Apache FlexJS Web Application Development with Visual Studio Code
private function OnInitComplete():void {
    var button:TextButton = new TextButton();
    button.text = "Click me!"
    this.addElement(button);
}

Code Intelligence

- Syntax highlighting
- Completion / IntelliSense
- Function signature help
- Realtime errors/warnings
- Symbol information on hover
- Goto definition with Ctrl+click
- List symbols in document
- Search symbols in workspace
- Find all references
- Rename symbol
- Automatically import classes
Debugging

- Add breakpoints
- Automatically stop at uncaught exceptions
- Pause, step in/out/over, restart, and stop
- See function call stack

- Inspect an object’s variables/properties
- Print to debug console with trace()
- Run JS in web browsers, but see original ActionScript and MXML in debugger
- Also supports Adobe AIR/Flash debugging
Apache FlexJS web application development with Visual Studio Code

Installation
Available for Windows, macOS and Linux

https://code.visualstudio.com
How to install the NextGen ActionScript extension

Open Extensions view and search for “actionscript”
How to download Apache FlexJS

Choose between NPM or the Flex SDK Installer
How to add FlexJS to Visual Studio Code

• Set the FLEX_HOME environment variable
• Add executables in js/bin to PATH environment variable
• Set nextgenas.sdk.editor in Visual Studio Code

Open Settings, switch to Workspace Settings:

```
{
  "nextgenas.sdk.editor": "/path/to/flexjs"
}
```
Create a new project
How to create a project

- Launch Visual Studio Code
- Click Open folder...
- Create a new empty folder for your project and open it
- Go to the Explorer view on the left
- Create a new file named asconfig.json
- Create a new folder named src
- Inside src, create a new file named MyFirstProject.mxml
```json
{
    "compilerOptions": {
        "targets": ["JSFlex"],
    },
    "files": ["src/MyFirstProject.mxml"]
}
```
<?xml version="1.0" encoding="utf-8"?>
    xmlns:js="library://ns.apache.org/flexjs/express">
    <js:initialView>
        <js:View>
            <js:TextButton text="Click Me"/>
        </js:View>
    </js:initialView>
    <fx:Script>
        <![CDATA[

        ]]> 
    </fx:Script>
</js:Application>
Code Intelligence

<js:TextButton text="Click Me"
click="onButton_click(event)"/>

<fx:Script>
<![[CDATA[
import org.apache.flex.events.MouseEvent; //automatic imports
import org.apache.flex.flex.html.Alert;

private function onButton_click(event:MouseEvent):void {
    var a:Number = 2; //completion/intellisense
    var b:Number = 5; //try right-click, then rename symbol
    var sum:Number = a + b; //try ctrl+click to goto definition
    Alert.show("The sum is: " + sum, this); //signature help
}
]]>
</fx:Script>
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Build a project with tasks.json
Download asconfigc from NPM

Compiles a project configured with asconfig.json
Open the Command Palette from the View menu

Choose Tasks: Configure Task Runner (ActionScript - asconfig.json)
tasks.json

{
    "version": "0.1.0",
    "command": "asconfigc",
    "isShellCommand": true,
    "args": [
        "--debug=true",
        //"--flexHome=/path/to/sdk"
    ],
    "showOutput": "always"
}
Press Ctrl+Shift+B to build with command from tasks.json
Apache FlexJS web application development with Visual Studio Code

Debugging with launch.json
Where can I debug FlexJS applications?

• VSCode extensions for major browsers, including...
  • Google Chrome
  • Mozilla Firefox
  • Microsoft Edge
  • Apple Safari on connected iOS device
• Built-in debuggers:
  • Node.js
  • Adobe AIR and Flash Player
How to install the Debugger for Chrome

Open Extensions view and search for “chrome debug”
Debugging with source maps

• Associates the generated JavaScript with its original ActionScript or MXML.
• Even displays ActionScript or MXML in web browser’s own native JavaScript debugging tools.
• Use the `-source-map=true` compiler option.

```json
{
   "compilerOptions": {
      "targets": [
         "JSFlex"
      ],
      "source-map": true
   },
   "files": [
      "src/MyFirstProject.mxml"
   ]
}
```
launch.json

{
  "version": "0.2.0",
  "configurations": [
    {
      "type": "chrome",
      "name": "Debug FlexJS Project",
      "request": "launch",
      "file": "${workspaceRoot}/bin/js-debug/index.html",
      "sourceMaps": true,
      "preLaunchTask": "asconfigc"
    }
  ],
}

Press F5 key to debug with selected configuration in launch.json
Links

• Visual Studio Code
  https://code.visualstudio.com/

• Apache Flex SDK Installer
  https://flex.apache.org/installer.html

• ActionScript and MXML extension for VSCode
  https://nextgenactionscript.com/vscode/

• Extension documentation
  https://github.com/BowlerHatLLC/vscode-nextgenas/wiki

• asconfigc
  https://www.npmjs.com/package/asconfigc