FRS 2.4 Release Notes
April 2012

Resolved Issues and New Features

1. The primary goal of this project is to fix the known issues to FRS HM800 Allegro MX software.

2. FRS version 2.4 was developed for the HM800 / MX with the goal of resolving the following issues:

   - Mantis 5028 HM-800 Classic GG Freeze-up Issues when collecting data

   - Mantis 5069 MOISTRETAREVALUE & TARELEVEL values in the Active.dhs file are Very Large incorrect values.

   - Mantis 4916 Default file gets corrupted during normal use of FRS

   - Mantis 5038 Tare level in Active.dhs incorrect number.

   - Mantis 5021 Using the Firmware update in FRS does not work.

   - Mantis 5039 No tare warning for moisture.

   - Mantis 4959: Countdown timer freezes at zero.

   - Mantis 4944: Printer Stops Printing During Harvest Intermittently.

   - Mantis 4952: Test weight on non BDS HCGG software is incorrect.

   - Mantis 4916: Active.dhs file gets corrupted when it is created from the default.dhs file.
   - Mantis 5010: FRS Laptop with NIR code freezes at random points and either exits FRS or requires FRS to be shut down.

3. DataLink version 2.4 with limited user rights does not function. New version of DataLink should work with prior versions of FRS.
   - Move all database files and folders to a current user location and don't read from the registry.
   - Don't request elevation of user rights at program launch
   - Move registry access from HKEY_LOCAL_MACHINE to current user
4. Issues for Firmware
   - Mantis 5029 HM-800 Classic GG Limit Switches not working

Installation

- It is recommended that you do a complete uninstall of FRS v2.1,v2.2,v2.3 on the handheld. Backup and data and Maps before deleting. Delete the FRS folder on the MX before installing FRS v2.4. Windows installer will ask the user if they want to delete all files and folders. Select yes to delete all data.

FRS v2.2 files and database paths:

Allegro MX –
Log Files: \\Program Files\FRS
System Database Files: \\Program Files\FRS\Database

Map Database Files: \\Program Files\FRS\ Database
Data Files: \\My Documents\My FRS Files
Backup Files: \\Program Files\FRS\Backup

FRS v2.3 and FRS v2.4 files and database paths:

Allegro MX –
Log Files: \\Application Data\HarvestMaster\FRS2\ErrorLogs
System Database Files: \\Application Data\HarvestMaster\FRS2\SystemDatabase

Map Database Files: \\My Documents\FRS Maps
Data Files: \\My Documents\My FRS Files
Backup Files: \\Program Files\FRS\Backup

The recommended **Minimum** timer settings for **High Capacity HM800 Systems for FRS 2.4** are listed below: These settings are found in the default.dhs file for each harvest module.

Timers
- Hopper Open 0.4
- Plot Open 0.4
- Weight Time 0.8
- Countdown Timer   Depends on Combine Cleanout

Actuators
- Left Holding Hopper
  - Open Transit Time 0.8
  - Close Transit Time 0.4
- Right Holding Hopper
  - Open Transit Time 0.8
  - Close Transit Time 0.4
- Plot   BDS   Non BDS
  - Open Transit Time **0.4   0.8**
  - Close Transit Time **0.8   0.8**
- Auxiliary
  - Open Transit Time 0.2
  - Close Transit Time 0.2

BDS Settings (access by pressing F12 from BDS Setup Screen)

- Accel Factor   1.0
- Wiper Delay 0.0   v2.2 = 0.0, v2.3 = 0.0
- Wiper Return 200   v2.2 = 250-300, v2.3 = 200
- Settle Time   400
- Weigh Time 900
- Dump Return 800

No other settings in this screen should be adjusted. Adjusting these times so that the Weigh Time plus the Settle Time are greater than 3000 will cause a lost connection during harvest.

The recommended **Minimum** timer settings for **Classic HM800 Systems for FRS 2.4** are listed below:

Timers
- Open State 0.3
- Clear Delay1.0
- Weight Time 0.8
- Countdown Timer   Fixed value set in software

Actuators
- Top Hopper
    - Open Transit Time 0.2
    - Close Transit Time 0.2
- Middle Test
    - Open Transit Time 0.2
    - Close Transit Time 0.2
- Weight Bottom
    - Open Transit Time 0.2
    - Close Transit Time 0.2
- Auxiliary
    - Open Transit Time 0.2
    - Close Transit Time 0.2

Known Issues with Workarounds
FRS v2.4

1. M[4370][5218] No tare warning message will appear when entering the first plot of a map. After the first plot is collected tare warning messages will be displayed. It is recommended to Tare in diagnostics screen before entering collect screen.

2. M[3871] Do not set BDS wiper return to less than or equal to zero.

3. M[4230] When saving a copy of a Trait the new trait will not display until you exit the Master Trait screen and then re-enter. The trait did get created.

4. Firmware update in diagnostic screen. The new version will not display on the screen. Exit update screen and re-enter to see the new firmware version number.

5. The "Plot Open State Time" is not used in the BDS script and changing it, therefore, will have no effect on the actual open time of the plot gate.

6. M[5219] Inaccurate Load Cell Coefficients occur when Load Cell Calibration Process is performed with Slope and Motion Enabled. Calibrate the Load Cells with Slope and Motion "Disabled" or Return to FRS Home Screen after enabling Slope and Motion and then enter Load Cell Calibration.

7. M[3216][5031][5231] Harvesting with Navigation type of Random causes problems. DO NOT use Random navigation. You can still reposition like Random by using Navigation type Serpentine and then reposition when needed.

8. M[5162] With limit switches enabled, the system still uses the transition timers to wait on the limit switch signal. If you have a long transition timer setting this will reflect in the time the system cycles with limit switches.

9. M[5033] Selecting Tare button while a plot is being measured can cause plot data to be lost.

10. M[5032] When collecting on a sub map do not enable combine observations.

11. M[5030] Large timer settings will cause FRS to lockup. Keep Plot and Weigh times below 2 seconds. It is recommended to use the default timer settings.

12. M[5023] Disabling on-combine observations from the Spatial Screen causes an error.