
Subject: Re: External development: Populating a complex array in C
Posted by [Heinz Stege](#) on Sat, 25 Jul 2015 21:18:03 GMT
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Hi David.

On Sat, 25 Jul 2015 11:08:28 -0700 (PDT), David Grier wrote:

> [...]

>

> Next, I'd like to populate the `idl_array` with values, ideally using `memcpy` for
> speed and clarity. Attempts resembling

>

> `memcpy(pd, src, 512*512*sizeof(float));`

>

Just an idea: The size of the complex array is `512*512`. A complex
number consists of two floats. So shouldn't you copy
`512*512*sizeof(float)*2` bytes?

> seem not to change the data in `idl_array`. Does anyone know the right way
> to copy floating point data from the C src array to the `idl_array`?

>

> Alternatively, does anyone know how to convert two `IDL_TYPE_FLOAT` arrays
> into one `IDL_TYPE_COMPLEX` array along the lines of the `COMPLEX(real,imag)`
> function in IDL?

>

Yes, here is an example:

```
real=findgen(5)
imag=4.-findgen(5)
comp=complex(real,imag)
help,comp
print,comp
```

IDL prints:

```
COMP      COMPLEX  = Array[5]
(  0.000000,  4.000000)(  1.000000,  3.000000)
(  2.000000,  2.000000)(  3.000000,  1.000000)
(  4.000000,  0.000000)
```

Cheers, Heinz
