

## ***fastrack2010.1\_prognotes.pdf***

This file lists some of the software and structural changes included in McIDAS-X version 2010.1 that are most likely to affect your locally-developed McIDAS code.

(See [http://www.ssec.wisc.edu/mcidas/software/x/fastrack2010.1\\_changes.txt](http://www.ssec.wisc.edu/mcidas/software/x/fastrack2010.1_changes.txt) for the complete list of code changes included in McIDAS-X 2010.1.)

SSEC recommends that you always compile and link all local code after installing each new version of McIDAS-X. Use the information below to determine if you should make additional changes or accommodations to your local code.

- The equation to calculate visible albedo from MTSAT was updated in **kbxmtst.dlm**.
- The FK1 and FK2 calibration coefficients were updated for GOES-15 in **kbxgvar.dlm**. Additionally, the GVAR server, **GVAR.c**, was updated for GOES-15 to correctly send the calibration block to local applications. GVAR calibration module **kbxgvar.dlm** was also updated to generate a look up table that spans negative radiance values.
- Memory allocation and string copies were corrected to avoid writing past the end of buffers in **Mcdlltostr.c**.
- The ship and buoy decoder **m0shpdec.for** was updated to initialize the value for wind speed to a missing value. Previously, this was set to 0 which erroneously indicated a calm wind.
- The size of the maximum block for the GVAR servers was increased in **GVAR.h** to accommodate transfers of full disk images.
- The directory */opt/bin* was added to the list of locations searched by **mcserv.cp** for the binary *compress*.
- The MTSAT servers **mtstaget2.for** and **mtstadir.cp** were updated to recognize MTSAT-2 (SS number 85). The satellite identification number is not in the signal, so the SS value is assigned based on the sub-point of the satellite.
- Updates were made to the **SDIUtil.c** and the GVAR server **gvaraget.cp** to retrieve the value for TRACKING from an ADDE request for GVAR data. The default value of 1 is used by applications for tracking, client requests can set this value to 0 to disable tracking. Currently only McIDAS-V is taking advantage of this capability. McIDAS-X applications have not been updated to include a keyword or environmental variable to set the value for tracking.
- The Meteosat navigation module **nvxmsgt.dlm**, was updated to make **msg\_to\_11** and **11\_to\_msg** invertible. Additionally, the module **msgtutil.for** was updated to send the correct starting line and element to be written to the AREA directory. The correct upper-left coordinates for a full resolution visible image are now 1,1 and 3,3 for an IR image.
- A binary version of **mcwish** is now being distributed for Tcl/Tk GUI support on OS X platforms. The script **mcinst.sh** was updated to correctly copy the binary to */home/mcidas/bin*.
- The AREA servers **adirserv.fp** and **agetsserv.fp** now retain the single quote marks for the *MASK=* string stored in **RESOLV.SRV**. This was done to allow for directory names containing a space.
- The MODIS server **modsaget.cp** was updated to correctly determine the calibration coefficients for band 3.

- The value HMS was changed to TIME as a valid key for the SRET schema.
- The MODIS servers were updated in preparation to allow applications to correct for bowtie distortion found at the edge of images. The following modules were updated:

<b>modsaget.cp</b>	<b>mcasort.for</b>	<b>mcaget.for</b>
<b>mod3aget.cp</b>	<b>gennavblk.for</b>	

- Various grib2 datasets contained missing values of 9999 (instead of the standard of x80808080). Both values are now recognized.
- The calibration module **kbxaaa.dlm** was updated to support archive work at SSEC.
- New SS numbers 400 and 401 were assigned for polar composite images.
- The date and time used for an AREA created by grding.pgm now takes into account F HOUR. Previously, the model run date and time were used.
- The netCDF server, **ncdfaput.cp**, was updated to correctly write out CF compliant netCDF files.