AVHRR NDVI metrics Algorithm running in windows such as windows 7

1. Preparation:

a. copy avhrr\_ndvi and its sub-directories and all files in the dir\_your\_choice

in my case, dir\_your\_choice=C:\Users\jiang\Documents\work\nps

In order to program the runs in IDL+ENVI development environment, you have to setup

an environment variable:IDL\_STARTUP, and edit the startup\_nps file.

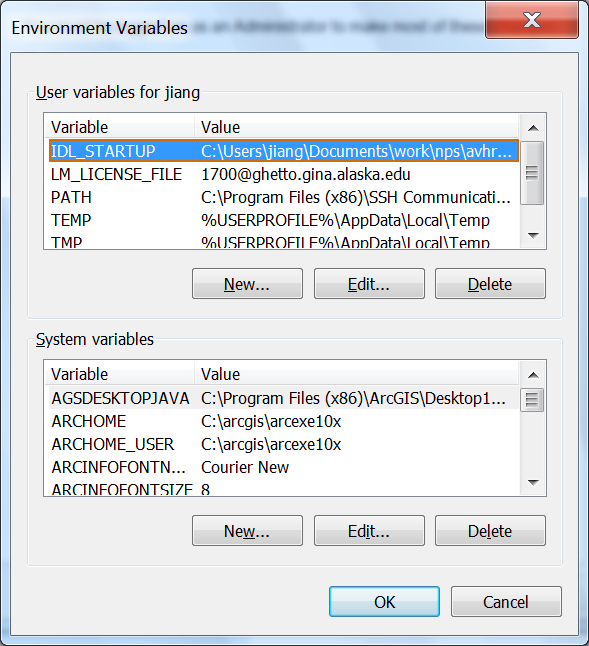
b. set system environmental variable IDL\_STARTUP

start->control panel->system->Advanced system settings->Environment Variables:

new a variable:IDL\_STARTUP, make its value equal to $dir\_where\_your\_start\_nps\_is.

In my case, I set the value as

C:\Users\jiang\Documents\work\nps\avhrr\_ndvi\startup\_nps



c. edit the startup\_nps file

The startup\_nps file looks like:

#########################################################

ENVI, /RESTORE\_BASE\_SAVE\_FILES

PREF\_SET, 'IDL\_PATH', '<IDL\_DEFAULT>;+dir\_where\_avhrr\_ndvi\_is', /COMMIT  
#########################################################

replace “dir\_where\_avhrr\_ndvi\_is” to your directory where the avhrr\_ndvi is. In my case, “C:\Users\jiang\Documents\work\nps\avhrr\_ndvi”

Please keep the “+” right before the “dir\_where\_avhrr\_ndvi\_is”

2. run avhrr\_calulate\_ndvi\_metrics\_tile program

double click IDL to start the IDLDE

in the idl command line, run following commands:

restore,'dir\_your\_choice/avhrr\_ndvi/sav/avhrr\_calculate\_ndvi\_metrics\_tile.sav'

filen='dir\_your\_choice/avhrr\_ndvi/data/ak\_nd\_1982'

filen\_sm='dir\_your\_choice/avhrr\_ndvi/data/ak\_nd\_1982sm'

avhrr\_calculate\_ndvi\_metrics\_tile, filen,filen\_sm

3. compile sav file by yourself in case the sav file provided does not work

The sav file I provided is based on IDL708 (ENVI 4.6), perhaps it is compatible

with your IDL+ENVI environment. I this case, you need compile the sav file.

After you follow item 1 to set the environment, do follows to build the sav file.  
  
a. start the IDL  
  
b. File->switch workspace  to: L:\GINA\_metrics\avhrr\_ndvi, then open the workspace.

the workspace "avhrr-ndvi-metrics" will show on the project explorer   
  
c. project->open the project->build All, you get the \*.sav file in the

L:\GINA\_metrics\avhrr\_ndvi\avhrr-ndvi-metrics  
  
d. copy the new \*.sav file into the L:\GINA\_metrics\avhrr\_ndvi\sav.   
  
now that you get the \*.sav file. You can run the \*.sav file following the previous

guidance.

4. Algorithm explaination

detail algorthm explaination is referred to "ndvi\_metrics\_algorithm\_doc\_201201.docx"