PiLogger OPC Software Product

What is PiLogger?
PiLogger is an OPC client software product that reads high speed data from any device or any DCS or PLC and then helps to debug the equipment problems, operating problems or causes of equipment shut-downs. PiLogger can be very useful to monitor rotating equipment. Following is a simple illustration of PiLogger:

Example of the use of PiLogger
You run various compressors or mechanical extruders in your process. Currently, your data historian and trending package samples at 1 minute scan rate or may be 5 sec scan rate. When a piece of equipment trips and shuts down, the console gets inundated with hundreds of alarms, such as (to name just a few for illustrative purpose):

DX3755 - Lube Oil Pressure LoLo Trip
DX3755 - Motor Speed LoLo Trip
DX3755 - Suction Pressure LoLo Trip
DX3755 - Bentley Nevada Monitor Vibrations HiHi
DX3755 - Multiple Surge Detected – safety triggered shutdown

Time Axis
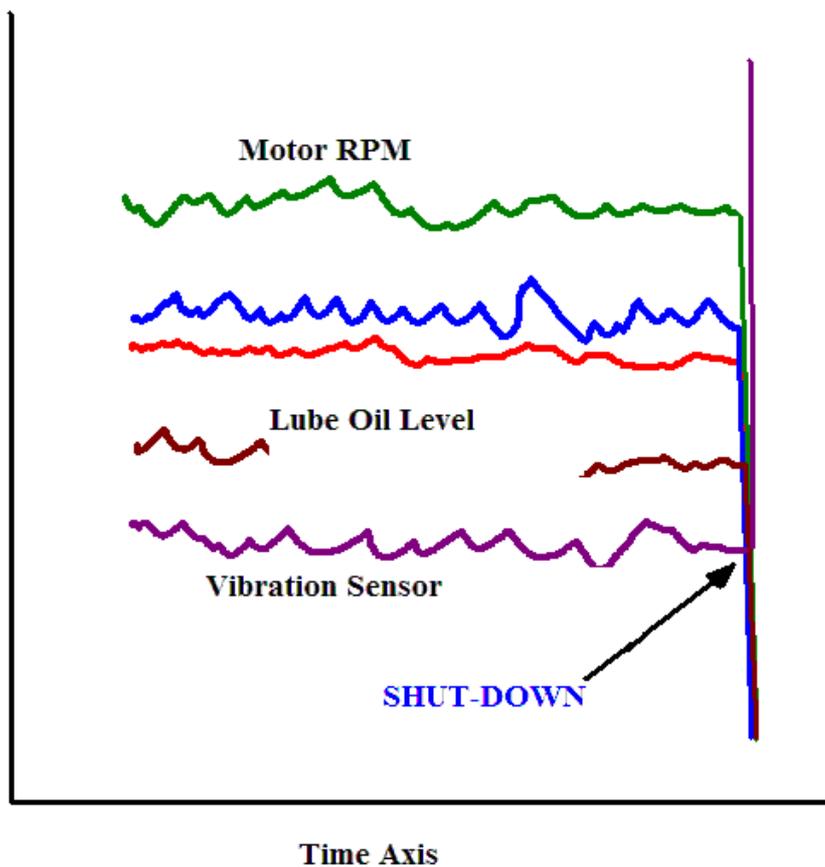
The problem is that using a trending package scanning data at 1 minute or even 5 second scan rates, the precise identification of the first LoLo or HiHi trip logic that initiated the shutdown may be almost impossible to pinpoint.

PiLogger can be configured to scan critical signals at fast scan rates like 0.1 second or even faster. PiLogger connect directly to a device, DCS or PLC using an OPC server communications system. PiLogger assists in identifying the "First Out" precisely and unambiguously. The "First Out" is defined as the process condition or a measured signal that triggered a shut-down sequence to stop the operation of some process equipment. The shutdown may be triggered inside the DCS, the PLC or a triple redundant safety critical shutdown system.

Configuration of PiLogger
Configuration of PiLogger is remarkably simple. The user configures an input file to specify the OPC tags to monitor. The user specifies the scan rate at which to collect the data. The fastest scan rate depends on the type of equipment and the number of tags to be collected.

PiLogger Circular File
Once PiLogger is started, it continuously collects the high-speed data at the preset scan rate by accessing the specified OPC server on the Windows server computer. PiLogger can be configured to save the last several hours of data on the hard disk. Typically, a time period of 48 hours or more is desired to take into accounts weekends so that if an event occurred during the weekend, the data would be still available on Monday of the following week.

Testing with an OPC Simulation server
PiLogger provides the capability to test easily with any standard OPC simulation server. This capability is useful for testing and also for training purposes.

Technical Help and Support
For technical help and additional details on PiLogger, please contact PiControl Solutions Company via email at info@picontrolsolutions.com.