
Subject: Re: IDL 8.0 compile_opt changes
Posted by [wlandsman](#) on Mon, 28 Dec 2009 12:36:57 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Dec 24, 11:49 am, pp <pp.pente...@gmail.com> wrote:

The trouble happens if there

- > are both a function and a variable with the same name. If the
- > reference is found before the function is compiled, it is taken to be
- > a variable. If the function happens to have been compiled, the
- > reference is taken to be a function. So the conversion of a file does
- > not depend only on its contents, but also on the environment when the
- > file is read. And as many other topics here indicate, routine name
- > resolution is fraught with difficulties.

That ambiguity provides a reminder of why users should use square brackets for indexing, irrespective of any IDL 8.0 changes. The test program

```
pro test
rot = indgen(3)
print,rot(1)
return
end
```

will treat rot(1) as the ITTVIS rot.pro function, rather than a variable, but only if it has been previously compiled. The consistent use of square brackets for indexing removes all ambiguity.

While a program to automatically convert to square brackets won't know whether a user really wants rot(1) to be a function call or an indexed variable, it can certainly flag all such ambiguous cases, so that the user can manually edit them if they don't want the function call. Such cases should be relatively rare, and one could argue that the program was broken to begin with.

Incidentally, Bill Thompson had written a converter to square brackets that was better than mine. (It handled most EXECUTE() strings and main level programs.) It is available at <http://tinyurl.com/yasbr7m>

--Wayne
