# [Public] Create and Build a Flex Web Project in Moonshine (Desktop Build)

This article expected followings before proceed

1. You have Moonshine setup in your local system. If you haven't, you can follow the installation steps by going to the following links:
   Windows: http://moonshine-ide.com/wp-content/uploads/Moonshine.exe
   MacOS: http://moonshine-ide.com/wp-content/uploads/Moonshine.dmg
2. You have all the other requisite setups (i.e. Apache Flex SDK (http://flex.apache.org/installer.html), SVN (https://sliksvn.com/download/) - optional, ANT (http://ant.apache.org) - optional etc.) to proceed to next steps.


Create and Build a Project

- Start Moonshine
- Setup *Apache Flex SDK* in **Settings**
  -- Make sure you have downloaded Apache Flex SDK with AIR SDK at http://flex.apache.org/installer.html
 -- In Moonshine choose **File -> Settings -> MXMLC Compiler Plugin**
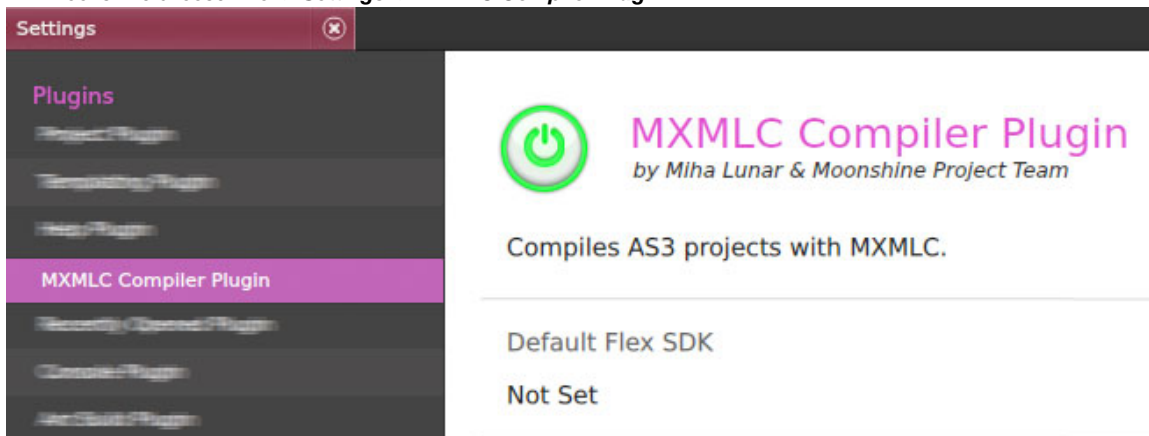
  -- In opening view click on **Change** link inside *Default Flex SDK* section, this will open you a file browser dialogue
  -- Locate the Apache Flex SDK folder (that you've downloaded) in file browser dialogue and choose **Select Folder**
  -- You should see *Default Flex SDK* is now pointing to Apache Flex SDK directory you choose
  -- Click **Save**
- To create a new web based Flex project do either one the following things:
  -- In Moonshine choose **File -> New -> Flex Browser Project (SWF)** : *MXML and ActionScript support*
  -- In Moonshine choose **File -> New -> ActionScript Project (SWF, Desktop)** : *Choose this if you want pure ActionScript project*
  -- Choose **New ActionScript Project (SWF, Desktop)** in Moonshine *splash screen*
  -- Choose **Flex Browser Project (MacOS, Windows)** in Moonshine *splash screen*
- Choosing any above option will open new project creation dialogue:
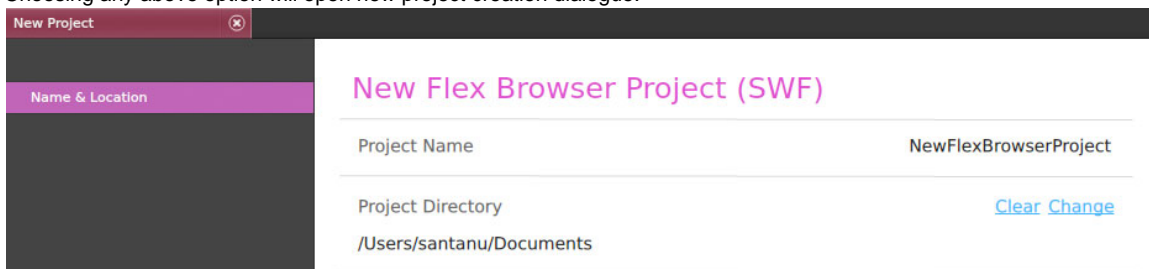
In **ActionScript Project (SWF, Desktop)** options you'll find an extra option to choose between Desktop and Web as output type:
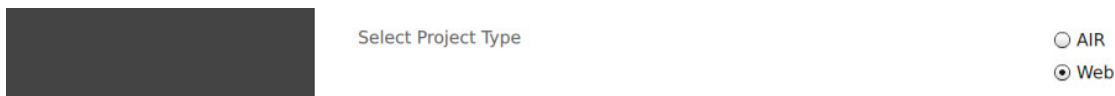

Editable fields are:
--- Project Name
--- Project Directory

--- Select Project Type (ActionScript Project only)

- After necessary in the fields above, click **Create** to generate a new Flex Web project
- Create option immediately create a new Flex project, open the project in Moonshine workspace (left-hand tree menu) and it's application file in Moonshine editor

- Moonshine generates any project with it's supported types with demo '**Hello World!**' text, so you can immediately build the project and check it's output; an optional ANT build script fully configured so you build a release SWF immediately as well!
- To run the project choose **Project -> Build & Run**. You can see command line outputs in Moonshine's *console* window (at bottom)
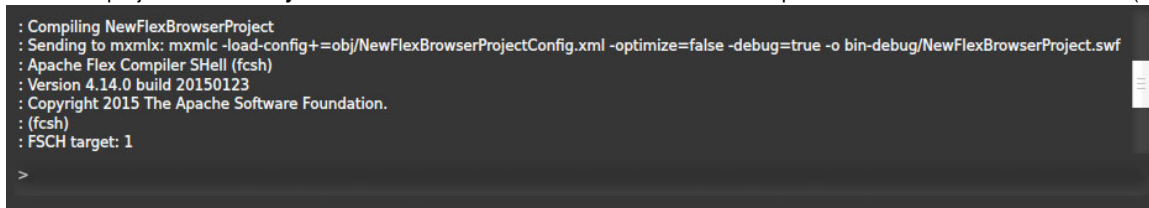
- If everything goes fine, Moonshine will generate the SWF and runs inside default browser window

Debug a Project

- Open the project in Moonshine that you wants to debug
- To set breakpoint (optional), open the class file in Moonshine editor and click once at far-left numbered bar to set breakpoint to any line - line's numbered bar will change color to mark set as breakpoint - click again to remove breakpoint:

(In above image breakpoint set to line# 14)

- To start a debug choose **Debug -> Build & Debug** from top menus. Moonshine will start a debug session, all the debug command line output can be viewable in bottom Moonshine *console* window, Moonshine will add a new **Debug View** at left panel, too. Debugger will halt where breakpoint raised and current memory items will be shown in Debug View panel:
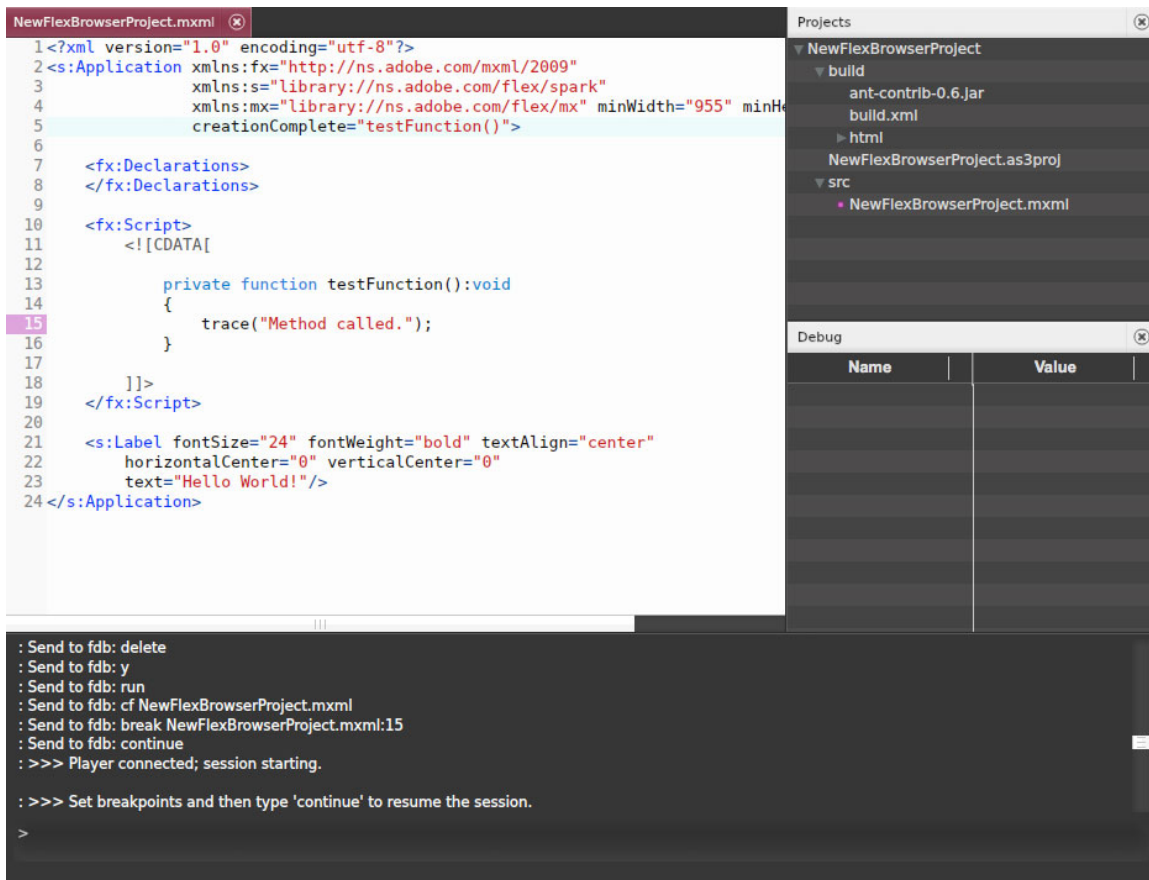
- To step over while debugging you can press **F6** in keyboard or choose **Debug -> Step Over**
- To resume while debugging you can press **F8** in keyboard or choose **Debug -> Resume**
- To stop/terminate debug process choose **Debug -> Stop**

ANT Build

- Starting an ANT build requires ANT installed in your system and setup as environment variable (http://ant.apache.org)
- Moonshine supplies all the requisite files for ANT build process and configured. You can immediately start an ANT build process if you already setup ANT in your system; to start an ANT build process we need to locate the ANT build script file (**build.xml**) prior to run the process. Moonshine supplies ANT build script file in it's project's **build** folder. To locate the build script file choose **ANT -> Configure** from top menu, in opening file browser dialogue navigate to your Flex project's folder and select *build/build.xml* file; click **Open** in browser dialogue
- To run the ANT build process choose **ANT -> Build**. ANT build should produce .SWF and it's HTML wrapper file set
- Upon successful completion of the process, installer files can be located at **DEPLOY** folder inside **build** folder