Using FlexJS with IntelliJ IDEA

There is no particular enhancement made by JetBrains to support FlexJS but the Apache Flex Team has enhanced the Falcon compiler to make believe the IntelliJ Flex Plugin is using the legacy one but the configuration requires a little bit more tweaking than a classic Apache Flex application.

I will assume you know how to use IntelliJ and focus on the FlexJS configuration only, I will also assume, you installed the FlexJS SDK in a location that we will call <FLEXJS_INSTALL_FOLDER>.

The first gotcha is that you can't import an existing project, you will need to create a new one and copy your sources into the folder where you created your IntelliJ FlexJS project, here I chose a Web Application for this example but you can also choose a Web / Desktop / Mobile + Application / Library depending on what you are targeting.

Project					\times	
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J2ME	<u>O</u> utput type:	Application	~			
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🥏 Spring		Re Annaka Flan A 16				
📭 Java FX	Flex/AIR SD <u>K</u> :	岔 Apache Flex 4.16	~			
IntelliJ Platform Plugin	<u>T</u> arget player:	23.0	~			
🧔 Spring Initializr	Create <u>s</u> ample app:	DataBindingExample.mxml				
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Application Forge						
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🕽 Flash						
Kotlin						
Empty Project						
		Previous Next		Cancel Help		

(You should have at least one Flex SDK installed and configured in IntelliJ to do that)

To start to play with, you can use the examples located in <FLEXJS_INSTALL_FOLDER>/examples. Actually, I will use DataBindingExample for the needs of this tutorial.

The first thing you will need to do will be to add the FlexJS SDK to IntelliJ:

- 1. Go to File -> Project Structure.. -> SDKs -> Add new SDK
- 2. Nagivate to and select the FlexJS SDK from <FLEXJS_INSTALL_FOLDER>. (I'm using a nightly build here)

⇒	+ -	Name: Apache FlexJS Nightly
roject Settings	🐼 Apache Flex 4.16	huma Apache neos highlig
Project	🐼 Apache FlexJS Nightly	Flex/AIR SDK home path: D:\flex_sdk\flexjs_nightly
Modules		
		Classpath Sourcepath Documentation Paths
Libraries		D:\flex_sdk\flexjs_nightly\frameworks\libs\player\23.0\playerglobal.swc
Facets		D:\flex_sdk\flexjs_nightly\frameworks\libs\air\airglobal.swc
Artifacts		D:\flex_sdk\flexjs_nightly\frameworks\libs\TLF.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\XML.swc
atform Settings		D:\flex_sdk\flexjs_nightly\frameworks\libs\Core.swc
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Global Libraries		D:\flex_sdk\flexjs_nightly\frameworks\libs\HTML.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Text.swc
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Problems		D:\flex_sdk\flexjs_nightly\frameworks\libs\HTML5.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Charts.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\jQuery.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Mobile.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Binding.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Effects.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Express.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Network.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Storage.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\CreateJS.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\DragDrop.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Graphics.swc
		D:\flex_sdk\flexjs_nightly\frameworks\libs\Language.swc
		D\flev_sdk\flevis_nightlu\frameworks\libs\Formatters_swc

While this window is still open, click on Global Libraries, we will add the FlexJS SDK also as a library, that's the second gotcha:

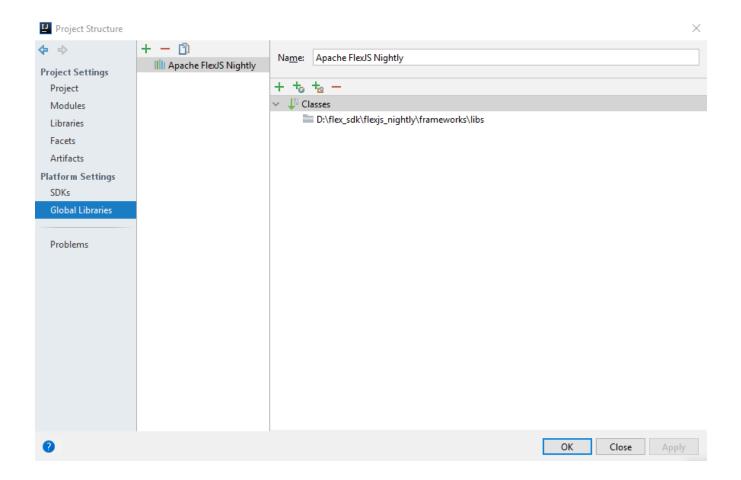
1. Click on Global Libraries, select <FLEXJS_INSTALL_FOLDER>/frameworks/libs. Then, deselect "air" and "player\23.0" in my case.

U Detected Roots	×
Choose Roots	
IntelliJ IDEA just scanned files and detected the following roots.	
Select items in the tree below or press Cancel to cancel operation.	
V D:\flex_sdk\flexjs_nightly\frameworks\libs	
	Folder with SWCs or ANEs
air air	Folder with SWCs or ANEs
■ player\23.0	Folder with SWCs or ANEs
	OK Cancel

2. In the next step IntelliJ will ask for choose project where library should be added

Choose Flash Build Configurations	×				
Library 'libs' will be added to the selected build configurations:					
✓ ➡ DataBindingExample					
😪 DataBindingExample (app)					
OK Cancel					

3. Rename the library to something meaningful, I choose to name mine "Apache FlexJS Nightly".



We will now configure our module to use the freshly added SDK and library along with configuring the compiler options:

- Click on Modules, select the module you want to configure and click on Dependencies.
 Select the FlexJS SDK you just added.
 Add the FlexJS global library you just added too, if you have not added it in the previous steps.
- 4. Click on Compiler Options
- 5. Click on Module Defaults (If you have more than one module, it makes sense you apply this and the following to Project Defaults instead).
- 6. Remove the default en_US local
- 7. In Default options for modules, add: -load-config+=<FLEXJS_INSTALL_FOLDER>/ide/IDEA/intellij-config.xml

Option		Value	Legend
Generate debuggable SWF	\checkmark		Global defaul
Generate debuggable SWC	\checkmark		Project defa
Conditional compiler definitions			Specific valu
Locales			
Namespaces and manifests			
Styles and Themes			
Keep ActionScript metadata			
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Metadata			
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 Click OK to validate.
 In Additional compiler options, add: -targets=JSFlex,SWF -external-library-path+=<FLEX_JS_INSTALL_FOLDER>/js/libs/js.swc -allow-subclassoverrides=true

(The -targets=JSFlex,SWF will tell the compiler to build both the SWF / SWC and the JS version of your module. If you want to build the JS only, use -targets=JSFlex)

Project Structure					×
⇔ ⇒	+ - 🗊	General Dependencies Compiler O	ptions		
Project Settings Project Modules	 DataBindingExample DataBindingExample (application) 	Option Generate debuggable SWF Conditional compiler definitions		Value	Legend Global default Project default
Libraries Facets Artifacts Platform Settings SDKs Global Libraries		Locales Namespaces and manifests Styles and Themes Keep ActionScript metadata Keep generated ActionScript			Module default Specific value
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0				OK Cancel	Apply

10. Click OK to validate.

You should be able to build your project now, click on Build -> Rebuild project. (Fix the eventual error the compiler found and use Build -> Make project)

In order to launch and debug SWF version of application:

1. Create a Launch Configuration for your SWF as you would do normally for a classic Flex application.

P Run/Debug Configurations			×			
+ - 🗈 🛠 + ⊨ ↓2	Name: DataBindingExam	Single instance only				
 Flash App DataBindingExample 	Build configuration:	😪 DataBindingExample (app)				
> 🌮 Defaults	Override <u>m</u> ain class:	DataBindingExample				
	Output file name:	DataBindingExample.swf				
	What to Launch					
	Build output:	DataBindingExample.swf				
	○ U <u>R</u> L or local file:	http://				
	Options					
	Launch with:	System default application				
	Use <u>d</u> ebugger from SD	K: SDK set for the build configuration [Apache FlexJS Nightly]	~			
	☑ Place output folder in the local-trusted sandbox					
	<u>B</u> efore launch: Build, Acti	vate tool window				
	$+ - \varkappa + +$					
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0		[OK Cancel Apply			

2. Click on Run or Debug for launch SWF version of application

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In order to launch and debug JS version of application:

- 1. In the Project pane, navigate to and right click on /out/<Your module name>/js/out/bin/js-debug/index.html
- Click on Run or Debug 'index.html'. It will open the index.html in your default browser, in order to be able to debug your module in the browser, you will need to debug your application in Chrome.

I use to create another Chrome instance.

The --disable-hang-monitor option will allow you to be able to continue to debug even after the script time out limit in case of a SWF / SWC. The --disable-bundled-ppapi-flash will allow to use the NNAPI Flash debugger plugin instead of the PPAPI one, if it is not installed,

you can download and install it from https://www.adobe.com/support/flashplayer/downloads.html

Once done, you will need to launch once the Debug configuration, it will open Chrome, close it, you see a popup appear in IntelliJ asking you to install the JetBrains IDE support for Chrome, do it, take care to configure the port as describe in the popup.

Set a break point in one of the JS file and launch the Debug configuration again, it will now break at it.

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