



The PTO, in cooperation with the PROFIBUS Interface Center (PIC), is proud to offer the ninth year of PROFITech Certification Training Courses. These classes are intensive, hands-on, four and a half day training programs conducted at the PIC in Johnson City, Tennessee. Attendees passing the test will receive an official PROFIBUS or PROFINET Certified

Engineer Certificate and 24 PDH hours. In addition, their names and their email addresses will be posted on the PROFIBUS Web site.



AGENDA DAYS 1 - 5

Day 1: Technical Material & Exercises, 1:00 pm to 5:00 pm
 Day 2 - 3: Technical Material & Exercises, 8:30 am to 5:00 pm
 Day 4: Technical Material & Exercises, 8:30 am to 12 pm
 Practical Exam, 1:00 to 3:30 pm & 3:30 pm to 6 pm
 Day 5: Written Exam, 8:30 to 12 pm
 Coffee & pastries at 8 am, morning and afternoon snacks and lunch provided days 2 -5. Class dinner on Tuesday evening.

“It certainly was a deserved certificate and all others in the class felt the same. We were tested on comprehension and not so much for what we remembered. You have two very excellent instructors in Ron and John; they were patient with us, knowledgeable and just plain good people. My only regret is that I did not attend this school a year ago.”

-Roger Randolph, CRB Consulting Engineers

CLASS FEE INCLUDES

- Advanced training by qualified instructors
- Complete set of course materials
- Breakfast and lunch on course days
- PIC-hosted dinner
- Official PROFIBUS or PROFINET Certified Engineer Certificate for graduates
- 24 PDH Credit Hours
- Web site listing as Certified Engineer with contact information
- Use of PROFITech logo for recognition as PROFIBUS or PROFINET Certified Engineer



“The PROFIBUS class was one of the best classes I have attended. The information was clear and concise. The instructors were excellent. The troubleshooting tools and programs were very good.”

-Norman Ross, Nestle R&D Center, Inc./Ohio



PROFIBUS Certified Network Engineer Class

CLASS SYLLABUS

PROFIBUS Overview:

- Protocol Positioning
- Bus Access
- Multi-Master Systems
- Functionality & Protocol Structure of devices
- DP & PA Features
- DP & PA Commonality
- PA Configurations
- Future Protocol Trends

Network Setup & Debug

- Installation & Wiring - Copper
- Network Configuration
- Bus Timing
- Alternative Media

DPVO Telegrams Overview

- Telegram Format
- Master & Slave Interactions

PROFIBUS Bus Monitor

- Monitor Features
- Tracing, Triggering & Filtering

DPVO Master/Slave Interaction Details

- Master Class 1
- Master Class 2

System Debugging

- Bus Monitor
- Other Tools



Bus Timing

- Single-Master System
- Multi-Master System

DPV1 Telegrams Overview

- Telegram Formats
- Master & Slave Interactions

DPV1 Master/Slave Interaction Details

- Master Class 1
- Master Class 2

PA Network Setup & Debug

- Wiring & Installation
- Configuration - DP/PA Link
- Configuration - DP/PA Coupler
- Use of Bus Monitor

Network Components

- DP/DP Coupler
- Other Components

Summary of Things to Do & Check

New Features/Profiles

- PROFIsafe
- PROFIdrive
- PROFINET

“I found that the PROFIBUS Engineer Certification has really helped me. I really feel that all the Open Bus technologies should follow suit and come up with their own certification. The information provided in the classroom as well as the Certification Testing has given me the tools to succeed from planning to implementation. Do yourself a favor, attend this Certification Course!

-Phillip M. McGough, Emerson Process Management



PROFINET Certified Network Engineer Class

CLASS SYLLABUS

Ethernet Basics and Hands on Exercises
Network Topologies and SNMP and Hands-on
Building and testing a fast-connect Ethernet cable
PROFINET Overview
PROFINET performance levels (TCP/UDP IP, RT, IRT)
PROFINET IO Configuration and Hands-on Exercises
PROFINET IO Ethernet Frames
Ethereal / Wireshark Ethernet Monitor, setup and Hands-on Exercises
ProfinetCommander IO Controller and Hands-on Exercises
PROFINET IO Diagnostics / Troubleshooting and Hands-on Exercises
PROFINET IO with IRT and performance calculations
PROFINET GSDML device description files and
Hands-on Exercises
PROFINET CBA Configuration and Hands-on
Exercises
PROFINET CBA Troubleshooting Tips
Network Security with PROFINET
PROFIsafe with PROFINET
Certification Test (consists of both Practical and
Written Tests)



Attendee Comments:

"The PROFINET Certified Network Engineer course was the best automation training class I have ever attended."
"Presented very well with great course materials."
"This class took me from the fundamentals of Ethernet all the way to the PROFINET applications and in between, and now when leaving the class I feel like I've been from A to Z."

CLASS SCHEDULES



PROFIBUS
Certified Network Engineer Class

February 2-6
March 23-27
June 15-19
September 21-25
October 19-23
November 16-20



PROFINET
Certified Network Engineer Class

February 2-6
April 6-10
September 14-18
November 9-13

Register for PROFItch classes at www.us.profibus.com.