



Infi90 203 Course Syllabus

Foreign Device Interfaces; Configuration, Troubleshooting

Synopsis:

Infi90 203 provides the engineer or technician with a thorough understanding of Foreign Device Interfaces (FDI's). FDI's provide a serial data connection between the Infi90 DCS and other devices such as PLC's or other systems. This training course provides the plant engineer or technician with the knowledge required to modify and troubleshoot these interfaces.

Prerequisites:

Attendees should have attended Infi90 101 and 201, or have equivalent experience and have a technical background with a general understanding of DCS's, PLC's, and computers.

Course Duration:

Five (5) Days

Course Outline:

1. Overview of Foreign Device Interfaces
 - a. Block Diagram of the FDI
 - b. C Program environment of the MFP and MFC
 - c. File Structure of the MFP or MFC
 - d. Files used to Support FDI Configuration
2. Infi90 Function Code application
 - a. Special Function Codes used with C Programs
 - b. Front Sheet Configuration Blocks
 - c. Demultiplexing
 - d. Signal Quality Propagation
 - e. Tracking Configuration
3. RS232 Serial Protocol
 - a. Terminology
 - b. Signal Lines and how they are used

- c. Baud Rate
- d. Handshaking
- e. Parity, Stop Bits, and Data Bits
- 4. Hardware Configuration
 - a. Termination Unit Configuration
 - b. Cabling
 - c. MFP or MFC switch settings
 - d. Foreign Device setup
- 5. FDI Point List
 - a. Standard Fields in Generic Database
 - b. PLC File Addressing
 - c. Data Types
 - d. Optimization
 - e. Points used for Signal Tracking
 - f. Using KwikEdit
 - g. Using DBase
- 6. FDI Engineering Workstation (EWS) Software
 - a. Saving and Loading the Blockware (.CFG)
 - b. Saving and Loading .NBS file
 - c. MFFormat
 - d. MFLoad
 - e. MFRead
 - f. Other FDI user utilities
 - g. Set up of CIU for MFUtils
- 7. FDI Communication Methods
 - a. Read Only
 - b. Exception Reporting or Polling
 - c. Exception Writes
 - d. Stalled Writes
- 8. Troubleshooting
 - a. Error Codes reported in Blockware
 - b. FDI diagnostic port

- c. RS232 serial communication troubleshooting and monitoring
- d. Grounding Problems
- e. Addressing Problems
- f. Communication Setting Problems
- g. Hardware Problems
- h. Startup Sequence