



# **InterPARES 2 Project**

**International Research on Permanent Authentic Records in Electronic Systems**

**General Study 03**

## **MUSTICA Glossary**

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## **Terms**

Please see the GRM English Web site, <http://www.ina.fr/grm/presentation/mots.en.html>, for definitions of the following terms:

**Musique concrète**

**Musique électronique**

**Musique expérimentale**

**Musique électroacoustique**

**Musique acousmatique**

### **Acousmographe:**

Software developed by the GRM to graphically represent sounds and to thereby allow annotations of a sound's graphical representation. The GRM is presently testing the use of the Acousmographe, and the software may be marketed commercially in the future. (Information from [http://www.ina.fr/grm/outils\\_dev/acousmographe/index.fr.html](http://www.ina.fr/grm/outils_dev/acousmographe/index.fr.html))

### **Acousmonium:**

A loudspeaker orchestra; an orchestra of many different sizes and styles of loudspeakers developed by François Bayle, the second director of the GRM, to diffuse (or play) recorded music in concert. Using the Acousmonium, a composer can devise creative ways of spatializing his music; that is, making the music sound as though it is moving in space, by changing the assignment of the audio signal (or signals, in the case of a stereo or multi-track recording) from one loudspeaker to another. The music played on the Acousmonium is frequently what is referred to as "la musique acousmatique" (see above).

### **AIFF:**

The type of sound file created using Macintosh computers.

### **DAT:**

Pronounced "D. A. T." or "dat." Acronym for digital audio tape, a magnetic tape developed by Sony that was widely used in the 1980s and 1990s by professional sound studios and musicians for backing up data and recording music. DAT can only be used on DAT players. The DAT format is now becoming obsolete and other technologies have overtaken it in popularity. (Information from <http://audiotools.com/dat.html>)

### **Diffusion:**

The means of performing a recorded piece of music via a broadcast or loudspeaker system, whether by broadcasting it over a radio or other network or in playing it in concert. Diffusion is a term that is frequently used by GRM members and affiliated composers when they describe the method by which GRM music is performed.

### **Enceinte:**

French term for loudspeaker; synonymous with "haut-parleur."

**Haut-parleur:**

French term for loudspeaker; synonymous with “enceinte.”

**MIDI:**

Acronym for Musical Instrument Digital Interface, a protocol that allows electronic devices (usually synthesizers, but also computers, light show controllers, VCR’s, multi-track recorders, etc.) to interact and work in synchronization with other MIDI compatible devices. (Definition from “About MIDI,” <http://www.midi.com> )

**Patch (m):**

The file that serves as an interface for a composer using a program such as Max-MSP (or, prior to the development of Max-MSP, Max).

**Ring modulator:**

Fr. *Modulateur en anneaux*. “A ring modulator is a simple device that can be used to create unusual sounds from an instruments [*sic*] output. It effectively takes two signals (each with some frequency), and produces a signal containing the sum and differences of those frequencies. These frequencies will typically be non-harmonic, so the ring modulator can create some very dissonant sounds.” (Definition from [http://www.harmony-central.com/Effects/Articles/Ring\\_Modulation/](http://www.harmony-central.com/Effects/Articles/Ring_Modulation/))

**Spatialization:**

The assignment of an audio signal (or signals, in the case of a stereo or multi-track recording) from one loudspeaker to another when performing a piece of recorded music so that the sound of the music is perceived to be moving in various directions around a room. The spatialization design for a piece of music can become an important element of that piece’s identity (the C2 interview recording includes an interesting discussion of spatialization).

**Syter:**

The sound-processing system developed at the GRM in the 1970s and used by C4 and other composers.

**WAV:**

The type of sound file created using computers with Microsoft Windows operating systems.

**Software programs (open-source and commercial)****AudioSculpt:**

An Ircam product.

**CSound****Digital Performer (a.k.a., “Performer”)**

**Diphone:**

An Ircam product.

**Finale:**

A music notation software program.

**GRM-Tools:**

Plug-ins to audio software such as Pro-Tools. Developed by the GRM and distributed by Joel Chadabe of the Electronic Music Foundation.

**Jitter:**

“A set of 133 brilliant video, matrix, and 3D graphics objects for the Max Programming environment.” (From the Cycling ’74 Web site products page, <http://www.cycling74.com/products/index.html>) C3 used Jitter in the composition that he discussed in the MUSTICA interview with him.

**jMax:**

An Ircam product developed principally by Norbert Schnell. An alternative to Max-MSO, jMax is a visual programming environment for building interactive, real-time musical compositions. jMax is no longer being developed, as Max-MSP has proved to be more popular.

**Kyma****Max:**

A visual programming environment developed at Ircam in the 1980s by Miller S. Puckette and named after computer music pioneer Max Matthews.

**Max-MSP:**

Max with digital signal processing capabilities. Developed by Cycling ’74 under an agreement with Ircam, Max-MSP one of the most popular audio design software applications in the world.

**MetaSynth:**

A sound design programming environment.

**Modalys:**

An Ircam product.

**NoteWriter:**

A music notation software program developed by UBC professor Keith Hamel.

**OpenMusic:**

An Ircam product.

**Pure Data or pD:**

Developed by Miller S. Puckette as an open-source alternative to Max-MSP.

**Pro Tools:**

The leading professional audio production workstation system. Developed by Digidesign.

**SuperCollider****Organizations****Cycling '74:**

The American software company that makes Max-MSP.

**Digidesign:**

The American software company that makes Pro Tools.

**GRM:**

Le Groupe de Recherches Musicales. Established by Pierre Schaeffer in 1958 within the framework of the ORTF (Organisation Française de la Radio et de la Télévision). In 1975, the GRM was made part of the Institut National de L'Audiovisuel (l'INA). The GRM and l'INA are funded by the Ministry of Communication. See <http://www.ina.fr/grm/presentation/index.fr.html> for more information.

**INA:**

L'Institut national de l'audiovisuel. Funded by the Ministry of Communication. The GRM is an agency of the INA. See <http://www.ina.fr/index.fr.html> for more information.

**Ircam:**

L'Institut de recherche et coordination acoustique/musique. Established in 197 under the Ministry of Culture. Ircam and the GRM are two distinct organizations and that Ircam is not part of the INA. See <http://www.ircam.fr> for more information.