Simulated DAQ Signals – PXI 6723, 32 AO, 45kS/s

* AO8:15 – Vib system 1
  + AO8 - Tachometer Channel
    - AO8
      * Freq = 60Hz\*
      * -10 to 10 square wave, 10% duty cycle (high)
      * 0 degrees
  + AO9:10 - Prox Probes
    - AO9
      * Freq Hz
      * 0V to (Freq/25) V sine wave
      * 10 degrees
      * 200mv/mil
    - AO10
      * Freq Hz
      * 0V to (Freq/25) V sine wave
      * 100 degrees
      * 200mv/mil
  + AO11:12 - Velocity Probes
    - AO11
      * Freq Hz, -(Freq/40) to (Freq/40) V sine wave
      * Freq x 2 Hz, -(Freq/40) to (Freq/40) V sine wave
      * -45 degrees
      * 500mv/ips
    - AO12
      * Freq Hz, -(Freq/80) to (Freq/80) V sine wave
      * Freq x 2 Hz, -(Freq/80) to (Freq/80) V sine wave
      * 45 degrees
      * 500mv/ips
  + AO13:14 - Accelerometers
    - AO13
      * Freq Hz, -(Freq/20) to (Freq/20) V sine wave
      * Freq x 8 Hz, -(Freq/60) to (Freq/60) V sine wave
      * 0 degrees
      * 100mv/g
    - AO13
      * Freq Hz, -(Freq/30) to (Freq/30) V sine wave
      * Freq x 8 Hz, -(Freq/60) to (Freq/60) V sine wave
      * 90 degrees
      * 100mv/g
  + AO15 - Temperature
    - 0 – 5V
    - 50mv/C°
    - Random \* Freq (but close to previous point)
    - Minimum update rate

\* Settable in “real-time”

All Channels should run at max AO update rate, unless otherwise specified

* AO16:23 – Vib system 2
  + AO16:17 - Tachometer Channels
    - AO16
      * Freq = 60Hz\*
      * -10 to 10 square wave, 10% duty cycle (low)
      * 0 degrees
    - AO17
      * Freq/4
      * -10 to 10 square wave, 10% duty cycle (low)
      * 40 degrees
  + AO18:23 - Accelerometers
    - AO18
      * Sine wave, Freq Hz, –(Freq/20) to (Freq/20) V
      * Sine wave, Freq x 4 Hz, –(Freq/25) to (Freq/25) V
      * 10 degrees
      * 200mv/mil
    - AO19
      * Sine wave, Freq Hz, –(Freq/20) to (Freq/20) V
      * Sine wave, Freq x 4 Hz, –(Freq/30) to (Freq/30) V
      * 70 degrees
      * 200mv/mil
    - AO20
      * Sine wave, Freq Hz, –(Freq/20) to (Freq/20) V
      * Sine wave, Freq x 8 Hz, –(Freq/30) to (Freq/30) V
      * 0 degrees
      * 200mv/mil
    - AO21
      * Sine wave, Freq Hz, –(Freq/20) to (Freq/20) V
      * Sine wave, Freq x 8 Hz, –(Freq/40) to (Freq/40) V
      * 80 degrees
      * 200mv/mil
    - AO22
      * Sine wave, Freq/4 Hz, –(Freq/25) to (Freq/25) V
      * Sine wave, Freq\*2Hz, –(Freq/20) to (Freq/20) V
      * 0 degrees
      * 200mv/mil
    - AO23
      * Sine wave, Freq/4 Hz, –(Freq/25) to (Freq/25) V
      * Sine wave, Freq\*2Hz, –(Freq/40) to (Freq/40) V
      * 90 degrees
      * 200mv/mil
* AO24:31 – Vib system 3 – No Tach, 5400 RPM (90Hz) operating
  + AO24:27 – Velocity Probes
    - AO24
      * Sine wave, Freq Hz, –(Freq/40) to (Freq/40) V
      * Sine wave, Freq X 2 Hz, –(Freq/80) to (Freq/80) V
      * Sine wave, Freq X 3Hz, –(Freq/80) to (Freq/80) V
      * Sine wave, Freq X 5Hz, –(Freq/80) to (Freq/80) V
      * Sine wave, Freq X 8Hz, –(Freq/80) to (Freq/80) V
      * 45 degrees
      * 500mv/ips
    - AO25
      * Sine wave, Freq Hz, –(Freq/40) to (Freq/40) V
      * Sine wave, Freq X 2 Hz, –(Freq/80) to (Freq/80) V
      * Sine wave, Freq X 3Hz, –(Freq/80) to (Freq/80) V
      * Sine wave, Freq X 5Hz, –(Freq/80) to (Freq/80) V
      * Sine wave, Freq X 8Hz, –(Freq/80) to (Freq/80) V
      * 130 degrees
      * 500mv/ips
    - AO26
      * Sine wave, Freq Hz, –(Freq/40) to (Freq/40) V
      * Sine wave, Freq X 3 Hz, –(Freq/50) to (Freq/50) V
      * Sine wave, Freq X 5Hz, –(Freq/40) to (Freq/40) V
      * Sine wave, Freq X 7Hz, –(Freq/60) to (Freq/60) V
      * Sine wave, Freq X 11Hz, –(Freq/80) to (Freq/80) V
      * 0 degrees
      * 500mv/ips
    - AO27
      * Sine wave, Freq Hz, –(Freq/100) to (Freq/100) V
      * Sine wave, Freq X 3 Hz, –(Freq/80) to (Freq/80) V
      * Sine wave, Freq X 5Hz, –(Freq/80) to (Freq/80) V
      * Sine wave, Freq X 7Hz, –(Freq/60) to (Freq/60) V
      * Sine wave, Freq X 11Hz, –(Freq/40) to (Freq/40) V
      * 90 degrees
      * 500mv/ips
  + AO28:31 – Temperature
    - AO28, AO29, AO30, AO31
      * 0 – 5V
      * 20mv/C°
      * Random \* Freq (but close to previous point)
      * Minimum update rate