
Subject: Re: JBIU utilities - release 1.0

Posted by [Brian Larsen](#) on Fri, 13 Jun 2008 16:44:08 GMT

[View Forum Message](#) <> [Reply to Message](#)

Jeremy,

thanks for putting this on the web. I always like "borrowing" code instead of rewriting it and there is some good stuff there.

Oddly I opened up sign() and in the spirit of Coyote's IDL way I have previously written sign() without the nasty for loop. This rewrite gained a x12.6 improvement in speed for my test case.

```
function sign, in
  pos = make_array(n_elements(in), /byte, value = 1)
  zero = in EQ 0
  neg = in LT 0
  pos = pos - zero
  pos = pos - 2 * neg
  return, pos
END
```

Cheers,

Brian

Brian Larsen
Boston University
Center for Space Physics
<http://people.bu.edu/balarsen/Home/IDL>

Subject: Re: JBIU utilities - release 1.0

Posted by [Michael Galloy](#) on Fri, 13 Jun 2008 18:39:29 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Jun 13, 10:44 am, Brian Larsen <balars...@gmail.com> wrote:

```
> Oddly I opened up sign() and in the spirit of Coyote's IDL way I have
> previously written sign() without the nasty for loop. This rewrite
> gained a x12.6 improvement in speed for my test case.
>
> function sign, in
>   pos = make_array(n_elements(in), /byte, value = 1)
>   zero = in EQ 0
```

```
> neg = in LT 0
> pos = pos - zero
> pos = pos - 2 * neg
> return, pos
> END
```

How about the following?

```
function mg_sign, x
  compile_opt strictarr

  return, fix(x gt 0) - fix(x lt 0)
end
```

Mike

--

www.michaelgalloy.com
Tech-X Corporation
Software Developer II

Subject: Re: JBIU utilities - release 1.0
Posted by [David Fanning](#) on Fri, 13 Jun 2008 18:45:08 GMT
[View Forum Message](#) <> [Reply to Message](#)

mgalloy@gmail.com writes:

```
> How about the following?
>
> function mg_sign, x
>   compile_opt strictarr
>
>   return, fix(x gt 0) - fix(x lt 0)
> end
```

Let this be a lesson to all the folks out there who think
writing code for public consumption is a barrel of laughs!

Cheers,

David

P.S. Let's just say most of us do our best thinking
after we hit the SEND button. :-(

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.

Subject: Re: JBIU utilities - release 1.0
Posted by [Brian Larsen](#) on Fri, 13 Jun 2008 20:03:05 GMT
[View Forum Message](#) <> [Reply to Message](#)

Always goes to show that there is a better way :)

I find yours is 1.6 times faster than mine (from the one test I ran).
And uses a lot less memory.

Cheers,

Brian

Brian Larsen
Boston University
Center for Space Physics
<http://people.bu.edu/balarsen/Home/IDL>

Subject: Re: JBIU utilities - release 1.0
Posted by [Jeremy Bailin](#) on Fri, 13 Jun 2008 20:07:45 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jun 13, 12:44 pm, Brian Larsen <balar...@gmail.com> wrote:
> Oddly I opened up sign() and in the spirit of Coyote's IDL way I have
> previously written sign() without the nasty for loop. This rewrite
> gained a x12.6 improvement in speed for my test case.
>
> function sign, in
> pos = make_array(n_elements(in), /byte, value = 1)
> zero = in EQ 0
> neg = in LT 0
> pos = pos - zero
> pos = pos - 2 * neg
> return, pos
> END

Yup, that would definitely be better! You can probably age date when I originally wrote each of those routines by the decreasing number of FOR loops with time. ;-)

-Jeremy.

Subject: Re: JBIU utilities - release 1.0

Posted by [Michael Galloy](#) on Fri, 13 Jun 2008 20:54:10 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Jun 13, 12:45 pm, David Fanning <n...@dfanning.com> wrote:

> Let this be a lesson to all the folks out there who think
> writing code for public consumption is a barrel of laughs!

Or a lesson on why open source software can produce robust code.

Mike

--

www.michaelgalloy.com

Tech-X Corporation

Software Developer II

Subject: Re: JBIU utilities - release 1.0

Posted by [David Fanning](#) on Fri, 13 Jun 2008 20:58:02 GMT

[View Forum Message](#) <> [Reply to Message](#)

mgalloy@gmail.com writes:

> Or a lesson on why open source software can produce robust code.

Oh, I know it can produce better code. But when you add
in the psychologist's fees, I'm not sure it's any cheaper. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: JBIU utilities - release 1.0

Posted by [MP](#) on Sun, 15 Jun 2008 22:30:56 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Jun 13, 12:39 pm, "mgal...@gmail.com" <mgal...@gmail.com> wrote:

>

```
> How about the following?  
>  
> function mg_sign, x  
>   compile_opt strictarr  
>  
>   return, fix(x gt 0) - fix(x lt 0)  
> end
```

Prior art! :)

<http://www.itvis.com/codebank/search.asp?FID=296>

(Just kidding, Mike; I'm sure someone thought of this long before I did.)

mp
