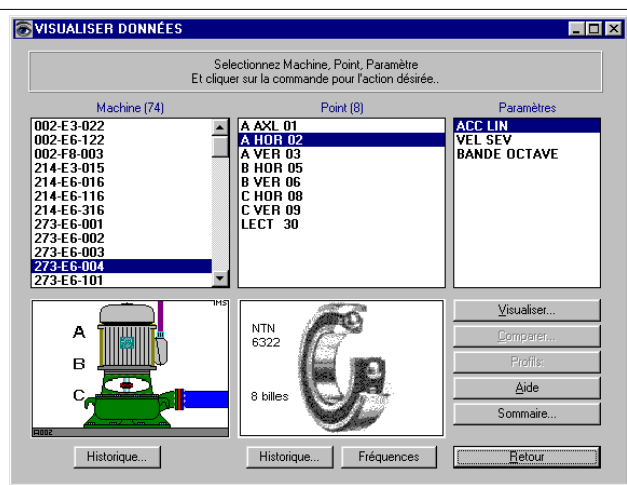


USES

- Powerful data base and processing for vibration monitoring of rotating equipment or structural analysis
- Fault detection and diagnosis using enhanced visual tools and advanced signal post-processing
- Trend analysis and report generation on machinery condition

You will save many precious working hours and improve the presentation of your reports during your next vibration survey, as the visualisation features are numerous and very powerful.



FEATURES

Compatible with WINDOWS* 95/98/ME, NT/2000, uses MICROSOFT ACCESS* data base format (network version available)

Accepts data from many multi-channel analysers and data collectors (Diagnostic Instruments DI-2200, PL-302, DI-1100, DI-225, STELL Movilog2, SKF CMVA10, CMVA55, CMVA60)

Advanced visualisation features including interpolating cursors, vibration units, conversion, kurtosis and crest factor analysis, constant percentage bandwidth and complex spectrum synthesis and comparison, cepstrum analysis, 3D and matrix spectrum display, dynamic profiles

Processes multi-channel FFT analysis functions (frequency response, orbits, coherence and many others)

Import and export to other formats or software programs including FINE-TUNE, ME'SCOPE, ASCII, SPREADSHEET

ADVANTAGES

■ Simple and flexible use. Well supported GUI environment.

■ Only a single program is needed to process data from many different instruments

■ Speeds up and simplifies interpretation of the vibration data while improving accuracy of results

■ Handles multichannel FFT data to provide advanced diagnostics and structural analysis

■ Compatible with structural animation and automated diagnosis programs, possibility to exchange data with other programs

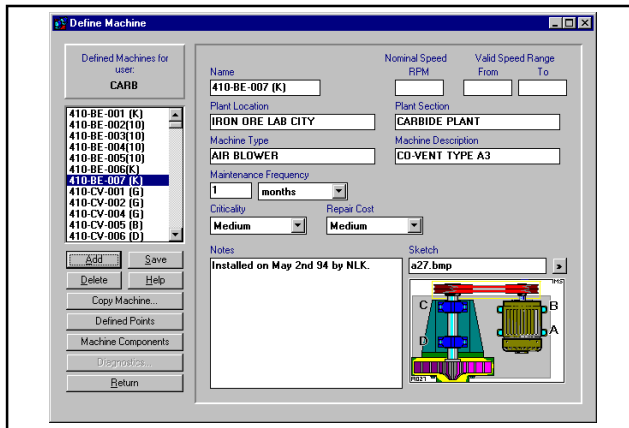
VIBREXPERT is a versatile WINDOWS* program written to handle vibration data measured on rotating machinery and/or structures. It can perform spectrum comparison and trend analysis as well as provide superior visualisation of dynamic signals. Most spectrum analysers from Diagnostic Instruments can be used with VISION. Some unique features of the software are the ability to store functions obtained from multi-channel analysers (frequency response, coherence, complex and cross-spectrum), further processing of the signals (cepstrum analysis and dynamic profiles), and the ability to playback time and frequency signals through the PC sound system.

Aside from periodic vibration measurements carried out using data collectors, many vibration analysts collect data using more sophisticated instrumentation such as multi-channel FFT analysers for fault diagnosis, structural analysis or vibration acceptance tests. However the handling of this type of data can be very tedious when the volume of data is large. Moreover, the methods employed to process and display the data can influence the quality of the interpretation when trying to assess the machine condition. VIBREXPERT is a WINDOWS* software program written especially to improve the visualisation and speed up the processing of such type of data. Because of its flexibility, VIBREXPERT will allow the vibration analyst to save many precious working hours while the presentation of the analysis results will be greatly improved.

INTERNATIONAL MEASUREMENT SOLUTIONS

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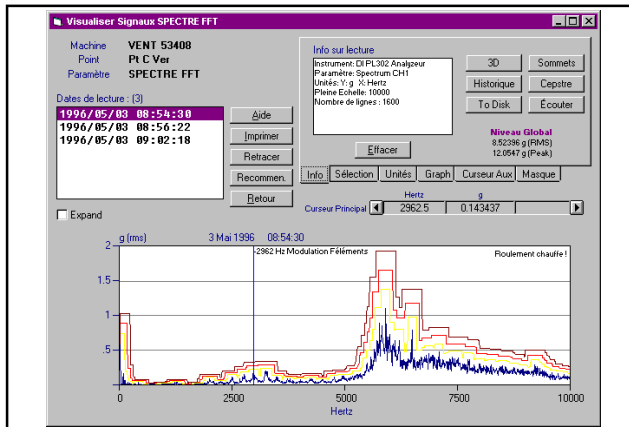
* WINDOWS and ACCESS are registered trademarks of MICROSOFT CORPORATION



COMPREHENSIVE DATA BASE IN MS-ACCESS*

Using VIBREXPART, you can quickly set up a comprehensive data base including machine definitions, sketches, maintenance history notes, inspection notes, vibration data as well as technical information regarding related machinery components such as bearings and gears. Machines can be grouped for easy access and more flexibility during report generation. The simple hierarchy structure enables a separation into segments or sections which may correspond to machine banks, plant departments, or various plants/buildings. One of the key feature of VIBREXPART is its ease of use and effectiveness. Several functions are available to speed up the creation of machine and point definitions, and increase the reliability and flexibility of the data base. VIBREXPART supports WINDOWS* 95/98/ME and NT/2000 (network or individual workstation) and all known vibrations units. The software currently supports three languages (english, spanish and french). Many other languages are in preparation.

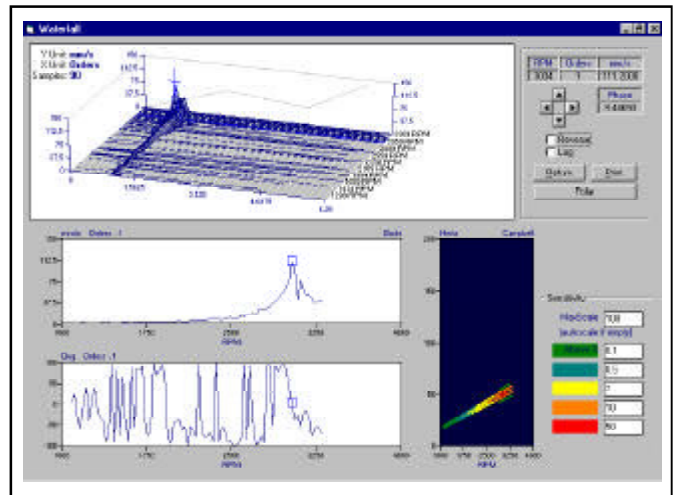
POWERFUL VISUALISATION TOOL

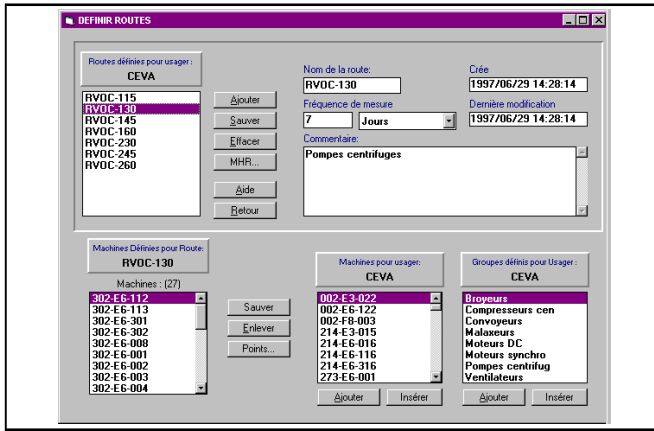


VIBREXPART is designed to assist the vibration analyst to review a large amount of data very quickly. Many criteria can be specified to retrieve specific measurements and several powerful graphic representations are possible, including 3D waterfalls, matrix displays with overlay for easier comparison of several graphs simultaneously. Several types of cursors are available (level, reference, bearing defects, delta, harmonic, sideband) and interpolation between the lines of an FFT spectrum can be performed in order to improve the accuracy of frequency, amplitude and phase values at the peaks. Units and scaling (RMS, Peak, Peak-to-Peak, linear or logarithmic amplitude and frequency scales) are user-selectable and can be changed at will. Overall and spectral alarm masks (envelopes) can also be specified and displayed as data overlays.

AN EXPERT AT YOUR SIDE TO HELP SOLVE DIFFICULT PROBLEMS

Since the software was designed by a group of specialists with a vast knowledge of machine troubleshooting using vibration analysis, VIBREXPART has many features designed to assist the user in detecting faults and making the right diagnostic (diagnostic charts, severity charts, suggestions on which analysis technique to use for a given application, user guide to correctly choose measurement parameters). For DI-2200 and PL-302 users, Bode, polar and Campbell diagrams are supported for run-up and coast-down applications. Moreover, technical support is available not only to answer your questions on fault detection and diagnosis methods, but also on how to correct the machine problem at the least cost.

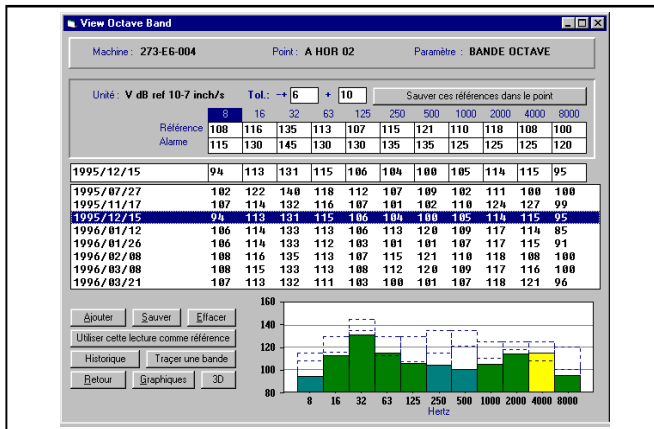




INSPECTION TOURS AND SUMMARY REPORTS

If data collectors are available, it is customary to define inspection tours in order to speed up machine inspection on a regular basis. VIBREXPRESS allows the user to quickly setup a group a machines to be inspected, as well as generates summary status and alarm reports once the machines have been surveyed. This feature will allow only one route definition to support many different types of instruments, since VIBREXPRESS can automatically adapt to various instrument configurations.

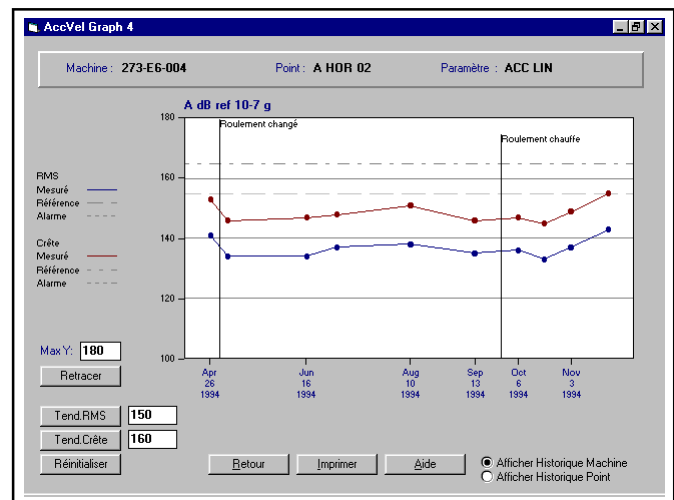
POWERFUL FAULT DETECTION AND TRENDING METHODS

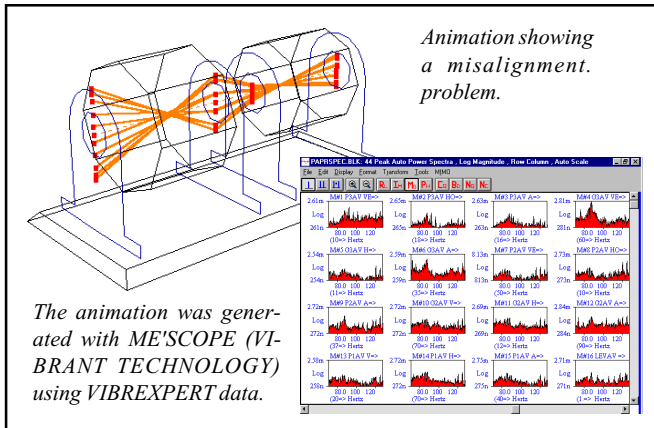


One of the most powerful yet simplest method to detect faults and trend frequency band data is Constant Percentage Bandwidth spectral data (Octave and fractional-octave). We have refined the Octave Band method in order to increase its effectiveness while still keeping its simplicity. This will be particularly useful in those situations where the number of machines is large and the complexity of the machines is not high. That method is also not too sensitive to small speed changes.

TREND ANALYSIS AND REPORT GENERATION ON CONDITION OF MACHINERY

Trends can be performed on overall (RMS, peak, peak-to-peak, crest factor and kurtosis) or frequency band data. Inspection notes and historical data can also be super-imposed on the trending curves. From a given trending curve, VIBREXPRESS can also extrapolate the time required (or date required) to attain a given vibration level. Warning, alert and alarm levels can be specified for each measurement point and many reports on machinery condition are available, in order to obtain a good appreciation of the general condition of a group of machines.

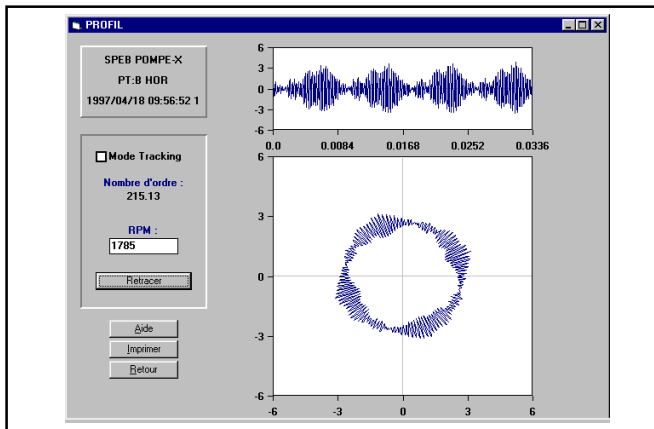




POSSIBILITY OF IMPORT/EXPORT TO/FROM MANY FORMATS

VIBREXPERT has an open architecture in order to facilitate import/export of data to other application software. Since two-channel data is supported, complex spectra, frequency response and coherence data can be exported to ME'SCOPE for Operational Deflection Shape or Modal Analysis. Expert systems such as FINE-TUNE™, a program designed by IMS for phase analysis, can easily link to VIBREXPERT. Many other formats, such as ASCII and EXCEL are also supported. Extra links are available for rapid access to other types of CM software (oil analysis, aerothermal performance, infra-red thermography, ultrasound, acoustic emission or Barkhausen noise).

SPECIAL DIAGNOSTIC METHODS FOR SPECIFIC APPLICATIONS

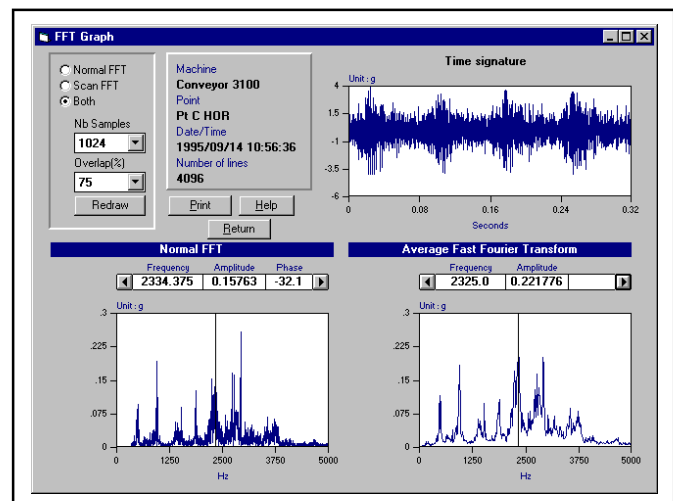


VIBREXPERT possesses many special analysis features to troubleshoot specific problems such as gear defects, magnetic defects on electric motors and generators, and surface defects on rolls. The graphic on the left show the dynamic profile of synchronous vibration on a 4-pole induction motor with an open-circuit fault on its stator. Many other kinds of defects can be detected with this technique, especially in the case of gears, where it is possible to simply identify local defects or defective tooth problems by visualising its profile.

POST-PROCESSING AND PC SOUND SUPPORT

Many operations can be performed on the data stored in the VIBREXPERT data base. Some of these functions include FFT calculations on time signals (zoom and scan averaging), integration and differentiation on spectrum to calculate displacement, velocity or acceleration data, cepstrum and crest factor analysis, roll and gear profiles using synchronous time averaging with soft-trigger for increased accuracy in the presence of speed fluctuations, complex spectrum processing from the auto-spectrum and cross-spectrum and export to ME'SCOPE (structural analysis software), link to bearing defect frequencies and common denominator computation, felt and belt passing frequencies, quick scan for anomalies using alert and alarm criteria, and many others.

For more information, please contact:



or visit our World Wide Web site at <http://www.intlmeas.com/>