



COURSES

TRAINING AND SEMINARS

We face arising responsibility not only in regard to design and quality assurance of our products but also offer services to use the products best, e.g. seminars and training. In a pleasant atmosphere and by a good balance between theory and practice we submit the experience that concentrated learning can be fun.

Seminars aim on introducing into the automation concept of the IEC 61131 standard as well as teaching the standardized project structure, the language elements and their use in practice. Furthermore, multitasking structures and the use of reusable software in the sense of instantiation is to be worked out. The theoretical background is confirmed by practical exercises.

Training: In future your company will execute the automation tasks with help of the products by KW Software. This means we offer you a high-quality tool and it is one of our tasks to support you how to work efficiently with this tool. Participants are well used in PLC programming and thus need to recognize elements of traditional systems within a modern IEC-compliant one. They ask for detailed explanations, and they expect theoretical background to be proven by practical exercises.

Seminars and trainings match the requirements of PLCopen concerning IEC 61131 conforming training and are certified correspondingly.

All sessions are held either in German or English language.

CONTENTS

IEC 61131

- Objectives and elements of the IEC 61131-3 standard and their realization in practice (project structure, program organization, programming languages, data types concept)
- Use of the standard functions and function blocks and creation of user routines; libraries; instantiation
- Assistance for test and commissioning in MULTIPROG®

ProConOS®

- Architecture of the runtime system
- Multitasking, I/O image, system data, exception handling
- Determinism in time, multitasking and process
- Communication

ProVisIT

- Standard objects, enhanced objects, ActiveX Controls
- Library handling
- Scripting

A detailed scheduling can be ordered on demand and customer specific topics may also be adjusted with KW-Software's technical trainers.

PREVIOUS KNOWLEDGE

We expect experience in the use of programmable controls or good knowledge about a higher programming language as well as good user knowledge about Windows® applications.

DURATION AND LOCATION

Depending your requirements seminars and training sessions take between three and five days.

In view of a major number of participants from one company it is usually sensible that training courses will take place in your company (In-House Training).

For single employees of different companies we offer sessions in Lemgo with limited attendance to six persons per seminar.

WORKSHOP FOR SYSTEM DEVELOPERS

In connection with the ProConOS® Developer Toolkit it is recommended to get an introduction into architecture and interfaces of the PLC runtime system. Trainees will be able to install it on their own hardware platform. The workshop is held in Lemgo and includes also an introduction into MULTIPROG®. The attendance is limited to three system developers.

COURSE SPECIFICATION

Seminars	Standardized PLC programming Contents Overview: <ul style="list-style-type: none"> • Introduction into IEC 61131 • Realization of the norm with MULTIPROG® • Test and commissioning tools 	3 days
	Introduction into Machine Sequential Function Chart (MSFC) Contents Overview: <ul style="list-style-type: none"> • Differences to the standard SFC • Functionality of MSFC • Examples to configure MSFC 	1 day
Trainings	MULTIPROG® and ProConOS®: IEC 61131-3 in Practice Contents Overview: <ul style="list-style-type: none"> • Objectives and elements of the IEC 61131 in practice • The programming languages on the basis of examples • Test and commissioning tools in the context of exercises 	4 days
	Machine Visualization ProVisIT Contents Overview: <ul style="list-style-type: none"> • Dynamization of visualization objects • Instantiation of visualization objects • Working with libraries 	2 days
Workshop	ProConOS® System Developers Workshop Contents Overview: <ul style="list-style-type: none"> • Short introduction into MULTIPROG® • ProConOS® interface structure • Adapt ProConOS® to customer specific target 	2 days

SCOPE OF SUPPLY

- One copy of the training manuals (English or German) for each participant
- Demo versions of all necessary software components
- Example and training projects

ORDERING INFORMATION

Order number	Designation
1-7100-0205-000-000	Seminar: Standardized PLC programming
1-7100-0202-000-000	Seminar: Introduction into MSFC
1-7100-0101-000-000	Training: MULTIPROG & ProConOS: IEC 61131 in Practice
1-7100-0104-000-000	Training: Machine Visualization ProVisIT
1-7100-0303-000-000	Workshop: ProConOS System Developers Workshop

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