Subject: Symbol/data area for IDL procedures and functions
Posted by hadfield on Sun, 28 Nov 1993 23:37:26 GMT
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I know this has come up before, but, as usual, I didn't realise its relevance at the time. My question is: Can I increase the size of the symbol area allocated to an IDL function or procedure? Background to this question follows:

The IDL v3.1 Reference Manual warns against using EXECUTE to create new variables inside procedures or functions, thus:

> Do not use EXECUTE to create new variables inside procedures or functions. All variables used by the string that is executed should be referenced or defined when the program unit is originally compiled. New variables cannot be created after a procedure or function is compiled. Attempts to create new variables result in the error "Program data area full".

However the adventurous will find that this is not entirely true. Consider the following procedure:

```
pro exectest, vnum

   snum = strtrim(string(vnum),2)

   OK=execute("v"+snum+" = "+snum)

   OK=execute("print, v"+snum)

end
```

This compiles OK and seems at first to execute OK. Thus typing "execute, 1" leads to "1" being printed at the console. BUT, if called repeatedly the procedure may fail, eg "for i=0,10 do exectest,i" fails from i=9 onwards with "% Program data area full." messages.

Inserting calls to help in the procedure shows what is happening. At its first call the procedure has 135 bytes in its "symbol area" (which I take to be another name for the data area), of which 38 bytes are used. Each time a new variable is created (v1, v2, etc) 10 bytes are taken. The symbol area is not re-initialised each time the procedure is called, only when it is recompiled.

So the question is: can I increase the amount of free space in a module's symbol area? (Note that this is different from the main program's symbol

area, which I have set at the default value of 8192 bytes.)

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