

WebAccess/MCM

Machine Condition Monitoring Software

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Features

- Dynamic signal acquisition and analysis
- Real-time monitoring and alarm notification
- Feature extraction algorithms for data processing
- Remote management for distributed monitoring solutions
- Integrated with WebAccess/SCADA
- Easy setup without programming

Introduction

WebAccess/MCM is Machine Condition Monitoring software that provides easy sensor signal acquisition, signal analysis, feature extraction, data management and interpretation, and sends alerts. Engineers or system integrators can configure settings to meet the needs of different applications.

WebAccess/MCM helps customers to quickly install Advantech's DAQ modules and implement predictive maintenance in their factories. This helps improve equipment uptime, performance and safety, while greatly reducing maintenance costs.

System Requirements

Minimum Requirements

- CPU: Intel® Core™ i3
- OS: Windows XP

Product Offering

- **MIC-1810-S6A1E** 12-bit, 500 KS/s, 12-ch DAQ platform with Core™ i3 processor
- **MIC-1816-S6A1E** 16-bit, 1 MS/s, 16-ch DAQ platform with Core™ i3 processor
- **PCIE-1802L-AE** 8-ch, 24-bit, 216 kS/s, Dynamic Signal Acquisition PCIE card
- **PCIE-1810-AE** 800 KS/s, 12-bit, 16-ch, Multifunction PCIE DAQ card
- **PCIE-1816-AE** 1 MS/s, 16-bit, 16-ch, Multifunction PCIE DAQ card
- **PCIE-1812-AE** 250 kS/s, 16-bit, 8-ch, Simultaneous, Multifunction PCIE DAQ card
- **PCIE-1813-AE** 38.4 kS/s, 26-bit, 4-ch, Universal Bridge Input PCIE DAQ card
- **USB-4716-AE** 200 kS/s, 16-bit, 16-ch Multifunction USB DAQ Module
- **ADAM-3017-AE** External Powered IEPE Signal Conditioner

See more

http://select.advantech.com/predictive_maintenance/en-us/

WebAccess/MCM Application Mode

Oscilloscope

When beginning to implement a measurement system, the user needs to verify and observe the sensor signal. The scope helps users analyze signals, and provides oscilloscope-like functions, including cursor measurement tools, trigger capture functions, automatic measurements of amplitudes, frequencies, average values, and peak-to-peak values, as well as real-time display of time-domain data and spectrograms.

Intelligent Inspection

Wizard guides are provided for easy setup, feature extraction, and customized algorithm for identification and interpretation without coding. The system also outputs signals to link other equipment to the SCADA/PLC system as monitoring nodes, and generates quality inspection reports.

Condition Monitoring

Wizard guides are also provided for easy setup without coding; they provide multiple data pre-processing algorithms, such as FFT, IFFT, a variety of filters, smoothers, and mixers. Customized feature extraction algorithms are provided

to convert large amounts of data into useful information. Through Ethernet communication protocols, data is uploaded to an IIoT cloud to facilitate remote equipment status monitoring, data analysis, and machine learning.

Architecture



Highlights

No Coding Required

This helps cut down investment in development resources and accelerates new project implementation.

Feature Extraction

Perform feature extraction for various functions such as Max, Mean, Median, Min, RMS, Pulse Width, Pulse frequency, Time of Max/Min, FFT frequency.

Data Pre-Processing

Pre-processing functions such as Moving average, Windows function, Linear filter, Frequency domain filter are provided.

Data Logger

Data storage, data searches, comparisons, and playback display functions are provided.

Connect to IIoT Cloud

Ethernet communication protocols, such as Modbus and MQTT are supported to upload data to an IIoT cloud.

Simultaneous Remote and Local Operations

Data analysis can be remotely or locally accessed.

Interpretation and Output

Simple configurations are provided for mathematical, bitwise, and logical operations; results are used to generate decision trees.

User and Equipment Authentication

The software comes with an authentication function, which can restrict users from viewing and/or changing system data and parameters, according to permission settings.