

Hood Technology™ Corporation 10 September 2009 Blade & Vibration Monitoring System

Overview

Acquire Blade Data™ software is used to obtain tip sensor data used in blade and vibration monitoring. This program provides real time display and monitoring capabilities.

This software accommodates the signals from many different types of non-contacting blade tip sensors, including:

- Light Probes
- Eddy Current Sensors
- AC or DC Capacitive Sensors
- Inductive Sensors
- Microwave Sensors

Features

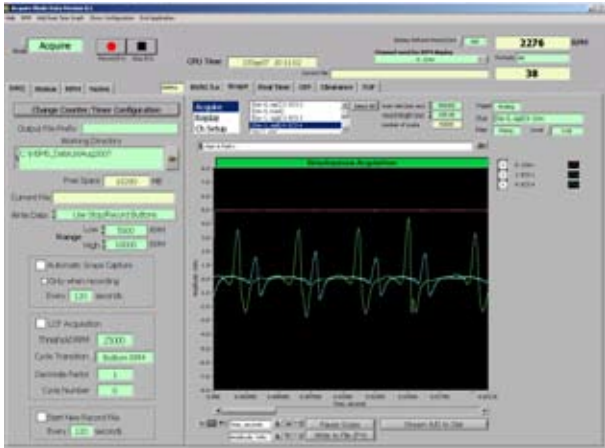
Communicates with Hood Technology™ Blade Vibration Sensor Interface –BVSI. This allows the user to view and change conditioning and triggering parameters for each sensor, such as gain, lowpass, high pass, arm, trigger, etc.

Virtual Oscilloscope allows the user to view analog sensor signals and time of arrival, while simultaneously adjusting conditioning and triggering.

Time of arrival and encoded blade pulse amplitude can be continuously streamed to disk -up to 1.5Mpulses/sec ~6MB/sec.

Supports up to 30 input channels.

Multiple rotor monitoring is supported.



Real Time Displays

RPM

Sensor Status with correct number of pulses and arrival variability.

Generalized synchronous and non-synchronous amplitudes including blade-by-blade and historical.

Circumferential Fourier fit - multi-sensor order tracking - with assumed response order.

Synchronous Campbell diagram based on order scheduling.

Blade tip clearance, from blade pulse amplitudes or Skewed Dual Light Probes (SDLP), including blade-by-blade and historical.

Blade Stagger with two chord-wise positions is available.

All-blades FFT for non-synchronous events, such as flutter, rotating stall, etc.

Single blade non-synchronous amplitudes using scheduled nodal diameters.

Inter-blade spacing monitoring, as a potential indication of rotor cracks.

Test Monitoring and Data Management

Manual data acquisition, RPM dependent acquisition and high non-synchronous vibration dependent.

Circular buffer streams all data so that data can be recovered if it is tagged to be saved by other events (e.g. high non-synchronous vibration, pre-trigger).

Automatic folder creation for long term testing. Data can periodically saved for long-term tests (months and years).

Creates an ASCII information file (*.inf) containing all pertinent information.

Test notes are automatically appended to *.inf.

Supports the use of visual and audible alarms for excessive synchronous and non-synchronous vibration, tip clearance and blade stagger angle.



Acquire Blade Data™ Software 9.0

Additional Software Products

Hood Technology™ Analyze Blade Vibration™ Software

Allows more detailed off line analysis with more report generating utilities.

Hood Technology™ Monitor Blade Vibration™ Software

Allows for sophisticated monitoring

Customized Software

In many applications customized software is required. Most notably, real-time low cycle fatigue applications have been developed for customers.

Hood Technology™ Blade & Vibration Monitoring
Acquire Blade Data Software 9.0



1750 COUNTRY CLUB ROAD
HOOD RIVER, OR 97031

T: 541.387.2288
F: 541.387.2266

This document, as well as the equipment and software described in it, may be used only in accordance with the terms set forth by the specific usage agreement between Hood Technology and the user.

The content of this document is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Hood Technology. Hood Technology assumes no responsibility or liability for any errors or inaccuracies that may appear in this document.

This material may not be transferred either in their original form or after being incorporated into other end items, without written approval of Hood Technology.

© HOOD TECHNOLOGY - ALL RIGHTS RESERVED