Subject: Re: Possible Mac OS Bug with FIX.
Posted by Dick Jackson on Wed, 11 May 2005 22:50:38 GMT
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<savoie@nsidc.org> wrote in message
news:ywkufywtwmdq.fsf@snowblower.colorado.edu...
> David Fanning <davidf@dfanning.com> writes:
>
>
>
>> What I am still not clear about, however, is whether whatever
>> the hell it is that RSI is doing is done *consistently*
>> across all machine architectures. Anyone have a theory about
>> that? :-)
>
> It seems pretty clear to me what's happening is what lajos previously
> stated. But the more I tried to articulate that, the less sense it made.
> Anyway, on my two machines,
>
>
> Linux little endian:
> ------------------
>
> IDL> tmp = bytarr(20)
> tmp = bytarr(20)
> IDL> tmp[15] = 5
> tmp[15] = 5
> IDL> print, fix(tmp[15]), fix(tmp,15)
> print, fix(tmp[15]), fix(tmp,15)
>   5   5
>
> On a Big Endian IRIX64 machine
> ----------------------------
> IDL> tmp=bytarr(20)
> IDL> tmp[15] = 5
> IDL> print, fix(tmp[15]), fix(tmp,15)
>   5   1280
>
>
> I don't even know if this helps.

I think you are exactly right, but to get David's consistency across
platforms:

IDL> tmp = bytarr(20)
IDL> tmp[15] = 5
IDL> result=fix(tmp,15)
IDL> print,result   ; This should vary across platforms

```
       5
IDL> swap_endian_inplace, result, /swap_if_little_endian
IDL> print,result       ; This should be consistent across platforms
    1280
```

(the reader will guess I'm on an Intel box, someone please test this elsewhere!)

Now, there are still two issues that are for David to decide:
- do you really want /swap_if_little_endian or /swap_if_big_endian?
  (either will give a consistent result)
- do you really want the bytes starting at an offset that is not a
  multiple of the size of the type you're casting it to (Fix: 2 bytes)?

Hope this helps!

Cheers,
--
-Dick

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