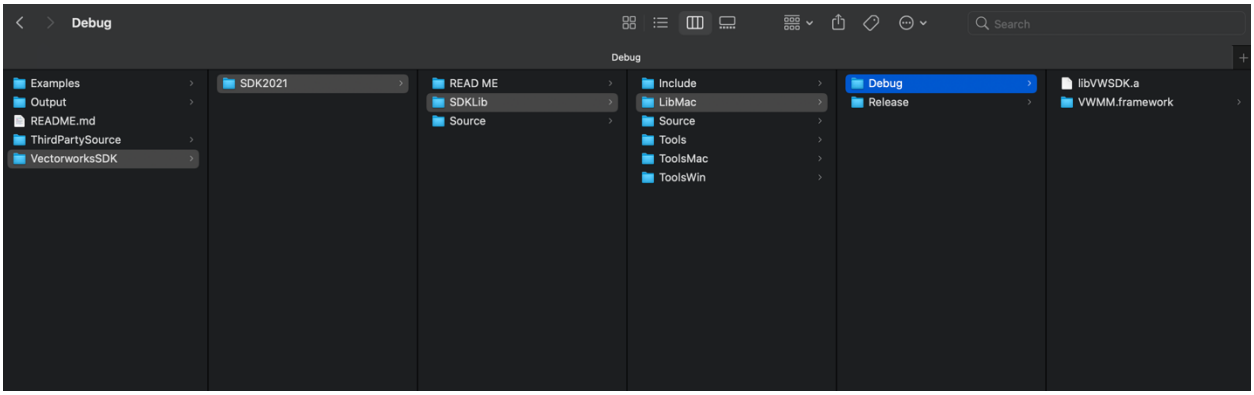
2021 Vectorworks SDK Web Example Installation Walkthrough

NOTE: This walkthrough was done using MacOS Big Sur v. 11.1 with XCode 13.3 and Vectorworks 2021.

INSERT GITHUB LINK HERE ONCE THE REPO IS OPEN/COMPLETE!

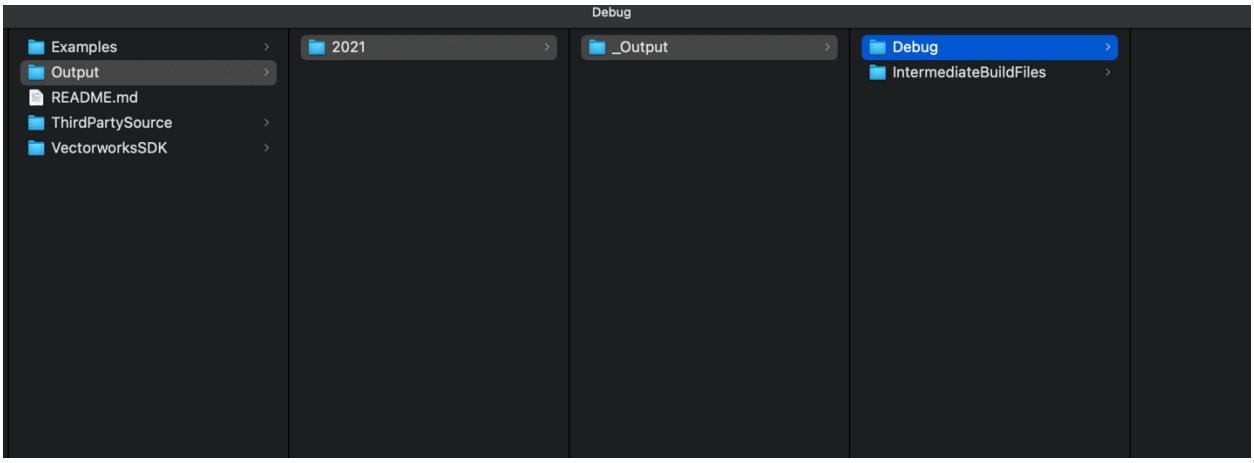
STEPS:

1) Navigate through the VW_2021SDK_Example-main folder to VectorworksSDK/SDK2021/SDKLib/LibMac/Debug.

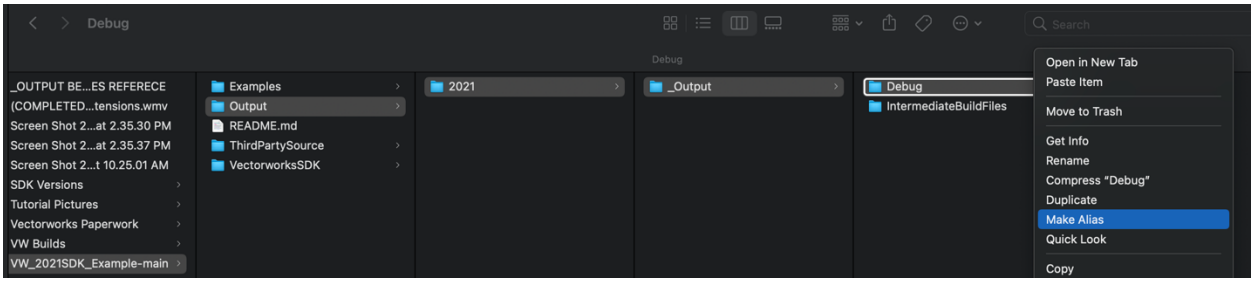


2) Unpack libVWSDK.a.zip and delete the .zip file once unzipped.

3) From the main directory (VW_2021SDK_Example-main), navigate to Output/2021/_Output/Debug. This folder will be empty until you compile the project, which will be done in Step 10.

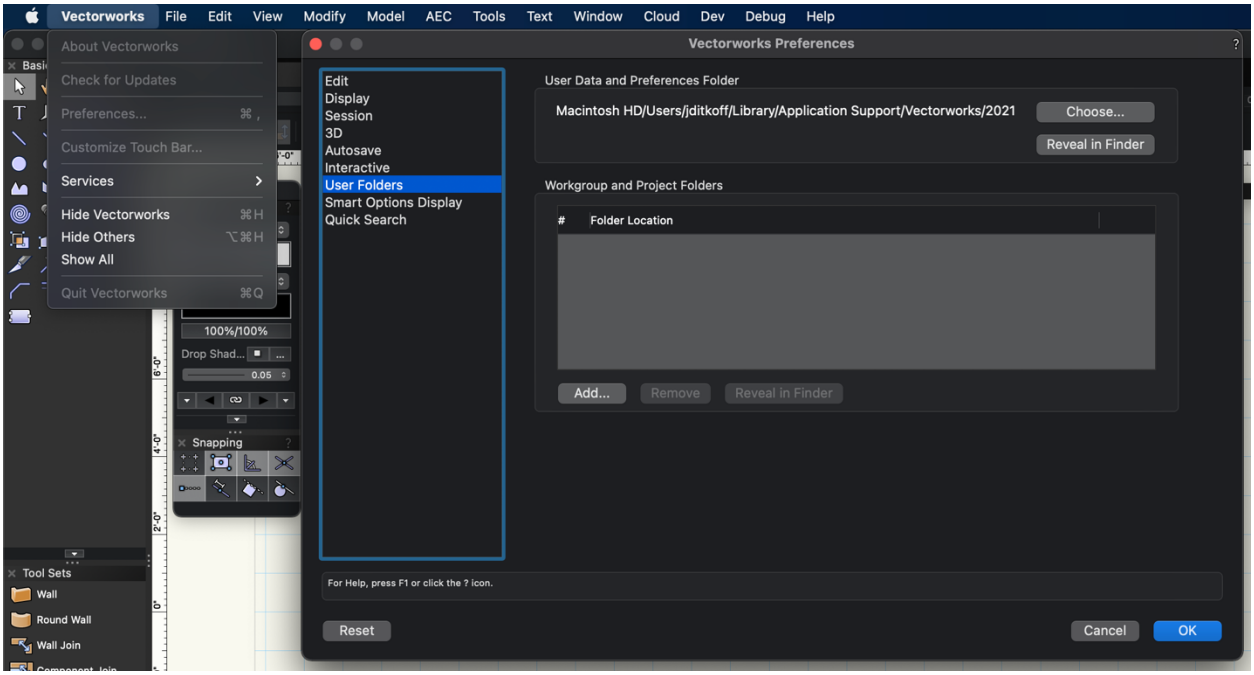


4) Right click on the Debug folder and click Make Alias. Rename the Alias to WebExample. This is the output location that houses the created plugin once the project is successfully compiled.

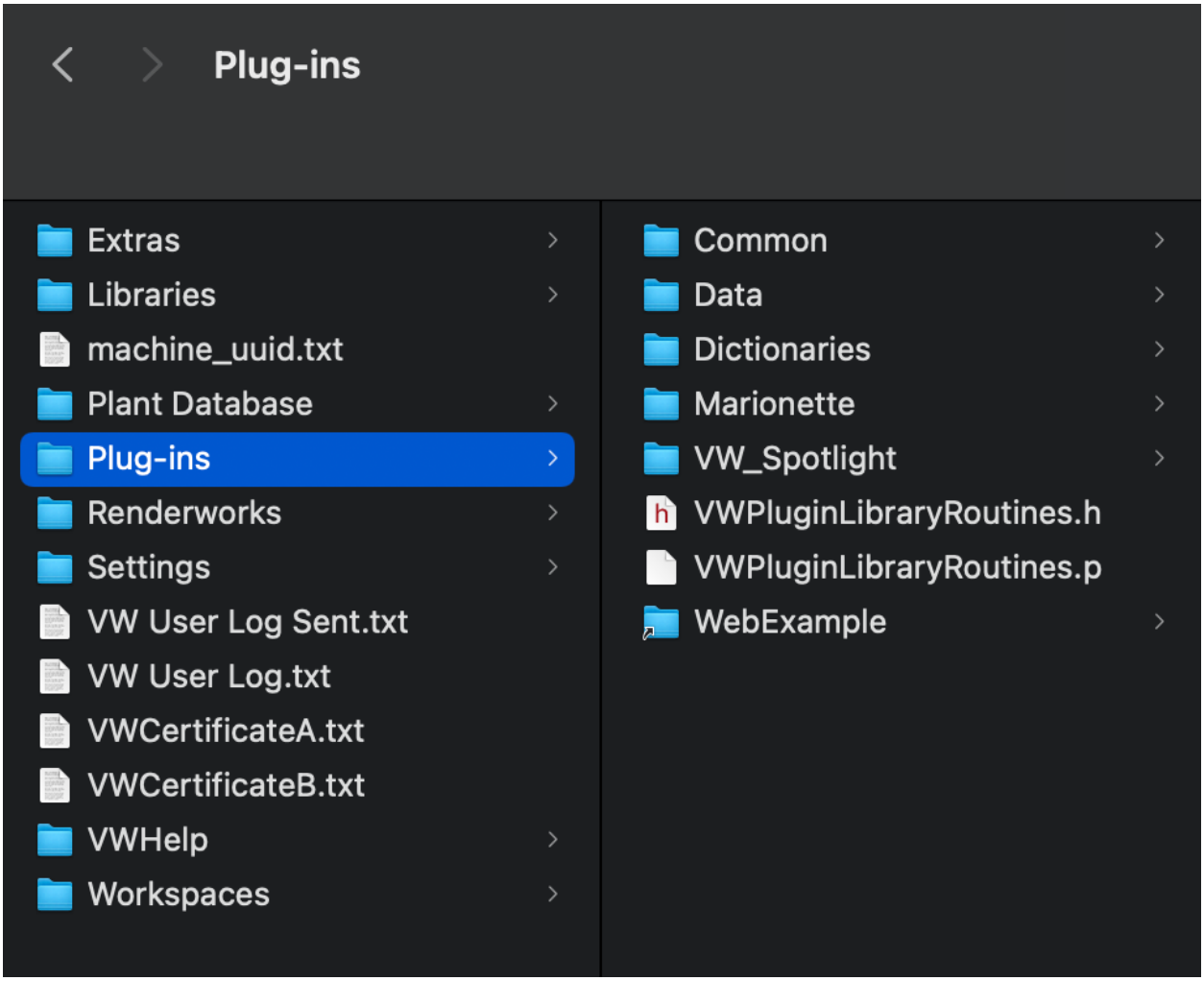


5) Next, we need to move the alias folder to the Vectorworks User Plug-in folder. The easiest way to locate this folder is to open up Vectorworks 2021.

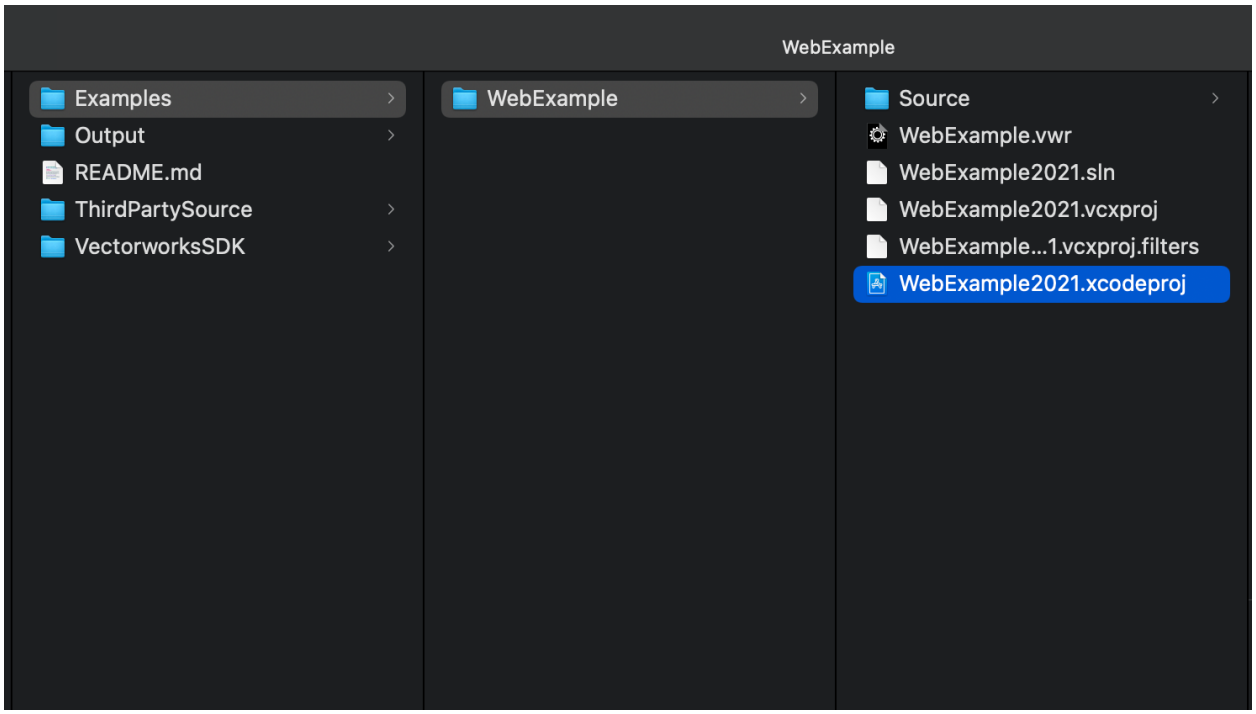
6) Once open, Click Vectorworks on the Menu bar. Click Preferences, then click on User Folders to the left of the Preferences menu. At the top of the User Folders tab, you will see the path that contains the user's plug-in folder. Press Reveal in Finder. Then open up the Plug-ins Folder.



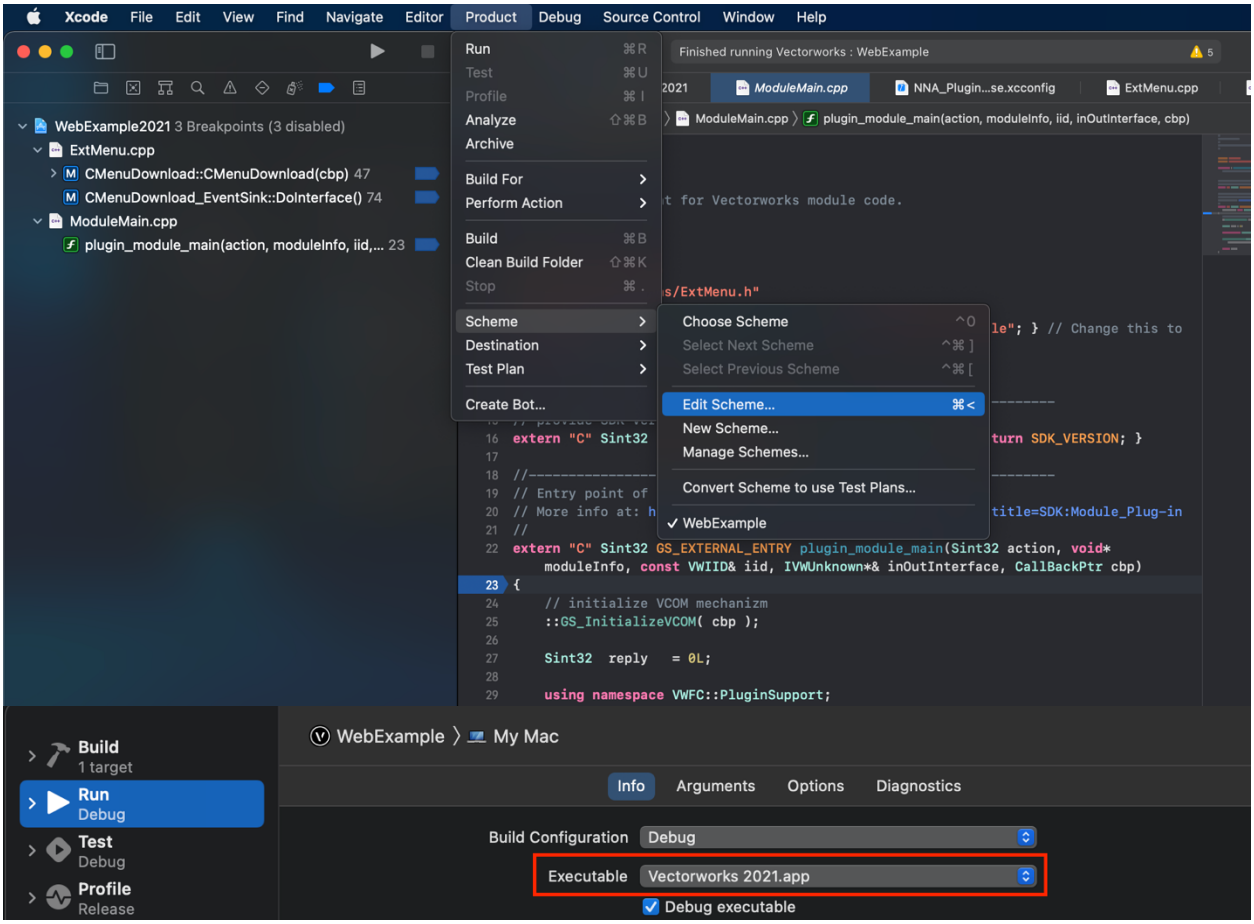
7) Drag the WebExample alias folder into the Plug-ins folder. When Vectorworks opens up, it will run through its internal plug-in libraries, then through the user's installed plug-ins. It recursively checks all folders in the Plug-ins folders to find all Vectorworks library files.



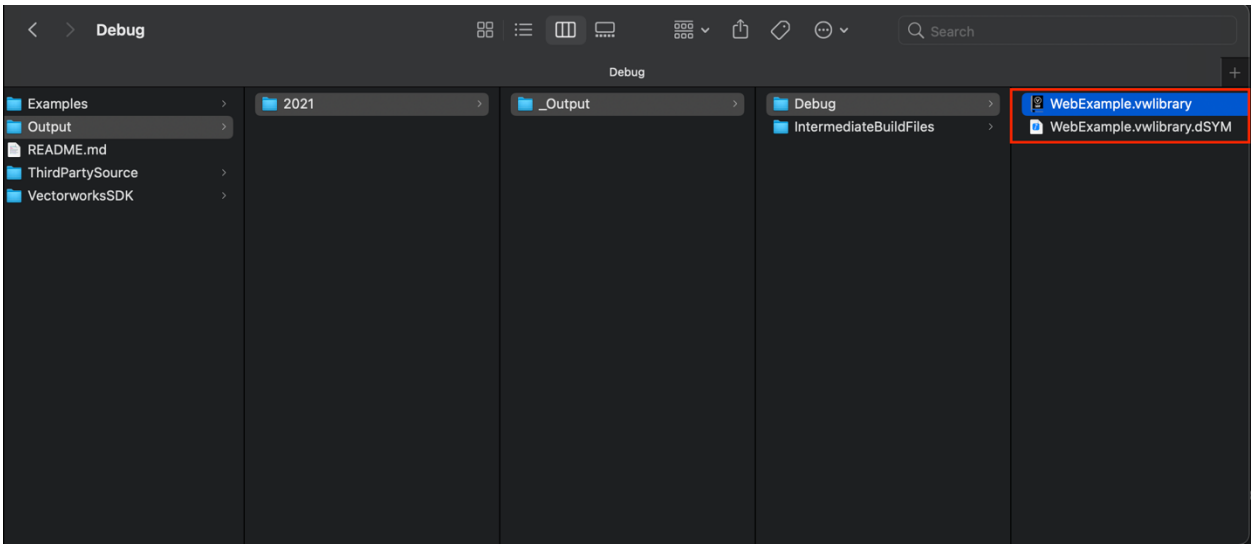
8) Next, navigate back to VW_2021SDK_Example-main. From the main directory, go to: Examples/WebExample/. This houses the WebExample2021.xcodeproj.



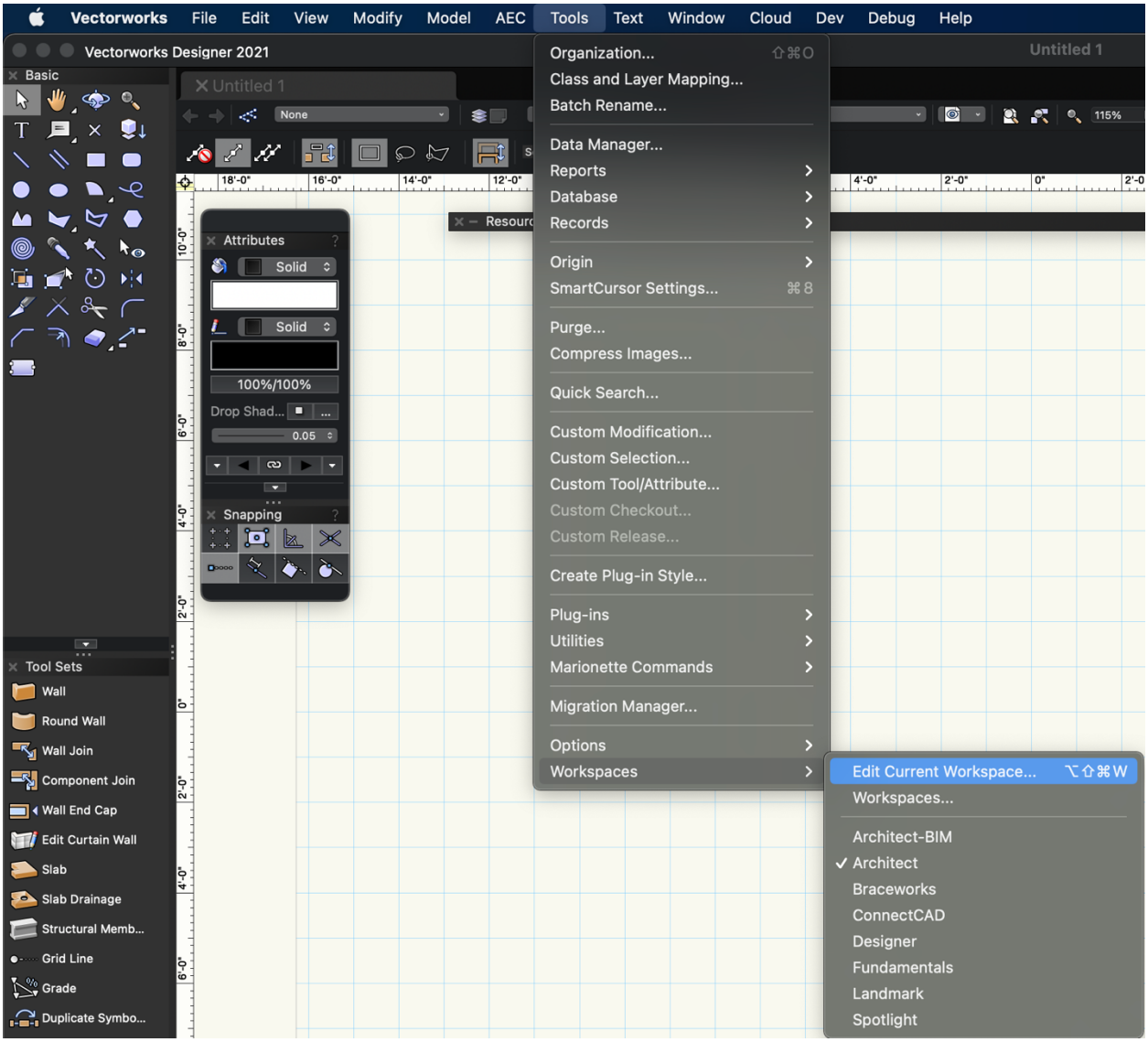
9) Open up the WebExample2021 project.
    a. Optionally, if you want Vectorworks 2021 to automatically open up after compiling, you can press Product at the top Menu bar, then press hover over Scheme and press Edit Scheme. Then under the Run tab, you can find and select Vectorworks 2021 as an Executable. This can be very helpful for debugging purposes.



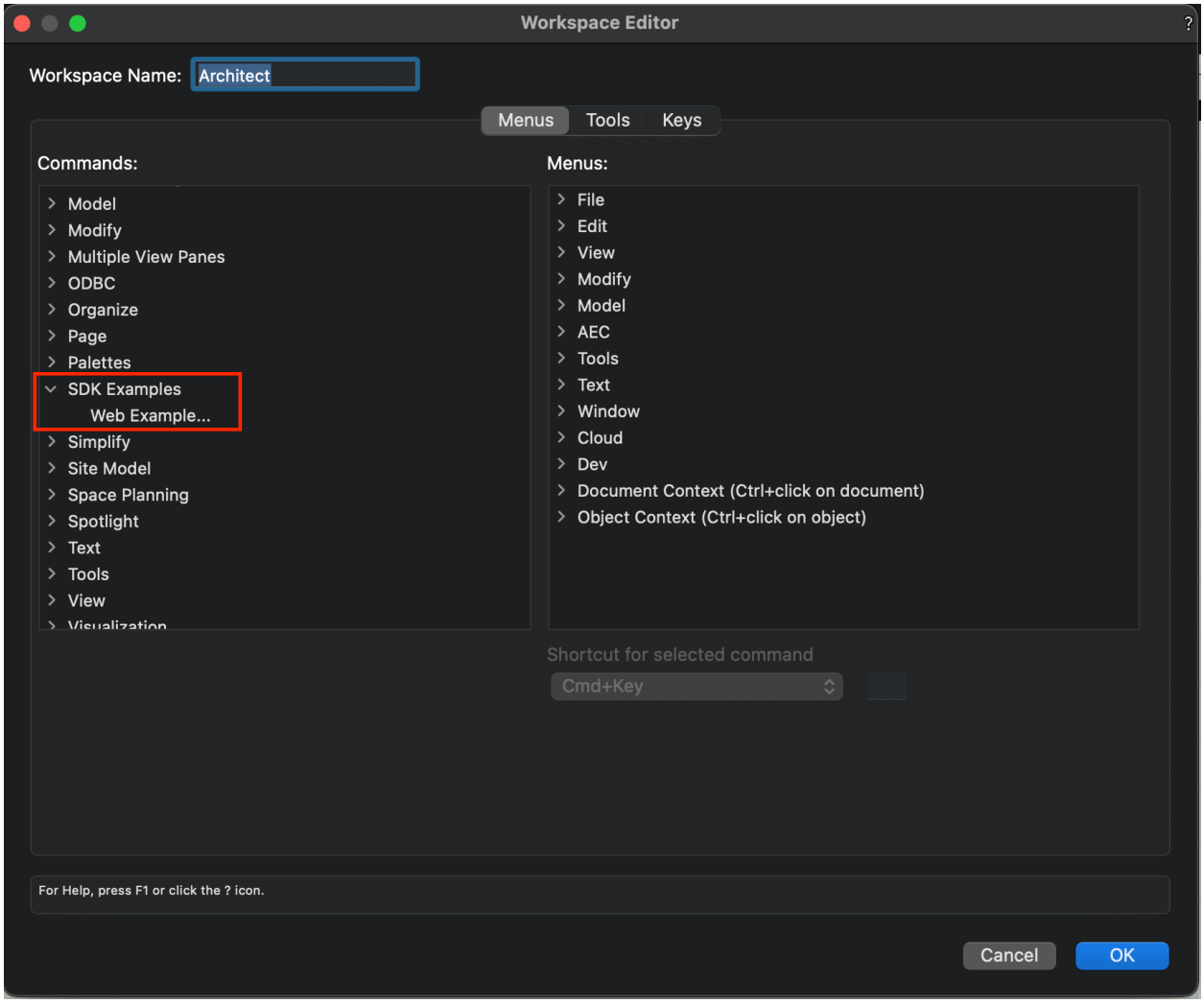
10) Compile and run the program. It should compile with no issues. You'll see the Debug folder from step 3 be populated with two files: WebExample.vwlibrary and WebExample.vwlibrary.dSYM. These files will also be present in the WebExample folder you created in step 4, as that is an alias of this folder.



11) Once you see those files present, you can open up Vectorworks 2021. Once open, navigate to the Tools menu, then hover over Workspaces and click on Edit Current Workspace.



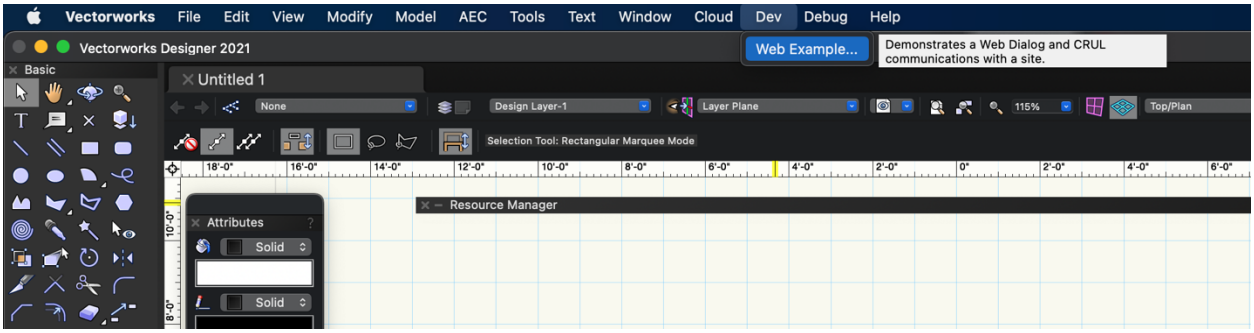
12) If you scroll through the Commands box, you'll find an entry titled SDKExample with a drop-down arrow next to it. If you click on that arrow, you'll see the Web Example plug-in. In order to use the plug-in, you'll need to add it to a menu.



13) To make a new menu, scroll to the top of the Commands box. You'll see a command labeled "New Menu." Drag the New Menu command into the Menus box. You can then rename it to whatever you'd like. For the purposes of this tutorial, you can name it Dev.

14) Next, drag the Web Example plug-in into the new Dev Menu. Once you drop it into the Dev menu, you can press OK to return to Vectorworks.

15) You will see a new menu option titled Dev on the Vectorworks menu bar. If you click on it, the Web Example plug-in will be there. You can now open it up and see the WebExample plug-in box appear.



Debugging and troubleshooting:
TEST THIS OUT ON A CLEAN SYSTEM TO SEE WHAT ISSUES YOU RUN INTO

Potential issues:

1) Directories are moved around, causing xcode/the program to be unable to find the correct folders.
2) Outdated software/ Updated SDK/ Updated XCode – This tutorial is only really guaranteed to work for this version. Test out other versions? There shouldn't be major changes between different builds of VW as long as it's VW2021.
3) Vectorworks doesn't pick up the plugin –
    a. So many reasons:
        i. Incorrect alias folder
        ii. Delete and recompile code so that an older version of the plug-in isn't still sitting there
        iii. Incorrect version of the SDK or SDK Library
4) Quarantined folder when you originally download it. – INCLUDE THIS IN THE TUTORIAL TO BE SAFE!!!