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Subject: Linux-like touch command in IDL

Posted by [PMan](#) on Sat, 07 Feb 2015 19:33:24 GMT

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I am looking to do a linux style 'touch' from IDL. There is not a similar command in IDL, but any ideas on a work around?

Thanks

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Subject: Re: Linux-like touch command in IDL

Posted by [Jim Pendleton](#) on Sat, 07 Feb 2015 22:05:46 GMT

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If you're on Linux, you can execute

IDL> spawn,'touch ' + filepath

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Subject: Re: Linux-like touch command in IDL

Posted by [PMan](#) on Wed, 11 Feb 2015 03:02:21 GMT

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On Saturday, February 7, 2015 at 5:05:48 PM UTC-5, Jim P wrote:

- > If you're on Linux, you can execute
- > IDL> spawn,'touch ' + filepath

True, I know, but I operate on Windows and Linux. So, I thought there might be something more IDL-ic (as in 'python-ic').

Perhaps, idyllic is too lofty a goal?

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Subject: Re: Linux-like touch command in IDL

Posted by [Matthew Argall](#) on Thu, 12 Feb 2015 14:51:40 GMT

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- > I am looking to do a linux style 'touch' from IDL.

Does this do the same thing?

pro touch, path

```
if file_test(path, /DIRECTORY, /WRITE) then begin
    temp_file = filepath('touch_temp_file.txt', ROOT_DIR=path)
    openw, lun, filename, /GET_LUN
    free_lun, lun
    file_delete, temp_file
endif else if file_test(path, /WRITE) then begin
```

```
openw, lun, filename, /GET_LUN
free_lun, lun
endif else begin
    message, 'PATH must be a file or directory with write privileges.'
endelse
end
```

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Subject: Re: Linux-like touch command in IDL  
Posted by [Matthew Argall](#) on Thu, 12 Feb 2015 15:09:50 GMT  
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```
> pro touch, path
>     if file_test(path, /DIRECTORY, /WRITE) then begin
>         temp_file = filepath('touch_temp_file.txt', ROOT_DIR=path)
>         openw, lun, temp_file, /GET_LUN
>         free_lun, lun
>         file_delete, temp_file
>     endif else if file_test(path, /WRITE) then begin
>         openw, lun, path, /GET_LUN
>         free_lun, lun
>     endif else begin
>         message, 'PATH must be a file or directory with write privileges.'
>     endelse
> end
```

Fixed a few typos.

This will update time time stamps of a file (and create it, if need be), or a directory (so long as the directory already exists). Write privileges are required.

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Subject: Re: Linux-like touch command in IDL  
Posted by [Heinz Stege](#) on Thu, 12 Feb 2015 16:32:02 GMT  
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On Thu, 12 Feb 2015 07:09:50 -0800 (PST), Matthew Argall wrote:

```
>>     openw, lun, path, /GET_LUN
>>     free_lun, lun
```

Oh my goodness, don't do this! On Windows this deletes the contents of an existing file.

Cheers, Heinz

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Subject: Re: Linux-like touch command in IDL  
Posted by [Lajos Foldy](#) on Thu, 12 Feb 2015 16:50:45 GMT  
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On Thursday, February 12, 2015 at 5:31:49 PM UTC+1, Heinz Stege wrote:

> On Thu, 12 Feb 2015 07:09:50 -0800 (PST), Matthew Argall wrote:

>  
>>> openw, lun, path, /GET\_LUN  
>>> free\_lun, lun  
>  
> Oh my goodness, don't do this! On Windows this deletes the contents of  
> an existing file.  
>  
> Cheers, Heinz

Does /APPEND solve this?

regards,  
Lajos

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Subject: Re: Linux-like touch command in IDL  
Posted by [Matthew Argall](#) on Thu, 12 Feb 2015 20:37:36 GMT  
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> Oh my goodness, don't do this! On Windows this deletes the contents of  
> an existing file.

It works perfectly if you test it on an empty file ;-)

Not so perfectly otherwise :-(

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Subject: Re: Linux-like touch command in IDL  
Posted by [Matthew Argall](#) on Thu, 12 Feb 2015 21:14:49 GMT  
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> Does /APPEND solve this?

No, adding /APPEND does not change [ACM]TIME (see below). The following also do not change [ACM]TIME.

File\_Move, path, path, /ALLOW\_SAME  
File\_Copy, path, path, /ALLOW\_SAME

OpenR, lun, filename, /GET\_LUN  
free\_lun, lun

I thought at least the last operation would change ATIME, but it doesn't. On the otherhand, the following changes ATIME

```
nLines = File_Lines(path)
```

So, I thought I maybe the file pointer needed to be moved, but this did not change ATIME either

```
openr, lun, path, /GET_LUN  
point_lun, lun, 1  
free_lun, lun
```

Finally, I tried reading on byte of data, which did change ATIME.

```
var = 0B  
openr, lun, path, /GET_LUN  
readu, lun, var
```

Below is an updated version of touch.pro. Since the same technique does not work with directories, I am left with creating a temporary file and deleting it. This changes all three of [ACM]TIME.

---

```
pro touch, path  
on_error, 2
```

```
;Directory -- Updates access, status change, and modified times.  
if file_test(path, /DIRECTORY, /WRITE) then begin  
    temp_file = filepath('touch_temp_file.txt', ROOT_DIR=path)  
    openw, lun, temp_file, /GET_LUN  
    free_lun, lun  
    file_delete, temp_file
```

```
;File -- updates access time  
endif else if file_test(path, /READ) then begin  
    var = 0B  
    openr, lun, path, /GET_LUN  
    readu, lun, var
```

```
;Other  
endif else begin  
    message, 'PATH must be a file with read privileges or a directory with write privileges.'  
endelse  
end
```

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Subject: Re: Linux-like touch command in IDL  
Posted by [Matthew Argall](#) on Thu, 12 Feb 2015 21:17:35 GMT  
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```
> pro touch, path
> on_error, 2
>
> ;Directory -- Updates access, status change, and modified times.
> if file_test(path, /DIRECTORY, /WRITE) then begin
>   temp_file = filepath('touch_temp_file.txt', ROOT_DIR=path)
>   openw, lun, temp_file, /GET_LUN
>   free_lun, lun
>   file_delete, temp_file
>
> ;File -- updates access time
> endif else if file_test(path, /READ) then begin
>   var = 0B
>   openr, lun, path, /GET_LUN
>   readu, lun, var
>   free_lun, lun
>
> ;Other
> endif else begin
>   message, 'PATH must be a file with read privileges or a directory with write privileges.'
>   endelse
> end
```

And, of course, I forgot to close the file...

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Subject: Re: Linux-like touch command in IDL  
Posted by [Matthew Argall](#) on Thu, 12 Feb 2015 21:49:06 GMT  
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Ok. Last reply. I found the Truncate\_Lun procedure, so thought I would add another feature. For files, you can update ATIME only (by reading) or all three [ACM]TIME (by writing, then deleting). For directories, only the latter option is available.

---

```
-----
pro touch, path, $
ACCESS=access
on_error, 2

;Information about the path provided.
info = file_info(path)
if info.exists eq 0 then message, 'PATH does not exist: "' + path + '".'
```

```

;Defaults
access = keyword_set(access)
modify = ~access

;Directory
if info.directory then begin
;Modified Time (also updates Access and Status Change times)
if modify then begin
if info.write eq 0 then message, 'PATH must have write privileges.'

;Create a temporary file then delete it.
temp_file = filepath('touch_temp_file.txt', ROOT_DIR=path)
openw, lun, temp_file, /GET_LUN
free_lun, lun
file_delete, temp_file
endif else begin
message, 'The ACCESS option is not available for directories.'
endelse

;File
endif else begin
;Access Time
if access then begin
if info.read eq 0 then message, 'PATH must have read privileges.'

;Read one byte of data
var = 0B
openr, lun, path, /GET_LUN
readu, lun, var
free_lun, lun

;Modified Time (also updates Access and Status Change times)
endif else begin
if info.write eq 0 then message, 'PATH must have write privileges.'

;Open to the end of the file, and get the file position
openw, lun, path, /GET_LUN, /APPEND
point_lun, -lun, end_of_file

;Write one byte of data
writeu, lun, 0B

;Truncate the contents just written & close the file.
point_lun, lun, end_of_file
truncate_lun, lun
free_lun, lun

```

```
:Other  
endelse  
endelse  
end
```

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