<u>User Manual</u>

CATNAP VMWare Distribution

Release 1.0

<u>Installed Software</u>

CATNAP Release 3.14b
FSL 3.3
Fedora Core 6
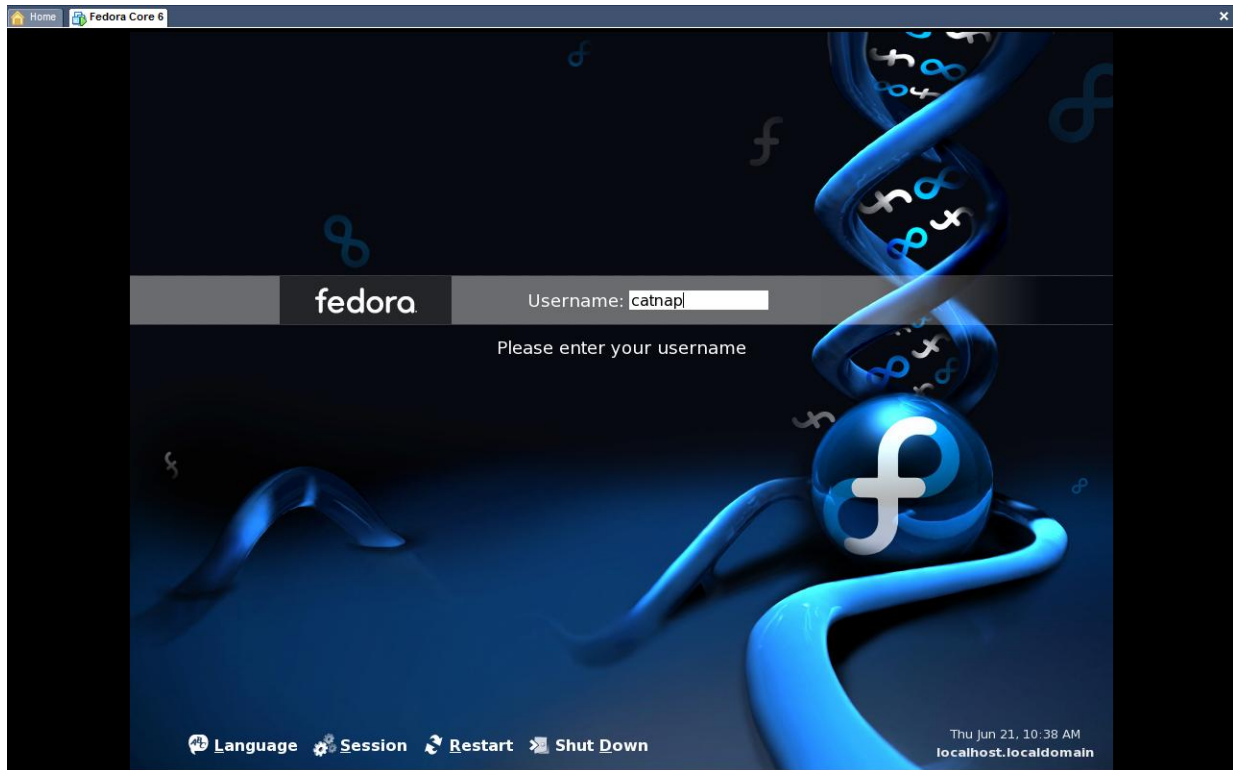*Java 1.6*
AFNI 2007_05_29_1644
Mipav 3.1.6
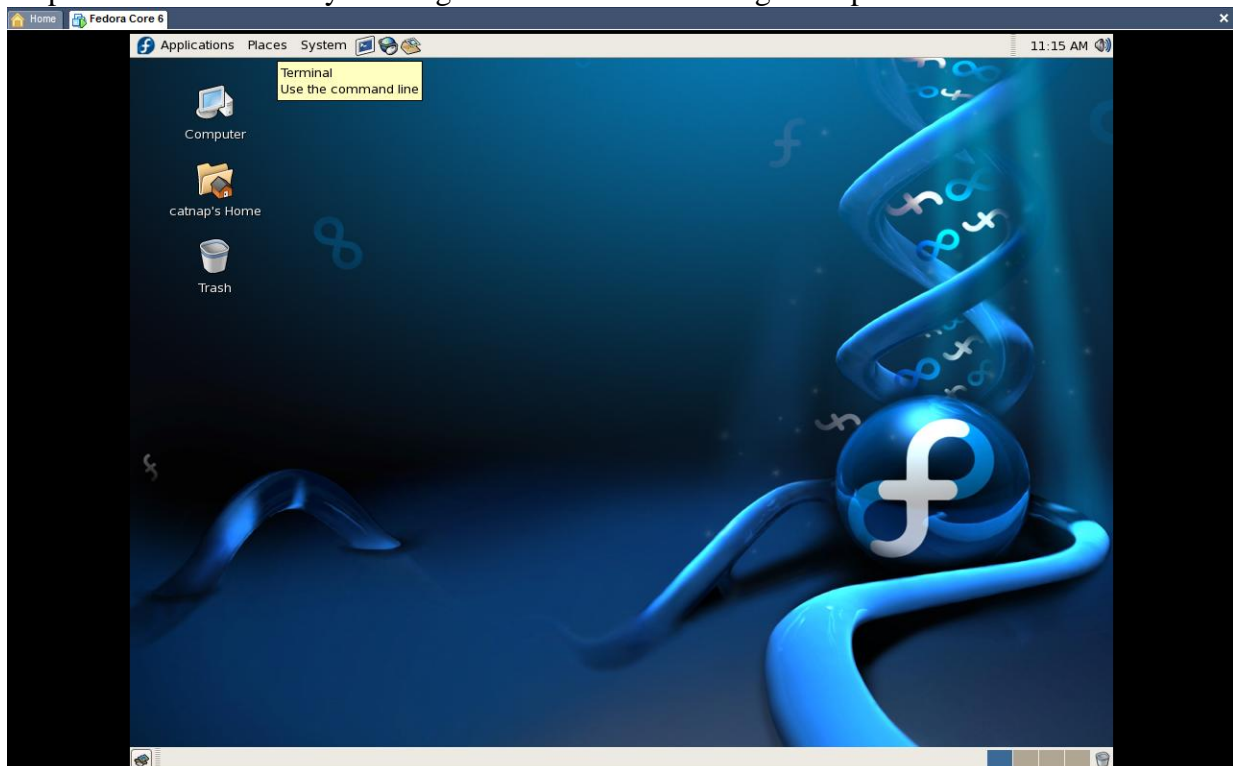*Matlab R2007a (must provide your own license)*

Revision History

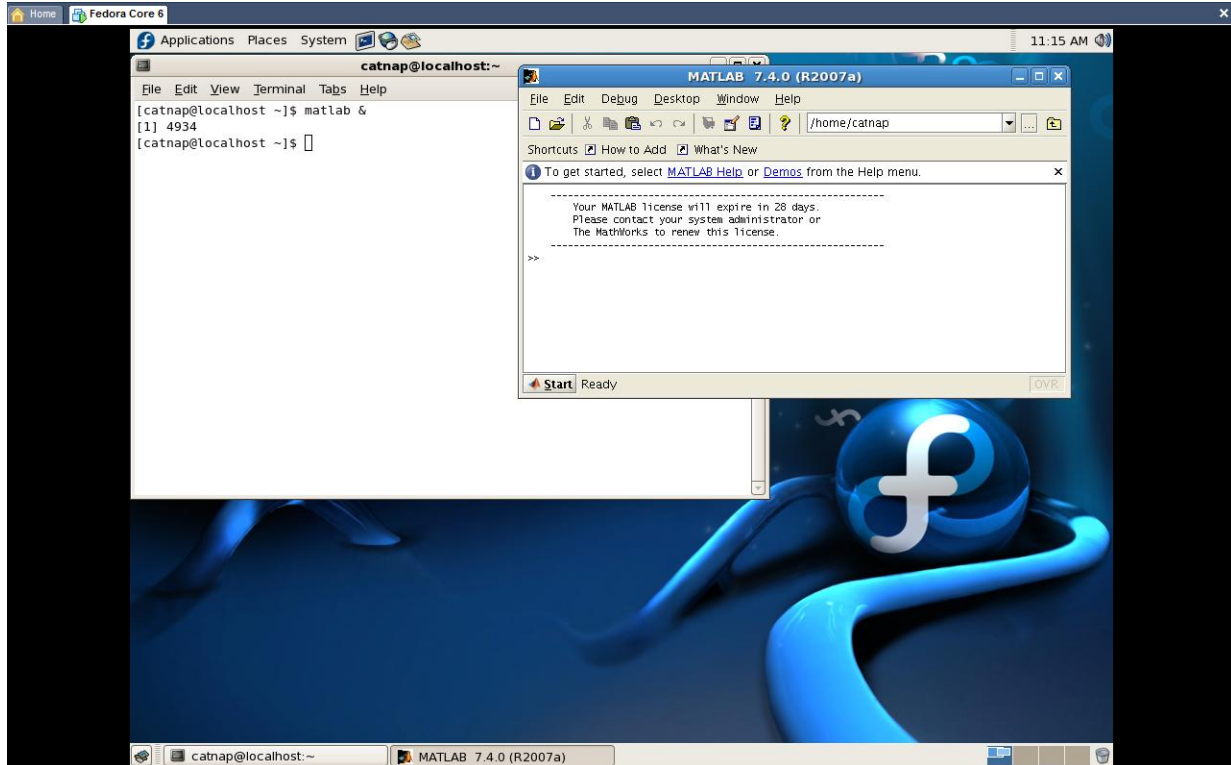|	
June 21, 2007	Initial release for CATNAP Release 3.14b. (BL)

Step 1. Start the CATNAP Virtual Machine with VMWare Viewer. Log in as user "catnap" with the password "catnap"
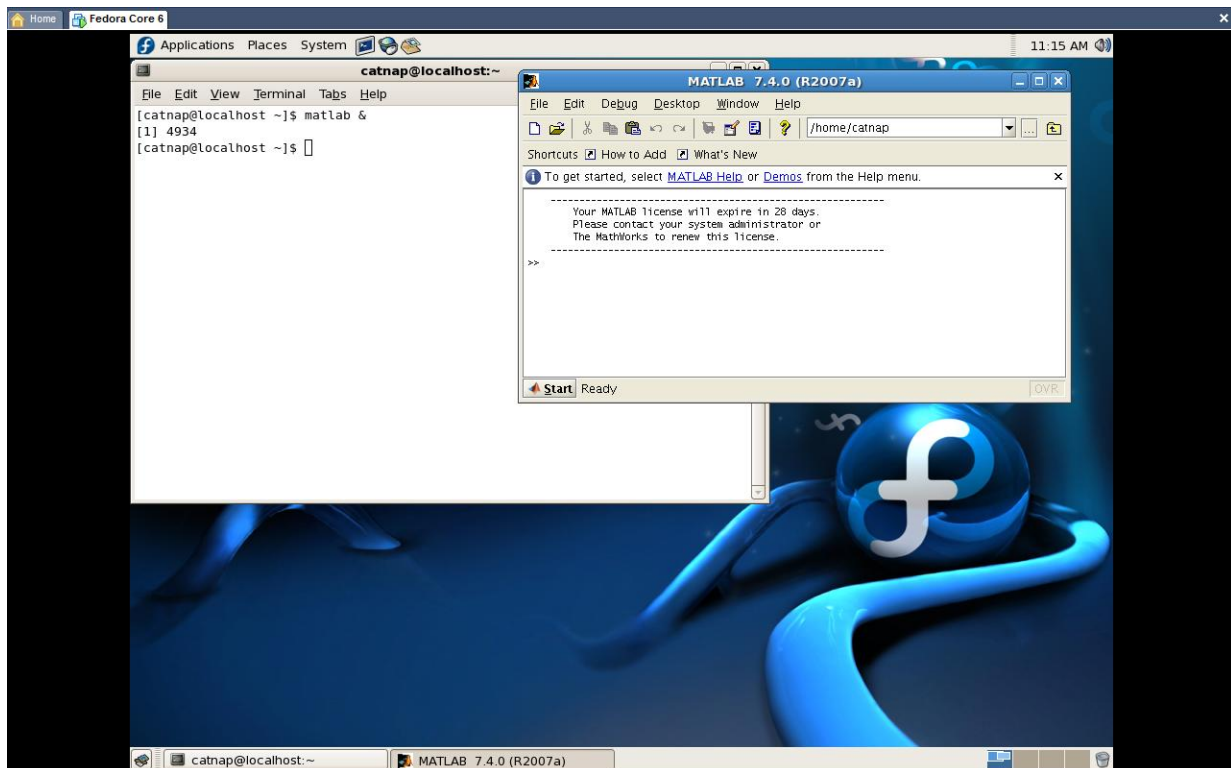

Step 2. Start a terminal by clicking on the screen icon along the top of the window.
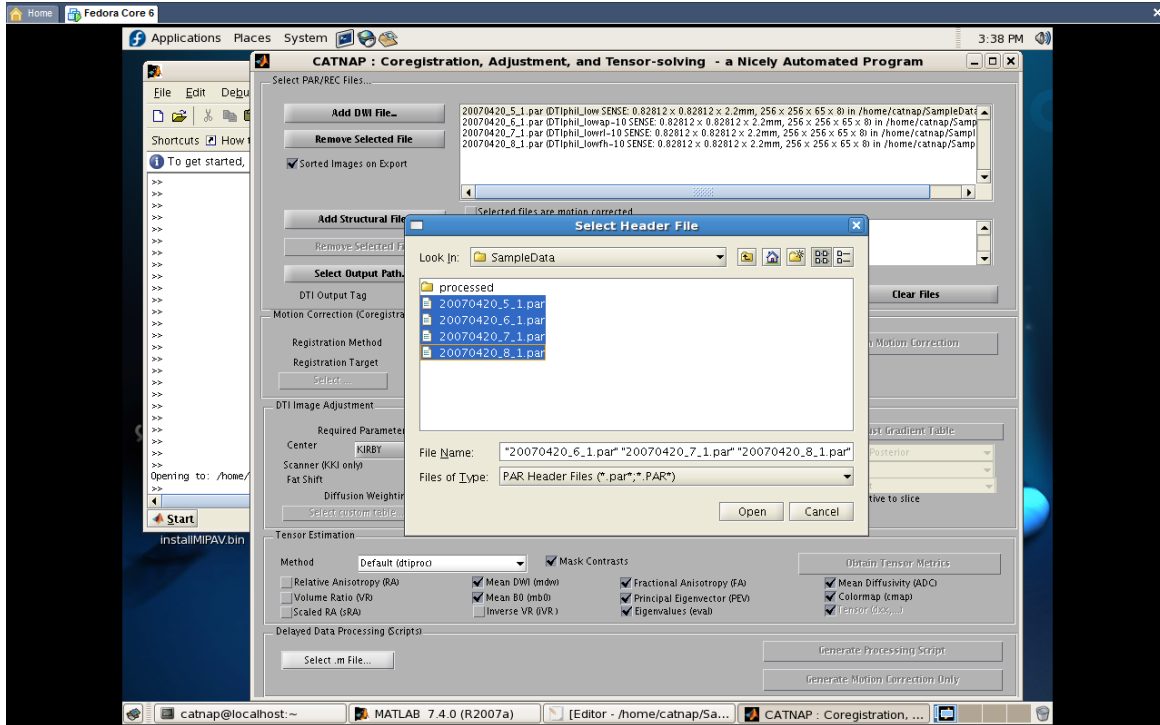
Step 3. Start Matlab by typing "matlab &"

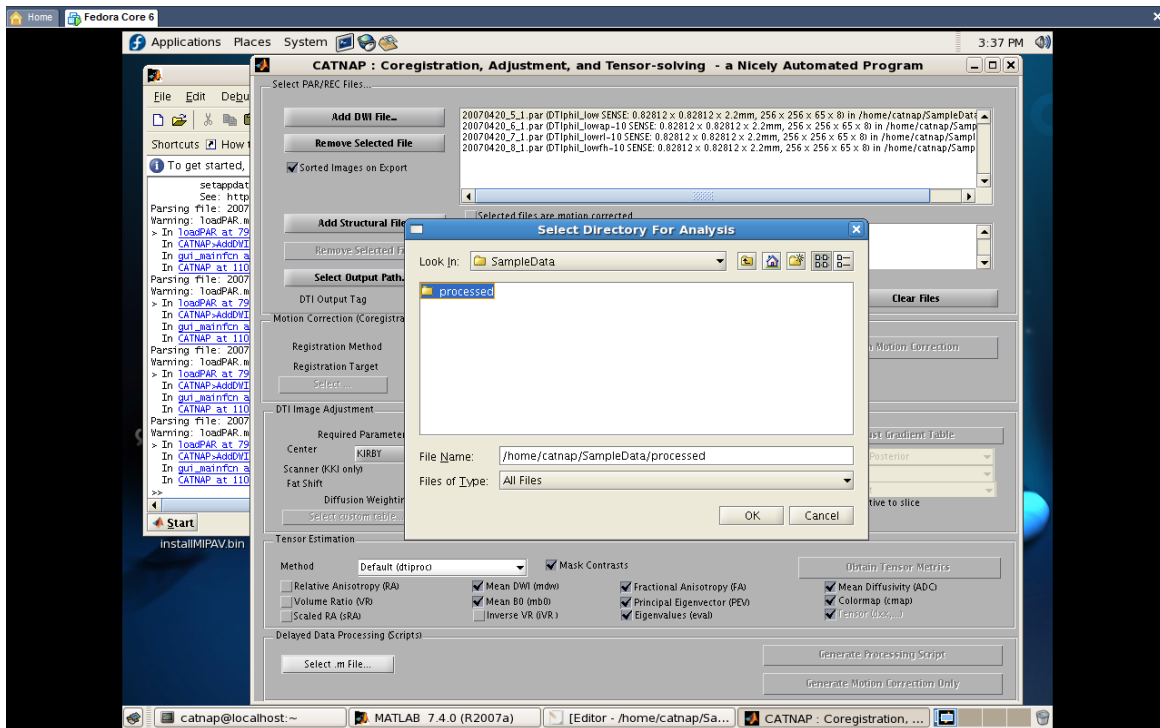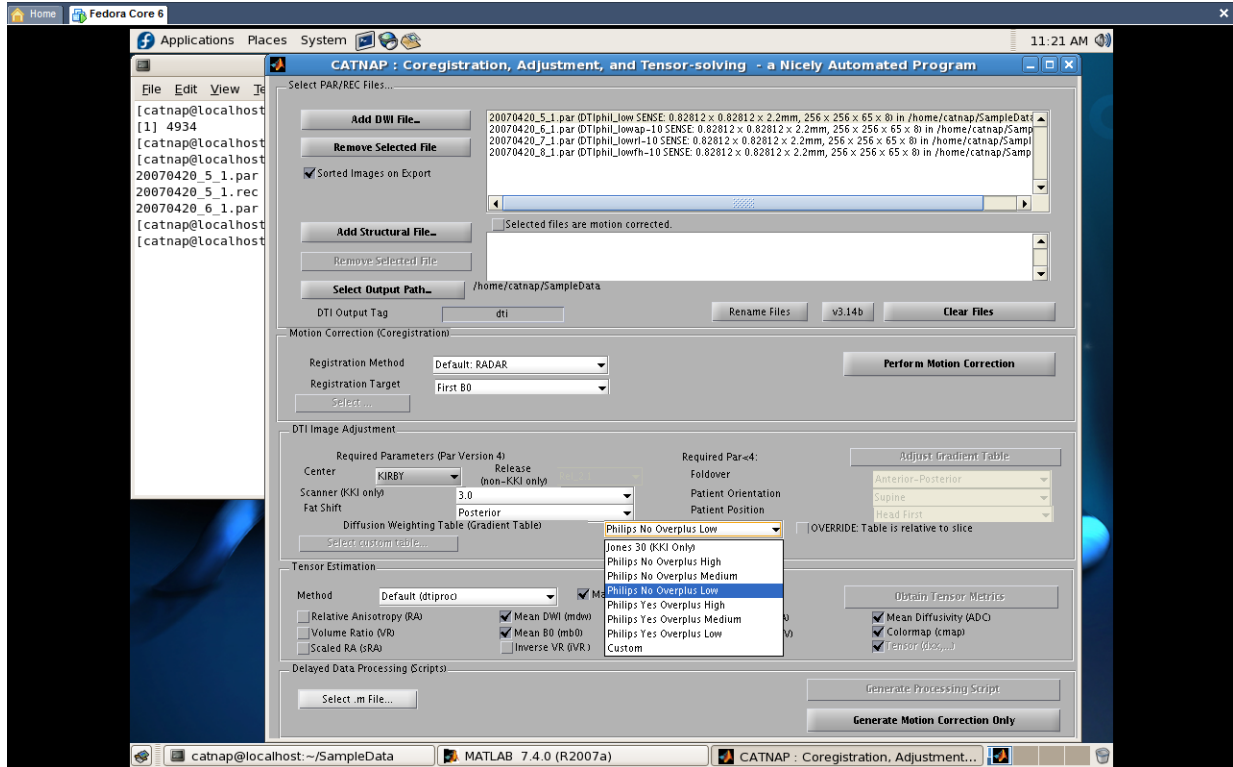Step 4. Start catnap by typing CATNAP in Matlab.

Step 5. Click "Add DWI File…" and select the sample ".par" files in the "Sample Data" folder
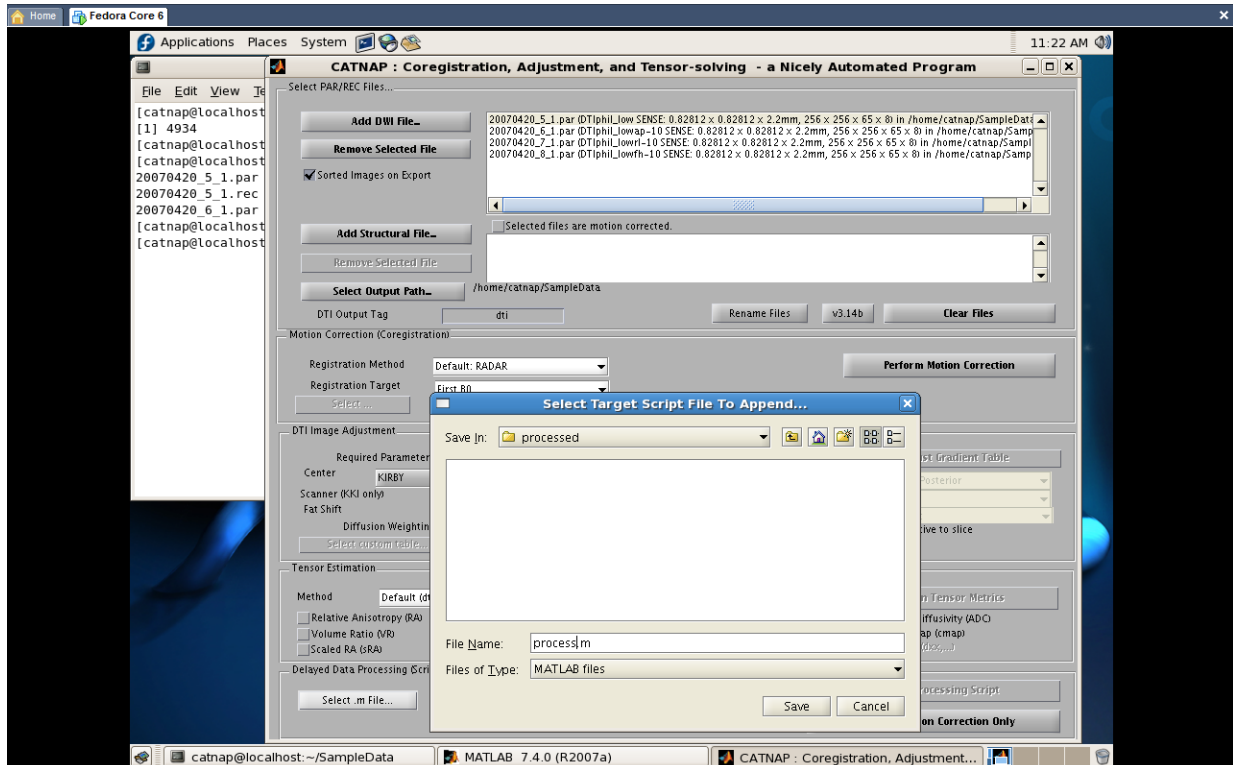

Step 6. Click "select output path" and select the "processed " folder within the SampleData folder.
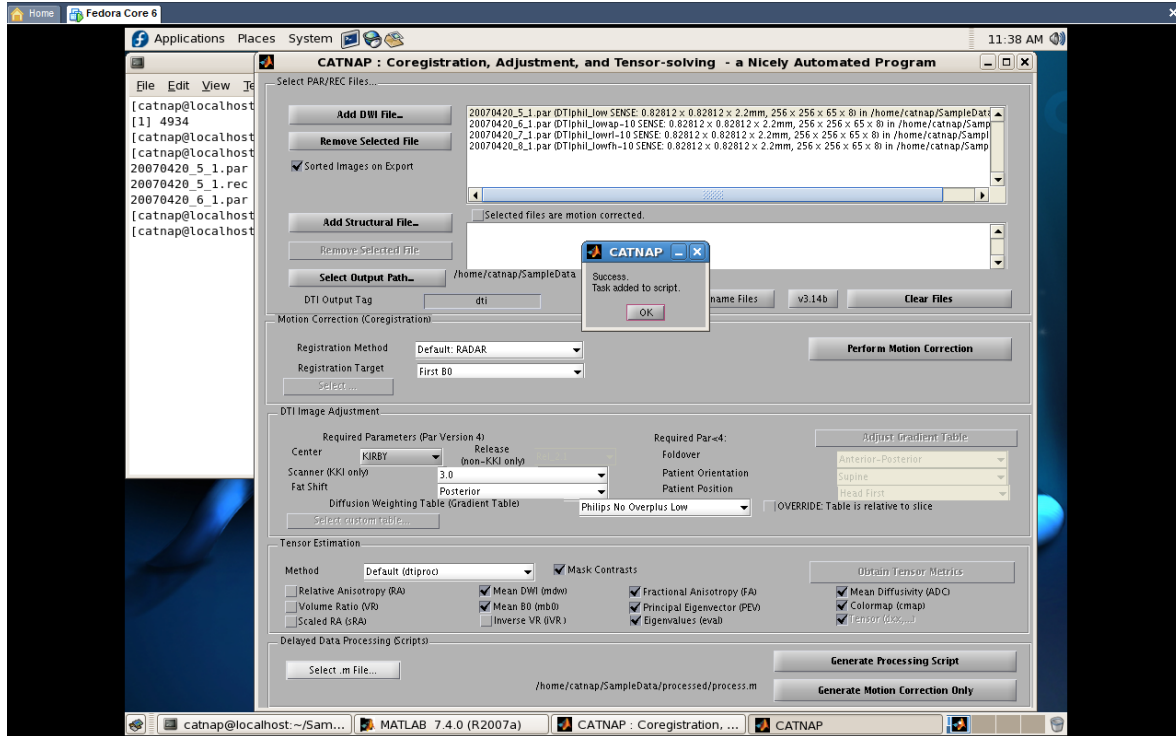
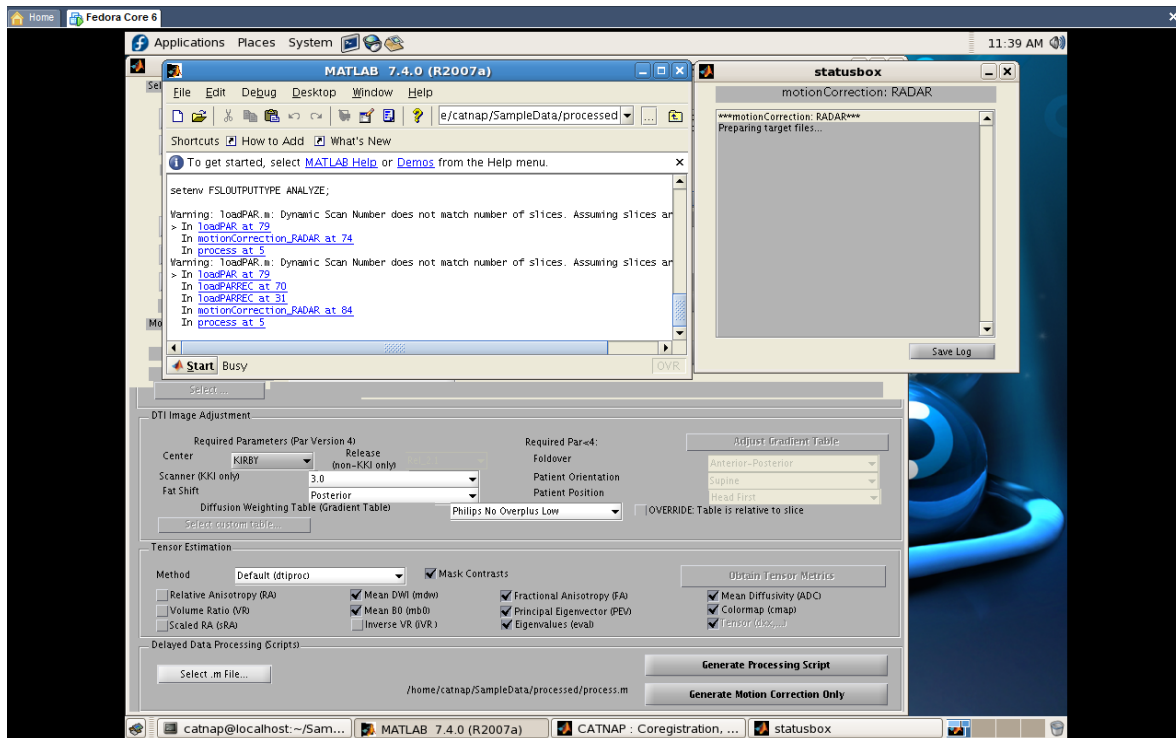Step 7. Change the scanner type to "3.0" and select the "Philips No Overplus Low" table.

Step 8: Click "Select .m File…" and select an m file to create for scripting.

Step 9. Click "Generate Processing Script"

Step 10. Go to the Matlab window. Change the directory to the same directory as your script file. Run the m file by typing the name of the m file (without ".m") and press enter.

Step 12. After processing is complete, you may view the images in MIPAV (type "mipav &" in a terminal) or in Matlab.
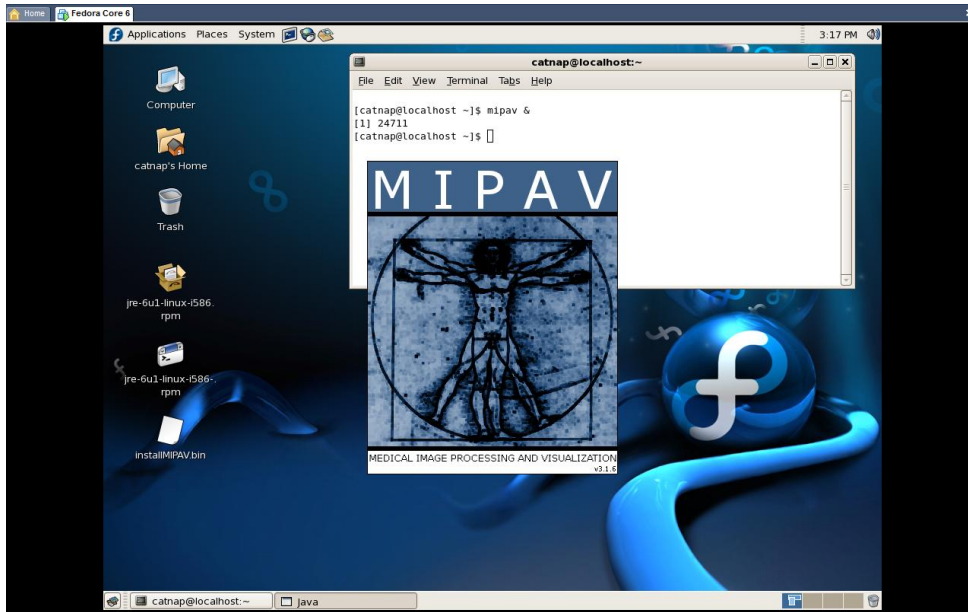
Step 13: In Mipav, the dti contrasts may be opened as RAW files (256x256x65 at 0.828125x0.828125x2.2 mm).
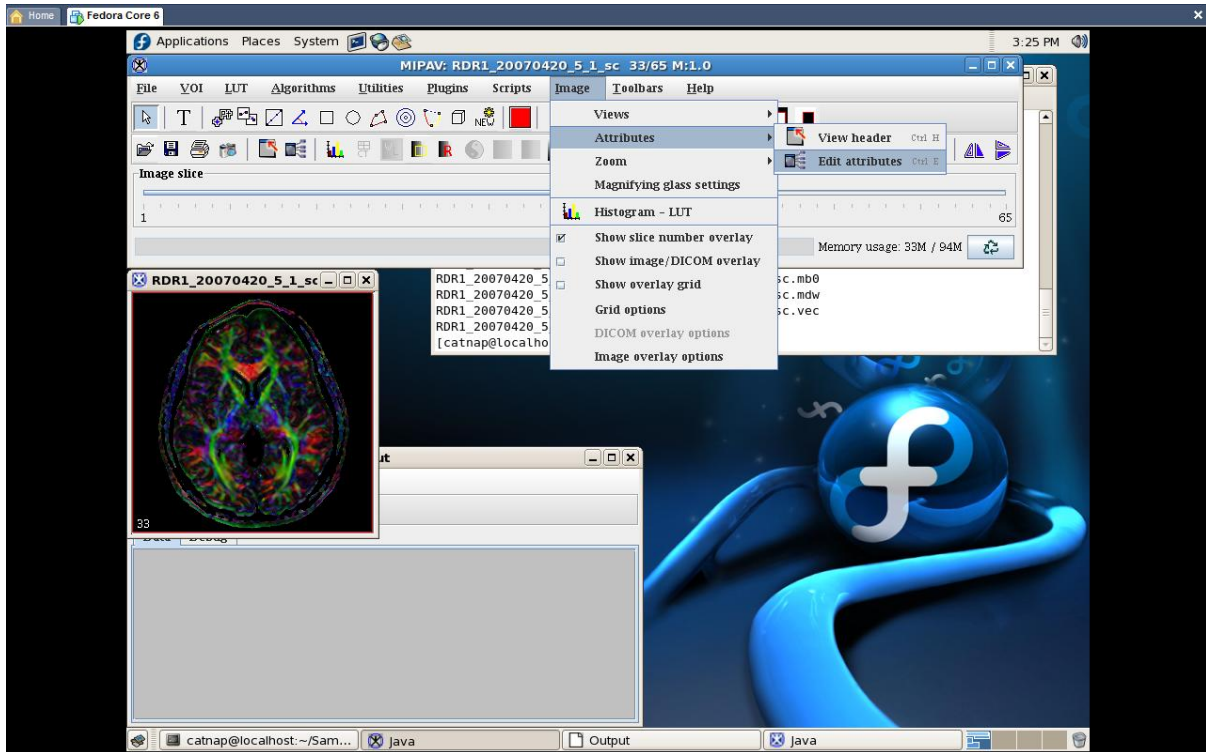
The following are little endian floating point: FA, ADC, DXX, DXY, DXZ, DYY, DYZ, DZZ, MB0, MDW, eval1, eval2, eval3.

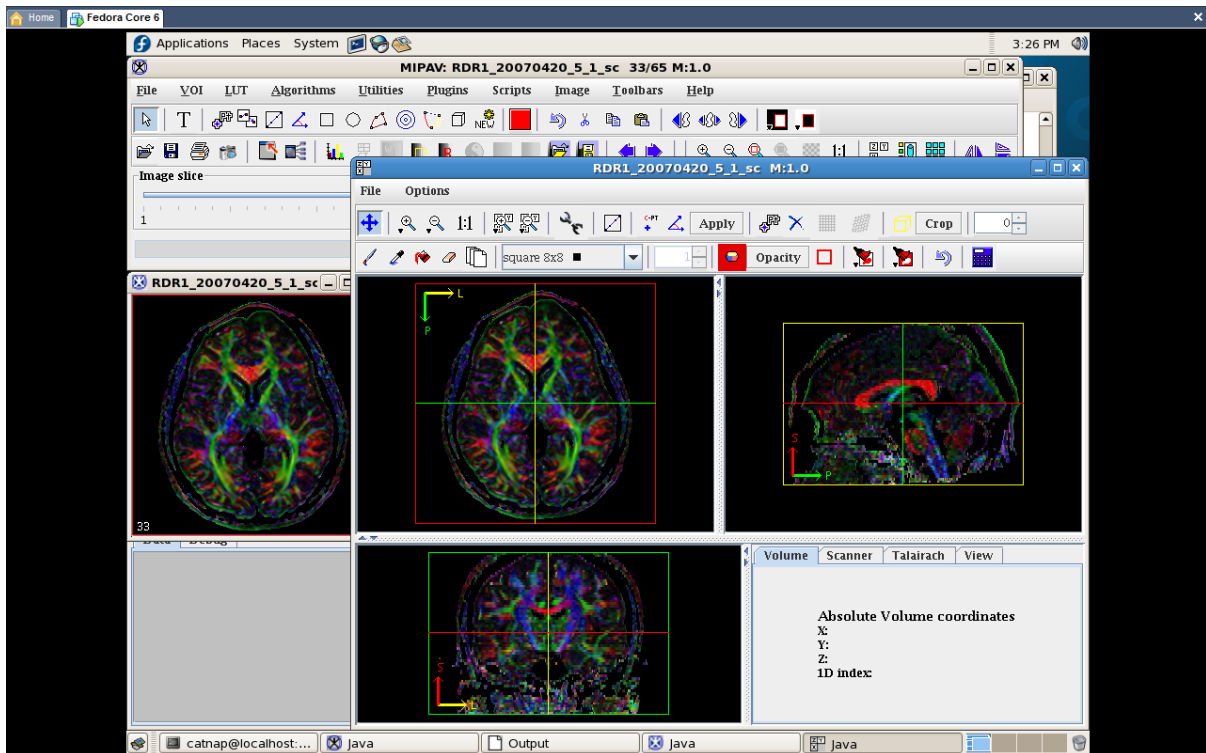The following are little endian floating point vector: VEC (not easily ready in MIPAV)

The following is ARGB file: CMAP
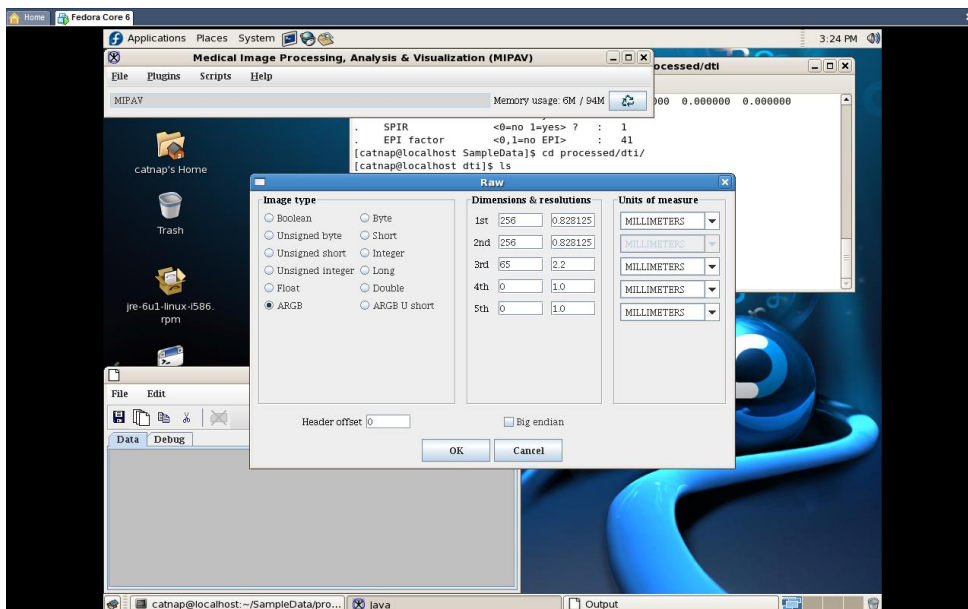
Be sure to set the image orientation for proper 3D view:

Example of triplanar view in MIPAV:

Usage Tips

- Fiber tracking may be done with the FA and VEC files on a Windows Platform. The FSL fiber tracking software is included, but not supported by the CATNAP developers.

- The virtual machine defaults with 256 MB of RAM. You may increase the settings to improve performance.

- The root password is "password".

- The SampleData are available in already processed form in CATNAP_complete.tar.gz in the SampleData folder.

- If you expose your virtual machine to the network, be sure to change both the user and root passwords.

- To process data, we recommend keeping the data on the host computer and using the "shared folders" feature of VMWare to access the data. (The virtual machine's hard drive is limited to 16 GB total.)

Software Manifest

VMWare 6.0 for Windows Vista

http://www.vmware.com/download (Workstation available with 30 trial. Player is free.)

Create a new "linux kernel 2.6.x" virtual machine with 16 GB hard disk and 256 MB RAM.

Redhat Fedora Code 6

https://www.redhat.com/apps/download/ (SELinux disabled)

Install with "development" package options.

Use yum to include: "xorg-x11-deprecated-libs" "emacs" "htop" "nedit"

Rpm to install openmotif: http://rpm.pbone.net/index.php3/stat/3/srodzaj/1/search/openmotif

Matlab R2007a & Signal Processing Toolbox

http://www.mathworks.com/ (Contact your sales representative.)

AIR 5.2.5

http://bishopw.loni.ucla.edu/AIR5/config.html

CATNAP 3.14b

http://www.iacl.ece.jhu.edu/~bennett/catnap/catnap.shtml

AFNI (linux xorg7 2007_05_29_1644)

http://afni.nimh.nih.gov/afni/download/afni/releases/latest

FSL 3.3 (source)

http://www.fmrib.ox.ac.uk/fsldownloads/main.html

Java 1.6

http://www.java.com/en/download/index.jsp

Mipav 3.1.6 (2007-06-19)

http://mipav.cit.nih.gov/

Follow installation instructions. Add all binaries to .bashrc path. Edit CATNAP_defaults.m to set the AFNI path.