SOFA - Issue: 2012-03-01 

\* The license terms and conditions have been changed slightly. The stipulation that modified versions must not bear names that have the prefix "iau" or "sofa" has been clarified, and acknowledgement of SOFA has been downgraded to a request."

# SOFA ANSI C Library

Version number aligned with the Fortran version number to 9.

### Updated/changed routines

dat.c	Leap second for 2012 June 30 added
af2a tf2a tf2d d2dtf dtf2d	First argument changed from 'int s' to 'char s' First argument changed from 'int s' to 'char s' First argument changed from 'int s' to 'char s' First argument changed from 'char *scale' to 'const char *scale' First argument changed from 'char *scale' to 'const char *scale'
t_sofa_c	Test program updated due to the above.
sofa.h	Updated to reflect the changes listed above.
sofam.h	Note added that the constants defined in the file are used only in the context of the SOFA Software, and have no official IAU status.  Reference Ellipsoids defined via symbols  WGS84=1, GRS80=2 and WGS72=3.

### Description of changes

- \* In iauDat a leap second has been added for 2012 June 30.
- \* In iauAf2a, iauTf2a and iauTf2d, the data type of the sign argument has been changed to char, for clarity and for consistency with the converse functions iauA2af, iauA2tf and iauD2tf.
- \* The scale arguments of the C functions iauD2dtf and iauDtf2d have been changed from char\* to const char\* to allow read-only strings (in particular string literals) to be used without risking compiler warnings. Analogous changes have been made to the viv and vvd functions inside the test program t\_sofa\_c.
- \* In iauEform, iauGc2gd and iauGd2gc can use the symbols defined in the sofam.h file for the reference ellipsoids WGS84=1, GRS80=2 and

#### Errata/updates to the ANSI C code

sofam.h Function dsign(A,B) was only valid for +ve A. The comment for the constant DS2R has been corrected.

# Errata to documentation

d2tf.c nut06a.c p06e.c tdbtt.c utltai.c ut1tt.c

Cosmetic changes

taitt.c taiut1.c taiutc.c

tcbtdb.c

tdbtcb.c tttai.c

tttdb.c

ttut1.c

ut1utc.c

2012/02/28