H-1. get_states

1.0 General Information

1.1 Application Description

This program populates the *statessacsma* and *statessnow17* database tables from a print of NWSRFS model carryover states for the SAC-SMA and SNOW-17 operations. This program is written in ecpg/C.

1.2 Design Considerations

The program parses the needed information from NWSRFS fcst outputs of carryover states. See Attachment A for a sample input deck and NWSRFS User Documentation for more information. See Attachment B for a simplified (procedural?) flow chart.

1.3 Application Assumptions

Assumes the carryover dates to be in Z time.

It gets the <u>year</u> for the carryover from LSTCMPDY, if it is available within the file, or from the model run date in the file extension. It looks for the date before the last '.' in the filename; for example it expects a filename in the standard NWSRFS format: *[file_name].date.time*

1.4 Enhancements/Bug Fixes/Changes

Build OB7.2

This application was updated to take into account the upgrade of the OS in ob7.2 and the change in RDBMS from Informix to Postgres. Documentation was updated to reflect this change.

Build OB6

Bug Fixes
 ➢ R1-49 The frozen ground index, FGIX, is set to "0" in the *statessacsma* table, while in the input file, for the most part they are non-zero.

Build OB4

Enhancements
 ➢ The program has been changed to accept a user-named input file. This flexibility allows the user to easily differentiate between files containing snow states versus

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sac-sma states.

2.0 Configuration Information

This program uses the following apps_default tokens:
   adb_name   archive database name
   adb_dir   archive base directory

A log file is written to $(adb_dir)/logs/nwsrfs/get_states.log

The input file is expected to be in the directory $(adb_dir)/data/nwsrfs.

3.0 User How-To

This application is not available via arcmenu; it can only be run at the command line. The first step is to create a file containing SAC-SMA and/or SNOW-17 model carryover that will be used as input to the program (see Attachment A and NWSRFS User Documentation for help with this). The resulting file(s) should be named fcst.* and must be placed in $(adb_dir)/data/nwsrfs.

The program can be run on the command line by simply typing _get_states_. Optional command line arguments control the 'test' and 'debug' modes (these must be entered before any other arguments if they are used):
   -t = test mode; do not write to database
   -d = debug mode; write everything to the log file

Other command line arguments, also optional if the default values are acceptable, are:
   1. program version; options are 'oper' (default) or 'spin'
   2. input file name; options are a single file name or 'all' to loop through all fcst.* files when using 'spin' version – default is for the program to use the latest fcst.* file (based on file modification time) available in the input directory

In the 'oper' version the program will parse carryover values from a single file, while in the 'spin' version the program will parse carryover values from multiple files (oldest to newest based on file modification time).

4.0 Troubleshooting Information

A log file is created in $(adb_dir)/logs/nwsrfs. If the user still has problems, contact the RFC Support Group.

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5.0   References

Archive Database data dictionary
NWSRFS User Documentation

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Attachment A
Sample fcst input deck


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@SETOPT PRINTOPS
PRNTCGRP CBRFC_F
PRNTLAST 10
PRNTOPER SAC-SMA SNOW-17
@COMP PRINTOPS
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Attachment B
Flow Chart

NWSRFS
PRINTOPS
Output → get_states → statesacsma

get_states → statesnow17