



# Raptor Systems Advanced Training

Maximize your Raptor experience with our Raptor Systems Advanced Training. This 2-day course is tailored for experienced Raptor users looking to enhance their skills in advanced areas. Combining theoretical instruction with eight focused hands-on exercises, this immersive training will empower you to tackle complex applications with confidence and speed.

**Disclaimer:** This is a typical agenda for this course. The time allocated to each topic is an estimate, and timings will vary from class to class as we adjust the depth of each section to meet the individual needs of the participants.

**9:00AM****Introduction**

- Real Time System
- New Eagle Background
- Hardware Components
- Software Components

**9:30AM****Calibration Management**

- Calibration Workflow
- Calibration File Generation
- Port Cals to M-file
- *Exercise 1: Calibration Handling*

**11:00AM****Morning Break****11:15AM****Raptor Model Guidelines**

- Modeling Best Practices
- Model Library Creation
- *Exercise 2: Library Handling*

**12:30PM****Lunch****1:30PM****Modeling and IO Considerations**

- Raptor ECU Model Fundamentals
- Model Referencing
- Multicore Support
- Load Impedance Handling
- *Exercise 3: Multicore Application Handling*

**3:15PM****Afternoon Break****3:30PM****Inertial Measurement Unit**

- Inertial Measurement Unit Background
- IMU Setup and configuration
- *Exercise 4: IMU Control of Throttle Actuator*

**5:00PM****Day 1 Class Ends**

**9:00AM****J1939 CAN Communication**

- J1939 Background
- Introduction to Raptor J1939 Library
- J1939 Application Messaging
- *Exercise 5: J1939 Application Messaging*

**10:30AM****Morning Break****10:40AM****J1939 Diagnostics & OBD Fault Management**

- J1939 Diagnostics Messaging
- Fault Basics
- Fault Implementation
- *Exercise 6a: J1939 Diagnostic Messaging with OBD Fault Manager*

**12:40PM****Lunch****1:30PM****UDS & OBD Fault Management**

- UDS Diagnostics Messaging
- Fault Basics
- Fault Implementation
- *Exercise 6b: UDS Diagnostic Messaging with OBD Fault Manager*

**3:00PM****Afternoon Break****3:10PM****Ethernet Communication**

- Automotive Ethernet Background
- Implementing Ethernet
- Using Raptor DBC Pack/Unpack
- *Exercise 7: "Hello World" Ethernet Style*

**4:00PM****Raptor Memory Management**

- Fixed NV RAM
- Stack Monitoring and Usage
- *Exercise 8: Memory & Stack Handling*

**5:00PM****Day 2 Class Ends**