GSAS v4.2 Release Notes
GSAS Team
March 10, 2005

Introduction

GSAS Release 4.2 fixes a problem which caused GLA06 PAD data to be passed directly from GLA05, (mostly) bypassing any PAD input files. GSAS 4.2 will correspond to Product Release 21 and only be run on elevation products with Release 15 PAD.

For Elevation, the following changes were made:

- Fixed a a data synchronization issue that occurs when GLA09/11 are input to elevation processing which caused the ANC09 data to be unavailable for a large percentage of the time.

- Fixed an unrelated problem where a large number of instrument state changes caused an array overflow error.

Product Format/Definition Change Summary

None. The product database will not be updated for the GSAS 4.2 release.

Known Problems

Same as noted in Release 4.1.

Additionally, flagging does not correctly indicate when GLA05 pass-thru PAD is used in place of data from ANC09.

Release Information

The ClearCase label for this release is RELEASE_4.2.

Products generated by this software will be labelled as Release 21 by SDMS.

The release date is March 10, 2005.

Version numbers have been updated to "V4.2 March 2005" for the following:

- Lib_exec

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

SMDS Impact

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

```
/glasdev1/v4/dist/gsas_v4.2.tar.Z.
```

ANC Files

New versions of the ANC45 data files are required.

Bundle Changes

None

Compilation

All libraries and binaries should be recompiled using the top-level Makefile.

The process for making the libraries and binaries is as follows **(NOTE: SDMS ONLY!!)**

```
cd /install_dir/gsas_v4.2
make runtime
make install
```

Note : developers should not use the above procedure. This procedure is for SDMS only!

Detailed Change Notes

0001902: GLA06 uses GLA05 PAD when GLA09/11 inputs specified.

Fixed a data synchronization issue that occured when GLA09/11 were input, causing the ANC09 data to be unavailable for a large percentage of the time. This problem had been present since the GLA09/11 became allowable inputs. It was hidden because the ANC09s input to GLA05 and GLA06 have been the same till the mix between release 19 and release 20.

Noted (but did not fix) an issue that some flag should have indicated that data from GLA05 instead of data from ANC09 was used.

Also fixed a problem where insufficient checks were done when creating the array of unique instrument state updates from input product headers.

Changed ANC07 Parameters:

None

Changed Files:

/glas/vob/data/anc45_001_01_0001.dat

/glas/vob/data/anc45_001_01_0002.dat

/glas/vob/data/anc45_001_01_0003.dat

/glas/vob/data/anc45_001_01_0004.dat

/glas/vob/data/anc45_001_01_0005.dat

/glas/vob/data/anc45_001_01_0006.dat

/glas/vob/data/anc45_001_01_0007.dat

/glas/vob/data/anc45_001_01_0008.dat

/glas/vob/data/anc45_001_01_0009.dat

/glas/vob/data/anc45_001_01_0010.dat

/glas/vob/data/anc45_001_01_0011.dat

/glas/vob/data/anc45_001_01_0012.dat

/glas/vob/data/anc45_001_01_0013.dat

/glas/vob/data/anc45_001_01_0014.dat

/glas/vob/data/anc45_001_01_0015.dat

/glas/vob/src/common_libs/anc_lib/inst_state_mod.f90

/glas/vob/src/common_libs/exec_lib/ReadData_mod.f90

/glas/vob/src/common_libs/exec_lib/vers_exec_mod.f90

/glas/vob/Makefile

Additionally, the following files which did not get merged post-GSAS 4.1:

./data/anc46_001_01_0008.dat

./data/anc46_001_01_0009.dat