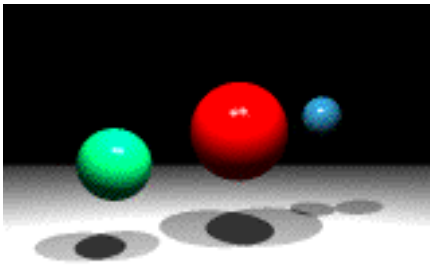
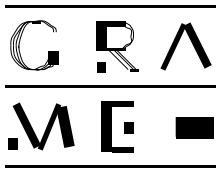


Open Share

A collaboration system
for musical operating systems

GRAME - Research Lab. - email: GRAME@rd.grame.fr



GRAME - Research Lab.
6 quai Jean Moulin
BP 1185
69202 LYON Cedex 01

Tel (33) 72.07.37.00 Fax (33) 72.07.37.01

E-mail : GRAME@rd.grame.fr
WWW : http://www.grame.fr/

Introduction

Sharing the computer critical resources is actually a problem in the musical field, due to the multiple musical operating systems that runs on a same station. For this reason, we developed “Open Share”, an application that allows different systems to collaborate. Open Share aims to the following points:

- allowing to share the input/output ports between clients of different musical operating systems.
- providing homogeneous communication services to all the client applications of these systems.

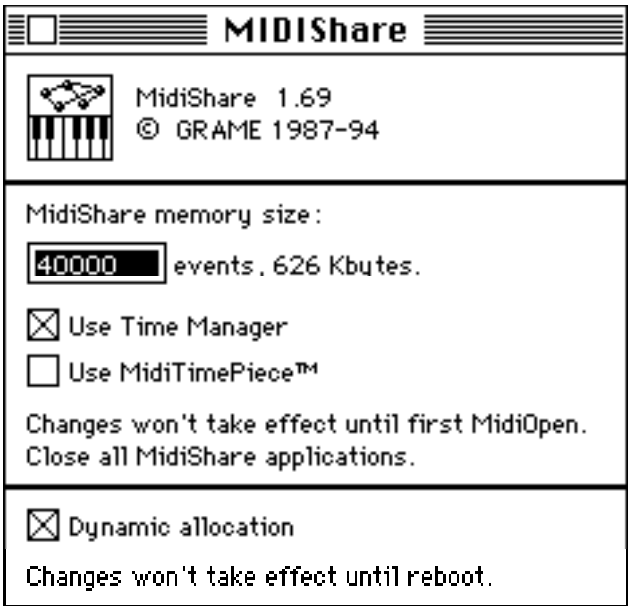
MidiShare is the basis of Open Share and client systems are:

- OMS version 1.2.1, developed by Opcode Systems, Inc.,
- MIDI Manager version 2.0.2, developed by Apple.

It means that all the musical applications (OMS, MIDI Manager or MidiShare applications) can simultaneously run on the same station, can share the input/output ports and communicate using the MidiShare communication manager.

Using Open Share

Before launching Open Share, take care that MidiShare is using the Time Manager (launch the MidiShare Control Panel to verify it) and that no OMS or MIDI Manager application is running.



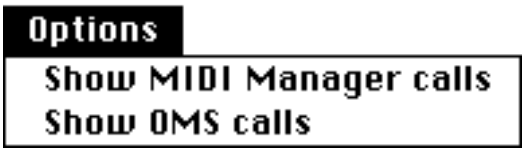
When you quit Open Share, take care that they are no more client application running (OMS or MIDI Manager applications).

Preferences

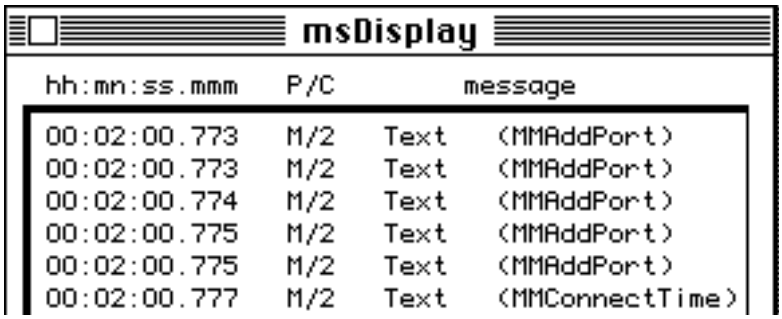
You can open the Preferences dialog using the Edit menu.

The Preferences dialog allows you to suppress the startup alert, or to emulate just one of the OMS and MIDI Manager systems.

'Options' menu



Useful to track the different systems call. When the corresponding option is checked and for every function call, Open Share create a text event containing the function name, and send it using the MidiShare account. Every client application connected to MidiShare will receive these events. One can record them using a sequencer, or display them using msDisplay.



Inter-applications connections

Every Open Share client application becomes a MidiShare client application and so as, will appears in msConnect and can be connected to all the other

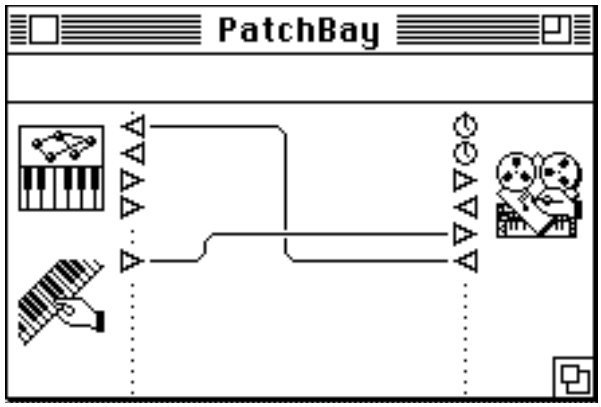
client applications. OMS and MIDI Manager applications can benefit from the MidiShare communication services, including real-time Ethernet communication. The following example shows several OMS, MIDI Manager and MidiShare applications running on the same station and inter-connected.

Open Share and OMS

Open Share takes care of the studio setup created using OMS Setup. It plays the MIDI events using their original ports, like OMS do. Id you use a multi-ports interface Midi Time Piece compatible, select then the Use Midi Time Piece mode using the MidiShare control panel (MidiShare manage up to 256 ports).
We recommend to setup your studio without Open Share. The current implemented OMS version is 1.2.1, you need to use the corresponding ‘OMS Setup’ application when Open Share is running.

Open Share and MIDI Manager

Open Share takes care of the connections made using PatchBay, including the inter-application synchronization using time ports. When Open Share is running, PatchBay looks like as follow:



Apple and/or OMS drivers are replaced by the MidiShare drivers. Inter-applications connections can be done using equally PatchBay or msConnect. The two tools will always display the same state with this difference that PatchBay only displays MIDI Manager applications.

Limitations

Limitations are essentially due to the time sharing. On the Macintosh, there are two ways to get a real time clock:

- direct programming of the timer: the most precise and efficient way.
- programming the timer using the Time Manager.

Of course, the system won't work if MidiShare and Open Share client applications directly use the timer. Nevertheless, even if MidiShare uses the Time Manager, its time can be disturbed when client applications manage twice MIDI and audio streams. Then it seems that the Time Manager is slowed down by the DSP cards interrupts.

Requirements

You need to install the MidiShare control panel to use Open Share.
You need to install MIDI Manager so that MIDI Manager applications become Open Share client applications.
You need to install OMS so that OMS applications become Open Share client applications.

Availability

Open Share is a freeware. You can freely copy and distribute it. Open Share is available via ftp at the following address: ftp.grame.fr, directory /pub/MidiShare/mac/MidiShare_Suite.

This documentation is also available at the following www address:

http://www.grame.fr/english/OpenShare.html

For any question, comment or additional information, please contact:

GRAME - Research Lab.
6 quai Jean Moulin
BP 1185
69202 LYON Cedex 01

Ph (33) 72.07.37.00 Fax (33) 72.07.37.01

E-mail : GRAME@rd.grame.fr
or
fober@rd.grame.fr