



## Rail Family - Theory and Practice (CP1)

The extensive range of Hirschmann™ switches enables a broad spectrum of applications for both large and small networks. Despite the simple installation procedure, these devices require expert selection, commissioning, and supervision, so that resilient functionality can be achieved under even the most extreme of industrial conditions.

### Languages

- CP1e English
- CP1f French
- CP1d German
- CP1n Dutch
- CP1p Portuguese
- CP1es Spanish

### Duration

3 Days  
9:00 – 16:30

**Schedule / Location / Price**  
[www.hicomcenter.com](http://www.hicomcenter.com)



Recommended for the Hirschmann™ Industrial Rail Specialist certification examination.

### Target Group

Product training course for System Engineers, Network Designers and Support Technicians.

### Prerequisites

An understanding of Ethernet and TCP/IP, for example "Industrial Ethernet (CT1)" and "Industrial Networking (CT2)" is required.

If available, the participant should bring a laptop with Ethernet connection and an operating system CD. Administrator rights are required.

### Objective

In a professional environment the participants receive in-depth knowledge about the OpenRail, OpenMICE, MACH, and OCTOPUS Layer 2 functionality. This includes installation, commissioning, and supervision.

The training is part theory and part practice. The necessary knowledge about functions and deployment possibilities of the products are taught in individual theory blocks. Each block is followed by practical exercises, designed to familiarize the participants with the devices through first-hand experience.

### Seminar Content

#### Introduction

- Overview of Hirschmann™ products
- The Platform Concept

#### Device Properties

- Form factor
- Temperature ranges
- Power supplies
- Certifications

#### Basic Settings

- Firmware management
- Configuration management

#### Switching

- Port configuration
- Multicast control
- VLANs

#### Redundancy

- HIPER Ring
- MRP
- Subbrings
- Rapid Spanning Tree
- Multiple Spanning Tree
- Link Aggregation



#### Diagnostics

- Port Mirroring
- Device status
- Topology Discovery
- Configuration check
- Event log

#### Security

- Port Security
- Authentication (802.1x)

#### Advanced

- DHCP Relay and Server
- Command Line Interface