
Subject: idl_startup issues

Posted by [Reimar Bauer](#) on Mon, 26 Mar 2012 15:18:33 GMT

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Hi

I try to track down a very strange - complicated issue of idl crashes by reading many netCDF files.

We have introduced for our idl library a startup file which sets the X graphics device by

```
device, get_visual_depth=depth
device, true_color=depth
window, /free, /pixmap, colors=-10
wdelete, !d.window
device, decomposed=0, retain=2
widget_control,default_font='-adobe-h
elvetica-medium-r-normal--12-*-*-*60-*-*'
```

Currently I'm looking on all of these commands because we found a strange problem on NFS filesystems reading of netcdf data. It did not work as long one of these commands is in our startup and could be executed. The data file must be on a NFS filesystem. On a local filesystem there is also no failure.

For example if I ssh without x to another system I don't get a segfault for reading a large netCDF file many times because the X commands don't be executed. If the data file is readed from a local hard disk it also did not fail. The difference with NFS is the blocksize of the files. We don't have the IO Block: 4096 on NFS mounted devices.

Well one could question how that is linked. We had in 1999 a similiar problem with AIX. There it raises an exception just with open many times a netCDF file. There we had the same components identified.

Any ideas, hints are welcome.

Remar

snippet of example.pro

```
device, get_visual_depth=depth
```

```
widget_control,default_font='-adobe-helvetica-medium-r-normal--12-*-*-*-*  
*-60-*-*'  
window, /free, /pixmap, colors=-10  
wdelete, !d.window  
device,decomposed=0
```

```
file= '/home/icg1/icg105/nfs_test_file.nc'
```

```
vars=['O3','PV','NOONLAT','NOONLON','THETA','EQLAT','HCN']  
n_vars = n_elements(vars)
```

```
if file_test(file) eq 0 then begin  
    dummy = findgen(6912)  
    file_id = NCDF_CREATE(file)  
    dim = NCDF_DIMDEF(file_id,'time',n_elements(dummy))  
  
    vid = make_array(/long, n_vars)  
    for t=0, n_vars -1 do $  
        vid[t] = NCDF_VARDEF(file_id,vars[t],dim,/FLOAT)  
  
    NCDF_CONTROL,file_id, /endef  
    for t=0, n_vars -1 do $  
        NCDF_VARPUT,file_id,vid[t], dummy  
  
    NCDF_CLOSE,file_id  
endif
```

```
FOR i=0L, 100000L DO BEGIN  
    print, i  
    nc_id = ncdf_open(file)  
    for ivar=0, n_vars -1 do begin  
        var_id = ncdf_varid(nc_id,vars[ivar])  
        if (var_id eq -1) then begin  
            print, 'Var: ', vars[ivar], ' does not exist !'  
            stop  
        endif  
        ncdf_varget, nc_id, var_id, data  
    endfor  
    ncdf_close, nc_id  
ENDFOR
```

```
END
```
