Subject: Re: find_subtree.pro
Posted by davidf on Wed, 03 Jun 1998 07:00:00 GMT
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Kristian Kjaer (kristian.kjaer@risoe.dk) writes:

> I am looking for piece of code - similar to findfile() - which will
> return the fully-qualified paths to all subdirectories of the default
> directory, or return the fully-qualified paths to, say, all files *.dat
> in all subdirectories of the default directory.
>
> (I use IDL 5 on WinNT.)

Here is a little thing I coded up today when I should have
been doing something a whole lot more useful. I still don't
fully understand recursive functions, so these kinds of things
always suck me in. :-(

Anyway, this appears to work under the extensive testing
I've subjected it to. :^)

It is specific for Windows machines. The names that it
returns are given relative to the target directory name
(to which I apply NO error checking!). It will, perhaps,
give you some ideas.

As always, I'm open for gentle criticism, which I will
probably deserve for this one. :-)

Cheers,

David

```
 ********************************************************** *****
Function AllDir, target

; This function returns the names of all the directories
; rooted at the "target" directory. The function is specific
; for the Windows operating system. The return names are
; given with respect to the target name.

    ; Default directory is current directory.

IF N_Params() EQ 0 THEN BEGIN
   CD, Current=target
   target = target + '\'
ENDIF
```

```
    ; Switch to target directory.

CD, target, Current=thisDirectory

    ; Find the files in the target directory.

theseFiles = Findfile('*', Count=count)
IF count EQ 0 THEN RETURN, ''

    ; Find the directories in the file list. Directories
    ; end with a "\" character.

endCharPos = StrLen(theseFiles) - 1
FOR j=0,count-1 DO BEGIN
   IF theseFiles[j] NE '.\' AND theseFiles[j] NE '..\' THEN BEGIN
      lastChar = StrMid(theseFiles[j], endCharPos[j], 1)
      IF lastChar EQ '\' THEN BEGIN
         IF N_Elements(theseDirs) EQ 0 THEN $
            theseDirs = [theseFiles[j], AllDir(theseFiles[j])] ELSE $
            theseDirs = [theseDirs, theseFiles[j], AllDir(theseFiles[j])]
      ENDIF
   ENDIF ELSE theseDirs = ''
ENDFOR

   ; Add the target name.

theseDirs = target + theseDirs

   ; Go back to the starting directory.

CD, thisDirectory

    ; Remove null strings and non-unique values.

returnValue = theseDirs[Where(theseDirs NE target) > 0]
returnValue = returnValue[Uniq(returnValue)]

    ; Return the list.

RETURN, returnValue
END
```

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