Subject: Is there a work around to save multiple variables with same head but different tails without listing all of them?
Posted by voidspace on Thu, 29 Sep 2011 09:10:29 GMT

Hello folks,

I have a question at beginner's level. When I saved multiple variables
with same head but different tails in IDL, I found it is tedious to
type all of them in as follows.

SAVE, sst_cccma_cgcm3_1, sst_cnrm_cm3, sst_csiro_mk3_0,
sst_gfdl_cm2_0, sst_gfdl_cm2_1, $
        sst_iap_fgoals1_0_g, sst_inmcm3_0, sst_ipsl_cm4,
sst_miroc3_2_medres, sst_mpi_echam5, $
        sst_mri_cgcm2_3_2a, sst_ncar_ccsm3_0, sst_ncar_pcm1,
sst_ukmo_hadcm3, sst_ukmo_hadgem1, $
        FILENAME='sst_cmip3_20c3m.sav'

The '/All' keyword may help, but there are more variables that I don't
want to save in. This aroused my curiosity, so I post my question here
to know whether there is a workaround.

In fact, I tried to find an advanced way by myself, but found it's
difficult to know without an expert's guidance.

An attempt with my best knowledge is as follows. As all model names
from 'cccma_cgcm3_1' to 'ukmo_hadgem1' are saved in a string array
'model', I considered the 'EXECUTE' command.

One prior step I did was saving 15 variable names in one single string
array 'sst'.

IDL> sst=STRARR(N_elements(model))
IDL> FOR i=0, N_elements(model)-1 DO sst[i]='sst_'+model[i]

Now, 'sst' contains 15 different variable names that I want to save
in. Then, tried the following

IDL> result=EXECUTE("SAVE, FILENAME='sst_cmip3_20c3m.sav', "+sst[i])

but in stuck because I have no idea how to make an implicit loop for
'sst[i]'.

My attempt seems not a right way. I also thought it would be
convenient if there is implicit do-loop like (sst(i),i=1,15) in
Fortran, but I immediately got that it's nothing but a stupid idea.

I thought over and googled as well but all were in vain.

Can anybody suggest me a nice way to simplify the tedious command aforementioned?

Best,
John