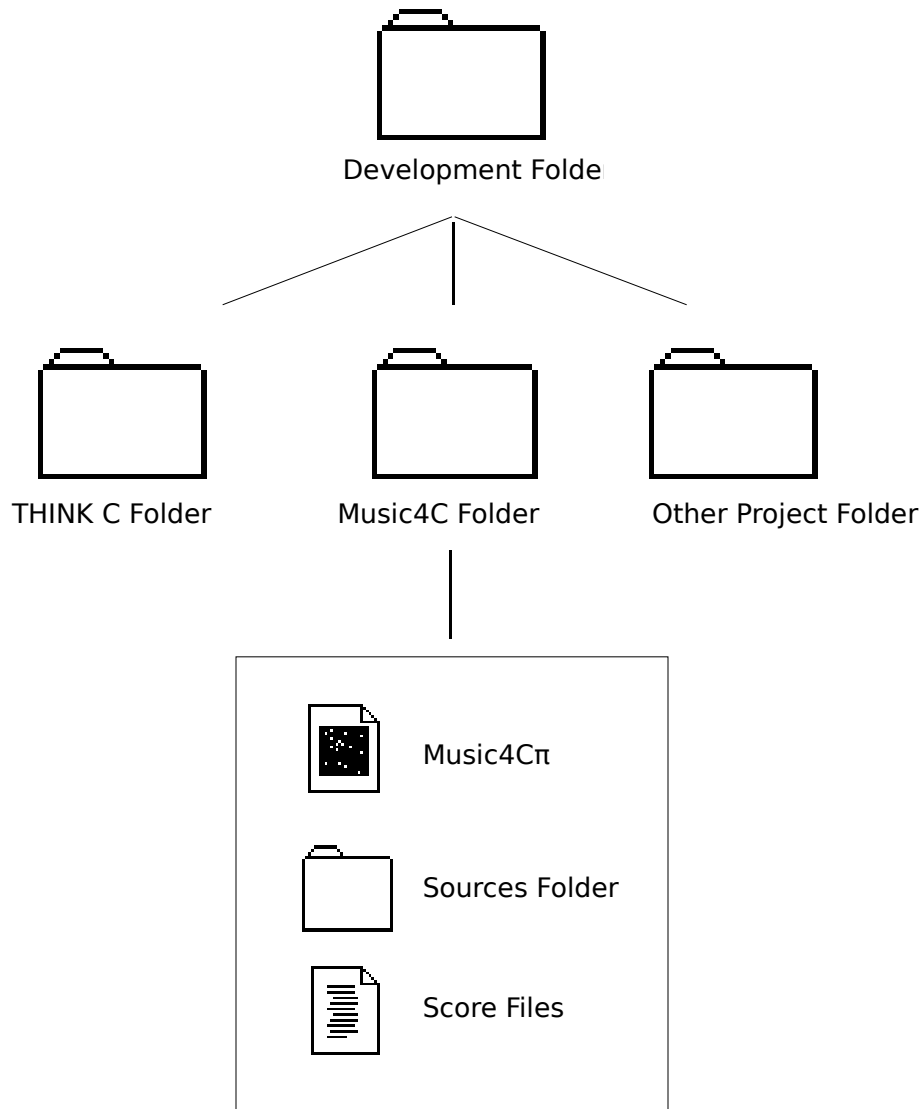


Getting Started with Music4C

1. If you have followed the recommendations from Symantec for arranging your folders, you will have a folder called Development which contains the THINK C folder, and other folders which contain your projects. Drag the Music4C folder from the accompanying disk, into your Development folder. This arrangement is illustrated below.



The two applications programs, SFConvert and SFInfo, should be copied to a convenient place. I keep them in my Soundfiles Folder.

2. Open the Music4C folder and double-click on the Music4C π project file. This will invoke THINK C. Under the Edit menu, select Options. Click on the code

generation radio button and make sure that the 68020, 68881 and <Machheaders> check boxes are checked. Click OK.

3. You will notice that the Orchestra routine called HoweExample1.c is in the project window. To look at it, double-click on the name. This is an implementation of the fixed waveform instrument described in Hubert S. Howe Jr.'s *Electronic Music Synthesis*, p 232-236.
4. You need to re-make the whole project. Select Make from the Source menu, select Check All, then Make.
5. Now choose Run from the Project menu. Music4C will put up its menu bar. Select Preferences under the File menu to present the preferences dialog box. This lets you select some preferences such as sound file format etc. The options you choose become defaults (saved in the file Music4C_Prefs in you System Folder), so once they are set you only need to invoke this dialog if you need to change them.
6. Choose Open from the File menu and select the score file HoweExample1.score.
7. The next dialog box that comes up asks you to name the Report file that will contain information about the synthesis (if you have this option switched on). Another standard file dialog asking for the name of the new soundfile to which Music4C will write the samples. You can name the files what you like, but Music4C proposes a name based on the name of the score file with a “.FLOAT” extension for floating point files, “.SD” for Sound Designer files, “.AIFF” for Audio Interchange File Format files and so on. The directory you save the sound file in becomes the default directory for future soundfiles.
8. A Pass1/Pass2 progress box comes up and disappears almost immediately. (There is only one note in the HoweExample1 score). A progress display bar for the Pass3 synthesis comes up on the screen and fills as the synthesis completes. Finally, a window pops up saying “Total synthesis time was X seconds”.
9. Select Quit from the File menu.

To use a different orchestra, click on HoweExample1.c in the THINK C Project window to highlight it and choose Remove from the Source menu. Now choose Add. . . , the lower one, from the Source menu and select, say HoweExample2.c from the orchestra folder. (For memory reasons and execution efficiency, make sure you always add the orchestra file to the segment that contains pass3.c and ugenlib.c). Choose Run. THINK C will compile HoweExample2.c, link it in with the rest of the Music4C code and put up its menu bar.

It is worth pointing out that it is up to you to ensure that the score file parameters make sense in the context of the orchestra code! If things go whacko or the Mac

crashes, seems to go to sleep, or generates wild or very large values, verifying parameters for notes and stored functions is the first thing to do.

An instrument called ReadAFloatFile.c is included. This shows an example of reading in a FLOAT format sound file, sample by sample, for processing in function orch. After the Pass 3 Synthesis Progress indicator comes up, SFGetFile will put up a dialog asking for the sound file you want to process. This needs to be a “.FLOAT” type file. You may need to change the parameters on the note card to suit the soundfile you want to process. I have also included examples of reading Sound Designer™ and Sound Designer II™ format sound files.

There are two applications on the disk, in addition to the Music4C stuff. SFInfo gives some useful information about the selected sound file, sample rate, file type, number of channels, and maximum and minimum sample values. Music4C puts this information in the resource fork of the sound files it generates, but it also tries to get this information from the sound file itself, if no resource fork exists. e.g. in the case of Sound Designer format files generated by Sound Designer itself.

SFConvert will convert sound files between different formats. So you can generate FLOAT files with Music4C, and convert the output files to Sound Designer or AIF format for use with other applications. (Please note that Alchemy 2.0c reports errors when reading AIF format files generated by Music4C and SFConvert. This is because Alchemy is expecting some non-standard resources. Just ignore the errors and the soundfiles will be read OK).

There are also several other simple orchestras on the disk that may be useful or instructive.

Best of luck,

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