OMCHROMA
INCREMENTAL README

This Workspace was prepared by Marco Stroppa, with substantial help from Jean Bresson.

091020 / October 20, 2009
OMCHROMA 3.0 // userlibrary/chroma-classes-1.0

OMChroma 3.0 is a major improvement with respect to previous versions and the only version which runs on Intel computers.
Copy this Workspace in you computer and select it from the starting window of OM (Open a workspace).

HOW TO INSTALL

Before you use it, please make sure that the software needed to run OMChroma is correctly installed in your own computer. This version of OMChroma does not install this software automatically.

1. INSTALL CSOUND

If you do not have a running version of csound, go to www.csounds.com, download and install one. As of this time, we advise you to install the version 5.11 double precision.
When the installation is complete, you should have an executable version of csound in /usr/local/bin.
To be sure that csound exists, open a Terminal window and type:
> ls /usr/local/bin
The name "csound" should be contained in the result.

2. SET CSOUND/SUPERVP

Check in *Preferences/Externals* that the path to Csound is not red. Unfortunately, you will not be able to directly specify the /usr/local/bin folder, since it is hidden to the Macintosh's "Choose a file". In case you want to install csound somewhere else, you should specify this path in the preferences.
Check in *Preferences/Externals* that the path to SuperVP is not red, if you are planning to use it. SuperVP is normally found in the *AudioSculpt/Kernels* folder (if you have AudioSculpt).

3. AUDIO PREFERENCES

Set the wished data in *Preferences/Audio* (default values in brackets).
Default Audio Format: choose between AIFF and WAVE [AIFF]
Default Resolution: set the bit resolution of the sound file [24]
If Output File Exist:
Auto Rename will add a number to the file name, so that each time a sound with the same name is synthesized, the old one will not be overwritten. Beware: this option will fill up your sound file folder very rapidly!
Replace will overwrite sound files with the same name. [Replace]
Delete Temporary Files: if checked, temporary files (orchestra, score and the floating point audio file) will be deleted after the synthesis process has ended. It is a practical solution when one is sure of the results and never needs to look at the intermediate files. [n]
Normalize Output (default): if checked, normalize the sound (the synthesis is floating point). One can also specify the normalization as a keyword (*rescale*) of *synthesize* and give the level of the normalization for that synthesis process. [y].
Use csound or *SuperVP* [csound]. The latter is more general in case of exotic formats or number or channels, but the software is not free. For most purposes, csound should be enough. The quality is the same.
Level maximum level after normalization (0=full level, digital). Use rather -3 or -6. [-3]
Print System Outputs: if checked, the output of csound will be redirected to the OM Listener, otherwise it will appear in the Console window (which should be open). The former is more practical, but much slower in case of many printouts. [y]

4. LOAD THE LIBRARY

In *Preferences/User Libraries* check *Auto load chroma-classes* (it should already be checked in the Chromawk), so as to load the classes automatically.

5. CSOUND OPTIONS

If you are familiar with csound, you can also change the default settings of the synthesis (normally, they work for most purposes). Go to *Preferences/Externals* and check *Options.*
Csound Default Flags: used in the command line that runs csound [-f -m7 -A -N -g -b8192 -B8192]

Default Table: default table, when none are specified [f 1 0 513 7 0 256 1 256 0]
Automatic Table Start: when generating new tables, start numbering them from this point. This is practical, when default tables for the synthesis classes are used (they have a low table number). [500]
Default Table Size: default size, must be a power of two, or a power of two + 1, if the module that need the table is interpolating (all the modules in the OMChroma classes are interpolating). [513]

6. PM2
Some tutorials that use the OMSuperVP library for the analysis of a sound will only work if SuperVP and PM2 are correctly installed. Please make sure that

BUGS
Due to several important structural changes in the design of the classes, OMChroma 3.0 is not entirely compatible with all the classes and the method synthesize of previous versions.
If when loading a patch you get an error message like (the red part is the same, the green can change):
"An error of type slot-missing-error occurred: the slot ranfn is missing from …"
you can access the data with the following strategy:
1. In *Preferences/User Library* uncheck *Auto load chroma-classes*.
2. Quit and restart OpenMusic.
3. Open the problematic patch. You will be asked: chroma-classes library is required. Do you want to load it?
Reply: **NO**. The classes (except add-1) will be shown as a dead method with their name.
4. Manually load the library chroma-classes.
5. Replace the dead class with a new instance of the class with the same name, and redraw the connections.
6. If you have a very old version of *synthesize*, replace it with a new instance.
It should work.
Future versions of OMChroma will maintain a complete backward compatibility. Sorry for any inconvenience.