

**Movicon 11
Users (Only)**



**Normal Scada
(Keep Right)**



Movicon[®]
MONITORING VISION AND CONTROL

Movicon Basic Training Program

Introduction

The basic training program includes in a two days course the execution of 10 modules, 5 per day. Each module consist in an autonomous project, including its development and simulation.

Basic Training #1 = nr. 5 modules, 1 day on Progea local offices or authorized dealer.

Basic Training #2 = nr. 5 modules, 1 day on Progea local offices or authorized dealer.

Advanced Training = nr. 3 modules, 1day each one on Progea local offices or authorized dealer.

Requirements

The basic training do not require any skills of programming but minimum knowledge of the windows operating system, and basic knowledge of industrial automation.

Materials

We invite who wish to attempt the training to bring his own laptop in order to have Movicon installed with custom and proper configurations and to could perform, save, archive and keep as reference the project realized during the course.

Program of the Movicon Basic Training

Module 1: Basic concepts

1. General concepts:
 - OS platform
 - Movicon installation
 - The project workspace: Menus, toolbars, project window
 - Child projects as distributed projects
2. Start a new project:
 - Target devices differences
 - Using objects and resources
 - Project files structure
 - XML structures
3. Real Time Tags Database
 - Tag's Definitions
 - Tag's Properties
 - System's Tags
 - I/O Drivers and physical addressing
 - Cross Reference
4. Working with text Strings and Multi-language
5. Simulate your project, Runtime and Debug.

Module 2: Graphics

1. Screens:
 - Create a new screen
 - Screen's properties
 - Screen's configuration
 - Changes of screen and navigation
 - Pop-up screen
2. Dynamic Animations:
 - Insert an object, the object properties
 - Insert a Symbol, the symbol properties
 - Animate a Symbol
 - Edit, customize and save a Symbol
 - The Power Templates

Module 3: Alarm And Historical Log

1. Alarm, Message Editor:
 - Create new alarms
 - Alarm properties
 - Alarm Help
 - Alarm Area's
 - Alarm Wizard
2. The alarm, message viewer object: Simulation
3. Log Configuration
4. The Log Viewer object: Historical Log displaying.
5. Managing queries and filters the display historical alarm's info.

Module 4: Recipes Management

1. Create a new Recipe object
2. Create the recipe's user interface
3. Recipe's Commands
4. Simulation
5. Data Archives and notion about databases

Module 5: Data-Logger

1. Create a data-Logger: Data-Logger properties
2. Record modalities: periodically on time, on event, on change
3. Wizard for the Database creation
4. DataBase viewer object
5. Quick overview about Report Designer
6. Simulation

Module 6: Trends

1. The Trend's objects: properties
2. create a new Pen for realtime curve
3. Associate a Data-Logger
4. Database Trend's Data Analysis
5. Alternative to ODBC: Saving data on an CSV file
6. The Trend power templates

Module 7: Networking

1. Network Server Concepts
2. Project as Server
 - The networking communication
 - Networking properties
3. Project as Client
 - Link to a network server
 - Tags sharing
 - Centralizing the Client project, using child projects.
 - Alarm Server and other Visualization object's linked to a server
4. Web Client
 - Notions about Java Technology
 - Samples of web connection to a Movicon Server

Module 8: OPC Connectivity

1. OPC Concepts (OPC DA and OPC XML DA)
2. OPC Server Project
 - OPC Server Settings
 - Variable Definition
3. OPC Client Project
 - Variable Definition
 - OPC Client Settings
 - Simulation

Module 9: User's and Password Management

1. User's definitions and privileges
2. User's properties, Log On and Log Off
3. Windows's OS user domain sharing
4. Secure access to the desktop
5. Windows's Services
6. Creation of new users in runtime
7. Electronic Signatures and notions about FDA CFR21
8. Audit Trail (Tracing)

Module 10: Communication Drivers

1. I/O Driver's Concepts
 2. The driver's list
 3. The driver settings
 4. Dynamic or Static addressing
 5. Driver Debugging
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Movicon Advanced Training Program

Introduction

The advanced training program consist in different modules that can be chosen autonomously.
Each module needs at least 1 Day.

Advanced Module 1: Client/Server Solutions

This module requires to have attempted at least to the Basic Training of Movicon, it requires also a minimum knowledge in VBA programming as well as good knowledge of the windows network operating system.

1. Networking feature of Movicon
2. client/server tag's sharing
3. Displaying remotely the realtime alarms on a client workstation
4. Displaying play remotely the Historical Log on a client workstation
5. Displaying remotely Trend with Data-Logger on a client workstation
6. VBA interface to establish the RAS communication between server and client
7. VBA methods to dynamically managed the TCP/IP links of the networking feature
8. The Web Client solution: concept, implementation.
9. The Redundancy feature: concept, configuration.

Advanced Module 2: VBA programming

This module requires to have followed at least the Basic Training of Movicon, requires also a minimum knowledge in programming languages as well as good knowledge of the windows operating system.

1. Introduction to the VBA editor of Movicon
2. Creating a VBA script
3. Call the VBA script from Movicon's objects
4. Run/Stop automatically a VBA scripts
5. Create a continuous loop for managing the events and errors
6. The different VBA interfaces: Movicon interface, Alarm interface, Symbols interface
Trend interface, ...
7. Example explaining how to customize the alarm management using the alarm interface.
8. The VBA Script inside the Movicon Templates.
9. Using ADO libraries to customize the databases management.
10. VBA Driver Interfaces
11. Handling ActiveX, OCX or .Net assemblies inside Movicon.

Advanced Module 3: Applications for Windows CE

This module requires to have attempted at least the Basic Training of Movicon as well as good knowledge of the windows embedded operating system.

1. Introduction to Movicon for windows CE
2. Installation and introduction to the MS ActiveSync and to the Movicon plug-in for upload-download
3. Installation of the Movicon CE Runtime on an embedded device
4. The screen's resolution and graphics limits of Windows CE
5. Differences about Win32 and WinCE
6. Notions about historicals and memory usage under WinCE
7. Alarm management and historical log on the WinCE platform
8. Trend management on the WinCE platform
9. Create and download a small sample project
10. Remote debugging of a WinCE project