Integrated Condition Monitoring

Datapac® Applications Course Description

COURSE AGENDA

Day 1

- DataPAC Utility program and Setup Options
- Route Configuration and Data Collection Options
- Transferring Data between the dataPAC and Emonitor

Day 2

- Off Route Data Collection and Transfer to Emonitor
- Time Synchronous Measurements
- Run-up / Coast-Down
- Slow Motion Studies

Day 3

- Spike Energy Overview
- Phase Measurements
- Balancing with the dataPAC
- When and How to Use the Frequency Response Function

COURSE NUMBER: EK-ICM161

Course Purpose

This course covers the full range of operations of the dataPAC 1500, from basic to advanced, providing excellent information for beginning or experienced dataPAC users. Basic operations including loading, unloading and collecting overall and spectrum data are presented as well as advanced measurement techniques such as time waveform collection, time synchronous averaging, phase measurement and spike energy spectrum collection. The dataPAC 1500 two-plane balancing, start-up/coast-down and Frequency Response Function programs are also covered.

Who Should Attend

Individuals who use the dataPAC and would like to learn more about the instrument's data collection and vibration analysis capabilities should attend this course. This course also covers the prerequisite knowledge needed to attend and be successful in the *Vibration Analysis: Level 1 (*Course No. EK-ICM201).

Prerequisites

To successfully complete this course, students should have previous attendance to the *Introduction to Vibration Analysis Fundamentals* (EK-ICM101) or similar course and the *Emonitor Basic* course (EK-ICM141) are recommended. Three to six months experience with the dataPAC 1500 is recommended.

Student Materials

To enhance and facilitate students' learning experience, the following materials are provided to each student as part of the course package:

- *Student Manual*, which contains the key concepts, definitions, and examples presented in the course, including:
    - *Off Route Data Collection*, with steps for setting measurement parameters to trouble-shoot machinery problems.
    - *Application Papers*, which summarize the technology and setup requirements for advanced measurements such as Order Tracking, Time Synchronous and Spike Energy.
    - *Balancing Measurements*, providing an overview of Balancing and step-by-step instruction on using the dataPAC 1500 balancing application.

Hands-On Practice

Hands-on practice is a necessary part of learning and this course offers hands-on opportunities for use of the dataPAC 1500. Students will learn the basic operation of the dataPAC 1500 in route mode, the advanced features of off-route collection and software configuration for special measurement types.

Hands-On Practice (continued)

In particular, students will gain hands-on practice with downloading and uploading route and off-route data, using the balancing program and interfacing the dataPAC 1500 with Emonitor / Enshare.

Next Learning Level

Once students have mastered the fundamental skills covered in this course, they will have the knowledge and skills necessary to attend the next level of Integrated Condition Monitoring technology or product training. In particular, this course will benefit those students enrolling in the *Vibration Analysis: Level 1* course (Course No. EK-ICM201).

Course Length

This is a three-day course.

Course Number

The course number is EK-ICM161.

IACET CEUs

CEUs Awarded: 2.1

To Register

To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

You can also access course information via the Web at http://www.rockwellautomation.com/training

www.rockwellautomation.com

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