Subject: Re: relative path from one absolute path to another? Posted by greg michael on Tue, 08 Aug 2006 14:38:06 GMT View Forum Message <> Reply to Message

I'd be surprised if you can do it without programming, but it shouldn't be hard. Split the path using strsplit() and path_sep(), count how many first elements are the same, add a chain of '..'+path_sep() to equal the remaining elements in your from-path, and tack on the remaining elements of the to-path.

regards, Greg

born.in.sssr@gmail.com wrote:

- > Hi all,
- > is there an easy way (without string scripting) to get the relative
- > path from one absolute path to another (platform independent:
- > unix+win)?
- > In the kind of:
- > rel_path = get_rel_path(from_path, to_path)
- > Thanks, Maxim

Subject: Re: relative path from one absolute path to another? Posted by R.Bauer on Tue, 08 Aug 2006 15:34:42 GMT View Forum Message <> Reply to Message

born.in.sssr@gmail.com wrote:

- > Hi all.
- > is there an easy way (without string scripting) to get the relative
- > path from one absolute path to another (platform independent:
- > unix+win)?
- > In the kind of:
- > rel_path = get_rel_path(from_path, to_path)
- > Thanks, Maxim

>

hi

publish this function if it's ready

cheers

Reimar

--

Reimar Bauer

```
Institut fuer Stratosphaerische Chemie (ICG-I)
Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
     a IDL library at ForschungsZentrum Juelich
 http://www.fz-juelich.de/icg/icg-i/idl icglib/idl lib intro. html
```

Subject: Re: relative path from one absolute path to another? Posted by JD Smith on Tue, 08 Aug 2006 18:39:50 GMT View Forum Message <> Reply to Message

On Tue, 08 Aug 2006 07:38:06 -0700, greg michael wrote:

```
>
> I'd be surprised if you can do it without programming, but it shouldn't
> be hard. Split the path using strsplit() and path_sep(), count how many
> first elements are the same, add a chain of '..'+path_sep() to equal
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>
> regards,
> Greg
>
>
> born.in.sssr@gmail.com wrote:
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>> path from one absolute path to another (platform independent:
>> unix+win)?
>> In the kind of:
>> rel_path = get_rel_path(from_path, to_path)
>> Thanks, Maxim
I actually had to solve this recently. I don't know if Windows likes
it. Do Windows paths contain the drive letter? If so, it will
probably be unhappy, since even FILE DIRNAME cannot remove those
obnoxious C:'s.
```

```
JD
; NAME:
```

MAKE_FILENAME_RELATIVE **PURPOSE:** Given a filename and a path, make the former relative to the latter. **CATEGORY: Filenames** CALLING SEQUENCE: new=make_filename_relative(file,root) **INPUTS:** file: The absolute filename to turn into a relative filename. root: The path of the root directory from which to make a relative path to file. **OUTPUTS:** new: The new relative filename. MODIFICATION HISTORY: 2006-07-05 (JDS): Written \$Id: make_filename_relative.pro,v 1.3 2006/07/06 00:51:06 jdsmith Exp \$

LICENSE

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```
You should have received a copy of the GNU General Public License
 along with this file; see the file COPYING. If not, write to the
 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor,
 Boston, MA 02110-1301, USA.
function make filename relative, path, root in
up=0L
sep=path sep()
if strmid(path,0,1) eq '.' then return,path
root=root in
while root ne sep do begin
  match=path
  while match ne sep do begin
    match=file dirname(match)
    if file same(match,root) then begin
      ;; replace match by ./ or ../
      return,(up eq 0L?'.':strjoin(replicate(path_sep(/PARENT),up),sep))+ $
         strmid(path,strlen(match))
    endif
  endwhile
  root=file_dirname(root)
  up++
endwhile
return, '.'+path
end
```

Subject: Re: relative path from one absolute path to another? Posted by born.in.sssr@gmail.co on Tue, 08 Aug 2006 21:22:23 GMT View Forum Message <> Reply to Message

Thank you all!

Here is my function, which is closer to greg michael idea but also uses some interesting constructs from JD Smith:

```
;+
; NAME:
; FILE_RELPATH
; PURPOSE:
; Relative path from one absolute path to another
; CALLING SEQUENCE:
; rel_path = FILE_RELPATH(file, source_path)
; INPUTS:
; file, source_path: absolute path names
```

```
; if source_path is not given, then the current directory is
; taken as the source path
 OUTPUTS:
; Relative path from source_path to file
RESTRICTIONS:
; file and source_path should be reachable by file system
: MODIFICATION HISTORY:
; 08/2006 Maxim [Yossarian] Neumann
function FILE_RELPATH, file, source
 sep = path sep()
 if n_elements(source) eq 0 then source = '.'
 to = strsplit(file_search(file, /FULLY_QUALIFY_PATH),sep,/EXTRACT)
 from = strsplit(file_search(source,/FULLY_QUALIFY_PATH),sep,/EXTRAC T)
 n_to = n_elements(to) & n_from = n_elements(from)
 if n_from eq 1 && from[0] eq " then n_from=0
 ind = where(from ne to, cnt)
 same = cnt eq 0 ? n from<n to : ind[0]
 if same eq n from then res = './' $
 else res = strjoin(replicate('..'+sep,n from-same))
 if same ne n to then res += strjoin(to[same:*],sep)
 return, res
end
```

Subject: Re: relative path from one absolute path to another? Posted by Craig Markwardt on Wed, 09 Aug 2006 16:52:15 GMT View Forum Message <> Reply to Message

```
"born.in.sssr@gmail.com" <born.in.sssr@gmail.com> writes:
```

- > Hi all,
- > is there an easy way (without string scripting) to get the relative
- > path from one absolute path to another (platform independent:
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- > In the kind of:
- > rel_path = get_rel_path(from_path, to_path)
- > Thanks, Maxim

Sigh, a simple search on Google ("idl relative path") would have picked up a routine I posted on my website two years ago, and saved everybody a lot of work and trouble :-)

Craig

http://cow.physics.wisc.edu/~craigm/idl/io.html

--

Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: relative path from one absolute path to another? Posted by JD Smith on Wed, 09 Aug 2006 17:58:35 GMT View Forum Message <> Reply to Message

On Wed, 09 Aug 2006 12:52:15 -0400, Craig Markwardt wrote:

- > "born.in.sssr@gmail.com" <born.in.sssr@gmail.com> writes:
- >> Hi all.
- >> is there an easy way (without string scripting) to get the relative
- >> path from one absolute path to another (platform independent:
- >> unix+win)?
- >> In the kind of:
- >> rel_path = get_rel_path(from_path, to_path)
- >> Thanks, Maxim

- > Sigh, a simple search on Google ("idl relative path") would have
- > picked up a routine I posted on my website two years ago, and saved
- > everybody a lot of work and trouble :-)

One can't underestimate the trade-off of having to check someone else's code vs. writing it yourself for "small" problems like this. Does it work for Windows paths (with c:\foo or \\host\foo)?

JD

Subject: Re: relative path from one absolute path to another? Posted by JD Smith on Wed, 09 Aug 2006 18:02:44 GMT View Forum Message <> Reply to Message

On Wed, 09 Aug 2006 10:58:35 -0700, JD Smith wrote:

- > On Wed, 09 Aug 2006 12:52:15 -0400, Craig Markwardt wrote:
- >

>>

- >> "born.in.sssr@gmail.com" <born.in.sssr@gmail.com> writes:
- >>> Hi all.
- >>> is there an easy way (without string scripting) to get the relative
- >>> path from one absolute path to another (platform independent:
- >>> unix+win)?

```
>>> In the kind of:
>>> rel_path = get_rel_path(from_path, to_path)
>>> Thanks, Maxim
>>
>> Sigh, a simple search on Google ("idl relative path") would have
>> picked up a routine I posted on my website two years ago, and saved
>> everybody a lot of work and trouble :-)
```

I forgot to point out one advantage of my formulation: since it uses FILE_SAME(), you can get minimum relative paths even for path structures which include arbitrary links.

JD

Subject: Re: relative path from one absolute path to another? Posted by Craig Markwardt on Wed, 09 Aug 2006 19:17:15 GMT View Forum Message <> Reply to Message

```
JD Smith <idsmith@as.arizona.edu> writes:
> On Wed, 09 Aug 2006 12:52:15 -0400, Craig Markwardt wrote:
>
>>
>> "born.in.sssr@gmail.com" <born.in.sssr@gmail.com> writes:
>>> Hi all.
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>> everybody a lot of work and trouble :-)
>
```

> One can't underestimate the trade-off of having to check someone else's

> code vs. writing it yourself for "small" problems like this. Does it

> work for Windows paths (with c:\foo or \\host\foo)?

Sure. Of course, if the drive letter is different, there is no possible relative path.

Regarding links and FILE_SAME(), I didn't assume the directories actually exist on disk. In my case, sometimes the relative path is devised before the tree exists, so that assumption would have failed.

Craig

,	EMAIL: craigmnet@REMOVEcow.physics.wisc.edu Derivatives Remove "net" for better response

Subject: Re: relative path from one absolute path to another? Posted by born.in.sssr@gmail.co on Thu, 10 Aug 2006 08:21:22 GMT View Forum Message <> Reply to Message

- > Sigh, a simple search on Google ("idl relative path") would have
- > picked up a routine I posted on my website two years ago, and saved
- > everybody a lot of work and trouble :-)

yes, if you use the right keywords from the beginning... i tried it with "idl retrieve relative pathnames" without much succes on google and in the group. and spent half an hour to click through some pages. as usuall, it is faster to write it by yourself; but you learn a lot if you see, how other people would do it!

Maxim