DSP Machinery Control

Control and Analysis Software

DSP Machinery Control Software for WRM

DSP Machinery Control software is designed for the organization and visualization of remote measurements delivered by remote monitoring WRM equipment.

Measurement system thresholds, parameters and detailed analysis of results will be easily operated from this software.

DSP Machinery Control software is designed to organize, execute, and save measurements performed using the WRM module.

Configuration :

Load equipment and control points. The system enables the edition of point information, for example, choosing each bearing from a a 29,000 bearing database that has already been pre-loaded.

Every measurement the hardware captures can be seen on the main screen.

This application offers several configurable views that enable, for instance, trending of an escalating value, or its analog (pie) or bar charts.

Besides, it enables the viewing of spectral charts, waveform charts, and orbital diagrams, as configured.

Setting :

Once the equipment and the control points are set, the system enables the edition of point information, making it possible to select the data from the bearings at each point or to select one from the 29,000 bearings that the database has already loaded.

Every measurement the hardware captures can be seen on the main screen.

This application offers several configurable views that enable, for instance, an online trend of an escalating value, or its analog (pie) or bar charts.

Besides, it enables the viewing of spectral charts, waveform charts, and orbital diagrams, as configured.

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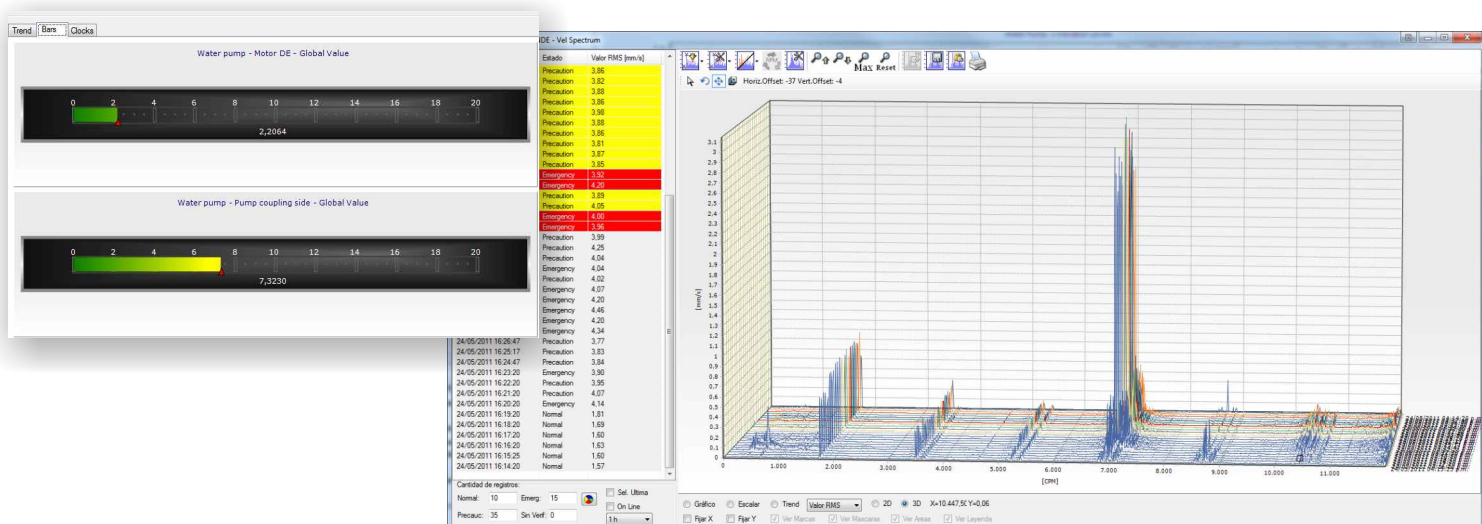
Each view is user-configurable and it can be chosen to display different equipment or different points, making the information on the machinery condition visually available to the user.
This information can be relayed to a smartphone.

In spectral charts, the user can observe in a more detailed view every feature of each component in a vibration trend, and the application also offers tools for fast and user-friendly automatic analysis.

Tools for Analysis:- Amplitude and frequency of a component.
- Highest peak locator.
- Harmonics locator.
- Bands locator.
- Frequencies of bearing failure.
- Harmonic frequencies of bearing failure.
- Configuration of tools and thresholds.
- Recording of spectrum as a JPG-image file.
- Spectrum browsing based on dates.
- Alarm mask configuration based on historical spectra.
- Frequency and amplitude measurement unit converter.
- Automatic marker for characteristic failure frequencies.
- Automatic marker for gear frequencies.
- Automatic marker for belt frequencies.
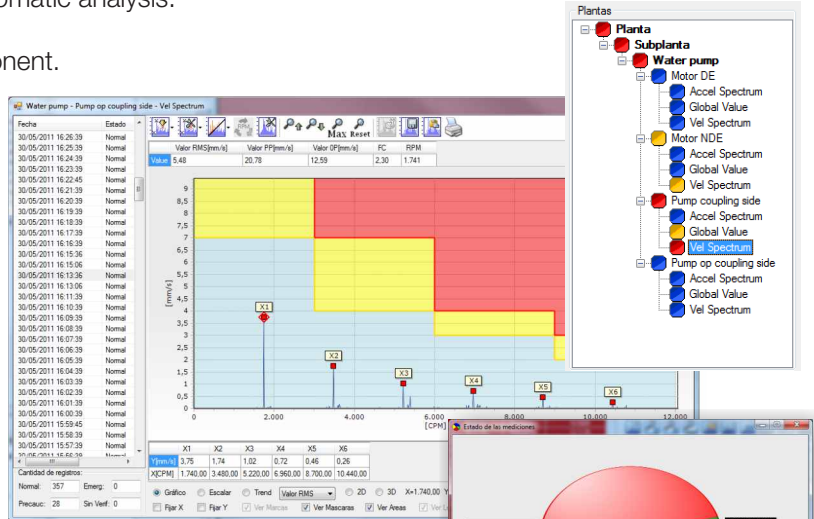
Points can be configured, and standard and special measurements, and measurement samplings can be defined in case they are not configured as a monitoring routine procedure.
The multiple setting and point control tools allow the user to have full access to every variable that needs to be measured in order to isolate any failure the monitored equipment may be presenting.
Alarm system:
Once defined, the alarms for each measurement will activate different types of commands, such as to enable NO - NC dry-contact relay for Alarm Systems.
It is also possible to configure the system to automatically launch specific measurements upon the triggering of an alarm or, based on measurements already configured, to modify samples reducing the clearance time between measurements.

The system delivers all tools for an operator at the control console to visualize the general status of vibrations on a critical machine and, at the same time, for an analyst to be able to diagnose based on the interpretation of vibrating signals using spectra, waveforms, and analysis tools.

These tools, associated with their broad spectral sharpness (up to 25600 lines) and combined with bottom frequency scales (10-30 KHz), ensure a diagnosis capability at the correct level for determining any kind of rotating device the user may want to control.