## **DSP Data Management**





### Vibration Analysis Software

The DSP Data Management software is an easy to use full featured vibration analysis package.

No feature was overlooked when developing the DSP Data Management software package and was specifically





# DSP Data Management Vibration Analysis Software

#### **DSP** Data Management

The software DSP Data Management allows optimizing, organizing and storing the measures made with the DSP Logger MX 300.

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.

### Configuration:

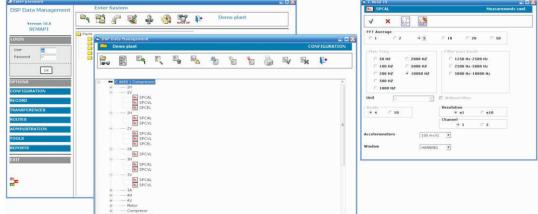
The application CONFIGURATION has all options needed for the creation of routines of control.

The equipment of a Plant can be seen in a tree graphic, showing a quick view and allowing an easy access to conditions of

each machine.

The function of Create Equipment allows to assing the code, mechanical data, related documents and digital images of the equipment.

When much similar equipment must be listed, it is enough to create one model and after copy it as many times as needed.



The points of an equipment also has a code, description of the point, its speed rotation (RPM), brand and model of he bearing and their failure frecuencies.

This software has a data base of about 27,500 bearings and 24 manufacturers. The failure frequencies are identified in the spectra.

The selection of measures to perform in each point is so wide that it is possible to include any kind of failure or data about the working conditions of the equipment.

The DSP Logger MX 300 allows taking measures of spectrum with any of its input connections, in three ranges of definition of 400-4000 lines.

#### Alarms:

To organize the alarms, the software has an alarm previously configured by default, for each measure, maximum frequency and bands. The values are set as per international Standards such VDI 2056 and ISO 10816.

The alarm bands are which define the state of a measure. They are activated if some value is greater than the preset limit value.

The definition of alarm bands makes easier the task of start up of the system and its maintenance, because the alarms configured for each equipment can be modified according to the improvements of the Predictive Maintenance.

To get this, it is possible to download an alarm band for each kind of machine, taking them from tables and loading them in the configuration when the measure is created.

When a new Alarm Band is created, a kind of measure must be selected from the list included in the software. The Alarm Bands are a great aid to perform a precise control of the most important components, compared with other tools used for the same purpose.

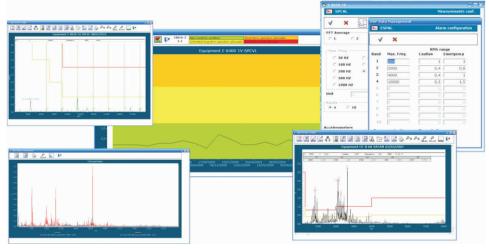
All settings of alarms can be edited and seen in the Screen of Historical

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#### **HISTORICAL**

All measures made with the data collector can be seen from this application, included the ones taken out of route. This application has tools for the analysis of the measures and the report in order to define the working conditions. All global values and any kind of spectral measures can be showed in graphics from the Historic Data.

The alarms are a big help to define de general conditions of the equipments in a primary and guick visual inspection.

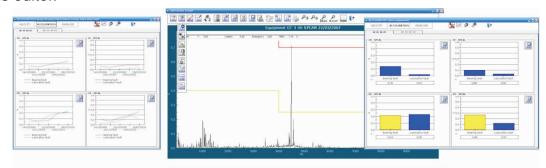


### Smart analysis tools

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 indication.
- Harmonics indication.
- Side 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.
- Alarm bands editor.

- Converter of units from Hz to CPM.
- Analyzer of Electric drivers for AC current spectra .
- Marker of typical failures.
- Marker of Gear frequencies.
- Marker of Belts frequencies.
- Set of spectrum with simultaneous functions
- Maximum Zoom.
- Zoom in Amplitude axis.
- Zoom of Frequencies axis.



An additional option for graphics is the spectra comparison, a very important tool because allows to see in a simple view the condition of a same point from one measure to another. It is possible to compare measures between different points of different equipments too.

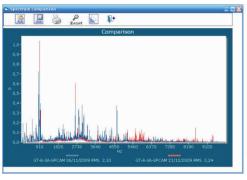
The DSP Data management allows two kinds of graphic comparison.

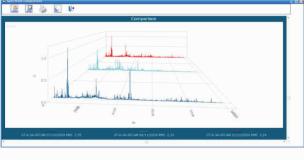
The comparison in one plane is ideal for spectrum of acceleration, where the graphic involves a more important broad band, and it is possible to see the different levels for each frequency.

# DSP Data Management Vibration Analysis Software

The comparison using three-dimensional spectrum is suitable for that spectrum with narrow band wide, because they includes few frequencies.

The graphics in cascade in three dimensions, allow to perform modifications in all axis, including its rotation in 360°. They allow comparison in two dimensions too.





#### Frequency Fault Detector For Bearing

This option is indispensable for the early detection of bearing faults.

It is based upon the information provided by the Bearing Fault Data Base that is incorporated in the system.

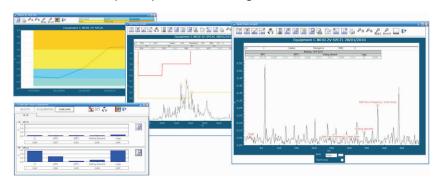
This method allows user to clearly identify bearing faults in the Enveloped Spectrum and high resolution Data.

#### AC Motor Electrical and Mechanical Condition.

Now identifying problems in Electric Motors is much simpler.

This is done by taking a current spectrum on each phase of the motor.

This powerful tool will automatically indicate the condition of the rotor and recommend maintenance based on international standards.



### **Routes**

The DSP Data Management has an application for creating the routes of measure with the equipment configured in the Plant.

The preparation of routes is easy and intuitive .Each route is identified with a name and control frequency. This frequency, by means of another function of the software, allows to detect past due routes and/or with no measur

#### Requirements:

Intel® Pentium® processor; 2GB DDR2

memory;

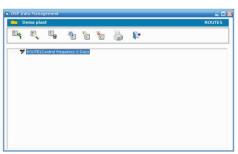
320GB hard drive:

Windows 7 32/64-bit

Windows XP,2000, Vista 32/64-bit









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