

BrainMaster Multimedia Player (BMrMMP)

User's Manual

BrainMaster Multimedia Player (BMrMMP)

User's Manual

Table of Contents

Starting and using the BMrMMP software.....	3
NOTE: Direct X 9.0c Required	3
Beginning a Session.....	3
Demo mode and normal operation.....	4
Built-in Zoom and unzoom.....	6
Windows Volume Control	7
Multiple Sound Feedback Sources.....	7
Controlling the Multimedia Player	8
Selecting animation files.....	9
Selecting music files	10
Selecting live CD player	13
Troubleshooting	14
BrainMaster DVD Player (BMrDVD).....	Error! Bookmark not defined.
Third-party Software Extensions	Error! Bookmark not defined.
Finding your own animations and sound files	Error! Bookmark not defined.
Converting (“ripping”) DVD’s to mpeg or avi files	Error! Bookmark not defined.
Using GForce for real-time computer graphics	Error! Bookmark not defined.

Starting and using the BMrMMP software

NOTE: Direct X 9.0c Required

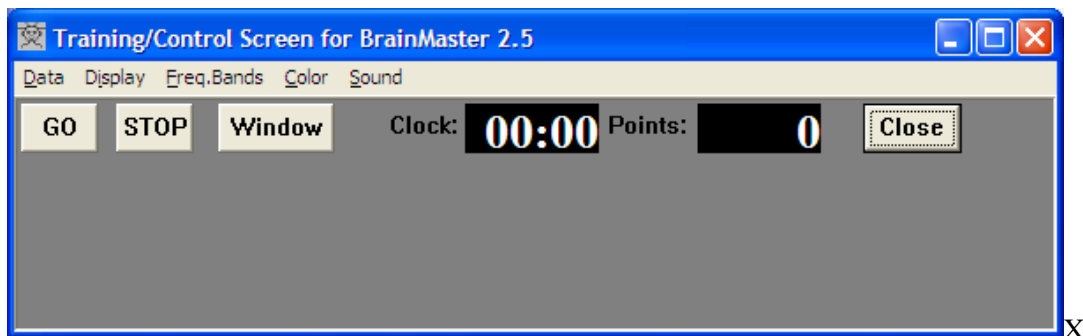
This software requires you to have Microsoft Direct X 9.0c installed on your PC. If you do not have this, the software will be unable to run. You may get (at no cost) Direct X 9.0c, from the internet at: www.microsoft.com/downloads and looking for “[DirectX 9.0c End-User Runtime](#)”.

If you have difficulty obtaining Direct X, you may find helpful links and files in the “AVI Extensions” browser which is described below.

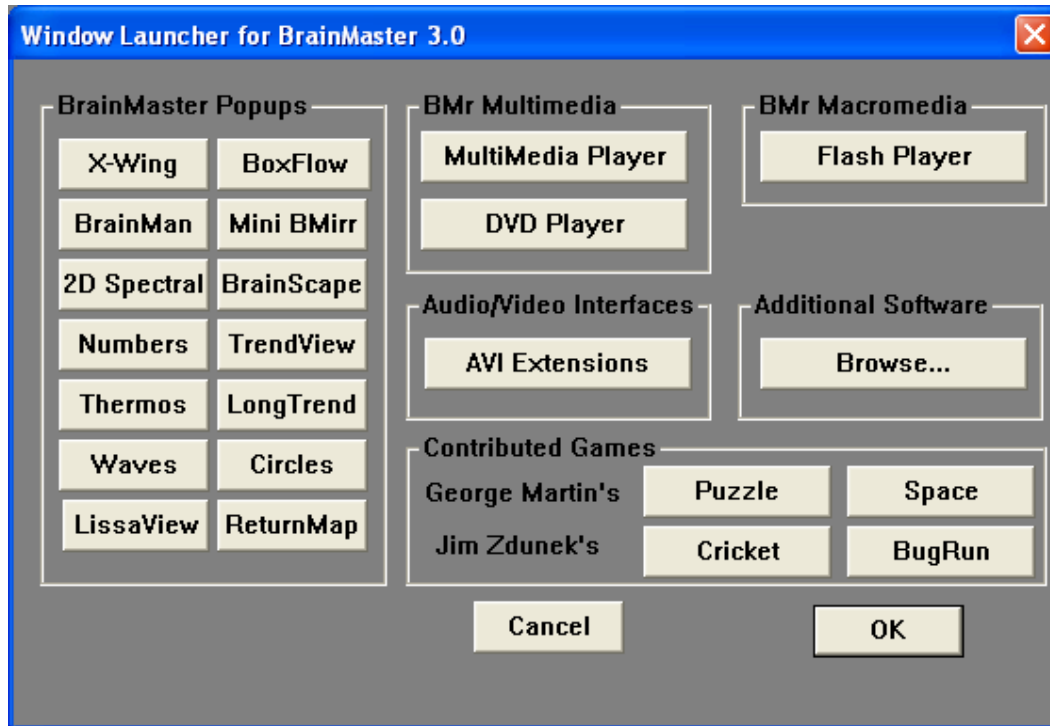
Beginning a Session

Begin any session as usual, with your usual settings. You can be using the BrainMaster 2.0SE or 2.5 software. The Multimedia Player can be brought up (or closed) at any time (in fact, more than one animation can be running at the same time!). It will automatically adapt to your training settings, and control the animation and sound in an appropriate manner, as described below.

First get to the “Window” control panel by pressing the “Window” button on the training screen. You may do this either before or after you have begun the EEG session, or at any time during the session.



If you have the 2.5 software, you will see the following control panel. Press “Multimedia Player” to start the BMrMMP software.



Once you press the “MultiMedia Player” button, the MMP software will start, and the Launch Window control panel will disappear.

Demo mode and normal operation

The BrainMaster MMP software will now begin. If you do not have the optional license for the BMrMMP software, it will immediately run a “Grand Canyon” flight simulation, as well as play a “Cool & Funky” soundtrack. This animation and sound are provided as a free demonstration capability. Basic animation training capabilities are provided in the demo mode, which will provide an indication of how the system will work in your application. However, the animation and sound files cannot be changed in the demo mode, nor can it be used to control a CD.

The system automatically checks the amplitude-based training protocol that you are using. The animation will proceed when all training criteria are met, and the sound will be loudest when all training criteria are met. So the trainee will experience animations that go slower or faster, depending on how often they meet the training criteria. This provides extremely fast, moment-to-moment (up to 30 frames per second) feedback.

In addition, the sound will smoothly become softer and louder, indicating the overall time that the client is meeting the criteria. The sound amplitude changes have a “time constant” of approximately 1 second, providing smooth yet responsive feedback. For example, if the trainee falls “out of state” for more than 3 seconds, the sounds will die out entirely. On the other hand, if the trainee maintains an overall average “points” rate of approximately 1 point per second, the sounds will tend to be continuous, but changing in volume. This is a very intuitive, instructive form of sound feedback that avoids the jarring effects of on/off modulation.

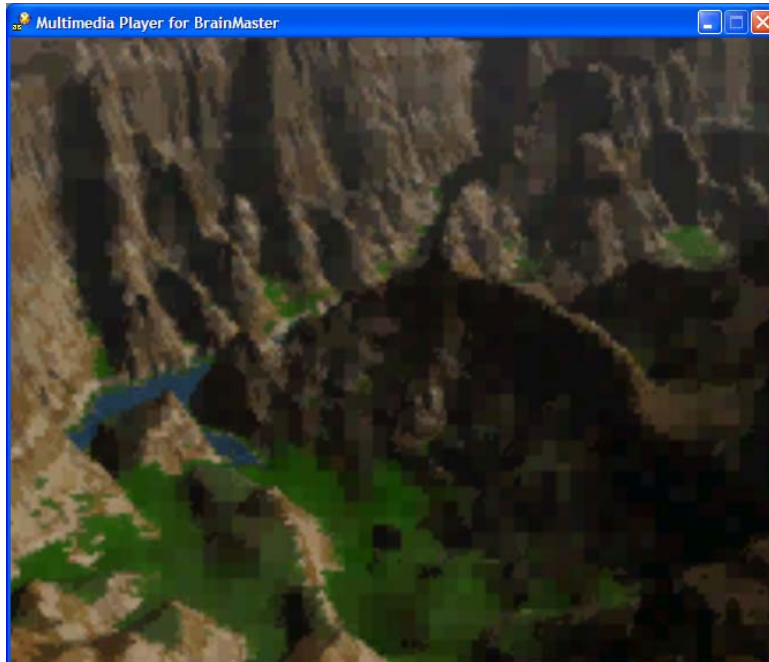


Zoom feedback

The MMP software has a built-in feedback zoom capability. You may use these to provide more variety in the visual display. This will make the image smaller and larger, and provide a theater-like surrounding.

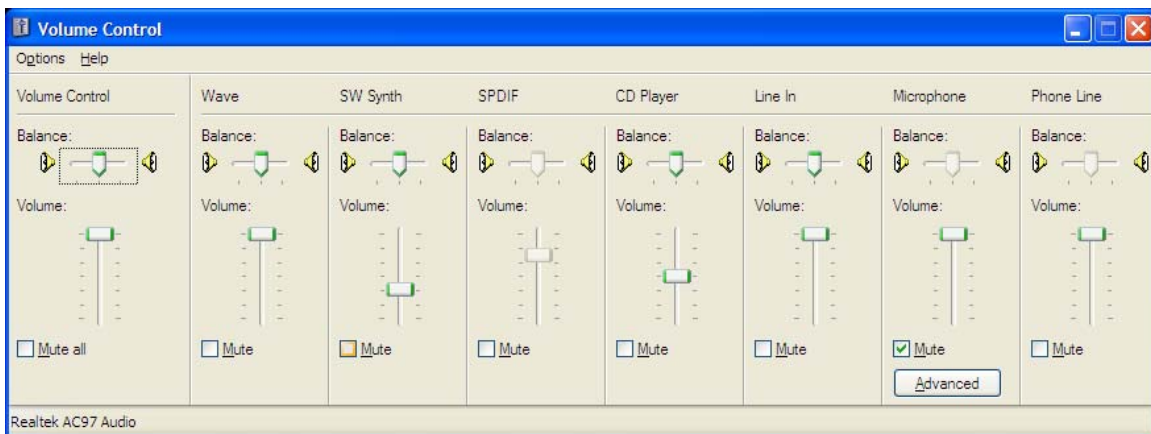


Pressing the “+” key will zoom further in, magnifying the display.

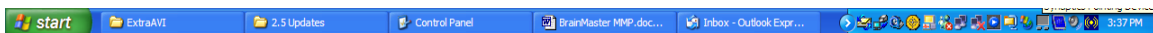


Windows Volume Control

If you do not hear the expected sounds, or if they sound too soft or too loud, use the Windows Volume Control to inspect and/or adjust the settings. Your control may look like the following. Note that the MMP interface uses more than one of these channels. If you use wav or mp3 files, the “Wave” control will be in effect. If you play a CD, the “SW Synth” control will be in effect. Make sure the volume control is turned sufficiently up, and that the needed channel is not on “Mute”. Note that in some feedback situations, you can actually see the volume control being moved up and down under the control of the MMP software. You can get to this control panel either by using “My Computer/Control Panel/Sounds and Audio Devices/Volume”, although your computer's path may be different.



You may also see a small speaker icon on your Windows Toolbar, and use this to access the volume control. The Control Panel gives you the ability to turn this icon on or off, so it may or may not be visible on your PC task bar. This taskbar is shown with a volume control (speaker) icon on lower right:



Multiple Sound Feedback Sources

Note that the MMP player will play any sounds that come built into your animations. Both avi and mpeg files may contain their own sounds. The MMP player will play the sounds from your animations. The sounds will stop and start with the animation. Therefore, the animation's sounds will come in a more discrete, on/off fashion. On the other hand, all other sounds you use (wav, mp3, mid, CD) will be modulated in the slower loud/soft manner that was described above.

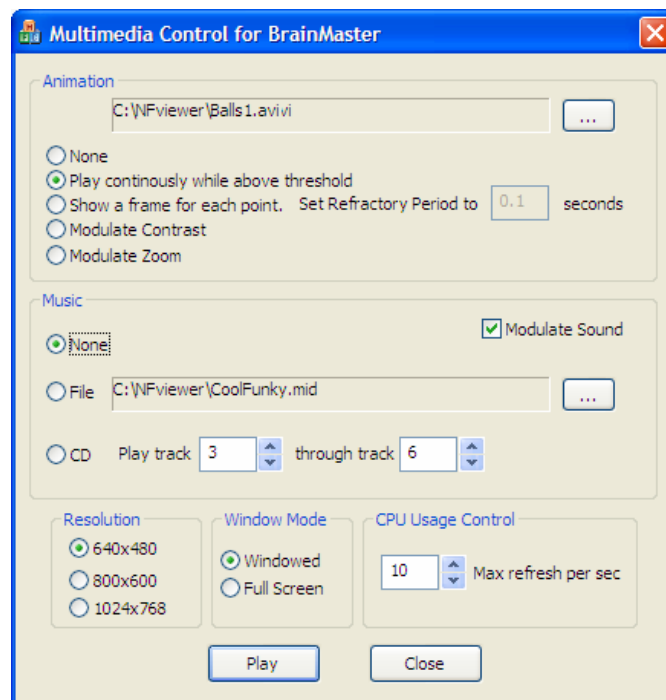
So if your animation files have their own sound, and you also use an additional sound file, you will hear both sounds being played back. The animation's sound will come in a stop/start fashion, and the other one in a loud/soft fashion. For example, the “TwoDolphins with sound” animation has water sounds accompanying the swimming movements. If this is used in addition to a music file, then the trainee will hear coordinated water sounds along with the movement, plus a music accompaniment that becomes louder or softer on a gradual basis. This provides three separate, yet coordinated, feedback signals to guide the trainee in an intuitive and interesting manner. You may have to use different volume controls in Windows to set them at the best relative volume levels.

Controlling the Multimedia Player

If you have purchased a license for the BMrMMP software, you will see the following control panel when the software starts. This shows that you have a valid license, and that you can select animation and sound files, or play an audio CD inserted into your PC.

This control panel allows you do the following:

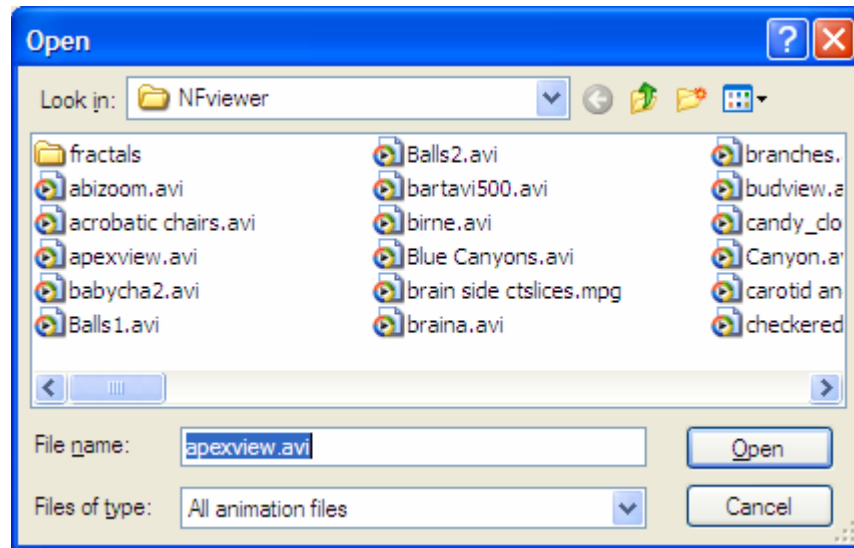
- Select an animation file (avi or mpeg) to play
- Select a music file (wav, mp3, or mid) to play
- Opt for the MMP software to provide no sound (to use other sounds, e.g. BrainMaster built-in sounds, an external device, etc)
- Opt to play a CD, giving the tracks to be played
- Select whether the sound source is modulated (gets louder and softer) or not (just plays)
- Choose the resolution of the animation window that pops up
- Choose the animation window mode for Windowed (normal) or Full Screen
- Set the maximum screen update rate (30 or less is recommended on most PC's)



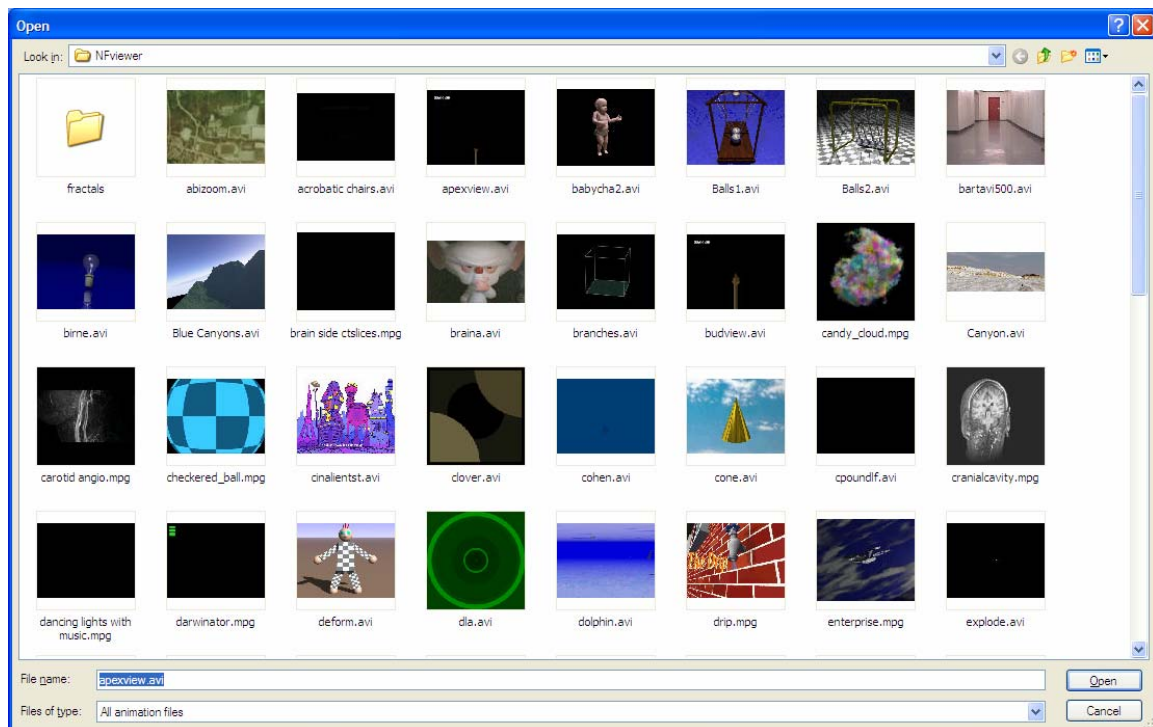
Once you get your settings the way you want, press “Play” and an animation window will appear, and the animation and sounds will start. This control panel will remain present, and can be used more than once. Thus, you can go back to this screen, and start more than one animation window (and sound playback) if you wish, depending on the capabilities of your PC. In other words, you can have any number of animations and sound files running, by going back to this screen and hitting “Play” for each set of settings you like.

Selecting animation files

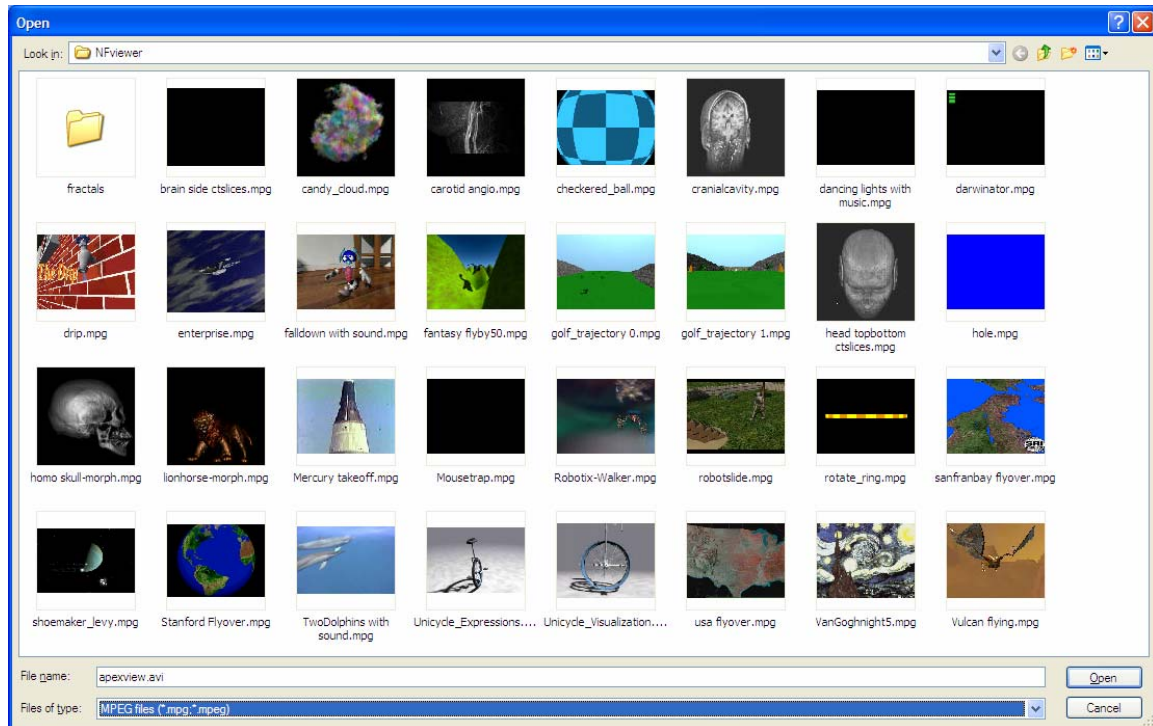
Pressing the “...” button to the right of the “Animation” control group, you will see a directory of all the animation files in your default Nfviewer directory:



To see graphical “thumbnails” of the animations, use the “view menu” which is accessed using the tool on the far right of the tool bar of the Open dialog. Then select “Thumbnails” to view thumbnail icons as follows. Pay attention to the “Files of type:” control, to make sure it is set for the types of files you want to use.

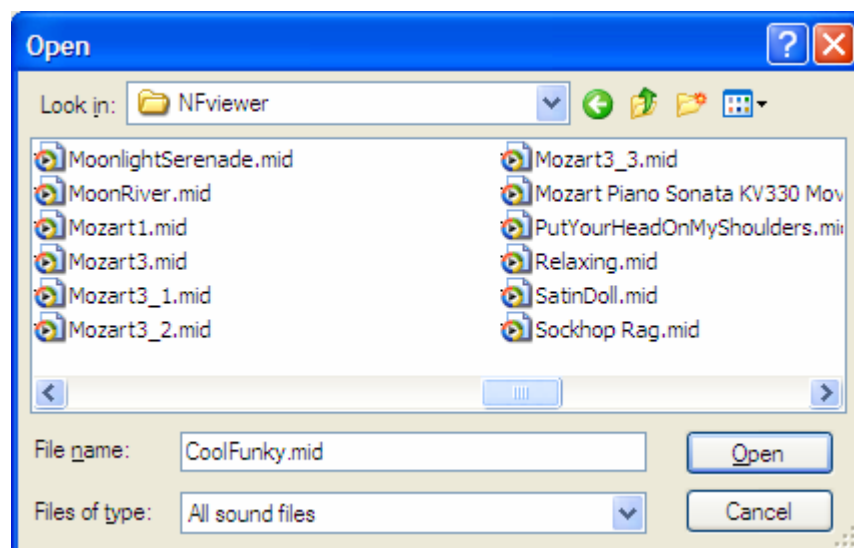


For example, if you pick the “mpeg” file type, you will see the mpeg (or mpg) files on your PC:



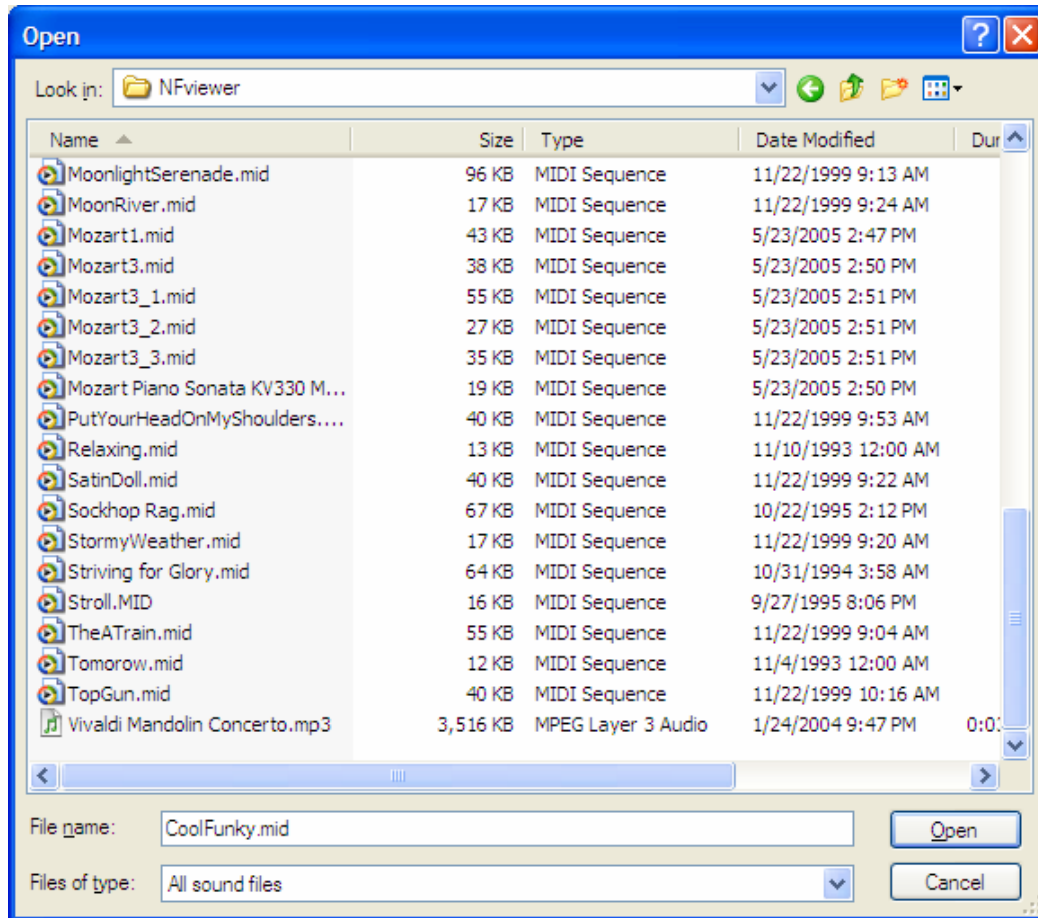
Selecting music files

Selecting sound files is similar to selecting animation files. File types of wav, mp3, or mid can be used. The file selector can show the files by type, including “details”, etc. as needed. NOTE: The exact files you see in your browser will depend on which files you have found and copied to your PC’s “C:\Nfviewer” directory. The BrainMaster software provides a number of files, and you can download or copy any other sound or music files you wish.

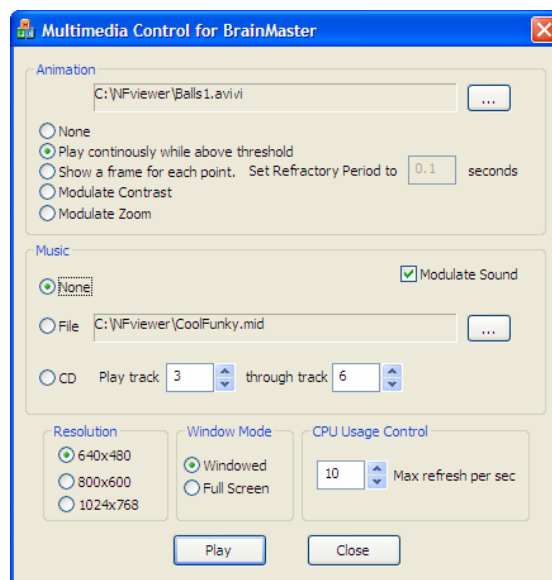


BrainMaster Multimedia Player (BMrMMP) User's Manual

To see details, use the “view menu” which is accessed using the tool on the far right of the tool bar of the Open dialog. Then select “details” to view file details.



Having made your new selections, you are ready to “Play”:



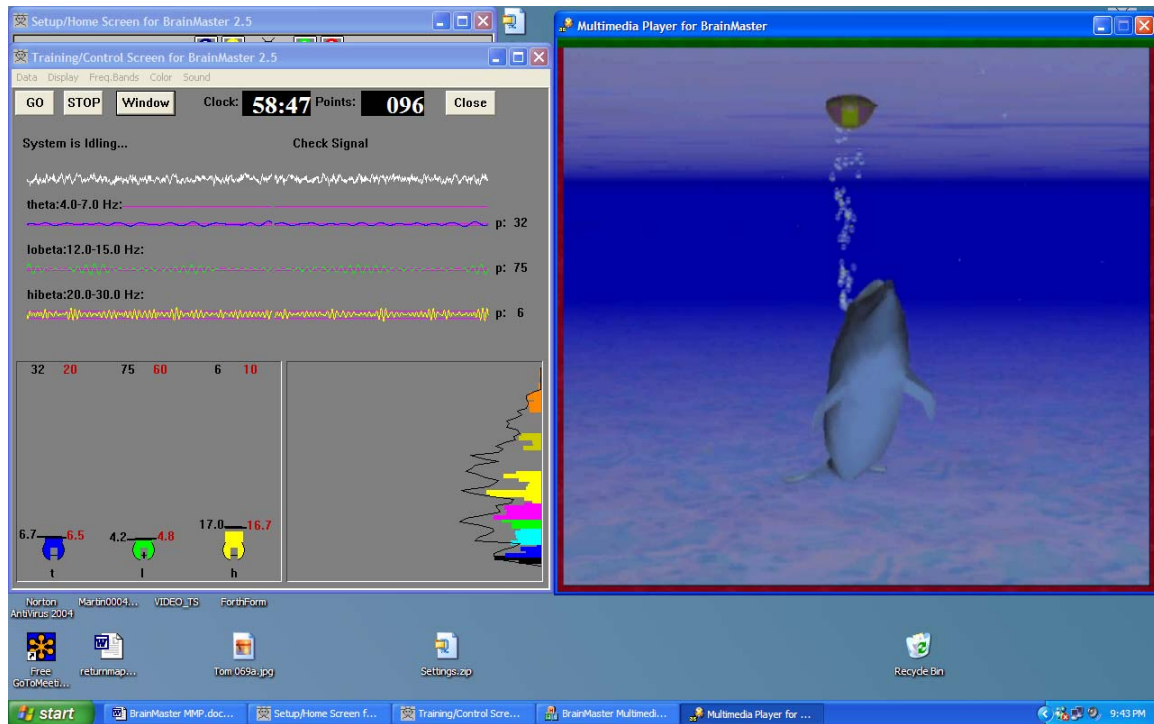
BrainMaster Multimedia Player (BMrMMP) User's Manual

When you press the Play button, the Multimedia Player window will appear, the animation will start, and the music will begin:



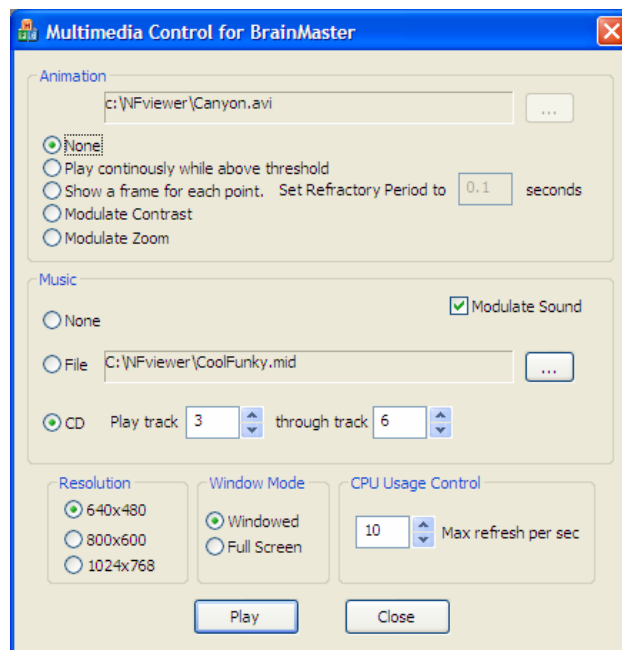
You can minimize or resize the animation window at any time. You can also exit out of the Multimedia Player “movie” screen at any time by pressing the “x” button on the upper right. This returns you to the control panel, so that you can select a different animation or sound file, or switch to the CD player, and then press “Play” again to return to the viewer with animation and sound feedback.

BrainMaster Multimedia Player (BMrMMP) User's Manual



Selecting live CD player

The MMP software can play any audio material directly from a music CD. Select the “CD” choice in the Music control, and then select the track or tracks you want to hear:



Insert the CD into the drive on your PC, and hit “Play”. The MMP software will access the CD and begin playing the audio material immediately.

The CD sound will be modulated if you check the “Modulate Sound” box. The volume (loudness) of the CD will go up or down smoothly, in response to the feedback, in a manner exactly the same as for sound files.

Note that in addition to using a trainee's favorite music as sound feedback, this method is also particularly effective when used with CD's intended for meditation, relaxation, or new age or “soundscape” types of music. Thus, in addition to the use in an eyes-open, concentration, focus, and alertness type of training, the system is useful for eyes-closed, alpha/theta, or related training paradigms.

Troubleshooting

If you experience difficulty with MMPlayer, try changing the settings on your Display Properties. Changing the screen resolution, color resolution, and/or accelerator settings can solve a “unable to open display device” or similar problem. Make sure Direct X 9.0c is installed on your PC. Make sure the directory c:\Nfviewer is on your PC.