BENTLY NEVADA 3500 SYSTEM OPERATION

Description

This 5-day course provides Installation, Operation & Maintenance instructions for the popular Bently Nevada 3500 series On-Line Condition Monitoring System. We will provide an overview of the system development and specification process. We will show you how to configure the various monitoring modules that are used in your plant, and explain how various configuration parameters affect the quality of your information. We will demonstrate how to interface the 3500 system with various plant systems, and show troubleshooting techniques as well.

This course is workshop intensive! You will spend considerable time practicing configuration on the 3500 workstations and will have good hands-on experience to take back on the job. This helps engineers, operators & technicians understand the information available and provides the knowledge to help better operate machinery.

Our 3500 module workshop sessions can also be specifically tailored to emphasize the modules contained in your plant, maximizing your hands-on time experience. Both hotel & on-site seminars are offered.

Objectives

- Introduce the 3500 Monitoring System
- Explain Typical Usage & Benefits
- Review Available Modules & The Information Provided
- Practice Software Configuration
- Review Implications of Configuration Parameters
- Review DDE / Modbus Communications to External Devices
- Learn to Program Modbus Maps
- Review Troubleshooting Techniques

Course Materials

A manual containing slide presentations, discussion materials, workshop exercises and additional reference information is provided in hardcopy and CD-ROM.

Who Should Attend?

Engineers, vibration analysts and I&C technicians who are involved with the installation, operation and maintenance of the 3500 Monitoring System.

Prerequisites

None. A general understanding of plant machinery and vibration is helpful.

Seminar Outline

3500 System Packaging Overview

- Racks & Modules
- Communications & Display
- System Software Packages

Overview of 3500 Rack Modules

- General Applications
- Required Transducers
- Information Available

External Display Devices

- Local LCD & VGA Displays
- Remote Computer Displays

Typical 3500 Applications

- Steam & Gas Turbines
- Hydro-Turbines
- Integrally-Geared Compressors
- Reciprocating Compressors
- Boiler Feed Pumps
- Centrifugal Pumps
- Motors
- Gearboxes

Field Installation Guidelines

- Machinery Monitoring Guidelines
- Rack Mounting
- Wiring
- Communications

Transducer Operation & Workshop

- Installation Conventions
- Proximity; Velocity; Acceleration
- Thrust / Rotor Position
- Speed / Tachometer
- RTD & Thermocouples

3500 Modules – Descriptions & Configuration Workshops (customized per customer)

- /15 Power Supply
- /20 Rack Interface Module
- /25 Keyphasor Module
- /32 4-Channel Relay Module
- /34 TMR Relay Module
- /40M Proximitor Monitor
- /42M Proximitor/Seismic Monitor
- /44M Aeroderivative Monitor
- /45 Position Monitor

- /46M Hydro Monitor
- /50 Tachometer Module
- /53 Electronic Overspeed Detection System
- /60, /61, /65 Temperature Monitors
- /62 Process Variable Monitor
- /64M Dynamic Pressure Monitor
- /70M Reciprocating Compressor Impulse/Velocity
- /72M Reciprocating Compressor Rod Position
- /77M Reciprocating Compressor Cylinder Pressure
- /92 Communication Gateway
- /93 System Display

External Communications & Workshop

- Communication Gateway
- DDE; Modbus; and Rack/Host Communication
- Modbus Mapping

Relay Operation & Workshop

- Logic Programming
- Configuration

System Software Packages & Workshop

- Rack Configuration Software
- Operator Display Software
- Data Acquisition & DDE Server