

TEST INC. - SCADA TRAINING
STANDARD 3 DAY PRESENTATION
April 1994

1 - SCADA BASICS (1 Hr)

SCADA Terminology
 Overall SCADA Functions
 Oilfield & Offshore Applications
 Special Offshore Problems
 Pneumatic System Interface
 Current MMS Considerations

Type 1200 General Design
 PC Components
 Processor & Memory
 Displays & Keyboards
 Floppy, Hard, and RAM Disks
 Communications Ports
 TEST Modem Monitor
 Field I/O System

2 - PERSONAL COMPUTERS (30 Mins)

Basic PC's
 I/O Ports
 Floppy and Hard Disk Drives
 General PC Software
 SCADA Programs on the PC

Generic PC I/O Board
 MIO - Status Inputs/Outputs
 MAT - Analog Inputs
 CAT - Pulse Inputs

End Elements
 Switches & Solenoids
 Analog Transmitters
 Pulsing Inputs

3 - BASIC PRGM FEATURES (2 Hrs)

TSP Commands
 Menu Systems
 Function Keys
 Standard Data Displays
 Printed Reports
 Daily Agenda System
 Alarm and Data Logging
 Command Files
 Text Editor
 Built-in Diagnostics

DC Power Systems
 Power Cells and Batteries
 Battery Chargers
 Solar Power Designs
 Type 2000/2200 RTU Design
 Dumb RTU Applications
 8052 Processor
 TEST Inc. Control Card
 I/O Interfaces
 Basic Operation
 Software Restrictions

4 - I/O POINT TYPES (2 Hrs)

Real and Virtual Channels
 Basic Channel Features
 Alarm Modes
 Status Inputs
 Status Outputs
 Value Channels
 Analog Inputs
 Counter Inputs
 AGA-3 Meters
 Totalizers
 Timer Channels
 Function (Average, Rate)

-- End of Day 1 --

6 - SCADA SOFTWARE (2 hrs)

Software Features
 Program Multi-Tasker
 Task Monitoring
 RTU, Utility, and Calc Tasks
 Inter-Task Communication
 Alarm Point Scan Task
 I/O Driver Task
 One Second Task

5 - SCADA HARDWARE (2.5 Hrs)

TSP Command List

7 - TSP COMMANDS (6 hrs)
 TEST SCADA Protocol (TSP)

Command Files

Contact Arthur Zatarain, PE
 via www.artzat.com
 For information on this document

Procedure Library
Command Line Parameters
Sample Programming

-- End of Day 2 --

8 - COMMUNICATIONS (2 Hrs)

Communications Basics
Communication Errors & Security
Phone Systems & Modems
Radio Systems
Packet Radio Controllers
TSP SCADA "Links"
Sample Communications
Communications Monitoring
Communications Problems

9 - HANDS ON TRAINING (6 Hrs)

Program Installation
System Configuration
Channel Programming
Comm Link Programming
Text File Editing
Function Key Programming
Command File Editing
Procedure Library Editing
Menu System Editing
Link Configuration
Hardware Troubleshooting
 Type 1200 Smart RTU
 Type 2000 RTU
 Type 2200 SCADA-Node RTU
Communications Devices

-- End of Day 3 --

Location:
New Orleans (Gretna)
Lafayette
Houston

TEST Provides:

Instructors
PC HOST Computers
Type 1200 RTU
Type 2000 RTU
Type 2200 SCADA-Node RTU
Pneumatic Interface Panel
Test Equipment
Radios
Phone Simulator
Optional Documentation

Instructors:

Arthur Zatarain
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COST:

\$1,425 - per student.

\$35 - Optional Documentation
(Must order in advance)