

# **COMOS**Training Description

### COMOS Training Offer

Whether you're looking for basic knowledge for first-time users or specialist know-how for experts and administrators - we always offer you the right training for your requirements.

### Structured, practice-oriented training courses

Regardless of whether you work as a COMOS user or administrator, our requirement-oriented COMOS training courses provide substantial support in achieving your learning success.

### From "first-time users" to "COMOS experts"

Starting with the obligatory COMOS Training Platform (Basic) or COMOS Training Process Engineering, you can expand your capabilities across the entire breadth of the COMOS software or acquire expert knowhow via our Administrator Trainings. Our range of courses, with its wide variety of combinations, supports you in acquiring comprehensive know-how that can be immediately applied, and in building up sound knowledge of COMOS in theory and practice. Please note, however, that there are some training courses that require prior knowledge of certain topics. You can find the relevant details, as well as the content and duration of courses, in the training descriptions

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## COMOS Training Platform

### **Contents**

The COMOS Platform training is aimed at planning engineers, drafters or future COMOS administrators. Students learn about the philosophy of COMOS, how to handle the Navigator and how to create structures and engineering objects. They are also introduced to tools such as queries and bulk processing as well as to interfaces and working layers.

### **Target Group**

Planners, drafters, engineers, project team members

### **Prerequisite**

Windows user knowledge

- COMOS projects and user interface
- Navigator and tabs
- COMOS objects
- Working layers
- Basics for gueries
- Queries and bulk processing
- Documents and lists
- · Further functionalities

### COMOS Training P&ID

### **Contents**

During the COMOS P&ID training, students learn how to use practiceoriented methods and processes to carry out graphical, process engineering planning with all the relevant objects, drawing types and documents in COMOS.

### **Target Group**

Planners, drafters, engineers, project team members

### **Prerequisite**

**COMOS Training Platform** 

- Creating structures and objects
- · Editing and placing objects
- Pipes
- Objects for process engineering
- Measurement functions
- · Handling documents
- Copy methods
- Further functionalities

# COMOS Training Electrical Engineering

### Contents

During the COMOS Electrical Engineering (EE) training, students learn how to use practice-oriented methods and processes to carry out electrical engineering and create circuit diagrams with the COMOS module El&C.

### **Target Group**

Planners, drafters, engineers, project team members

### **Prerequisite**

**COMOS Training Platform** 

- Creating structures and objects
- Placing objects (single line diagram)
- Placing objects (circuit diagram)
- Potentials and terminal strips
- Cables and connections
- · Handling documents
- Copy methods
- Further functionalities

### COMOS Training Instrumentation & Control

### Contents

During the COMOS Instrumentation & Control (I&C) training, students learn to use practice-oriented methods and processes to carry out I&C engineering, create measuring and actuating functions and draft loop diagrams using the COMOS El&C module.

### **Target Group**

Planners, drafters, engineers, project team members

### **Prerequisite**

**COMOS Training Platform** 

- Creating positions and functions
- Creating loop diagrams
- PLC / connection elements
- Connecting and marshalling (via diagrams)
- Connecting and marshalling (object based)
- Loop document manager and modular objects
- Handling documents
- Further functionalities

# COMOS Training Logical

### **Contents**

This is an advanced training for the experienced users with knowledge gained in the COMOS l&C training. Students learn how to handle signals, actions, step sequences and function diagrams with the COMOS module Logical.

### **Target Group**

Planners, developers (automation), engineers, project team members

### **Prerequisite**

COMOS Training Instrumentation & Control

- Basics
- Function diagrams
- Step sequences
- Further blocks / functionalities

# COMOS Training Cabinet Layout

### Contents

The Cabinet Layout training is intended as an advanced course for experienced users with knowledge gained in the COMOS Electrical Engineering training. Students learn how to use methods and tools for planning control cabinets with the COMOS module El&C. The focus is on creating and synchronizing views and equipping cabinets and rails.

### **Target Group**

Planners, drafters, design engineers, engineers, project team members

### **Prerequisite**

**COMOS Training Electrical Engineering** 

- · Creating a cabinet system
- Creating a cabinet design
- Routing cables and checking
- Creating layout designs

## COMOS Training Administration Database Tools (iDB)

### **Contents**

The training contains short introductions to tools and plugins in the industrial database, which ensure proper and effective handling of customized base objects. The key topics of the five tools are organizing and retrieving base objects on the one hand, bulk creation and bulk processing of base objects on the other hand.

### Target group

COMOS administrators

### **Prerequisite**

COMOS Training Administration Base Objects, preferable familiar with iDB

### Overview

- · Attribute tool: Create and search
- Attribute tool: Tabs and bulk import
- Processing base objects and icons
- Managing scripts and hardcoding

### Please note:

Training contents refer to industrial database (iDB) only. For experienced administrators, which are using cDB, this training might be interesting for getting a deeper insight into iDB.

# **COMOS Training Administration Base Objects**

### Contents

During the COMOS Administration Base Objects training, students acquire the practical knowledge and skills needed by the COMOS administrator to manage and extend the database, base object catalogs, tabs and symbols.

### **Target group**

Experienced COMOS users, starting with COMOS administration

### **Prerequisite**

**COMOS Training Platform** 

- COMOS base project
- COMOS base objects
- Base objects for unit structure
- Handling of the context menu
- Tab & attribute catalog
- Handling of attributes
- Assigning standard tables and tabs
- Handling of symbols

# COMOS Training Administration Report Templates

### Contents

During the COMOS Administration Report Templates training, students acquire the practical knowledge and skills required to create, modify and manage individual lists, datasheets and document templates in COMOS.

### **Target group**

COMOS administrators

### **Prerequisite**

**COMOS Training Administration Base Objects** 

- Structure for document templates
- Queries
- Lists with automatic layout
- Lists with manual layout
- Multi page data sheets
- · Dynamic data sheets
- Modular reports
- Interactive reports

# COMOS Training Administration Rights Management

### Contents

The COMOS Training Administration Rights Management is imparting the principle methods and functionalities for managing users and rights. It covers topics like object rights, user groups, user roles and first steps for working with the USERS project. The training is focused on beginners and based on standard functions in COMOS.

### Target group

COMOS administrators, specializing in project and user administration

### **Prerequisite**

**COMOS Training Administration Base Objects** 

- User and object management
- Working areas
- Groups
- Roles

# **COMOS Training Administration Easy Scripting**

### **Contents**

The training conveys the first steps for the topic "Scripting in COMOS" and is directly extending the base data know-how you have gained in "Administration Base Objects". It contains simple, practice oriented examples how attribute values or objects symbols are controlled und automated by scripts. Focus is the usage and configuration of prepared, "ready to use" codes (in VB Script) with IF and FOR-statements.

### Target group

COMOS administrators, starting with scripting in COMOS

### **Prerequisite**

**COMOS Training Administration Base Objects** 

### Overview

- Calculating attribute values
- Dynamic attribute values
- Extending object symbols
- · Extending the context menu

### Please note:

This training is not supposed to convey programming methods and skills in a fundamental and structured way.

So, for your training success practical programming skills are not required, but you should bring interest, curiosity and affinity for this topic.

# **COMOS Training Administration Scripting**

### Contents

During the COMOS Administration Scripting training, the experienced COMOS administrators acquire the practical knowledge and skills required to automate, extend and individually adapt objects, documents and processes in COMOS with the help of scripting.

### **Target group**

COMOS administrators, specializing in scripting

### **Prerequisite**

COMOS Training Administration Base Objects and programming skills COMOS Training Administration Easy Scripting (for students without programing skills)

- COMOS scripting basics
- COMOS objects
- Script library and clipboard scripts
- COMOS object model
- Navigation and symbol design
- Attributes
- Collections
- · Managing scripts and hardcoding

# COMOS Training Administration Scripted Queries

### Contents

This training is extending the know-how gained in "Administration Scripting" and conveys knowledge needed to script and automate queries. Besides an introduction to database search for engineering objects, several scenarios for scripting within queries will be demonstrated with the help of examples. Also, tools and supporting features for the handling of scripts will be explained.

### **Target group**

**Experienced COMOS administrators** 

### **Prerequisite**

COMOS Training Administration Scripting and basic scripting skills

- Database search and script block "Action"
- Queries with scripting
- Queries via scripting and object debugger
- Using the "Search Manager"

### COMOS Training Administration P&ID

### Contents

The COMOS Training Administration P&ID is extending seamlessly the basic know-how for base objects and is conveying specific topics regarding process engineering. One key aspect is the configuration of object symbols via textfunctions. The second part of the training contains several methods for configuring, linking and mapping of attributes.

### **Target group**

COMOS administrators in the area of process engineering

### **Prerequisite**

**COMOS Training Administration Base Objects** 

- Subsymbols via attributes
- Subsymbols via elements
- Configuring and linking attributes
- Using mapping tables

### COMOS Training Administration Electrical

### Contents

The COMOS Training Administration Electrical is extending seamlessly the basic know-how for base objects and is conveying specific topics regarding electrical engineering. Key aspects are creating and configuring object symbols, working with the so-called engineering tasks, by which workflows can be automated, and the handling of templates.

### **Target group**

COMOS administrators in the area of electrical engineering

### **Prerequisite**

**COMOS Training Administration Base Objects** 

- Handling subsymbols and attributes
- · Handling subsymbols and elements
- Basics for engineering tasks
- Creating and managing templates

### COMOS Training Administration ME

### Contents

The COMOS Training Administration ME conveys an introduction to the principle and methodology of modular engineering (ME) in COMOS. On the basis of a P&ID-example the interaction and configuration of templates, engineering tasks, document placeholders and the working within the @Template node. Focus points are ME-specific objects like machine root node, modular concept diagram, variant drivers and the plugin "Modular Configurator" for the users.

### Target group

**COMOS** administrators

### **Prerequisite**

**COMOS Training Administration Base Objects** 

- Creating objects and templates
- Configuring a modular concept diagram
- Extending the modular concept diagram
- · Further features

## COMOS Training MRO

### **Contents**

The COMOS MRO (Maintenance, Repair & Overhaul) training is aimed at beginners in the areas "Maintenance" and "Plant operation". Students learn about the basic functionalities of the COMOS module and will work on different maintenance methods and scenarios.

### **Target group**

Technicians, engineers, project / maintenance staff

### **Prerequisite**

**COMOS Training Platform** 

- MRO objects and structures
- Planned maintenance
- Resource management
- Reactive maintenance
- Plugin "Maintenance Demon"
- Charts
- · Maintenance orders and documents
- Further features

### COMOS Training FEED

### **Contents**

During the COMOS FEED training, students learn how to use practiceoriented methods and processes to import simulation data and carry out process front end engineering with all the relevant objects, drawing types and documents in COMOS.

### **Target Group**

Planners, drafters, engineers, project team members

### **Prerequisite**

**COMOS Training Platform** 

- Creating structures and objects
- Editing and placing objects
- Importing simulation data
- Case and process data management
- Mass balancing
- Knowledge database & PFD conversion
- · Handling data and documents
- Copy methods

### COMOS Training DDMS

### **Contents**

The COMOS training DDMS intends to convey the basic system settings and basic functions for document management. Focus topics are the methods for checking in, importing, exporting and the handling of document packages. At the beginning of the training the required configuration, project settings and simple administration tasks are trained.

### **Target Group**

COMOS users working the fields of document, quality, supplier or COMOS project management

### **Prerequisite**

**COMOS Training Platform** 

- Preparing and configuring
- · Importing documents
- Managing documents
- Handling document package
- Transferring documents
- Handling transmittals
- Workflows (example)
- Further functionalities