Subject: Re: Spatial and temporal image correlation
Posted by Phillip Bitzer on Thu, 15 Aug 2013 19:44:36 GMT
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Besides the aforementioned use of file_search and not using CD, let me add the following about your loop:

1) Generally speaking, I like to open the file I need, read it in, and free the lun for file immediately before doing any processing. This especially goes while you are debugging your code. The reason is so you don't have any "hanging" luns that aren't freed properly.

2) In addition, you are making file a float array for the data in the file. Is that the case, or is it integers? If it *is* floats, it's generally not a good idea to check for equality between floats (see http://www.idlcoyote.com/code_tips/comparearray.html for a discussion). I'll assume below -9999 is your missing value, and all good data is definitely greater than -9990.0. This may not really affect you here, but at some point checking if two floats are equal will get you in trouble.

3) You should use square brackets to access array elements (I see you do that once, so it may be a typo in the OPENR call). Although not strictly required, this will help you down the line and help you differentiate between arrays and functions. The use of the compiler option idl2 (see http://www.exelisvis.com/docs/COMPILE_OPT.html) is highly recommended by several notable IDL programmers.

4) Be sure to check the count keyword before assigned the null values to NaN. In IDL 7 and below, if there are no null values, the code as you've written it will throw an error. In IDL 8, if there are no null values, your code will assign the last element to NaN.

Since you're starting out in IDL, I reccomend you check out this page:http://www.idlcoyote.com/code_tips/mostcommon.html

So, I would modify the loop slightly to this:

```
 FOR j=0,numFiles-1 DO BEGIN
   OpenR, lun, theseFiles[j], /Get_Lun
   File = fltarr(620, 500)
   ReadU, lun, File
   Free_Lun, lun
   JustNumbers= where(File lt -9990.0, count)
   IF count NE 0 THEN File[JustNumbers]=!VALUES.F_NAN
   *
   * ;do more processing
   *
   *

   ENDFOR
```

Good luck!