
Subject: Re: Is there no NULL in IDL??

Posted by [Wayne Landsman](#) on Mon, 20 May 2002 22:42:39 GMT

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Sean Raffuse wrote:

> Am I just blind? What can I use for a null value when my data type is
> integer? Please don't tell me zero.

I can think of 4 options, each of which might be best in particular situations:

(1) Use a known "non-physical" value (e.g. -32767) to flag nulls. (But be careful when applying numeric operations on the data .)

(2) Convert to floating point and use NAN values to represent nulls.

(3) Carry around an extra byte mask array indicating which pixels are null.

(4) Carry around a "null pixel list" vector , i.e. a vector of 1-d indices indicating which pixels in the data are null.

--Wayne Landsman landsman@mpb.gsfc.nasa.gov

Subject: Re: Is there no NULL in IDL??

Posted by [btupper](#) on Tue, 21 May 2002 00:36:05 GMT

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On Mon, 20 May 2002 18:42:39 -0400, Wayne Landsman
<landsman@mpb.gsfc.nasa.gov> wrote:

> Sean Raffuse wrote:

>

>> Am I just blind? What can I use for a null value when my data type is
>> integer? Please don't tell me zero.

>

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>

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> be careful when applying numeric operations on the data .)

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>

> (3) Carry around an extra byte mask array indicating which pixels are
> null.

>
> (4) Carry around a "null pixel list" vector , i.e. a vector of 1-d
> indices indicating which pixels in the data are null.
>

I wonder if a pointer could be added to this list? It can have a null value.

```
;define x as a pointer to a null value
IDL> x = ptr_new(/allocate_heap)
IDL> help, *x
<PtrHeapVar1> UNDEFINED = <Undefined>
IDL> print, n_elements(*x)
      0
```

```
;reassign the pointer to a non-null value
IDL> *x = 12
IDL> help, *x
<PtrHeapVar1> INT      =      12
```

```
;reassign the pointer to a null value
;this is how the UNDEFINE procedure
;works... www.dfanning.com
IDL> temp = size(temporary(*x))
IDL> help, *x
<PtrHeapVar1> UNDEFINED = <Undefined>
```

Subject: Re: Is there no NULL in IDL??
Posted by [R.Bauer](#) on Tue, 21 May 2002 06:10:36 GMT
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Ben Tupper wrote:

```
>
> On Mon, 20 May 2002 18:42:39 -0400, Wayne Landsman
> <landsman@mpb.gsfc.nasa.gov> wrote:
>
>> Sean Raffuse wrote:
>>
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>>> integer? Please don't tell me zero.
>>
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>> situations:
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```

```
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>> indices indicating which pixels in the data are null.
>>
>
> I wonder if a pointer could be added to this list? It can have a null
> value.
```

Dear Ben,

I believe in his case this won't help.
Because if you have dereferenced then 0 is a real value
and it will be plotted.

Reimar

```
>
> ;define x as a pointer to a null value
> IDL> x = ptr_new(/allocate_heap)
> IDL> help, *x
> <PtrHeapVar1> UNDEFINED = <Undefined>
> IDL> print, n_elements(*x)
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> ;works... www.dfanning.com
> IDL> temp = size(temporary(*x))
> IDL> help, *x
> <PtrHeapVar1> UNDEFINED = <Undefined>
```

--

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/icg1/idl_icglib/idl_lib_intro.h tml
=====

Subject: Re: Is there no NULL in IDL??

Posted by [Sean Raffuse](#) on Tue, 21 May 2002 17:29:08 GMT

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"Wayne Landsman" <landsman@mpb.gsfc.nasa.gov> wrote in message
news:3CE97BDF.A7A1070B@mpb.gsfc.nasa.gov...

> Sean Raffuse wrote:

>

>> Am I just blind? What can I use for a null value when my data type is
>> integer? Please don't tell me zero.

>

> I can think of 4 options, each of which might be best in particular
> situations:

>

> (1) Use a known "non-physical" value (e.g. -32767) to flag nulls. (But
> be careful when applying numeric operations on the data .)

>

I would like to visualize the data using ENVI as a spectral profile. A
large negative value will give the same problem as a zero, only worse.

> (2) Convert to floating point and use NAN values to represent nulls.

>

Don't to convert to floats because the data is so large. I need to stick
with integers.

> (3) Carry around an extra byte mask array indicating which pixels are
> null.

>

This is a possibility, thanks for the help.

> (4) Carry around a "null pixel list" vector , i.e. a vector of 1-d
> indices indicating which pixels in the data are null.

>

> --Wayne Landsman landsman@mpb.gsfc.nasa.gov

>
