There has always been a lot of confusion about the IBSR scans with image file names like "657_10_1.img" because they are not ANALYZE file types (that also have a .hdr file). This is a hysterical historical naming collision that occurred at about the same time. The IBSR ".img" files are actually raw binary files with no header as described in the README files. They are very easy to work with as long as you also know the scan dimensions and resolutions which were provided in those README files.

Here's an example of how to use MIPAV to open these files. MIPAV can be downloaded from http://mipav.cit.nih.gov/.

First, combine all of the slice images into one "raw" file like this in unix (all one line):

```
cat 657_10_1.img 657_10_2.img 657_10_3.img 657_10_4.img 657_10_5.img
657_10_6.img 657_10_7.img 657_10_8.img 657_10_9.img 657_10_10.img
657_10_11.img 657_10_12.img 657_10_13.img 657_10_14.img 657_10_15.img
657_10_16.img 657_10_17.img 657_10_18.img > 657_10.raw
```
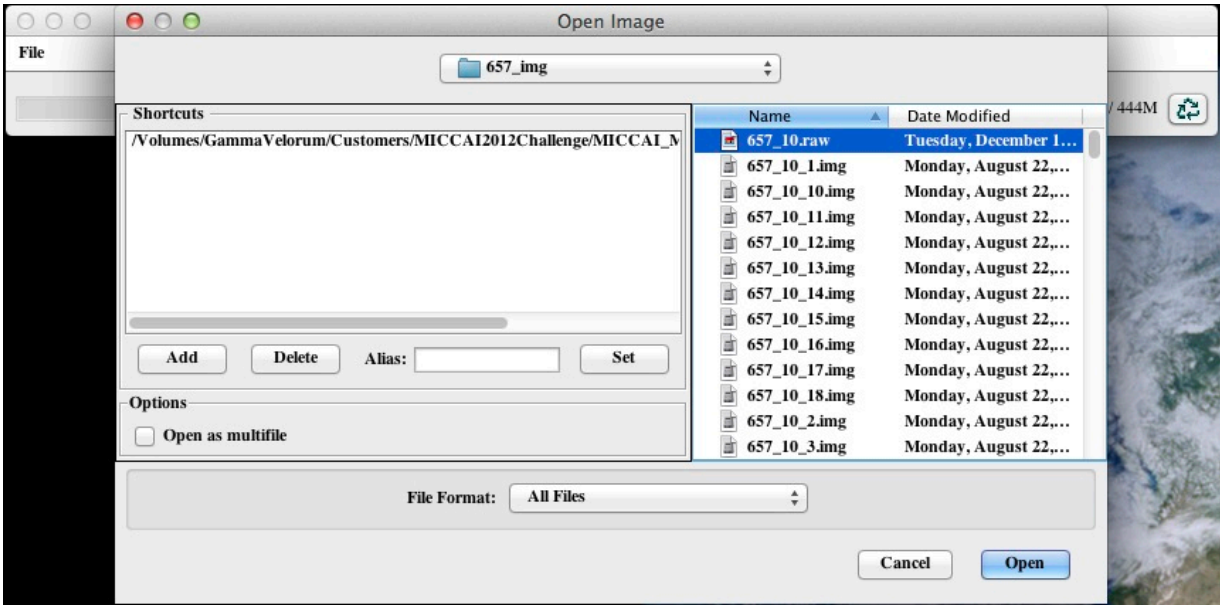
Run MIPAV, choose the "File", "Open image (A) from disk" menu:
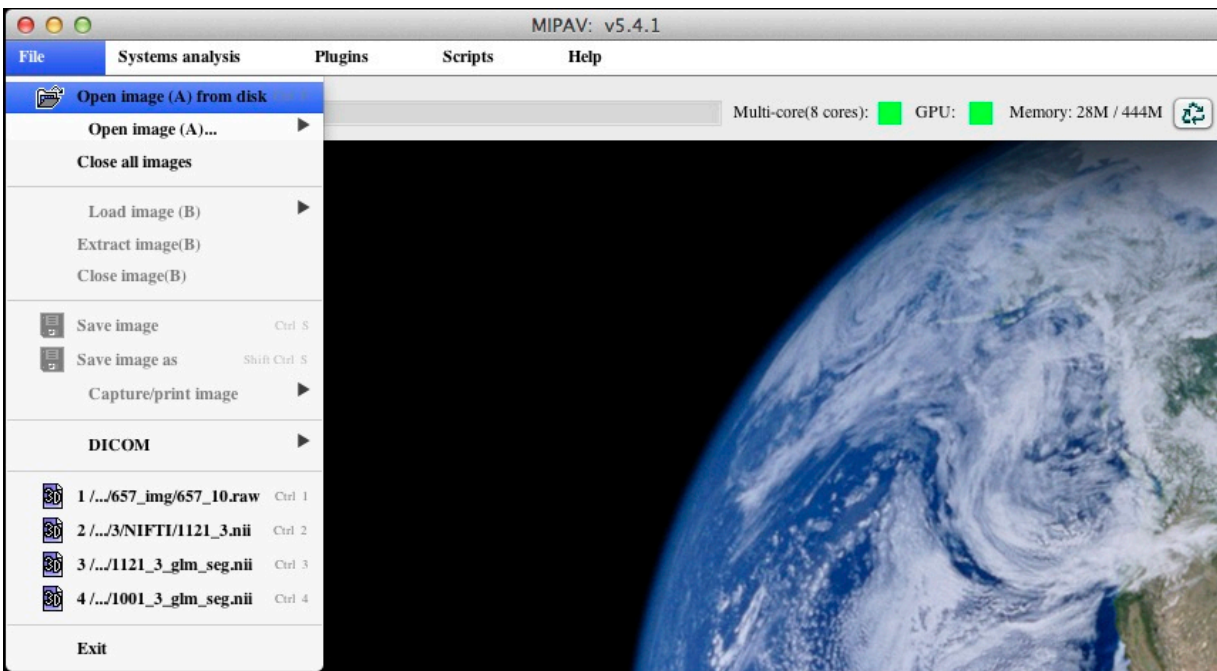
Change the "File Format" to "All Files" as shown here:
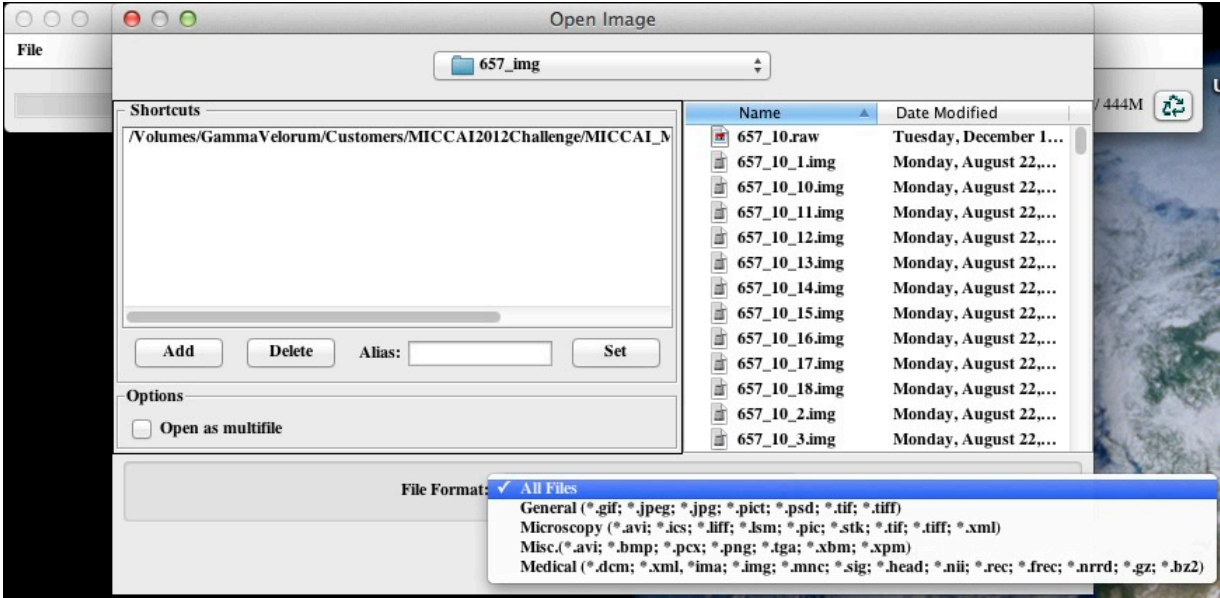
Then, select the 657_10.raw file and press "Open":

It will bring up a window where you can type in some numbers to describe the raw format. The number of voxels (256x256) and resolution (In-plane = 0.859375, Slice Thickness 6.0 + Slice Spacing 1.0 = 7mm "slice resolution") came from the 657.README.txt file and there were 18 slices. I knew to use the "Image type" of "Short" because the README says, "The '.img' format is a file of 256x256 <u>16 bit integers</u> with no header." The "no header" part means that "Header offset" below is zero. I guessed that it was "Big endian" because I happen to know that those old scans were written on a Sun computer.


Raw

Image type
- ○ Boolean   ○ Byte
- ○ Unsigned byte   ● Short
- ○ Unsigned short   ○ Integer
- ○ Unsigned integer   ○ Long
- ○ Float   ○ Double
- ○ ARGB   ○ ARGB U short

Dimensions & resolutions

1st	256	0.859375
2nd	256	0.859375
3rd	18	7
4th	0	1.0
5th	0	1.0

Units of measure

MILLIMETERS
MILLIMETERS
MILLIMETERS
MILLIMETERS
MILLIMETERS

Header offset 0   ☑ Big endian

OK   Cancel

If you didn't check "Big endian", it would look obviously wrong like this:
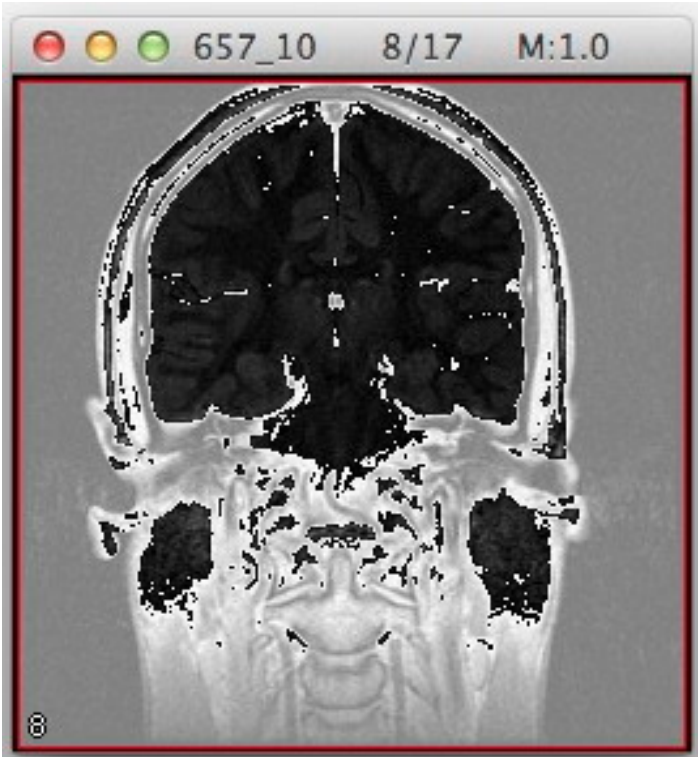
With "Big endian" it looks like this:
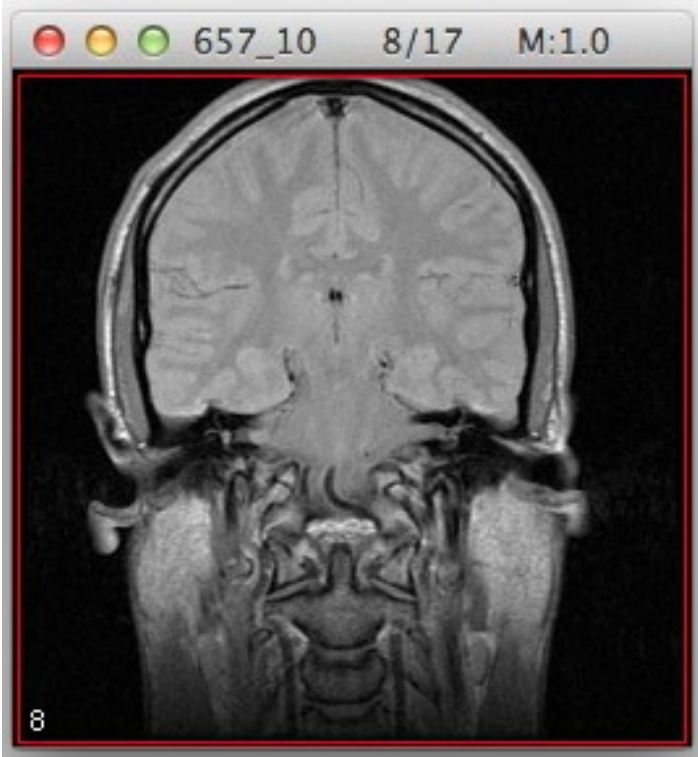
And if you click on the "Tri-Planar View" it looks like:

It helps to re-name the files to have ".raw" at the end because many programs recognize that this means additional information is required from the user before the files can be opened.