21th July 2022

AN29221: Image & Sequence File Size and Number

Key Features and Memory Allocation:

- >10M total Image points.
  [Each Image point = 26bytes. 438Mbytes* are allocated for Image data].
- 'Unlimited' number of Image sequences. (within the iMS4 memory resource).
- Maximum 16.7M sequence repeats.
- Maximum Image Table size 64K.
- Sequence Entry download speed ~ 150K entries/sec (nominal).
- Image Point download speed ~ 40K points/sec. (highly dependent on Image file size)

Key Sequence Enhancements and Features. *Refer: isomet.com/ManImsSeq.html.*

- Maximum 65K sequence entries.
  [Each sequence entry = 72bytes].
- No minimum duration requirement between one sequence entry and the next.
- *SequenceTermination* actions include:

- Reinserting a sequence entry at an arbitrary location within the queue when the sequence finishes.
- Reinserting a sequence at end of the queue when the sequence finishes.

- *SequenceManager* allows the ability to:

- Stop sequence playback immediately.
- Restart sequence.
- Define termination action.
- Stop sequence playback at end of a sequence entry (even if not end of sequence).
- Stop sequence playback at end of current repeat.
- Read back current queue status and position.
- Re-order sequences within the queue while the queue is stopped.

- Sequences allow single frequency tone entries (*ToneSequenceEntries*).

  [A Tone entry programs each channel with a constant frequency and amplitude. The compensation LUT table still applies. The input trigger would start a Tone in the queue in much the same was as an Image. However, the clock input is ignored in Tone mode. The outputs remain static until the next trigger signal, which then increments the queue to the next Image or Tone].

* Reduce by ~25% to allow for fragmentation.