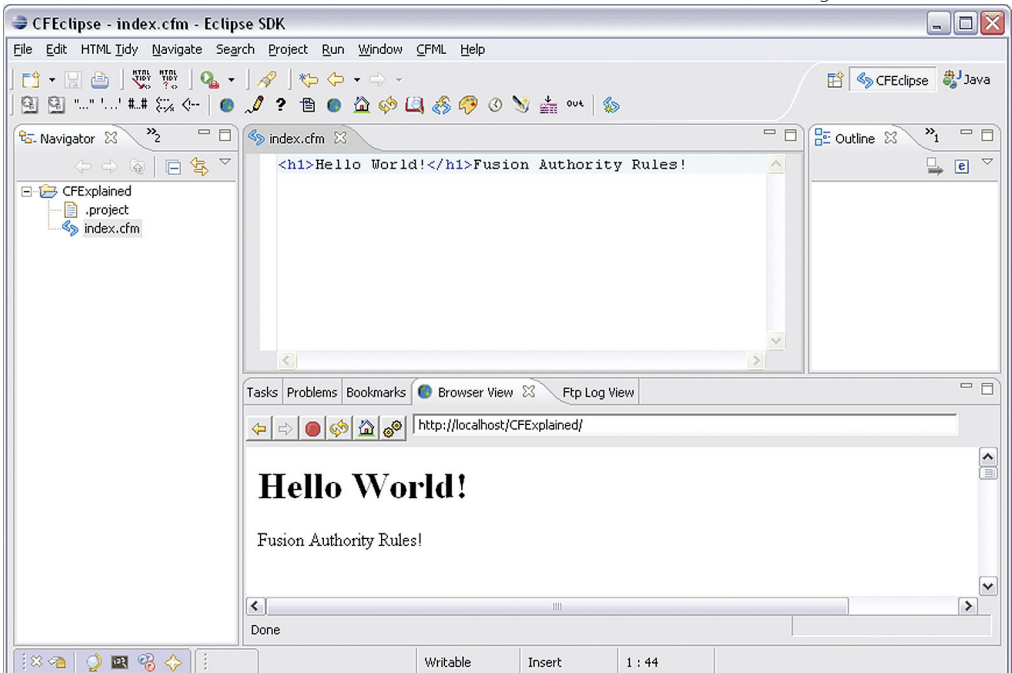
Now that I have introduced you to CFEclipse and explained some of the new terms you will encounter while using it, I want to walk you through two typical work scenarios: creating a CFML page and creating a CFC. We will wrap up by discussing a few features that will help you become more familiar with the CFEclipse interface.

## Creating a CFML Page

What would an introductory guide be without a "Hello World" example? Here are the steps you would follow to create a "Hello World" CFML page:

1. First create a ColdFusion project by clicking "File" > "New" > "Project" from the menu. Then select "CFML Project" (under "CFEclipse").
2. You may be prompted to switch to the CFEclipse perspective. If you are, click "Yes."
3. You will be prompted for the name of your project. The name I will be using for the example project is "CFExplained."
4. If your workspace is located in your server's web root, click the "Finish" button. (Otherwise uncheck "Use Default" and set the "Directory" to a location on the web root.)
5. Your project will be added to the Navigation window to the left of the editor pane (if you don't see the "Navigation" tab, click "Window" > "Show View" > "Other" in the menu, and then select "Navigation" under the "Basic" folder.)
6. Add a CFML file to the project by right-clicking your new project in the Navigation window. Select "File" > "New" > "Other". Then select "CFML Page" (under "CFEclipse").
7. Give the file a name and click "Finish." Your CFML page will now be listed under your project, and will be opened in the editor pane.
8. Type the following into the editor pane: `<h1>Hello World!</h1>`. Press CTRL+S to save the change.
9. Click on the "Browser View" window below the editor pane. (If you don't see a browser view tab, click "Window" > "Show View" > "Other" in the menu, then select "Browser View" under the "CFML" folder.)
10. In the browser window address field, type in the URL location of your project. (For exam-

Figure: 3 Hello World...



ple: if your workspace is located in the web root, and you named your project "CFExplained," then the URL would be something like "<http://localhost/CFExplained>". Hit enter and the web page will load.

11. In the editor pane, change your page again so that it is now "`<h1>Hello World!</h1>Fusion Authority Rules!`" and save the change.
12. Hit F5, and the browser window will refresh with the updated page.

Congratulations! You have now created, tested, and edited a CFML page in CFEclipse. When you are done, your screen should look something like this: (See Figure: 3)

## Creating a CFC

Creating a ColdFusion component is just as simple. However, CFEclipse provides a wizard that can make creating CFCs even easier:

1. Under the navigation window, right-click on the project you created in the last example. Select "File" > "New" > "Other," and then select "CFC" (under "CFEclipse").
2. Click "Next," give the component a name, and click "Next" again.
3. Add a property by clicking the "+" button. Give the property a name and check "Write

Getter" and "Write Setter." Click "Next."  
(See Figure 4)

4. Add a function by clicking the "+" button. Give the function a name, set the return type to "String" and the access to "Public." Click "Next."
5. In the "Functions" dropdown, select the function you added and give it an argument by clicking the "+" button. Name the argument "name" and set its type to "String." (See Figure 5)
6. Click "Finish."
7. The CFC will be created and opened in the editor pane. It will have the property you added with corresponding getter and setter methods. The function you added will also be created, with the following comment for its contents:

```
<cfargument name="name" type="string">
<!--- TODO: Implement Method --->
```

8. Replace that comment with the following code:

```
<cfargument name="name" type="string">
<cfreturn "Hello " & arguments.name & ",
from CFC!">
```

9. In the navigation window, double click the CFML page you created in the last example. Replace the contents of this CFML page with

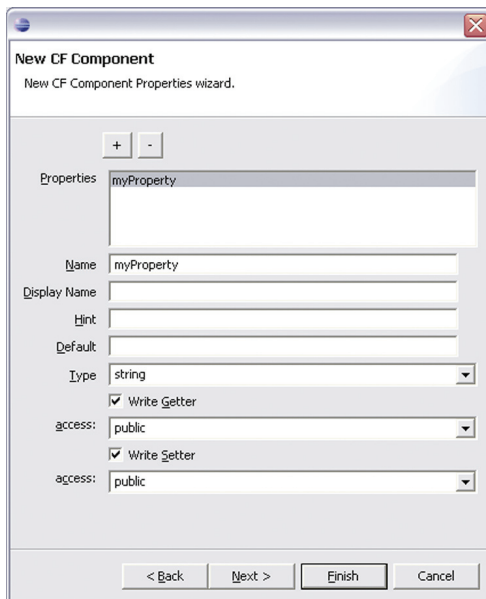


Figure 4: The CF Component Properties Wizard

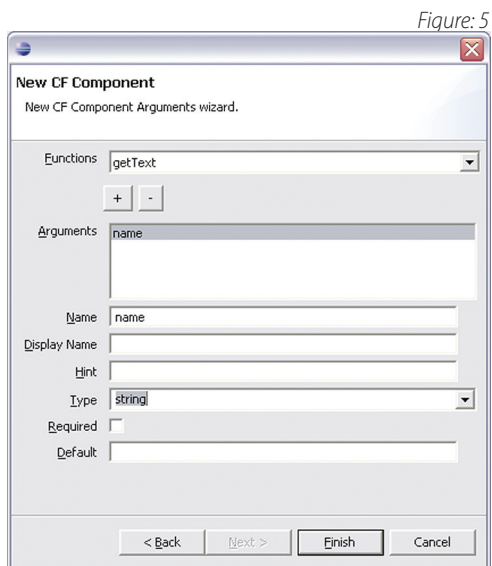
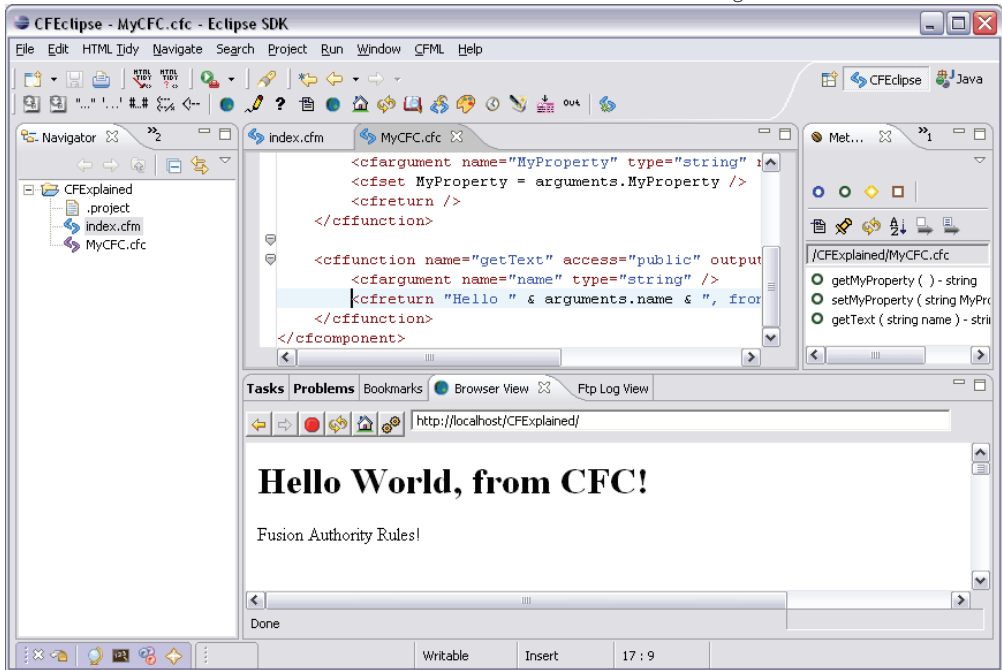


Figure: 5



this: `<cfset variables.text = createObject("component","MyCFC").getText("World")>
<h1><cfoutput>#variables.text#</cfoutput></h1>Fusion Authority Rules!`

10. Hit F5, and the browser window will refresh with the updated page.

That's it. You have now created a CFC, updated the CFML page to consume it, and tested the change. When you are done, your screen should look something like this:

(See Figure : 6 above)

Note that you are not required to use the CFC wizard. At any point, you could have clicked "Finish" instead of "Next" and completed the CFC code by hand.

## A Few Extras

So now you know the basics of creating ColdFusion files in CFclipse. But to help you get even more comfortable using this new environment, I would like to show you a few quick tricks.

The first thing I usually do for any new CFML project is to set its home page. You can do this by clicking "Project" > "Properties" in the menu, and then selecting "CFclipse Properties." Fill in the project's URL and click "OK." For the project in my example, you might set the

URL to "http://localhost/CFExplained." From that point on, you could click the home icon in the Browser View and it would take you to the project's home page. The project's properties apply to all the files within the project, so if you open a file from another project that you have set a URL for, you can click the home icon in the Browser View to go to its home page. I find this makes it easier to move between projects.

While this is a rather basic example of using a project's configuration, I think it shows how organizing your files into projects can allow CFclipse to help you do your job more efficiently. But there are many other ways CFclipse uses projects to assist you. For example, CFclipse will automatically run your CFUnit tests (See my article on Test-Driven Development, pages 46-62).

The second trick I would like to share is how to maximize any panel on your workbench. You can double-click any tab, whether it's in the edit pane or part of a view, to fill the entire workbench with its contents. Double-click the tab



again and it will put everything back to where it was. I do this all the time, especially when I am editing a large file or when I want to look at a web page with a lot of content. This is just one of the many handy little features in Eclipse that will make your development easier.

## Summary

Hopefully, you now see how easy and powerful using CFEclipse can be. I hope you will feel comfortable enough to explore CFEclipse and experiment with its other numerous features. Rest assured, I have only scratched the surface about the potential power of CFEclipse.

To help you explore those features further, Fusion Authority and I will be working on another series of articles focused on spe-

cific features available in CFEclipse. So if you have any suggestions or comments, or would like me to cover specific features, feel free to email us at: [cfecclipse@fusionauthority.com](mailto:cfecclipse@fusionauthority.com). ㄖ

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**Robert Blackburn** is a developer and team leader of the Internet Application Development team at American Power Conversion Corporation (<http://www.apcc.com>). He has been using ColdFusion since 1999, and has revived and manages the CFUnit open source project (<http://cfunit.sourceforge.net>). He currently has a blog at <http://www.rbdev.net/devblog> for his occasional ramblings.

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## Common CF-Talk Questions

### Question:

How do I validate an email address?

### Answer:

Two common methods are:

- Regular Expression: `^[a-zA-Z]([?|([[:alnum:]]_+)*)?@([[:alnum:]]\-_+\.)+[a-zA-Z]{2,6}$`
- ColdFusion's built-in `isValid()` function (introduced in ColdFusion MX 7)  
**`isValid('email', form.emailAddress)`**

### Question:

How do I reset my ColdFusion Administrator password?

### Answer:

- Stop the ColdFusion MX service.
- Edit `\CFusionMX\lib\neo-security.xml`.
- Locate the following line of code:  
**`<var name='admin.security.enabled'><boolean value='true'/></var>`**
- Modify the value from 'true' to 'false'
- Restart the ColdFusion service and browse to the Administrator.

### Question:

What can I do if my web server isn't serving up ColdFusion pages properly (either displaying the page as text or attempting to download the file)?

### Answer:

Try running the appropriate connector bat file for your web server. The bat files are located at `\YourCFDirectory\bin\connectors\`. Start clean by first running `Remove_ALL_connectors.bat`.

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