fastrack2014.1_prognotes.pdf

This file lists some of the software and structural changes included in McIDAS-X version 2014.1 that are most likely to affect your locally-developed McIDAS code.

(See *http://www.ssec.wisc.edu/mcidas/software/x/fastrack2014.1_changes.txt* for the complete list of code changes included in McIDAS-X 2014.1.)

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 number of columns in the schema file **DCSYN** was increased to 6500. This update was made to keep up with changes made to McIDAS-XCD. MD files created with **DCSYN** will now be larger.

- The new XCD servers that are currently under development will be sending a return code to **m0dslook.for**. The return code and subsequent error message were misleading for client commands getting data from the current XCD servers. Code has been added to bypass this error message.

- McIDAS-V ADDE data requests made via the mcserv process were failing if the user's name was not in /etc/passwd. The **mcserv.cp** code was updated to first check the environment variables $HOME and $USER before reading /etc/passwd.

- The command EU, **eu.pgm**, now returns a non-zero status if the command failed.

- The McIDAS **makefile** was updated to include the new data file **gbtbpds001.2v132**.

- In preparation for the launch of Metop-C, the utility function **lv1butil.c** was updated so the lvl1B servers correctly identify the satellite as satellite ID 13.

- Previous versions of McIDAS-X were updated to use Tcl/Tk version 8.5. This update included new date/time capabilities desired by sites with local GUIs. Unfortunately, this update broke other features of McIDAS-X GUIs that worked properly with Tcl/Tk version 8.4. McIDAS-X version 2014.1 now includes both versions of Tcl/Tk. Sites have the option of installing Tcl/Tk version 8.5 by using the new installation flag –tcl85. Updates to **tclcomp.sh** and **mcinst.sh** were required to recognize the new flag. This flag is not available for McIDAS-X workstations running Windows operating systems.

- On Windows platforms, the default directory may not be writable when DEV=D is specified. A new environment variable MCDESKTOP now allows a user to specify a directory. Updates to **argglo.c** were required to recognize this new environment variable.

- Some of the variables in **ncdfks.cp** were being declared as size_t and malloc to sizeof(int). On 64-bit Linux workstations, this was causing problems with the commands PTDISP and PTCON using netCDF files created from NCEP data.

- The value of the environment variable MCCOMPRESS or the command keyword MCC= were not being evaluated by the commands started by OBSRPT, **obsrpt.c.** Modules that required code changes to honor these values included:

  mosrpt.c   raobrpt.c   sfcrpt.c   synrpt.c   tafrpt.c

- Many of the McIDAS image commands could not process full globe data at a resolution of 1 km. To accomplish this, the value of the **MAXDFELEMENTS** in **mcidas.h** and **areaparm.inc** was increased from 25000 to 43200. The large arrays used to process the datasets have now been placed in common blocks. The use of common blocks allows memory to be more efficiently used. Additional modules that required updates are as follows:

  imgprobe.pgm   imgremap.pgm   imgfilt.pgm   imgrgb.pgm

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imgconv.pgm          grdimg.pgm          imgdisp.pgm          adump.pgm

imgcopy.pgm          imgplot.pgm         imgoper.pgm
```

- Many numerical model grids contain a numeric representation for character levels (e.g., SFC and TRO). These numbers are now being treated as string variables which corrected errors found in the sorting routine **readsort.for**.

- The file name stored in the navigation block of AREA files containing LALO navigation was not updated to the current file name when being read. In this scenario, users could not rename AREA files. The AREA server subroutine **areaagetsub.for** was changed to properly update the navigation block, so the LALO navigation could be accessed by client commands.

- The process that writes GVAR system navigation files was writing the wrong value for the century into the header key. Any navigation files containing keys with a date beyond 2009 could not be used by NAVLIST. The navigation filing routine **gvarnavf.cp** has been updated to resolve the problem.

- NOAAPORT model data are now containing more than 2 million grid points. Users are also beginning to use resolutions even higher than those on NOAAPORT. To satisfy both cases, the value of MAXGRIDPOINTS has been increased to 8 million in both **gridparm.inc** and **mcidas.h**.