DSP Dynamic Processing Pre-Storage

DAM Controller

Priority 1
Priority 2

Raw Data

Data received from DAM:
1. Time/Date Stamp
2. Data Array
3. Data Sampling Rate
4. Ticks array – (not used, will be used at DAM)
5. Device/Channel ID
6. Other Parameters (future, ex. Speed)

Conversion to Volts
Bias Adjustment (2.5V)
Conversion to Engineering Units (Acceleration)

DC Filter

Time waveform data (A)
Time/Date Stamp
Sampling Rate
Device/Channel ID

Integrator to Velocity

DC Filter

Weighing (Hanning default)

FFT

(A) Spectrum

FD Integrator

(V) Spectrum

Calculate Acceleration (A) and Velocity (V) Overalls

Time waveform data (V)

Calculate Band Overalls

(A) Peak

(V) Peak

(A) RMS

(A) Crest Factor

(V) RMS

(V) Crest Factor

(A) Kurtosis

Future

(V) Kurtosis

(A) Band Overalls

(V) Band Overalls

Calculated Data Object:
Overalls
(A) and (V) Time waveform
(A) and (V) Spectra
Time/Date Stamp
Device/Channel ID

Stored Data Object:
Overalls
(A) Time waveform
Time/Date Stamp
Device/Channel ID

User Request (GUI)

Queue

DB

Note: (A) and (V) Spectra and (V) Time waveforms are not stored