
Subject: Re: Help Large_array

Posted by [Paolo Grigis](#) on Tue, 20 Feb 2007 10:53:58 GMT

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wx_f@sohu.com wrote:

> w...@sohu.com wrote:

>

>>> I need to build a `ut=dblarr(36000,500,25)` in IDL's `pro---sfit.pro`.

>

>> It is not possible to build such an array with IDL 32 bit version,

>> no matter how much memory your system has.

>>

>> Ciao,

>> Paolo

>

> Mr Pallo

> Since `ut=dblarr(20000,500,25)` and `ut=fltarr(36000,500,25)` can be

> created by my PC(linux_IDL6.0), why it cannot do better(3.6 vs 2,double

> vs float)?

> a) What's the reason. Could you give a formula to explain

> quantitatively?

Take the number of elements in your array, call it n .

Take the size in byte of your data type (i.e. 4 for float,
8 for doubles etc.), call it m .

Then $m*n$ is limited to 2^{31} .

As for the reason, we could speculate that IDL (32 bit) uses
long, signed integers internally to access the memory locations
where the elements of the array reside.

> b) What's the solution to the operation of large array once and for
> all(I mean by software not changing hardware)?

You'll be the one who has to find the best solution suited to
your problem, somehow you'll have to work with smaller chunks
of data.

Ciao,

Paolo

>

> thanks

> wxf

>

>
>