
Subject: newbie seeks to debug "% Syntax error."
Posted by [Tom Roche](#) on Fri, 04 Jul 2008 21:05:42 GMT
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I'm very new to IDL (though not to coding), so I wanna make sure I understand the following problem correctly before I go up my food chain for help:

My advisor just dumped got a big bucket o' IDL (of which he is not the author) in my lap. I copy/modified the top-level .pro file

```
$ pushd ~/jjw/IDL
$ cp regrid_mozt42_yyf.pro regrid_mozt42_tlr.pro
$ chmod a-w regrid_mozt42_yyf.pro
```

and am editing my copy. After reading some introductions to IDL I can run it and do some printf-style debugging. The problem I'm having is

```
IDL> regrid_mozt42_tlr
> % Compiled module: REGRID_MOZT42_TLR.

>         resfield = regrid(var,oldgrid=oldgrid, newgrid=newgrid, /use_grids, $
>                           ^
> % Syntax error.
> At: /home/tlr/jjw/IDL/ncregrid.pro, Line 180

>         resfield = regrid(var[*,**,0],oldgrid=oldgrid, newgrid=newgrid, /use_grids, $
>                           ^
> % Syntax error.
> At: /home/tlr/jjw/IDL/ncregrid.pro, Line 195

>         thisfield = regrid(var[*,**,j],oldgrid=oldgrid, newgrid=newgrid, /use_grids, $
>                           ^
> % Syntax error.
> At: /home/tlr/jjw/IDL/ncregrid.pro, Line 200

> % Compiled module: NCREGRID.
> % Attempt to call undefined procedure/function: 'NCREGRID'.
> % Execution halted at: REGRID_MOZT42_TLR  21 /home/tlr/jjw/IDL/regrid_mozt42_tlr.pro
```

If I understand correctly (and please correct me if I don't!) IDL tries to evaluate "regrid(...)"

0 as a function or procedure on \$IDL_PATH

1 as an array

I'm guessing the etiology here is that IDL fails to find the

definition, then gets the syntax error at the '=', which is illegal in an array.

In my .bash_profile I have

```
$ fgrep -e 'IDL' ~/.bash_profile
> # for IDL
> export IDL_DIR="/usr/local/rsi/idl"
> export IDL_LIB="${IDL_DIR}/lib"
> if [[ -z "${IDL_PATH}" ]] ; then
>   IDL_PATH="~/jjw/IDL:${IDL_LIB}"
```

~/jjw/IDL is the bucket o' IDL

```
else
>   IDL_PATH="~/jjw/IDL:${IDL_LIB}:${IDL_PATH}"
fi
> export IDL_PATH
```

and the scriptlet

```
for DIR in ${IDL_PATH//:/ } ; do
  for CMD in \
    "find ${DIR} -type f -name '*.pro' | xargs grep -nie 'pro\|
function' | fgrep -e 'regrid' | fgrep -ve ';" \
  ; do
    echo -e "${CMD}"
    eval "${CMD}"
  done
done
```

produces

```
> find ~/jjw/IDL -type f -name '*.pro' | xargs grep -nie 'pro\|function' | fgrep -e 'regrid' | fgrep -ve ';'
> /home/tlr/jjw/IDL/mozem_regrid.pro:71:FUNCTION RegridSliceAW, data, newgrid=newgrid,
oldgrid=oldgrid, $
> /home/tlr/jjw/IDL/mozem_regrid.pro:210:  grid->GetProperty, nlon=nlon, nlat=nlat, wlat=wlatn
> /home/tlr/jjw/IDL/mozem_regrid.pro:211:  oldgrid->GetProperty, wlat=wlatn
> /home/tlr/jjw/IDL/mozem_regrid.pro:340:      oldgrid->GetProperty, wlat=wlatn
> /home/tlr/jjw/IDL/mozem_regrid.pro:341:      grid->GetProperty, wlat=wlatn
> /home/tlr/jjw/IDL/ncregrid.pro:73:pro ncregrid, filename, oldgridname, newgridname,
oshiftlon=oshiftlon, $
> /home/tlr/jjw/IDL/regrid_mozt42_tlr.pro:3:PRO regrid_mozt42_tlr
> find /usr/local/rsi/idl/lib -type f -name '*.pro' | xargs grep -nie 'pro\|function' | fgrep -e 'regrid' |
fgrep -ve ';
```

(I also looked at the lines with comments, but there were no results of interest. I'm guessing IDL does not do end-of-line

comments? like this java fragment

```
return false;    // TODO: throw exception
```

) So I'm guessing I need to find out who supplied this code, and find out from them where 'regrid' is defined. Am I missing something?

TIA, Tom Roche <Tom_Roche@pobox.com>
