



GE Aerospace

# Aerospace TSN Workshop

Comprehensive hands-on session  
for industry professionals

Immersive 2-day bootcamp for industry professionals with and without previous experience. Designed from a system integrator perspective covering all aspects of time-sensitive networking including standards, design principles, configuration, instrumentation, evaluation, and hands-on experimentation.

## Session 1: Comprehensive TSN Tutorial

- Introduction to time-sensitive networking
- Technical deep dive into IEEE 802.1 TSN standards
- Review of aerospace TSN standards
- 4 hour on-site or virtual session

## Session 2: TSN Configuration Session

- Overview of relevant TSN configuration standards
- Chronos configuration tool tutorial
- Chronos hands-on training with realistic examples
- 4 hour on-site or virtual session

## Session 3: Hardware Demonstration

- TSN implementation over a multi-vendor testbed
- Network engineering and configuration
- Instrumentation and performance evaluation
- 4 hour on-site session

## Session 4: Customized User Application

- Hands-on experimentation with TSN testbed
- User defined scenario development and analysis
- Confidential Q&A
- 4 hour on-site session



# Workshop Details

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## Options

- Basic 1 day package: includes session 1 and 2 for up to 10 attendees
  - Advanced 2 days package: includes sessions 1, 2, 3, and 4 for up to 10 attendees (Note: contact sales for on-site and virtual options)
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## Software included

- Chronos trial license (7 days)
  - Helios trial license (7 days)
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## Standards covered

- IEEE Std 802.1AS Time Synchronization
  - IEEE Std 802.1CB Frame Replication and Elimination
  - IEEE Std 802.1Q Bridges and Bridged Networks
  - IEEE Std 802.1Qav Credit-Based Shaper
  - IEEE Std 802.1Qbv Time-Aware Scheduling
  - IEEE Std 802.1Qci Per Stream Policing and Filtering
  - IEEE Std 802.1Qcc TSN Configuration
  - IEEE Std 802.1Qcw YANG Data Models
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## Aerospace specific

- IEEE P802.1DP/SAE AS6675: TSN for Aerospace Onboard Ethernet Communications
  - SAE AS6509: Converged Aerospace Integrated Networks
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## Hands-on Bootcamp components

- Chronos Toolset
  - TSN Testbed
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## Network analysis

- End-to-end scheduling and visualization
  - Network and link utilization
  - Latency and Jitter
  - Traffic visualization
  - Time synchronization
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CHRONOS

Time-Sensitive Networking Toolset

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**GE Aerospace**

3290 Patterson AVE SE, Grand Rapids, MI 49512

[www.geaerospace.com](http://www.geaerospace.com)

[Inquiries:networking@ge.com](mailto:Inquiries:networking@ge.com)