Updates for SOFA Release 11 : 2015 February 2

Changes/updates fall into the following categories:

1. A leap second at the end of June 2015, requires updates to the iau_DAT (dat.for) and iauDat (dat.c) routines.

2. Introduction of two new routines, G2ICRS and ICRS2G (both Fortran and C), creating a new category entitled "Galactic coordinates".

3. A few minor changes to a few routines to remove some compiler warnings; (1) Changes in the test for zero in C2IXYZ, GC2GDE, RM2V, RV2M, and multithread precaution in CAL2JD in the Fortan version only.

4. Updated test programs t_sofa_f.for and t_sofa_c.c. Updated the include header file sofa.h.

5. Documentation revision, moving the routines STARPV and PVSTAR (category Star Space Motion) and PMSAFE and STARPM (category Star Catalog Conversions) into Astrometry. This results in the removal of the category Star Space Motion.

+ +

Fortran:

iau_C2IXYS there was a test for zero that could potentially cause compiler warnings. The test has been changed.

iau_CAL2JD a value in a DATA-initialized array was being changed during execution. This had consequences for multi-thread code. The algorithm has been changed to avoid the difficulty.

iau_DAT a leap second is now required in UTC for 2015 June 30.

iau_G2ICRS transformation from Galactic Coordinates to ICRS. A new routine.

iau_GC2GDE there was a test for zero that could potentially cause compiler warnings. The test has been changed.

iau_ICRS2G transformation from ICRS to Galactic Coordinates. A new routine.

iau_RM2V there was a test for zero that could potentially cause compiler warnings. The test has been changed.

iau_RV2M there was a test for zero that could potentially cause compiler warnings. The test has been changed.

t_sofa_f program updated with the two new Galactic Coordinate tansformations.

+ +

ANSI C:

iauC2ixys there was a test for zero that could potentially cause compiler warnings. The test has been changed.

iauDat a leap second is now required in UTC for 2015 June 30.

iauG2icrs transformation from Galactic Coordinates to ICRS. A new routine.

iauGc2gde there was a test for zero that could potentially cause compiler warnings. The test has been changed.

iauIcrs2g transformation from Galactic Coordinates to ICRS. A new

routine.

iauRm2v there was a test for zero that could potentially cause compiler warnings. The test has been changed.

iauRv2m there was a test for zero that could potentially cause compiler warnings. The test has been changed.

sofa.h addition of the new functions, removal of duplicate functions. All functions are listed in the categories that are given on the website and in the manual.

t_sofa_c program updated with the two new Galactic Coordinate tansformations.

+ +

Documentation:
---

intro.lis Minor change.

sofa_lib.lis New routines added. The routines STARPV, PVSTA, PMSAFE and STARPM into Astrometry. Category Star Space Motion deleted. This list harmonised with sofa.h and the website.

+ +

End of Updates
2015 February 9
CYH/SAB

+ +

Updates for SOFA Release 11a : 2015 March 4

This minor release (11a) contains a change to suppress a warning message given by one C compiler. The change does not affect the behaviour of the routine and it is not essential that you update your libraries (particularly if you are a Fortran user).

The change had already been made in the 2014 September 9 (10c) release, but due to an oversight was not present in the current release. The Fortran code has also been modified for harmony.

Summary of Changes

iauDat A change has been made to the ANSI C version to suppress an array bounds warning produced by recent gcc versions.

iau_DAT A change has been made to the Fortran version to ensure equivalence between the Fortran and ANSI C versions.

+ +
End of Updates
2015 March 4
CYH
+ +