Subject: Re: Selecting odd/even numbered files
Posted by David Fanning on Wed, 03 Apr 2002 15:19:50 GMT

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Irene Dumkow (irene.dumkow@uni-essen.de) writes:

> I have been writing an IDL routine to plot some of our data in a certain
> way. The measuring programm saves the data using a given prefix, adding
> a number starting from 001 until the user stops the measurement (eq
> xxxxx001.ext to xxxxx323.ext). The measuring program can do different
> kinds of measurements, but it will save the datafiles all in one
> directory. But for the data-plotting, I sometimes only want to select
> the odd or even numbers (for a start, the most ideal case would be to
> give a starting value and an increment). I have been using
> dialog_pickfile() for the fileselection, which is not suited for the
> task on hand. I was wondering if somebody has written a routine which
> does something like I want (selecting only even numbered or only odd
> numbered files) or can give me some ideas, because I am completely
> stumped on even how to get started.

Here is a little program that should do what you want it to
do:

```
 ************************************************************ **
FUNCTION PickSomeFiles, Filter=filter, EVEN=even, ODD=odd, Count=count

IF N_Elements(filter) EQ 0 THEN filter="*.ext"

files = FindFile(filter, Count=count)
slen = StrLen(files)

IF Keyword_Set(even) THEN BEGIN
  numbers = IntArr(N_Elements(files))
  FOR j=0,N_Elements(files)-1 DO BEGIN
    stringpart = StrMid(files[j], 5, 3)
    numbers[j] = Fix(stringpart)
  ENDFOR
  index = Where(numbers MOD 2 EQ 0, count)
  IF count GT 0 THEN RETURN, files[index] ELSE RETURN, ""
ENDIF

IF Keyword_Set(odd) THEN BEGIN
  numbers = IntArr(N_Elements(files))
  FOR j=0,N_Elements(files)-1 DO BEGIN
    stringpart = StrMid(files[j], 5, 3)
    numbers[j] = Fix(stringpart)
  ENDFOR
  index = Where(numbers MOD 2 EQ 1, count)
```

```
  IF count GT 0 THEN RETURN, files[index] ELSE RETURN, ""
ENDIF

RETURN, files
END
 ************************************************************ ***
```

You would call it like this. It assumes that all the files
in the directory will be named as you have described above,
with 8 characters in the first part of the file (last three
characters are digits), and a three character extension. The
program will have to be modified if that is not the case.

```
  IDL> filenames = PickSomeFiles(Filter='*.txt', Count=count)
  IDL> IF count GT 0 THEN Print, filenames
       david001.txt david002.txt david003.txt david004.txt
```

To select even numbered files, set the EVEN keyword. To select
odd numbered files, set the ODD keyword.

Here is what my test session looked like:

```
  IDL> print, picksomefiles(filter='*.txt',count=c) & print, c
  david001.txt david002.txt david003.txt david004.txt
        4
  IDL> print, picksomefiles(/even)
  david002.txt david004.txt

  IDL> print, picksomefiles(/odd)
  david001.txt david003.txt
```

Cheers,

David
--
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Coyote's Guide to IDL Programming: http://www.dfanning.com/
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Subject: Re: Selecting odd/even numbered files
Posted by Wayne Landsman on Wed, 03 Apr 2002 19:20:00 GMT
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David Fanning wrote:

>
> Here is a little program that should do what you want it to
> do:
>

A minor footnote to the little program: In IDL V5.3 or later, the 5 lines

```
  numbers = IntArr(N_Elements(files))
  FOR j=0,N_Elements(files)-1 DO BEGIN
    stringpart = StrMid(files[j], 5, 3)
    numbers[j] = Fix(stringpart)
  ENDFOR
```

can be replaced by the single vectorized line:

```
numbers = fix(strmid(files,5,3))
```

--Wayne Landsman   landsman@mpb.gsfc.nasa.gov