Subject: Re: Objects, File Names, and the Save command. Posted by mvukovic on Fri, 24 Jul 1998 07:00:00 GMT

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In article <35B769F7.73FC0139@astrosun.tn.cornell.edu>.
 "J.D. Smith" <jdsmith@astrosun.tn.cornell.edu> wrote:
> David Fanning wrote:
>>
>> J.D. Smith (jdsmith@astrosun.tn.cornell.edu) writes:
>>
>>> I am exploring a very promising use of the save/restore commands in
>>> conjuction with objects. Given some complex object which contains a
>>> host of different types of data (with pointers, etc.), as part of a
>>> class method, one adds:
>>>
>>> save, self, FILENAME=fname
>>> to register on disk an accurate snapshot of the object. To restore,
>>> later. use:
>>>
     restore,pname,RESTORED_OBJECTS=obj,/RELAXED_STRUCTURE_ASSIGN MENT
>>>
>>> and the object is in obj, but also brought back as the local variable
>>> *self*.
>>
>>> [cut...]
>>
>>> This is all very convenient but leads to the strange situation of a
>>> loaded object in memory which exists there *before* any of the class
>>> methods, and/or the __define procedure for that object class are
>>> compiled. Therefore, the usual paradigm of putting all class methods in
>>> the define procedure file before this procedure (suggested by RSI
>>> itself in the manual) fails. How can the method be found if the
>>> __define doesn't have to be compiled and isn't in it's own file? I
>>> would like to come up with a solution which doesn't involve a separate
>>> class method.pro file for each method. Any ideas?
>>
>> How about something like this:
>>
     thisClass = Obj Class(self)
>>
     Resolve Routine, this Class + ' define'
>>
>> I haven't tested this, but don't see any reason it wouldn't work.
   Resolve_Routine is the way IDL procedures and functions can
   be compiled from *within* other procedures and functions.
>>
> David,
```

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>
> This will certainly work, but has the unfortunate side-effect of
> re-compiling every method each time an object is read from disk... I
> thought of modifying it slightly to the tune of:
>
> thisdef=Obj_Class(self)+'__DEFINE'
> if (where(routine_info() eq thisdef))[0] eq -1 then
 resolve_routine,thisdef
  So that it would only compile if presently undefined.
>
  Thanks for the tip.
>
> JD
> J.D. Smith
                                       WORK: (607) 255-5842
                                 |*|
It would be nice for IDL to do it by itself. i.e., if it finds calling
an object's routines, and it is undefined, first compile "name" define,
or if that fails, "name" "routine name".
```

This is becoming reminiscent of emacs lisp (my current learning project), where you can specify dependencies, and they get resolved (compiled) automatically as needed.

But to congratulate JD on his idea on "generic" writing and reading an object from file. I had a need for that and was going to do a fairly complex read/write routine.

But now, can you maybe save the object, and associated routines? This complicates the saving procedure, as you need to invoke IDL, compile the routines, create the object, and save before doing anything else.

But at least on PC's (NT) it is possible to invoke two IDL sessions at the same time. Thus it may be possible to write up a routine to which you pass the object name, it creates it, and compiles all the methods and saves. A batch job to invoke an IDL session to execute that routine would then do the trick fairly transparently.

mirko

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