As different applications and networks converge in industrial environments, it is no longer enough to master the basic functionality of these networks.

To keep pace with the growing size and performance requirements of IP networks, today the network administrator requires extensive technical and practical knowledge about various unicast and multicast routing mechanisms.

**Target Group**
Technology training course for System Engineers, Network Designers, and Support Technicians who are building, supporting, or migrating an Industrial Ethernet network.

**Prerequisites**
Basic knowledge is required, for example previous attendance of the “Industrial Networking (CT2)” course. If available, the participant should bring a laptop with Ethernet connection and an operating system CD. Administrator rights are required.

**Objective**
This course builds on the experience gained from “Industrial Networking (CT2)”, providing network experts with intensive theoretical and practical knowledge about unicast and multicast routing.

A special emphasis is placed on deploying routing protocols in complex industrial environments. This enables the participants to provide comprehensive support, both for demanding projects and their daily work.

**Languages:** CT3e English, CT3f French, CT3d German

**Duration:** 2 Days

**Schedule / Location / Price:**
[www.belden.com/resources/training](http://www.belden.com/resources/training)

Recommended for the Hirschmann Industrial Technology Professional certification examination.

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**Seminar Content**

**Routing**
- Routers and their functionality
- IP addressing

**Unicast Routing Protocols**
- RIP
- OSPF

**Multicast Routing Protocols**
- DVMRP
- PIM-DM
- PIM-SM

**Router Redundancy**
- VRRP
- HiVRRP