AMS Suite: Machinery Health™ Manager v5.61

The AMS Machinery Manager version 5.61 release is the result of user input collected during plant visits and documented by our customer support and marketing teams. This release includes enhancements for users of all Emerson’s vibration analysis technology including:

- Support for the newer Windows Operating Systems
- Integrated USB Device Driver for CSI 2140
- Spectrum-on-Alert from the CSI 9420 wireless vibration transmitter
- Integration of data from the CSI 6500 protection system into AMS Machinery Manager
- Dual mode capabilities for the CSI 6500 prediction system
- Reciprocating compressor monitoring with the CSI 6500
- Support for new Spectro Inc. Q1100, Q230, and Q3050 oil analyzers
Support for Windows Operating Systems

AMS Machinery Manager now supports the following operating systems:

- **Servers**
  - Windows Server 2012 R2 Standard Edition\(^{(1)}\)
  - Windows Server 2008 SP2 Standard Edition
  - Windows Server 2008 R2

- **Workstations**
  - Windows 8.1 Professional\(^{(1)}\)
  - Windows 8 Pro

- **Dropping support for Windows XP**

\(^{(1)}\) Requires Microsoft .NET Framework 3.5 SP1

Integrated USB Device Driver

When the CSI 2140 is connected to a Windows 7 computer (both 32/64-bit platforms) and that computer is connected to internet, Windows Update will automatically download the driver. To take full advantage of this feature, make sure your computer is configured to accept driver acquisition from Windows Update.

Extended CSI 2140 Transient Recording Length

The maximum length of the CSI 2140 transient waveform recording has doubled from previous versions. Depending on Fmax and number of samples selected, the transient recording length can range from 10 minutes at 20KHz to over two weeks at 10Hz. To take advantage of this enhancement, users must have CSI 2140 firmware version 1.3.4.5.
Support for Spectro Scientific Oil Analysis Instruments

AMS Machinery Manager’s OilView module features a new “Spectro” tab that will support multiple oil analysis instruments pending their firmware release. From this tab, users will be able to operate both the Q230 and SpectroVisc Q3050 units. In addition, oil sample routes can be loaded into the FluidScan Q1100, and the sample test data uploaded back to the asset database in the software for parameter trending and alarming.

The Spectro LaserNet Fines ("LNF") Q200 Series is a powerful analytical platform for oil analysis, condition monitoring and maintenance and reliability programs.

Spectro Scientific’s FluidScan Q1100 and SpectroVisc Q3050 play an important role reliability programs.
Greater Power and Bandwidth Efficiencies for Wireless Monitoring

In the AMS Machinery Manager v5.61 release, the configuration and user interface options have been reworked to optimize bandwidth usage, power module life, and time spent interacting with transmitters. The new Spectrum-on-Alert feature retrieves only the data you need when you need it, reducing bandwidth usage and ultimately extending power module life. Likewise, the ability to select spectrum resolution acquired can further conserve power and bandwidth.

Select spectrum resolution – from 400 to 1,600 lines – to conserve power and bandwidth.

AMS Machinery Manager v5.61 delivers more efficient tools for mapping and configuration of transmitters. Manage the network traffic by calculating and allocating bandwidth allocations. The new Data Log Viewer delivers insight into the operation and performance of the transmitter without a trip to the field.

Use the device log to identify and resolve system issue quickly by providing insight into transmitter operations.
More Insight from Online Monitoring Data

Basic Prediction from Protection

Users with a protection-only version of the CSI 6500 monitoring system can get basic prediction capabilities via AMS Machinery Manager version 5.61. This allows the user to expand to prediction of their critical assets with only minimal time and wiring investments.

Via a simple Ethernet connection from the CSI 6500, users receive periodic parameter trends and spectrum/waveform data delivered on specific intervals. This data is particularly useful for determining the health of sleeve bearings on turbo machinery. This automated process for acquiring prediction data eliminates the need to connect to buffered outputs on the protection system and the risk of inadvertently causing a machine trip.

Monitoring Reciprocating Compressors

Waveform data from the CSI 6500 is now incorporated onto the circular polar plots available in AMS Machinery Manager v5.61, facilitating diagnosis of developing valve faults in reciprocating compressors.

Waveform data incorporated onto circular polar plots delivers insight to developing valve faults.

Dual-Mode Prediction

Currently when the CSI 6500 is configured to collect PeakVue measurements (acceleration g’s) the overall vibration measurements are also collected in g’s. Overall measurements are more meaningful in velocity (inches/second). With the latest AMS Machinery Manager release, online data collection can be configured for dual-mode collection. In dual-mode, PeakVue measurements are collected in acceleration g’s units while the overall values are collected in velocity inches/second units.