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AIR Messaging: Integrating AIR, BlazeDS, and ColdFusion

Application building walkthrough with Aaron West

1. Install BlazeDS into an existing ColdFusion 8 server by following the steps outlined at the bottom of this page (<http://tinyurl.com/6g5z7a>), or in Aaron's video tutorial (<http://tinyurl.com/583osq>).
2. Start ColdFusion 8 from the console. If ColdFusion was already restarted, stop it and restart it from the console (MS-DOS prompt on Windows or Terminal on OS X)
3. The downloaded application files include two files that need to be loaded to your web root. The json.cfc component should be saved to the "com" folder in your web root. the jquery-1.2.6.js file should be saved to the "scripts" folder in your web root. If you don't have a "com" or "scripts" folder, create them.
4. Open Flex Builder 3 and create a new Flex Project. The project name should be "AIRMessaging" and the project location should be your web root directory. Application type should be set to "Desktop application," and Application server type should be set to "None."
5. Once the new project is created, edit the application descriptor file: AIRMessaging-app.xml located in the "src" directory. Change the following items in the file:
 - 5.1. uncomment the title node and set the title to "AIR Messaging"
 - 5.2. uncomment the systemChrome node and set it to "none"
 - 5.3. uncomment the transparent node and set it to "true"
 - 5.4. uncomment the minimizable node and set it to "true"
 - 5.5. uncomment the maximizable node and set it to "false"
 - 5.6. uncomment the width node and set it to "337"
 - 5.7. uncomment the height node and set it to "546"
6. Create a new directory called "cfc" in the root of your project in Flex Builder.
7. Create a new directory called "images" in the already existing "src" directory.
8. From the downloaded application files, copy the file "what.jpg" - located in the /wwwroot/AIRMessaging/images/ folder to the new images directory you created in the previous step.
9. Create a new directory called "view" in the root of your project in Flex Builder.
10. Create a new directory called "scripts" in the "view" directory you just created.
11. Create a new directory called "styles" in the "view" directory you just created.
12. Create a new CFC called "Application.cfc" and place it in the "view" directory.
13. Create a new file called "index.cfm" and place it in the "view" directory.
 - 13.1. from the downloaded application files, copy the directory /CFEclipse Snippets/ AIR Messaging/ to your CFEclipse snippets directory. If you don't know where this, open the Preferences window for Eclipse and click the "CFEclipse" text in the left sidebar. The path to your snippets location will be visible on the right.
 - 13.2. refresh the Snip Tree View panel in CFEclipse so the new snippets folder "AIR Messaging" shows up.

- 13.3. insert the "1 - base html" snippet into the template
- 13.4. insert the "2 - jquery include" snippet into the <head> of the template
- 13.5. insert the "3 - css include" snippet into the <head> of the template
- 13.6. create a new file "styles.css" in the /view/styles/ folder of your project
- 13.7. insert the "4 - css content" snippet into styles.css
- 13.8. insert the "5 - form" snippet into the <body> of index.cfm
- 13.9. open the index.cfm template in your browser. The path should be: <http://localhost/AIRMessaging/view/index.cfm>
- 13.10. insert the "6 - air messaging.js include" snippet into the <head> of index.cfm
- 13.11. create a new file "AIRMessaging.js" in the /view/scripts/ folder of your project
- 13.12. insert the "7 - start of jquery script" snippet into AIRMessaging.js
- 13.13. insert the "8 - submit handler" snippet into AIRMessaging.js
- 13.14. insert the "9 - submitMessage function" snippet into AIRMessaging.js
- 13.15. insert the "10 - clearForm function" snippet into AIRMessaging.js
- 13.16. add "clearForm();" function call to the Ajax success handler
- 13.17. insert the "11 - messageList div" snippet into index.cfm
14. Create a new CFC called AIRMessaging.cfc in the /cfc folder of your project
 - 14.1. delete all the contents of the CFC if anything is in it
 - 14.2. insert the "12 - cfcomponent start" snippet into AIRMessaging.cfc
 - 14.3. insert the "13 - createMessage function" snippet into the CFC
 - 14.4. open your localhost CF Administrator
 - 14.5. configure a new gateway instance
 - 14.5.1. set the gateway ID to "AIRMessaging"
 - 14.5.2. set the gateway type to "Dataservices Messaging"
 - 14.5.3. use the Browse Server button to locate the CFC you created in step 14, or type the path to the CFC (include the CFC name and extension in the CFC Path)
 - 14.5.4. open your WEB-INF/flex/services-config.xml file. Now, from the downloaded application files, open the /BlazeDS Config Text/services-config.txt and copy all the text. Paste the text at the appropriate place in your services-config.xml configuration file. This is typically going to be right after an existing channel definition, such as "my-cfamf-secure."
15. Open your WEB-INF/flex/messaging-config.xml file. Now, from the downloaded application files, open the /BlazeDS Config Text/messaging-config.txt and copy all the text. Paste the new "destination" block after the last destination block already present in messaging-config.xml.
 - 15.1. return to the AIRMessaging.cfc component and insert the "14 - onIncomingMessage function" snippet.
16. view your progress in the browser
 - 16.1. refresh the index.cfm template
 - 16.2. type a message into the text area and press the Send Message button
 - 16.3. your submitted message should appear beneath the form
 - 16.4. if you look at the console/Terminal you should see the messages making it to BlazeDS. Notice there are no subscribers (Consumers) yet.
17. open AIRMessaging.mxml
 - 17.1. highlight all the existing code and delete it

- 17.2. snippets for the Flex portion of the application are available in the downloaded application files in the "Flex Snippets" directory
- 17.3. copy the text in "15 - AIRMessaging_MXML_Start.txt" and paste the text into the AIRMessaging.mxml file.
- 17.4. create a new mx:Script block
- 17.5. copy the text in "16 - import_statements.txt" and paste the text into the mx:Script block
- 17.6. copy the text in "17 - var_declarations.txt" and paste the text just after the important statements
- 17.7. copy the text in "18 - initApp_function.txt" and paste the text just after the var declarations
- 17.8. copy the text in "19 - canvas_tag.txt" and paste the text just after the mx:Script block you've created
- 17.9. copy the text in "20 - list_tag.txt" and paste the text inside the mx:Canvas tag you created
- 17.10. copy the text in "21 - consumer_tag.txt" and paste the text just before the mx:Canvas tag
- 17.11. copy the text in "22 - messageHandler_function.txt" and paste the text just after the initApp function in the mx:Script block
18. Save the AIRMessaging.mxml file and make sure there are no reported errors
19. Choose Run -> Run As -> Adobe AIR Application
20. Position the AIR app next to your browser window
21. Submit a message in the form you created in previous steps
 - 21.1. ensure the message shows beneath the form
 - 21.2. ensure the message shows in the AIR application
 - 21.3. submit a second message and ensure it shows at the top of the message list in both the HTML page in your browser and the AIR application
22. Go back to the console/Terminal and inspect the messaging data as it was sent to BlazeDS.