

---

Subject: Re: Dos and Donts

Posted by [Liam E. Gumley](#) on Wed, 27 Sep 2000 07:00:00 GMT

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

---

brinks wrote:

> I'm preparing a little talk about efficient programming in IDL. From the  
> help files and from my own experience I found many hints about 'what to  
> do and not to do' to speed up code in IDL. The most things I listed so  
> far are about array operations and data arrangement, avoiding loops etc.  
> Taking an intensive look into the help system I found some little tricks  
> to improve speed, e.g. using rotation for image rotation by 90 deg  
> rather than rot(...,90). Up to now I didn't know that there is a  
> difference at all.  
>  
> I am sure there are many more odds and ends to improve IDL code. Does  
> anyone out there can give my a hint where to find more of those tricks?  
> Links, recommendation of a book, or just some direct tips would be very  
> helpfull.

[http://www.rsinc.com/services/output.cfm?tip\\_id=1799](http://www.rsinc.com/services/output.cfm?tip_id=1799)

[http://www.sf.med.va.gov/mrs/IDL/idl\\_docs.htm#MEMORY\\_USAGE\\_REDUCTION\\_IN\\_IDL](http://www.sf.med.va.gov/mrs/IDL/idl_docs.htm#MEMORY_USAGE_REDUCTION_IN_IDL)

And the online document 'Building IDL applications', section  
'Programming in IDL'.

And finally, one from me. The TEMPORARY function can often be used to  
conserve memory. However it's not immediately obvious (at least it  
wasn't to me until recently) how to use TEMPORARY when extracting an  
array subset.

For example, TEMPORARY saves no memory in the following example:

```
a = dist(256)
b = temporary(a[0:63, 0:63])
help, a, b
A      FLOAT    = Array[256, 256]
B      FLOAT    = Array[64, 64]
```

The argument a[0:63, 0:63] is passed to TEMPORARY by value, and  
therefore cannot be modified. However the following method \*does\* save  
memory:

```
a = dist(256)
b = (temporary(a))[0:63, 0:63]
help, a, b
A      UNDEFINED = <Undefined>
```

```
B          FLOAT    = Array[64, 64]
```

Cheers,

Liam.

<http://cimss.ssec.wisc.edu/~gumley>

---