

# TRAINING

# 1394 Technology Training Agenda \*

## Day 1 – 1394 Technology Training

### General 1394 Introduction (1.5h)

- 1394 Standards (1394-1995, 1394a, 1394b)
- OSI Model Relationship
- High Level protocols Introduction



### 1394 Architecture Overview (1394a, 1394b) (3h)

- ISO/IEC13213
- 1394 Physical Interface
- 1394 Configuration
- 1394 Arbitration
- 1394 Communication Services
- 1394 Bus Management

### 1394 Design considerations (1.5h)

- Silicon
- Cores
- SW stacks

### Mil1394b (SAE AS5643-1) (2h)

- Fault Tolerant bus topology
- Deviations from the traditional 1394 protocol
- Fixed Frame Rate (STOF packets)
- Static Assignment of Channel Numbers
- Latency Considerations
- ASM Protocol
- Physical Layer Considerations



## Day 2 – FireSpy Hands-on Workshop \*\*

### General Military 1394 Test Challenges (2h)

- Triple Redundancy
- Data Reduction for Real Time Analysis
- Mil1394(VS, ASM) Protocol Support
- Cable Communication Testing



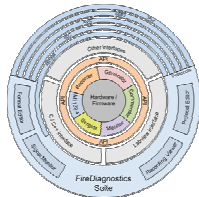
### Data Analysis and Device Emulation (2h)

- Protocol Decoding
- STOF Generation
- RX/TX Offsets Verification
- Format Editor
- Asynchronous Stream Generation
- Triple Channel Support

## Day 2 – Scriptor Hands-on Workshop \*\*

### Scriptor – (4h)

- Purpose, Concept, Architecture
- Editor: Syntax, Debugger, Macros
- Control Panel: I/O Control, Interaction, etc.
- Packet RX/TX and Data I/O
- LabVIEW™ Interface / API



## Description:

DapTechnology's IEEE1394 Technology Training offers a modular structure that can be adjusted according to the customer's educational requirements. Three major building blocks form the backbone structure of the 1394 Technology Training.

- **IEEE1394 Technology Training** (typically 1 day)
- **FireSpy Analyzer Workshop** (typically 0.5 days)
- **FireSpy Scriptor Workshop** (typically 0.5 days)

The first part provides essential 1394 information for everybody involved in IEEE1394 programs. It provides a comprehensive technology information package covering the different standards revisions of IEEE1394, i.e. IEEE1394-1995, IEEE1394a-2000 and IEEE1394b-2002. The training discusses architectures, cabling, interfaces, communication schemes, etc. An essential portion of this training covers the high level communication scheme SAE AS5643-1 which was developed and architected specifically for deterministic avionics applications.

The other two blocks focus specifically on DapTechnology product hands-on training. In this workshop small groups of 2-3 students will get hands-on experience with the FireSpy Analyzers provided by DapUSA, Inc. Typical test scenarios will be discussed and students will have to resolve given tasks. The workshop will also deal with the Scriptor functionality in detail. Sample scripts will be developed by the students and the functionality as well as the quality of the implementations will be evaluated by the trainers.

The trainers have a long lasting experience with IEEE1394. Michael Vonbank Ph.D. has more than 10 years of IEEE1394 technology experience and has served on several standards committees. Currently he is actively involved in the SAE AS-1A3 Mil-1394 Task Group. Jeroen de Zoeten and Susumu Sito are both key members of DapTechnology's engineering staff and can provide unique insights into the FireSpy products.

"Our great technology background and the day-to-day practical work experience with technology teams around the world give us a unique technological perspective and that essential hands-on mentality. Get your team trained by the IEEE1394 experts!"

## CONTACT INFORMATION:

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\* Agenda Example only,  
Please contact DapTechnology or DapUSA for different topics, priorities and time allocations.

\*\*FireSpy equipment will be provided by DapUSA, Inc.  
(1 analyzer per 2 attendees)  
PC workstations/laptops in matching quantity to be provided by customer