# **DSP Machinery Control**

## **Control and Analysis Software**



#### All in one DSP Machinery Control Software

The DSP MC software is compatible for all the product range of Semapi Instruments, DSP logger Expert, Pocket VibPro, TINY Remote Monitor, DSP Compact WRM and Test-I go (MCSA).

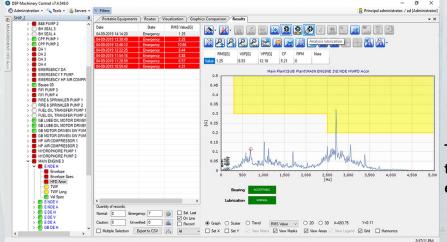
DSP Machinery Control software is designed for the organization and visualization of remote measurements delivered by remote monitoring WRM equipment. Measurement system thresholds, parameters and detailed analysis of results will be easily operated from this software.



The software is designed to organize, execute, and save measurements performed using the WRM and TINY module Every measurement the hardware captures can be seen on the main screen.

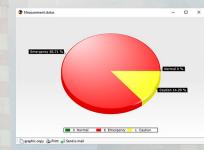
#### **Configuration:**

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 from 25 manufacturers that the database has already loaded. 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.

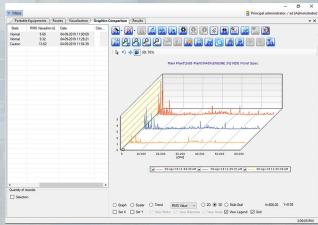


Besides, it enables the viewing of spectral charts, waveform charts, and orbital diagrams, as configured. This software delivers a wide variety of measures that can be configured previously, giving a large and organized structure. The software has a bunch of tools which allows to produce an accurate diagnostic about eventual failures in the equipment and its work condition.

A versatile control tool reports the condition of the measures, giving a fast and easy procedure for warning about the conditions of the equipment.



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

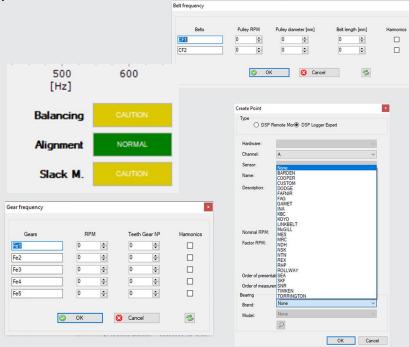


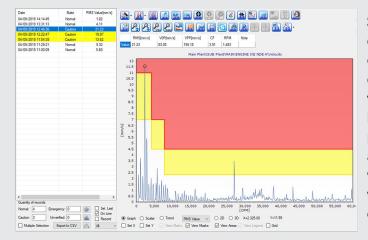
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In the spectrum, it is possible to observe with more details all components of a vibration. Besides, the software has suitable tools for a fast and easy automatic analysis.

- -Amplitude and frequency of a component.
- -Maximum peaks, Harmonics indication.
- -Bands indication.
- -Frequencies of failure in bearings.
- -Configuration of Tools and Cursors.
- -Copy spectra to clipboard.
- -Storage of spectra as JPG image.
- -Spectra navigation by date.
- -Identification of Unbalance, Mis-alignment and looseness
- -Converter of units from Hz to CPM.
- -Gears and belt frequency markers
- -Marker of typical failures.
- -Set of spectrum with simultaneous functions
- -Zoom in Amplitude and Frequency axis.





Spectral and scale expert masks are being used in route data collection to assist the analyst to easily analyze condition of a measurement. With past knowledge of measurement condition, analyst can be able to add an alarm limits for vibration parameters or can create a new mask with alarm limits for overall values as well as spectrums. There are many pre-defined masks for acceleration, velocity, displacement and envelope at respective frequency ranges. Spectral mask will allow you to create limits for different frequency bands within the spectrum itself as shown in the picture. This feature can fine tune your expert analysis.

#### Alarm system when used with WRM and TINY on-line monitoring modules:

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.



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