Orchis 0.5

Automatic Orchestration Tool

Grégoire Carpentier 05-Jan-2010

ORCHIS 0.5 WORKS WITH ORCHIDEE 0.3.1 OR LATER VERSIONS.

Orchis is a Max/MSP client application running the Orchidee server. It uses most of the OSC messages detailed in the Orchidee manual.

This document quickly describes **Orchis** installation and running processes. I will try to write a more detailed manual in the future. For any questions please write me an email at gregoire.carpentier@ircam.fr.

If you're updating from Orchis 0.1, first trash the preferences dir ~/Library/Preferences/IRCAM/OrchideeForMax/ before using Orchis 0.1b the first time.

Features

- Database exploration and query interface, including a sound rendering module.
- Easy analysis and import of new sound samples.
- 32-slot orchestra builder allowing up to 4 alternative instruments per slot and a microtonic resolution up to 1/16 tone (default is 1/4 tone).
- Quick filter design interface.
- Up to six timbre features considered in the search process (defaults are partialsMainAmplitude and spectralCentroid)
- Feature-based solution navigation interface, including a sound rendering/editing/exporting module.

Installation and configuration

- The Orchidée server must be installed before using Orchis. Follow the installation process in the README file provided in Orchidée disk image, then copy the Orchis directory somewhere in your Applications folder.
- Double-click on **Orchis** icon to start the application. The Orchidee server should start immediately (check this in your dock). If the server crashes at that point, a log file should automatically pop up. If so, please email this file to gregoire.carpentier@ircam.fr.
- Select Set Root Dir... from the DATABASE menu and locate the `ORCHDB` folder. That's it!

NOTE: Instruments are sorted in the traditional orchestral order. You can configure your own orchestral order by editing the `~/Library/Preferences/IRCAM/Orchidee/scoreorder[#]` text file. There should be only one instrument symbol per line, ended with a `','`. Use the `'-'` symbol to separate instrument families.

Important notes

- Orchidee comes with sample description files only (in the XML format). The sound sample database (more than 10 Gb) is NOT included in the release. However, this does not prevent you from using the software. The only restriction is that orchestration simulations will be disabled. A good exercise for you inner ear!
- Orchidee (and therefore **Orchis**) can only process static target timbres, eventually with amplitude modulation (e.g. tremolo, vibrato). Time evolving targets are NOT supported at the current time.
- The current version of Orchidee is designed to cope with MONOPHONIC sounds only in the database. When adding new samples, forget about chords, multiphonics and non-pitched percussions.
- When adding new samples, be sure to respect the file hierarchy of the database: `dbname/family/instrument/playingstyle/samplename`. Sample names should respect the following syntax: `instrument-playingstyle-note-dynamics-(string)`. Please report to the naming nomenclature in the Orchidee manual to avoid wrong symbols. New

sound librairies must be placed in the `ORCHDB/sounds/` directory, next to the `orchidee` folder.

- **Orchis** works with Orchidee 0.2.5 and cannot be used with previous versions of the server.

Orchestration process

- (Opt.) From the SESSION menu, choose Orchestra... to build an orchestra or change the microtonic resolution. You can add up to 32 instrumentalists and each musician can play up to 4 different instruments (not at the same time of course).
- Import a sound target by dragging a sound on the target frame, or by clicking the Open button. Select to segment of sound you want to orchestrate. You can ear the segment by clicking the red led at the top-left corner (if no sound comes out, check the DSP... item in the SETTINGS menu).
- (Opt.) Hit the More button to change the sound analysis parameters. Click the Update button to see the list of pitches allowed in the search process (you can edit this list manually by using the pitch filter below). You can also add or remove timbre criteria in the bottom frame.
- (Opt.) In the SESSION menu, open Filters... to include or exclude sound attributes from the search process.
- Choose Orchestrate... in the SESSION menu to run the orchestration process. When the search terminates, a solution navigation interface pops up. Browse the solutions by sliding the number box or using the increment/decrement buttons. You can replace a sample by hitting the E button on the left side of each track, or change its microtonic transposition using the menu on right side. Click the Mixboard button to mute tracks or adjust levels and pans. Click the Map button to browse solutions according to their feature and distance-to-target values.
- Repeat the whole process if necessary. Quit the server with the Quit item on the SERVER menu in the top frame.

Bug report

- If a bug comes out, check your `~/Library/Logs/IRCAM/Orchidee/` directory and send the ***last*** log file to gregoire.carpentier@ircam.fr.