# Modular Data Processing Unit (MDPU) Course

## Duration

1 Week

## Prerequisites

- A good level of English
- A good avionic & digital electronic background

## Course attendance

Users of equipment or systems based on aircraft on-board computers.

## Training location

- **Elancourt**
- On customer site

## Contact

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## Course program

### Day 1

Module avionic concept
- Review of avionics architectures
- Principles and advantages of modular design
- History of modular avionics
- Common module, software & communication concept
- Example of application from design to completion

### Day 2

MDPU Real Time architecture and operation
- The genericity, open architecture & cots approach
- Functional area covered by MDPU
- General characteristics of MDPU architecture
- Description of system operation

### Day 3 & 4

Modules and functionalities description
- Data processing
- Bus controllers
- Data exchange
- Real Time Operating System

### Day 5

Dimensioning of a Real-Time application on a modular architecture.

## Course summary

- Presentation of MDPU
- Introduction to Modular avionics concept
- MDPU Real Time architecture and operation
- MDPU modules and functionalities description
- Data Processing Module
- Bus and data exchange
- Real Time Operating System
- Architecture
- Hardware Architecture: applied exercise.

## Training objectives

- Understanding the needs & advantages of Modular Avionics
- Learning the functionality of the MDPU
- Knowing the main characteristics of the MDPU
- Understanding the architecture of the MDPU, the role of the Modules inside MDPU and how the data are exchanged through the bus.

## Language

English or French..