Subject: existing directories
Posted by Martin Schultz on Mon, 25 Jan 1999 08:00:00 GMT
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Hi,

   maybe something is blocking my mind right now, but I just can't think
of a good (platform independent) way to test whether a directory exists
or not. I am trying to write an 'install.pro' routine (not too fancy but
at least with automatic backup of an old version and automatic creation
of the target directory if not there). Actually, since I am spawning
quite a few unix commands anyhow, a good Unix solution would be fine,
too.

   BTW: Has anyone written a routine like this before (which is
documented)? What I have in mind (and working in a rudimentary version)
is this:
* create target directory if necessary
  or copy all files in target directory into BACKUP<date> directory
* copy all files from a masterdirectory (either by listfile or file
mask) to target directory
  or extract them from the RCS system (version control system).

This would be a generic install routine which would come to life by
package specific caller routines (e.g. install_gamap.pro).

Thanks,
Martin.

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 -- -------

Subject: Re: existing directories
Posted by David Foster on Mon, 25 Jan 1999 08:00:00 GMT
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Martin Schultz wrote:

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> Hi,
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>   maybe something is blocking my mind right now, but I just can't think
> of a good (platform independent) way to test whether a directory exists
> or not. I am trying to write an 'install.pro' routine (not too fancy but
> at least with automatic backup of an old version and automatic creation
> of the target directory if not there). Actually, since I am spawning
> quite a few unix commands anyhow, a good Unix solution would be fine,
> too.

Martin -

Here are two routines that may help. First is a simple routine
that spawns a UNIX test command:

```
 ;------------------------------------------------------- -----------------
;+
;   Function VALID_DIR
;
; Function to determine whether string value specifies valid directory.
; Returns 1 if valid, 0 if not.
;-
 ;------------------------------------------------------- -----------------

FUNCTION valid_dir, dir

    ; Go to UNIX and check if directory exists using test command
    ; Open a new shell to avoid aliases

    spawn, ['/bin/sh -c "test -d ' + dir + '" && echo 1'], result

    return, keyword_set( result )
END
```

Here is DIREXIST.PRO which I got from Phil Williams some time ago:

```
----------- cut here --------------------------------------------
FUNCTION DirExist, list
;+
; NAME: DIREXIST
;
; PURPOSE: Determine which elements in list are directories.
;
; CATEGORY: File I/O
```

```
;
; CALLING SEQUENCE: result = direxist(list)
;
; INPUTS:
;    list : a list of files (i.e. the result from list = FINDFILE())
;
; OPTIONAL INPUTS: none
;
; OUTPUTS: An array of the appropriate size. 1 indicates list(i) is a
;          directory. 0 indicates that list(i) is a file.
;
; PROCEDURE:
;   Get a file list
;      IDL> list = findfile()
;      IDL> dirs = direxist(list)
;   Print which elements in list are directories
;      IDL> print,where(dirs eq 1)
;           1       6       14       22
;
; MODIFICATION HISTORY:
;   27 Dec 96 Initial coding. PMW
;      Use direxist.pro from David Fanning as a starting point.
;   28 Dec 96 Fixed bug. Now checking last entry in list. PMW
;   30 Dec 96 Fixed bug with last entry check. PMW
;-


; Save the current directory.

CD, Current=currentDirectory
foo = list
;print,'direxist dir = ', currentDirectory
; Use the Catch error handler to catch the case where we
; try to CD to a directory that doesn't exist.

results = intarr(n_elements(list))
i = -1
Catch, error
IF (error NE 0) THEN BEGIN

    ; Directory must not exist. Return 0.
   bar = 0
   goto, YIKES
ENDIF

   ; Try to CD to the directory. If it doesn't exist, an error occurs.

repeat begin
```

```
   i = i+1
   CD, foo(0), current = currentDirectory

; Well, the directory MUST exist if we are here! Change back to
; the current directory and return a 1.
   bar = 1

YIKES:
   results(i) = bar
   CD, currentDirectory
   if n_elements(foo) ne 1 then foo = foo(1:n_elements(foo) - 1)
endrep until n_elements(foo) eq 1
CATCH,/cancel

if n_elements(list) eq 1 then return, results
;--- Now do the last entry
i = i + 1

Catch, error
if (error ne 0) then begin

   results(i) = 0
   goto,done
endif

CD, foo(0), current = currentDirectory

;--- If were here its a directory
results(i) = 1

CD, currentDirectory

done:
RETURN, results
END
```

--

```
  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ ~~~~~~
   David S. Foster       Univ. of California, San Diego
    Programmer/Analyst    Brain Image Analysis Laboratory
   foster@bial1.ucsd.edu  Department of Psychiatry
    (619) 622-5892         8950 Via La Jolla Drive, Suite 2240
                 La Jolla, CA  92037
  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ ~~~~~~
```

Subject: Re: existing directories
Posted by R.Bauer on Tue, 26 Jan 1999 08:00:00 GMT
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Martin Schultz wrote:

> Hi,
>
>   maybe something is blocking my mind right now, but I just can't think
> of a good (platform independent) way to test whether a directory exists
> or not. I am trying to write an 'install.pro' routine (not too fancy but
> at least with automatic backup of an old version and automatic creation
> of the target directory if not there). Actually, since I am spawning
> quite a few unix commands anyhow, a good Unix solution would be fine,
> too.

Dear Martin

is_dir will return 1 if directory exist and 0 if not. It is platfom
independent (AIX, NT tested)

```
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; This software may be used, copied, or redistributed as long as it is not
; sold and this copyright notice is reproduced on each copy made.  This
; routine is provided as is without any express or implied warranties
; whatsoever.
;
;+
; NAME:
;     is_dir
;
; PURPOSE:
;     Test if directory exist
;
; CATEGORY:
;     PROG_TOOLS
;
; CALLING SEQUENCE:
;     Result = is_dir(path)
;
; INPUTS:
;     path: The variable to be tested.
;
; OUTPUTS:
;     This function returns 1 if directory exist else it returns 0
;
; EXAMPLE:
```

```
;      dir='C:\temp'
;      PRINT, is_dir(dir)
;      -> 1
;
;
; MODIFICATION HISTORY:
;      Written by:    R.Bauer , 26.01.99
;-


FUNCTION is_dir,path
   errvar=0
   CATCH,errvar
   IF errvar NE 0 THEN RETURN,0
   CD,curr=curr,path
   CD,curr
   RETURN,1

END
```

>
>
>   BTW: Has anyone written a routine like this before (which is
> documented)? What I have in mind (and working in a rudimentary version)
> is this:
> * create target directory if necessary
>   or copy all files in target directory into BACKUP<date> directory
> * copy all files from a masterdirectory (either by listfile or file
> mask) to target directory
>   or extract them from the RCS system (version control system).
>
> This would be a generic install routine which would come to life by
> package specific caller routines (e.g. install_gamap.pro).
>
> Thanks,
> Martin.
>

Did you thought on a self installing of an zip/exe/tar file with included
directories?
If you try this way you have to test only if an old version was installed
previously.

Regards

R.Bauer

Subject: Re: existing directories
Posted by rmlongfield on Wed, 27 Jan 1999 08:00:00 GMT
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> Martin Schultz wrote:
>
>> Hi,
>>
>>   maybe something is blocking my mind right now, but I just can't think
>> of a good (platform independent) way to test whether a directory exists
>> or not.

Thanks, Martin, for asking your question. I had tried to do this a while ago
using the IDL Pickfile with no success and gave up on it.

I needed to check different archives for data, and if the directory did not
exist , I had to look for it elsewhere.

Thanks also to those who answered. These suggestions will help clean up a
very messy If Block.

Rose

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