FLIR NEUTRINO LC RELEASE NOTIFICATION

Release Date: 07/29/2019
Release Versions: Neutrino LC Release 1.1 is a general-purpose software release. Release 1.1 consists of the following versions:

Software v2.1.20626
SDK v2.1.20547
Neutrino App v1.2.5

Change Summary

Relative to Release 1.0, the following new features have been included in Release 1.1 software:

- **Dynamic Defect Replacement (DDR)** – The purpose of DDR is to reduce fixed pattern noise and defective pixels by identifying and replacing anomalous pixels in run-time operation. The DDR state is enabled by default and is user programmable, and pixels identified by this algorithm are not power cycle persistent unless the user chooses to save them.
- **Flat Field Correction (FFC) Start-up Period Logic Updates** – To reduce fixed pattern noise, Auto FFC mode now considers the first one hour of operation as the "Start-up Period" and scales the FFC Period parameter by 1/5. For example, the factory default for FFC Period is 20 minutes and the factory default for FFC Start-up Period is 60 minutes which will cause an automatic FFC to occur every 4 minutes for the first 60 minutes of operation and every 20 minutes thereafter. The FFC Period and FFC Start-up Period are both user programmable.
- **Temporal Filter Updates** – Improvements were made to the temporal filter algorithm and factory default parameter settings to reduce noise.

See document number 102-2020-40 Neutrino LC Engineering Datasheet rev200 for further details of each feature.

Relative to Release 1.0, the following issues have been resolved in Release 1.1 software:

- NUC calibration parameters (1pt/2pt) Value High and Value Low are now represented in 16-bit space to align with the 16-bit camera output.
- FFC has been reduced to < 30 frames.

Issue Summary

The following issues remain in Release 1.1:

- Reboot via software command (bosonReboot()) at cold temperature causes the camera to not return with comm/video. The recommended work-around is to perform hardware power cycles at cold temperature.
- Win10 USB video compatibility issue prevents USB video connection after uninstalling/re-installing USB port hardware. The recommended work-around is to close the GUI or frame grabber, right click on FLIR Control (COM X) in device manager and disable the device, right click again on FLIR Control (COM X) in device manager and re-enable the device, re-start the GUI or frame grabber.
- Frozen frames are output for three frames after the FFC in progress flag goes away. The FFC timeline and behavior significantly improve from previous release.
- Restoring factory bad pixels while DDR is enabled does not remove user bad pixels. The recommended work-around is to disable DPK prior to restoring factory bad pixels (and performing a NUC calibration).

Field Upgrade

Release 1.1 software is field upgradeable. To upgrade software on older units with Release 1.0 (v2.0.17820) software: open the Neutrino LC App, select "Port" in the drop down to connect, once connected go to the "Diagnostic Tools" tab -> "Diagnostic Control" pane -> "Upload Camera SW" button, a pop-up file browser will appear, browse to the directory of the Release 1.1 software, select the software file (fpld file type), select "Open", select "OK" when the confirmation pop-up appears.