

GSAS v3.2.1 Release Notes

Introduction

GSAS 3.2.1 is a minor release which fixes (1) a problem caused by duplicate APIDs (2) minor GLA04 problems, and (3) transfer-orbit-related fix to createGran_util.

Release Information

The ClearCase label for this release is RELEASE_3.2.1.

The release date is January 30, 2003.

Internal version numbers have been updated to "V3.2.1 January 2003" for the following:

```
./data/anc07_001_01_0005.dat
./bin/GLAS_L0proc
./lib/libexec.sl
./lib/libprod.sl
```

This should be verified during operation by checking the version information in the appropriate ANC06 files.

All other internal version numbers remain at "V3.1 December 2002" or "V3.2 January 2003'.

SMDS Impact

The distribution tarfile is on glasdev.wff.nasa.gov at the following location:

```
/glasdev1/v3/dist/gsas_v3.2.1.tar.Z.
```

There is a control file change required by this release. Here is the developer's description of this change:

"I have modified my createGran_util program to accept an additional argument in the control file. The argument is called

LAST_TRACK, and it will be equal to the track number associated with the last entry in the rev table.

For example the last rev in the rev table is 204, and the track number associated with that rev is 196, then you will need to insert into the control file the following line:

```
LAST_TRACK = 196
```

My program will read that in and start seeding the granule, and the cf table with that value."

New versions of the following data files are required (and provided):

```
./data/anc07_001_01_0005.dat
```

All libraries and binaries should be recompiled using the top-level Makefile. The newly-created versions should be installed within the testbed (pending CCB release for operations).

Product Changes

No product sizes were changed.

Scale factors and units were changed for some variables in GLA04-03 and GLA04-05 (see detailed change notes section).

Detailed Change Notes

PR0000105: GLA04_scal_mod does not handle solar angle flags correctly.

Code which did the P2A and A2P transition for the solar angle flags was completely missing. It has been put back in.

PR0000119/120: Fix GLA00 to handle duplicate data

This fixed a problem where a duplicate file unit number was assigned to multiple granules of 1984 data. This caused data corruption issues and the wrong data was read under certain conditions.

PR0000132: GLA04-05 starx and stary should have scale of 0.5

Changed the scale factor of ball start tracker (GLA04-05) starx and stary in ANC07_05 to 0.5.

PR000085: GL0P sanity check on GPS time

The following conditions are used to check GPS time validity:

1. If GPS time does not increment , increment useflag by 2.
2. If Current-Previous GPS Time is greater than 60s, increment useflag of both previous record and current record by 4.
3. If $\text{mod}(\text{GPSTime}, 10) > 0.5$, increment useflag by 8.
4. if $\text{mod}((d_vtcwp/10e-6), 10) > 0.5$, increment useflag by 64.

As a note, a non-zero useflag will signal that the associated ANC32 record not be used. This record will never show up on any output.

PR0000124: CreateGran_util generates duplicate track numbers while running in transfer orbit mode

During the normal processing on SDMS, it was noticed that there were duplicate tracks generated by createGran for different time periods. This causes Granule names that are incorrect. This branch fixes that problem.

Changed files

```
./Makefile
/glas/vob/Makefile
/glas/vob/data/anc07_001_01_0005.dat
/glas/vob/src/common_libs/exec_lib/vers_exec_mod.f90
/glas/vob/src/common_libs/exec_lib/fCntl_mod.f90
```

```
/glas/vob/src/common_libs/prod_lib/GLA04_scal_mod.f90  
/glas/vob/src/common_libs/prod_lib/vers_prod_mod.f90  
/glas/vob/src/glas_l0p/GLAS_L0proc.f90  
/glas/vob/src/createGran_util/createGran_util.f90  
/glas/vob/src/createGran_util/pop_granule_mod.f90  
/glas/vob/src/createGran_util/rd_GranCntrl_mod.f90
```