
Subject: Re: archived data

Posted by [cmancone](#) on Tue, 05 Jun 2007 12:26:14 GMT

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On Jun 3, 11:54 am, Wox <nom...@hotmail.com> wrote:

> Hi All,

>

> I face the following situation: I'd like to do some online data

> processing (i.e. during measurements) using IDL. However the data is

> directly zipped by the acquisition system. Is it possible to read and

> search (like file_search) in a zip archive without spawning unzip and

> extract everything? Windows explorer does it, so it must be

> possible...

>

> I remember a similar question beeing posted here, but I couldn't find

> it.

>

> Thanks

I'm afraid I don't have any suggestions for you. I was just going to add that windows almost certainly does it by quickly extracting the files into memory as it reads the zip archive. It doesn't actually extract the files for you, true, but it would have to unzip them in order to display them (at least, I don't see how else it could do it). Which of course is bad news for you - that would mean that the only way you could accomplish what you want to accomplish is by having IDL do the unzipping. Unless someone else has built zip/unzip functionality into IDL, that means you'd have to do it yourself.

Subject: Re: archived data

Posted by [Brian Larsen](#) on Tue, 05 Jun 2007 13:15:50 GMT

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I think there is no really easy solution... but I do have a medium difficulty idea.

I use 7-zip (<http://www.7-zip.org/>) which has a command line interface 7za.exe and its free.

So what I would suggest trying:

- use idl to create a temp directory
- spawn 7za.exe to extract the zip file into the temp directory
- use the files from the temp directory
- use idl to delete the temp directory

I of course have not done this but it seems that it should work.

Make sense?

Brian

--

Brian A Larsen
RBSP-ECT Instrument Suite Scientist

Boston University
Center for Space Physics

Subject: Re: archived data
Posted by [Wox](#) on Tue, 05 Jun 2007 14:13:51 GMT
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On Tue, 05 Jun 2007 13:15:50 -0000, Brian Larsen <balarsen@gmail.com>
wrote:

> I think there is no really easy solution... but I do have a medium
> difficulty idea.
>
> I use 7-zip (<http://www.7-zip.org/>) which has a command line interface
> 7za.exe and its free.
>
> So what I would suggest trying:
> - use idl to create a temp directory
> - spawn 7za.exe to extract the zip file into the temp directory
> - use the files from the temp directory
> - use idl to delete the temp directory
>
> I of course have not done this but it seems that it should work.
>
> Make sense?
>
> Brian

Ok, thanks. I was already expecting this would be the only way.

Subject: Re: archived data
Posted by [jkj](#) on Tue, 05 Jun 2007 15:15:48 GMT

On Jun 3, 10:54 am, Wox <nom...@hotmail.com> wrote:

> Hi All,
>
> I face the following situation: I'd like to do some online data
> processing (i.e. during measurements) using IDL. However the data is
> directly zipped by the acquisition system. Is it possible to read and
> search (like file_search) in a zip archive without spawning unzip and
> extract everything? Windows explorer does it, so it must be
> possible...
>
> I remember a similar question beeing posted here, but I couldn't find
> it.
>
> Thanks

IDL> spawn, 'unzip -l /usr/share/xmms/Skins/xmms-256.zip', result

IDL> print, result

```
Archive: /usr/share/xmms/Skins/xmms-256.zip  Length   Date
Time   Name
-----  ----  ----  ----  88386 07-15-99 12:23
Volume.bmp
  96102 08-13-99 13:36  main.bmp  260874 08-17-99 19:56
Eqmain.bmp
  14742 07-15-99 11:49  Cbuttons.bmp
   3954 07-15-99 11:58  Numbers.bmp  156294 10-30-99 14:08
Pledit.bmp
   92 07-18-99 11:52  PLEDIT.TXT   9294 07-15-99 13:18
Posbar.bmp
  23514 07-15-99 13:26  Shufrep.bmp
  89838 08-13-99 13:46  Titlebar.bmp
   686 07-16-99 14:36  VISCOLOR.TXT   8478 07-18-99 10:02
Text.bmp
  4278 07-15-99 13:15  Monoster.bmp
  1206 07-15-99 13:24  Playpaus.bmp  49734 08-17-99 19:47
eq_ex.bmp
  104 08-09-99 13:49  README  -----
 807576              16 files
```

If you really don't want to unzip the archive, then whatever unzip utility you use should allow you to query the archive, singly extract/insert file[s] outof/into the archive. I would read up on the unzip utility, figure out how to do what you want from a shell command line and then use an approach like spawn.

-Kevin

Subject: Re: archived data

Posted by [Vince Hradil](#) on Tue, 05 Jun 2007 17:12:03 GMT

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On Jun 3, 10:54 am, Wox <nom...@hotmail.com> wrote:

> Hi All,
>
> I face the following situation: I'd like to do some online data
> processing (i.e. during measurements) using IDL. However the data is
> directly zipped by the acquisition system. Is it possible to read and
> search (like file_search) in a zip archive without spawning unzip and
> extract everything? Windows explorer does it, so it must be
> possible...
>
> I remember a similar question beeing posted here, but I couldn't find
> it.
>
> Thanks

I just threw this together. Your milage may vary:

```
function byte_to_hex, bytes
```

```
    nbytes = n_elements(bytes)
```

```
    hstr = string(bytes, format="(z2.2)")
```

```
    vform = '(' + strtrim(nbytes,2) + 'A')
```

```
    hval = string( reverse(hstr),format=vform )
```

```
    val = 0l
```

```
    reads, hval, val, format="(z)"
```

```
    return, val
```

```
end
```

```
function zipcontents, fname
```

```
    endsig = '504b0506'
```

```
    finfo = file_info(fname)
```

```
    fsize = finfo.size
```

```
    fdata = bytarr(fsize)
```

```
    openr, lun, fname, /get_lun
```

```
    readu, lun, fdata
```

```
    free_lun, lun
```

```
    fcode = '(' + strtrim(fsize,2) + 'z2.2')
```

```

sdata = string(fdata, format=fcode)

fptr = strpos(sdata, endsig) / 2

fptr += 8
numentries = byte_to_hex( fdata[fptr:fptr+1] )
fptr += 8

cd_offset = byte_to_hex( fdata[fptr:fptr+3] )
fptr = cd_offset

contents = strarr(numentries)

for i=0l, numentries-1 do begin
    fptr += 28

    fnamelen = byte_to_hex( fdata[fptr:fptr+1] )
    fptr += 2

    extrafieldlen = byte_to_hex( fdata[fptr:fptr+1] )
    fptr += 2

    fcommentlen = byte_to_hex( fdata[fptr:fptr+1] )
    fptr += 14

    contents[i] = string(fdata[fptr:fptr+fnamelen-1])

    fptr = fptr + fnamelen + extrafieldlen + fcommentlen

endfor

return, contents
end

```

Subject: Re: archived data
Posted by [Vince Hradil](#) on Tue, 05 Jun 2007 17:15:57 GMT
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On Jun 5, 12:12 pm, hradilv <hrad...@yahoo.com> wrote:
 > On Jun 3, 10:54 am, Wox <nom...@hotmail.com> wrote:
 >
 >> Hi All,
 >
 >> I face the following situation: I'd like to do some online data
 >> processing (i.e. during measurements) using IDL. However the data is
 >> directly zipped by the acquisition system. Is it possible to read and
 >> search (like file_search) in a zip archive without spawning unzip and

```

>> extract everything? Windows explorer does it, so it must be
>> possible...
>
>> I remember a similar question beeing posted here, but I couldn't find
>> it.
>
>> Thanks
>
> I just threw this together. Your milage may vary:
>
> function byte_to_hex, bytes
>
>   nbytes = n_elements(bytes)
>
>   hstr = string(bytes, format="(z2.2)")
>
>   vform = '(' + strtrim(nbytes,2) + 'A)'
>   hval = string( reverse(hstr),format=vform )
>   val = 0l
>   reads, hval, val, format="(z)"
>
>   return, val
> end
>
> function zipcontents, fname
>
>   endsig = '504b0506'
>
>   finfo = file_info(fname)
>   fsize = finfo.size
>   fdata = bytarr(fsize)
>
>   openr, lun, fname, /get_lun
>   readu, lun, fdata
>   free_lun, lun
>
>   fcode = '(' + strtrim(fsize,2) + 'z2.2)'
>
>   sdata = string(fdata, format=fcode)
>
>   fptr = strpos(sdata, endsig) / 2
>
>   fptr += 8
>   numentries = byte_to_hex( fdata[fptr:fptr+1] )
>   fptr += 8
>
>   cd_offset = byte_to_hex( fdata[fptr:fptr+3] )
>   fptr = cd_offset

```

```
>
> contents = strarr(numentries)
>
> for i=0l, numentries-1 do begin
>   fptr += 28
>
>   fnamelen = byte_to_hex( fdata[fptr:fptr+1] )
>   fptr += 2
>
>   extrafieldlen = byte_to_hex( fdata[fptr:fptr+1] )
>   fptr += 2
>
>   fcommentlen = byte_to_hex( fdata[fptr:fptr+1] )
>   fptr += 14
>
>   contents[i] = string(fdata[fptr:fptr+fnamelen-1])
>
>   fptr = fptr + fnamelen + extrafieldlen + fcommentlen
>
> endfor
>
> return, contents
> end
```

Sorry, I meant to include this link: <http://www.pkware.com/documents/casestudies/APPNOTE.TXT>

Subject: Re: archived data

Posted by [Wox](#) on Wed, 06 Jun 2007 07:42:31 GMT

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On Tue, 05 Jun 2007 10:15:57 -0700, hradilv <hradilv@yahoo.com> wrote:

<snip>

> Sorry, I meant to include this link:

<http://www.pkware.com/documents/casestudies/APPNOTE.TXT>

Good stuff! Thanks! This helps a lot.
