

# The File Menu

The 3D-XplorMath Consortium

The File menu contains a number of commands to save and open disk files. Since there doesn't seem to be any document associated with 3D-XplorMath, this may seem surprising at first. What is there to save?

One answer is “the complete state of the program at a given moment”. For example, if you have worked hard entering some complicated expressions to define a User object, then found an interesting set of parameters for it and a good ViewPoint from which to observe it, and a good way to Morph it, or a good axis about which to rotate it, choosing Save Settings... from the File menu will create a disk file on which all that information (and much, much more) is recorded. Then, at any later time, you can choose Open Settings... from the File menu to open that file and restore the program to exactly the same state as when you did the Save... command. You can also give the file to friends who have 3D-XplorMath for them to see your creation. The file is very small—only a couple of kilobytes, so you can easily send them as an email attachment. This kind of file is called a Settings file, and is usually kept in the Settings Folder, in the same Folder with 3D-XplorMath.

Two further items on the file menu are Save Surface Data... and Read Surface Data.... These create and read so-called Surface Data files, an interchange format for mathematical surfaces that permits surfaces to be created in 3D-XplorMath or

MATLAB, and then be read in and displayed by the other. Surfaces can also be saved in some other special graphics formats that can then be imported into various specialized graphics programs: .inc (Povray), .obj (Bryce etc.), and .m and .nb (Mathematica).

At any time you can save the contents of the Graphics Window to a disk file by choosing Save Window as PICT (JPEG, PNG) File... from the File menu.

After you create an animation filmstrip, you can save it to the disk as a QuickTime movie by choosing Save Animation as Movie... from the File menu. One reason to do this is that a QuickTime movie starts up almost instantaneously, while it can take several minutes to recreate a complex animation. Another reason is that it is easy (say with Movie Player) to convert a QuickTime movie into a format that can be played back on Wintel (and even some UNIX) machines.

There is also an item Open Movie... in the file menu that provides a primitive movie player. This is not meant as a replacement for the Quicktime movie player, but rather to give the user a convenient way to preview movies created from animations as above.