

2022-11-16

- **iMS4 Controller Firmware Version History**

FW v2-3-83

Firmware update to support different memory allocation for HSC Synthesiser builds and other minor updates:

- * Attempt to reconnect Ethernet interrupt port repeatedly
- * Fix the internal clock rate for very slow sequence clock playback (< 1.6kHz)
- * Update SDK interface to support download of very large sequences split over multiple download buffers.
- * Speed up sequence programming for short sequences by looking up image UUID on download, not on usage.
- * Improve interrupt context locking to protect shared access to sequence hardware
- * Sequence DMA data checked in hardware for access type to prevent double programming of synthesiser registers resulting in RF corruption

FW v2-2-79

- * Fix problem with erroneous preload of the image clock pre-scaler.

[A pre-scaler is applied for image clock rates below 1.5KHz.

Minimum clock rate = 15.3Hz. Clock rates below 15.3Hz are now F/W limited to 15.3Hz]

FW v2-2-78

- * Fix problem preventing the download of many sequences (~10⁵)

FW v2-2-77

- * Fix problem with playing large Images with >12,600 points.

[After fix, maximum = 1.25 million points per single image]

FW v2-2-76

- * Fix problem causing the first image point in a sequence playback to be randomly missed when using external clock & trigger.

FW v2-2-75

- * Fix sequence problem which caused firmware to crash when a queue contained a single sequence in recycle or stop-recycle mode.
- * Fix sequence problem which caused iMS to hang when playing large numbers of short images with many repeats.
- * Fix USB FIFO overflow detection error.