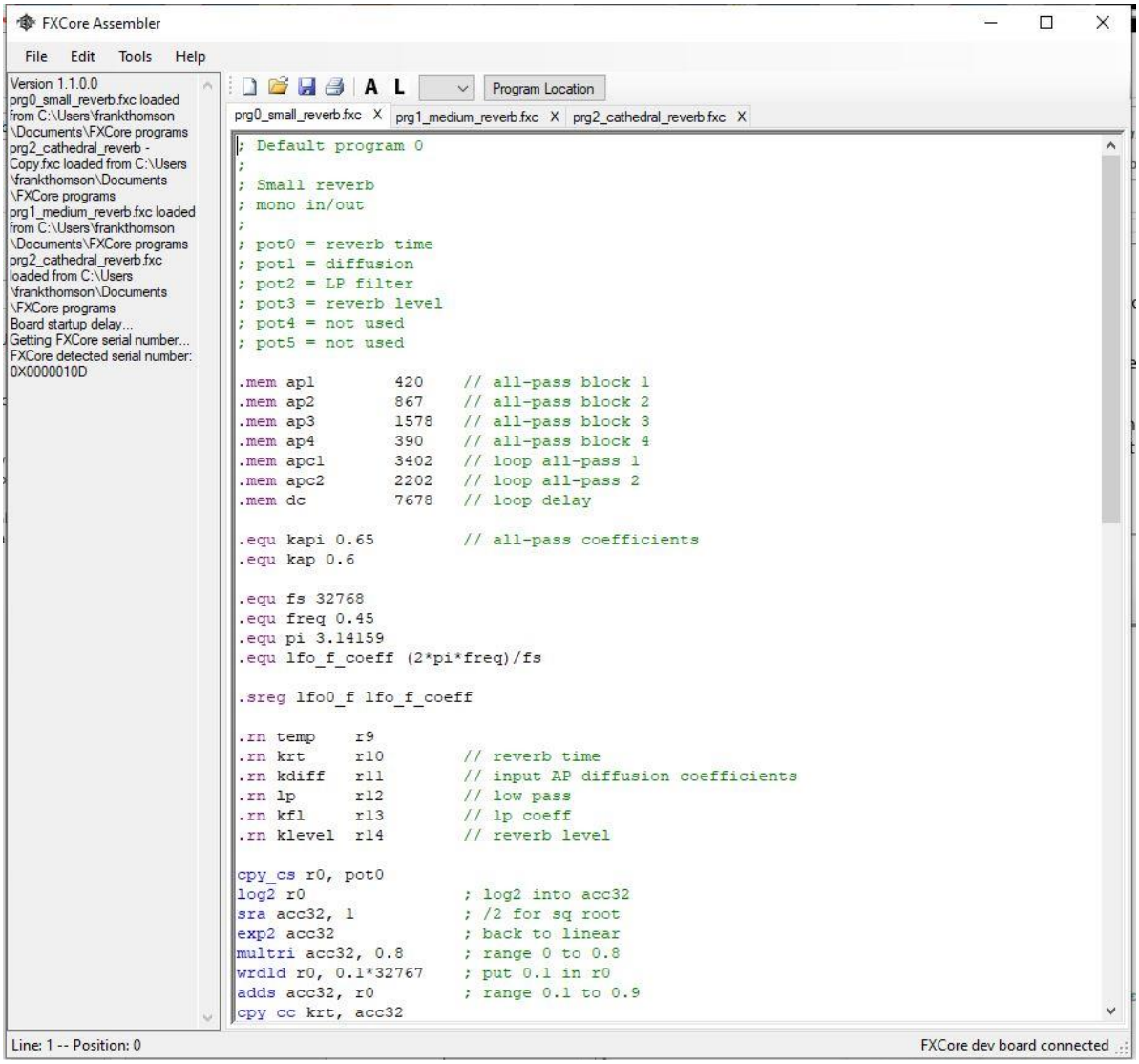
FXCore Asm is the free assembler that allows users to develop programs for the FXCore DSP from Experimental Noize.

This guide is meant as a simple guide to using the assembler, the mnemonics, directives and reserved words can be found in the instruction set data sheet.

FXCore Asm contains a tabbed editor allowing multiple source files to be open at the same time. This allows easy cut and paste operations between programs. The active tab is the one used for actions like assemble or program.

Here is the program with 3 files loaded:



Most commands are available on the icon bar just above the editor tabs, starting from the left:

New : Creates a new blank editor tab.

Open : Opens a file browser allow you to select an existing FXCore program (.fxc extension) and loads it into a new editor tab.

Save : Saves the file in the active tab

Print : Prints the file in the active tab

A : Assembles the code in the active tab and if a development board is connected downloads the assembled code to the execution RAM of the FXCore and starts the program running. Using this button in development saves the FLASH in the FXCore from multiple writes while developing code. A HEX version of the program is generated and saved.

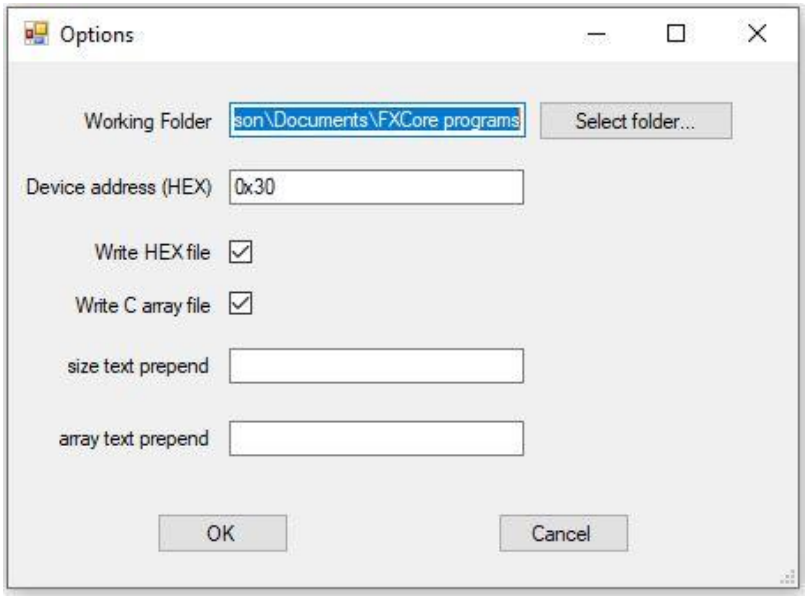
L : View listing file for active tab. When a program is assembled a listing file is created with resolved values, memory usage, etc. If there were errors in assembly they are recorded to the listing file.

Program number selector : Used to select which program slot a program will be written to or which program slot will be cleared.

Program Location : This button will assemble the program in the active tab and program it to the FXCore FLASH program slot specified by the program number selector.

Users can set a number of options such as the directory that contains the .fxc files, if HEX and C array files will be generated and the I2C address of the FXCore to write to.

Selecting Tools -> Options will open the following window:



Pressing the “Select Folder” buttons will open a file browser where the user can select the folder containing the FXCore programs.

The “Device address (HEX)” field must match the I2C address of the FXCore on the development board. If one is changed then the other must also be changed.

If multiple FXCore boards are daisy chained and they also have their SDA and SCL lines daisy chained then each FXCore must have a unique I2C address and the address set in this field will program the FXCore with the corresponding address.

The check boxes for HEX file and C array file control if these files will be generated when the program is assembled. These file are written to the working folder.

The “Size text prepend” field and “Array text prepend” field are used to place text in front of the array declarations in the C .h files. This would typically be a type definition for the array data like uint16, char, etc. If you are not generating the C array files leave these blank.

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