

## PROFINET Commissioning & Maintenance Course

A one-day course designed as an add-on to the Certified PROFINET Installer Course covering the practical techniques of fault finding on "operational" PROFINET networks.

### Who is this course aimed at?

The one-day Certified PROFINET Installer Course gives an excellent introduction to PROFINET technology and how to properly layout and install networks. The verification and fault-finding methods taught are however generally limited to non-operational networks and static testing.

The Certified PROFINET Engineer Course covers the full in-depth theory and practice of PROFINET operation and fault-finding. Although it is desirable to have one or two fully qualified PROFINET Engineers, it is by no means essential that all maintenance personnel be so highly trained.

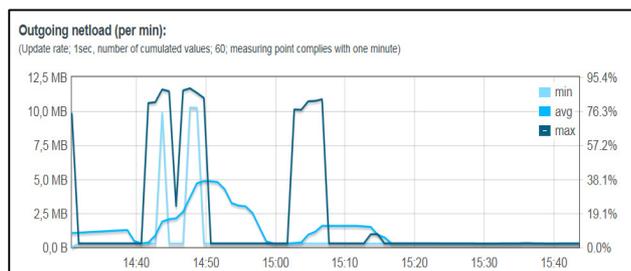
The PROFINET Commissioning and Maintenance course provides an intermediate level of training for technicians and engineers who are involved with commissioning, health checking and fault finding on operational PROFINET systems.

### What does the course cover?

This is a practical course based around a working PROFINET network. Each pair of students has a rack of devices and laptop with hardware and software tools from several vendors.

Techniques taught on the course includes diagnostics provided by PLC's, Switches and Permanent network monitors. It purposely avoids the use of telegram analysers like Wireshark which are covered in detail in the Certified PROFINET Engineer Course.

The course covers how to health check a working PROFINET system and quickly troubleshoot and locate problems. The course is very practical, based on hands-on exercises using a working system on which faults can be systematically introduced.

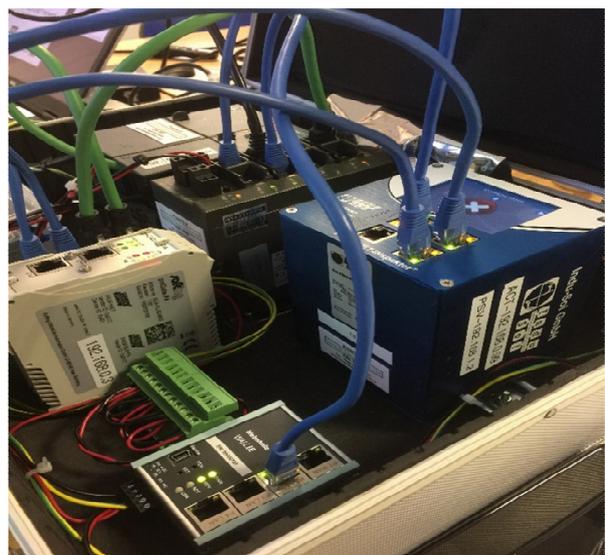


Type	Device	Event	Date
Status change	rack04.dev2 00:30:DE:84:63:22, 192.168.0.42	Device failure	19.11.2016 15:28:42.566
Status change	rack04.dev2 00:30:DE:84:63:22, 192.168.0.42	Consistent frame gaps	19.11.2016 15:28:36.178
Status change	rack04.dev3 00:AD:45:8B:41:80, 192.168.0.43	Consistent frame gaps	19.11.2016 15:28:35.678
Status change	main.sw1 00:0E:9C:9B:94:8D, 192.168.0.1	Device failure	19.11.2016 15:26:39.329
Status change	main.sw1 00:0E:9C:9B:94:8D, 192.168.0.1	Jitter	19.11.2016 15:26:39.329
Status change	cpu015-pn 00:0E:9C:FE:75:E2, 192.168.0.2	Device failure	19.11.2016 15:26:39.325
Status change	calw03f F0:1F:AF:69:8B:28, 192.168.0.200, f480:1f56:50a0:a0a9:5b53	Netload	19.11.2016 15:05:36.400
Status change	calw03f F0:1F:AF:69:8B:28, 192.168.0.200, f480:1f56:50a0:a0a9:5b53	Netload	19.11.2016 15:03:45.399
Status change	rack05.sw1 24:EA:40:20:81:D3, 192.168.0.50	Jitter	19.11.2016 15:03:26.412

### Why must I do the Installer Course first?

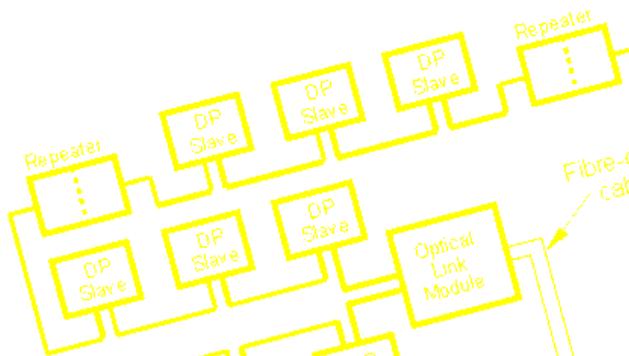
The Maintenance Course teaches how to find and locate faults in working PROFINET systems; however the technician must have a good understanding of the types of faults that can occur and their causes. The Certified PROFINET Installer Course provides the basic grounding which is essential to understanding the more advanced techniques covered in this course.

The course is available for on-site delivery and at selected locations around the country for up to 12 people. The course can also be delivered overseas providing a cost effective alternative to sending staff to the UK.



As an optional addition to the on-site training, we can offer half a day of on-plant training for the engineers who take the Installer and Maintenance Course. This can involve supervised checking of a working system at the customer's site.

Note that responsibility for plant production and personnel safety will remain the responsibility of the Company should this option be chosen. Please see the conditions of supply at our web site.



### **Course options**

Because this course is not certified or accredited by PROFIBUS and PROFINET International, the syllabus can be altered and optimised to meet your exact requirements.

**Booking Information – for dates, costs and booking information, please contact:**



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Control Specialists Ltd are a partner of Verwer Training and Consultancy Ltd and are authorised to act on their behalf in the handling of enquiries, bookings and invoicing for training courses.

Peter Thomas of Control Specialists Ltd is registered as a Certified PROFIBUS and PROFINET Instructor with PROFIBUS and PROFINET International Training Centre (PITC).