



## Fibre Channel Protocol and Product Training **FCP-PT**

AIM-USA is pleased to offer Fibre Channel Protocol and Product Training instruction provided by Gary Warden, a digital communications expert instrumental in the development of Fibre Channel Standards. Classes are available in 2- or 3-day sessions.



Experienced instruction on **Fibre Channel Protocol**, including:

- Architectural levels (FC-0 through FC-4),
- Point-to-Point, Fabric Switch, and Arbitrated Loop\* topologies
- Fibre Channel 8B/10B Data Encoding
- Ordered Sets
- Exchanges, Sequences, Frame Management and Flow Control
- Information Unit Transfer Protocols (ASM, 1553, SCSI, IP) and how they are handled in Fibre Channel
- Fibre Channel Frame Formats and Frame Header field usage
- Classes of Service and applicable acknowledgement protocol  
\* 3-day class only

**fcXplorer/Simulyzer Product Training** including:

- Board/Port Setup for IRIG Time, Data Rate, Analyzer/generator Mode, etc...
- Data Generation/Simulation setup including Data Generation functions and Error Injection
- Chronological Monitor/Analyzer setup including filter and trigger mechanisms and Record File Generation
- Current Value Monitoring
- Configuration scenarios based on your application's environment

Gary Warden is the founder of SRB Consulting, Inc, a training and design firm specializing in Fibre Channel. He is a principle member of the NCITS T11 committee for Fibre Channel. He is also a principle member of the NCITS T11.3, and T11.5 working groups. He previously served as the secretary for the FC-AE (Fibre Channel Avionics Environment) special interest group and currently serves as their interim facilitator.

Gary has over 25 years experience in high-performance workstation clustering, avionics support systems, crew training systems, and R&D Simulation, as well as commercial real-time network product development. Gary is the co-inventor of SCRAMNet, a successful real-time network protocol used extensively in the DoD Real-Time communities. Gary has developed many simulation models of Fibre Channel protocols and specific vendor's products including a detailed model of the Arbitrated Loop Port State Machine, disk drives, switches, and hubs using the Foresight modeling language. These models have been used by several commercial and DoD companies to evaluate Fibre Channel performance.

