Subject: array operations and memory consumption
Posted by dktr.ted on Fri, 04 Jan 2008 22:19:20 GMT
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Hi all,

Apologies in advance if this is old hat ... I've got a question regarding IDL's memory usage that can be boiled down in the following example:

```
IDL> a = BINDGEN(100,100,100)
IDL> baseMem = (MEMORY())[0]
IDL> a = a + 1
IDL> PRINT, (MEMORY())[3] - baseMem
     2000049
```

I've tried modifying "a = a + 1" with various combinations of pointers and the TEMPORARY function, but can't reduce this temporary elevated memory consumption. Compare the above with a call to CONGRID:

```
IDL> a = BINDGEN(100,100,100)
IDL> baseMem = (MEMORY())[0]
IDL> a = CONGRID(a, 100, 100, 100)
IDL> PRINT, (MEMORY())[3] - baseMem
     1003941
```

I'm working with some very large image arrays and trying to do some "in place" manipulations. While I can slink by with the temporary memory usage of the latter CONGRID-type operations, addition (or multiplication) of an array by a scalar breaks the bank.

Any tips or directions to a helpful tutorial on IDL's memory policies would be greatly appreciated. Thanks!

-Ted

P.S. IDL 7.0 on a 3 GHz Pentium w/ 2 GB RAM running Windows XP Pro SP2, if it helps.