

## Notes of making latest SPEDAS (MMS access available) working with Davit in SuperDARN research group at Virginia Tech

By Xueling Shi on 4/29/2016

**For the server:** davit (IDL and davit installed) and sd-data (data download and access) computers

1. Download the latest spedas software **spds\_w\_latest.zip** from [http://themis.ssl.berkeley.edu/socware/bleeding\\_edge/](http://themis.ssl.berkeley.edu/socware/bleeding_edge/), put it in this directory: **/davit/lib/themis/**, and extract it inside this directory in the davit computer.
2. Modify the **env\_davit** file inside **/davit/env/** to change the IDL paths for Themis toolkit spedas, you can always change it back to tdas.
3. Execute **cd /srv/**, **sudo mkdir mms** and **sudo chmod 777 mms/** commands in the sd-data computer terminal.
4. Add the following statement into **/etc/exports** file in sd-data computer:  
**/srv/mms 192.168.0.0/255.255.0.0(rw,sync) 128.173.144.0/255.255.252.0(rw,sync)**
5. Execute **sudo service nfs-kernel-server reload** in sd-data computer terminal.

**The above steps have already been implemented by Xueling and Kevin in our server. Now if you ssh to [davit@davit1.ece.vt.edu](mailto:davit@davit1.ece.vt.edu), you can use davit to access and plot MMS data.**

### **For your local machine:**

1. Make sure your computer is mounted to MMS by adding the following statement in your **/etc/fstab** file:  
**sd-data.ece.vt.edu:/srv/mms /sd-data/mms nfs rsize=8192,wsz=8192,timeo=14,intr**
2. Execute the following two commands in your terminal:  
**sudo umount -a** and **sudo mount -a**.
3. Execute this command: **sudo apt-get install libstdc++5**, if you meet the following error using davit:  
OBJ\_NEW: Error loading sharable executable.  
Symbol: IDL\_Load, File =  
/usr/local/itt/idl/bin/bin.linux.x86\_64/idl\_url.so  
libstdc++.so.5: cannot open shared object file: No such file or directory
4. If the CDF version in your local machine prevents you from downloading THEMIS and MMS data (Error like: CDF library is unable to correctly write THEMIS CDF data files), upgrade it. Instructions can be found in this website: [http://cdf.gsfc.nasa.gov/html/cdf\\_patch\\_for\\_idl.html](http://cdf.gsfc.nasa.gov/html/cdf_patch_for_idl.html)