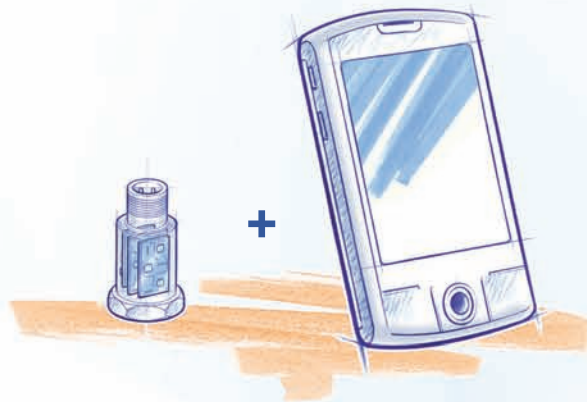


Vibration monitoring has been around since the late 1970's and is recognised throughout the world as the most versatile technology for determining the mechanical condition of a rotating machine. The USB-Vib solution described within this information leaflet sets a new standard for cost effective and accurate vibration monitoring.

Diagnostic Solutions design from the plant floor up. Our solutions work; we use them ourselves to provide a 97% effective fault diagnosis rate for our extensive CbM service customer portfolio.

What is it?

The USB-Vib system can be used as a Condition Checker OR Route based vibration collector. It has 3 main components, the USB-Acc sensor, the hand held PC and the **SmarTrend** web application, accessible from any internet enabled PC browser.

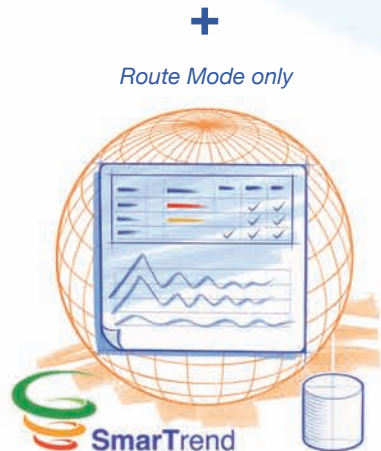


Condition Checker / Route Mode

What does it do?

The USB-Acc sensor converts vibration energy into a digital data stream that is packaged into fault symptoms within the hand held PC.

When in route mode, the user follows an asset map and collects key vibration data from critical assets. The resulting data are then uploaded to the **SmarTrend** software package for alarm status review, plotting and reporting.



Route Mode only

USB-Vib.....as a Condition Checker

We realise that you may only have a few critical machines and that you just want to know if they are healthy. You don't want the burden of collecting a full set of data every month, but you want an accurate assessment of condition based on the machine speed/ size.

Operating Modes (no route file loaded)

Mode 1 – Tag file Seeded (you create a tags.txt file with your machine names and load)

- You visually check your assets, checking condition wherever required
- When you find an alarm condition, you save the data against the asset
- Symptom and full spectra data available for excel analysis or email to an expert

Mode 2 – Stand Alone (no external files required, no storage of data)

- Audit your lubrication efficiency...check machines if they are noisy
- Select speed / machine type
- Take a reading
- USB Vib returns the condition as a RED, AMBER, GREEN for each symptom



USB-Vib.....in Route mode



Load your route from **SmarTrend** ...

... follow the route and collect your data.



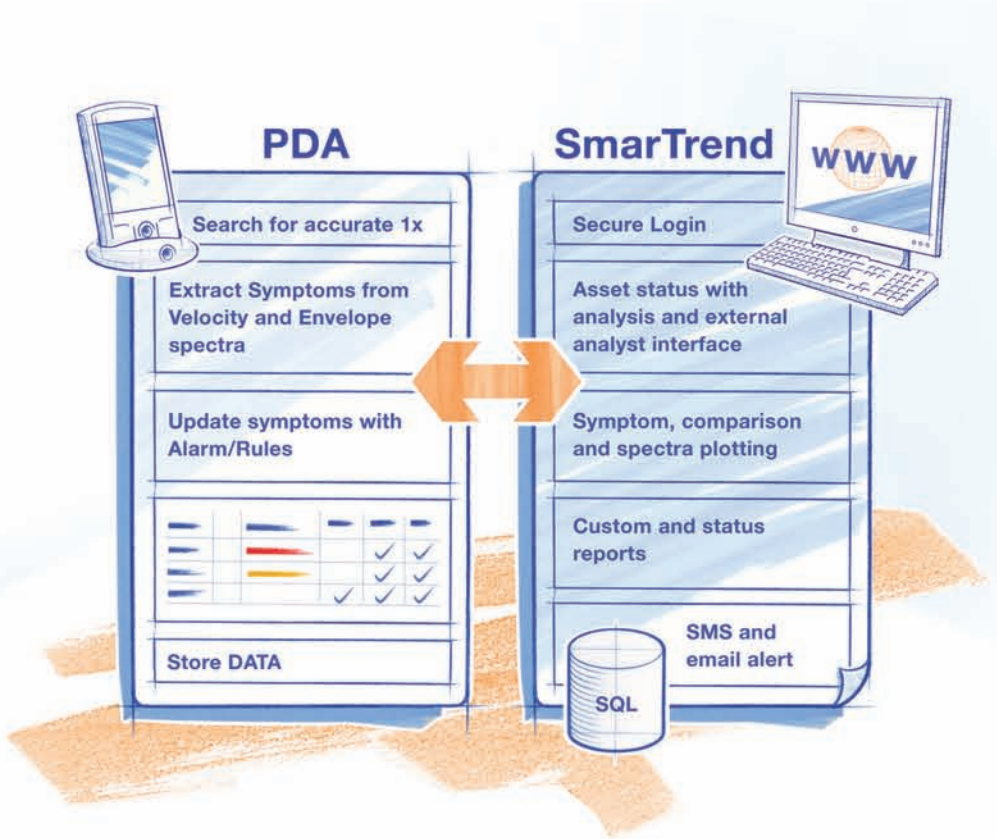
Unload your completed route from **SmarTrend** ...

... view status, plot and review.



How does it do it?

A cool circuit board within the sensor uses USB technology to power the sensor and transmit the digitised data to the PDA. The circuit captures vibration data in three formats: namely, velocity, demodulated acceleration and raw acceleration. High resolution spectral analysis methods are then used to extract machine fault symptoms and the raw data stored for viewing within the **SmarTrend** web application.



What's so good about it?

- It's 4-8x less expensive than its ancestors
- one size doesn't fit all – you can use any USB host device running Windows Mobile as a hand held PC (you decide how robust it has to be)
- no IT department problems, use your login and password to access the **SmarTrend** web application from any internet enabled PC anywhere.
- no need to become a vibration analyst, you can pay someone else to analyse your data
- less traffic jams, less carbon, less stress

	USB-Vib PC Software (Dual mode personality module)
Frequency Increments (Hz)	50,100, 200, 500, 1k, 2k, 5k, 10k
No of Lines	100, 200, 400, 800, 1.6k, 3.2k, 6.4k, 12.8k
Filter Options	2Hz HP, 2kHz LP
Pre-Demodulation Band Pass Filters	1kHz-2kHz, 2kHz-4kHz, 4kHz-8kHz
Measurement Parameters	Time & frequency domain (g's, demod g's and velocity)
Symptoms*	Velocity (1x, 2x and ISO 10816) Demodulated g's (Carpet & Non Synch Energy)
Built in Alarms (ISO based)	Sets based on 6 frequency ranges and 7 asset types
Navigation	Route based** or meter mode with csv save

* Symptom set constantly under review and development

** Route based data collection requires **SmarTrend** or OEM software

More Detail?

Glad you like our stuff, have a look at www.diagsol.co.uk and download a full powerpoint.
Or, request an on-line demonstration of the USB-Vib software / **SmarTrend** web portal.

If all this gives you the techno-hives, just give us a call +44 1244 571411.

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