

Asix.EVO

TRAINING

Training Framework Program



Introductory remarks

The training for designers in visualisation on the asix® platform version Asix.Evo is carried out online. The basic course lasts four days, from Tuesday to Friday inclusive.

The training starts at 9:00 Warsaw local time¹ on the first day, then at 8:30 on the other days and lasts until around 16:00 Warsaw local time. A lunch break is planned during the day (12:30-13:30), with shorter breaks organised depending on the needs and current progress of the course.

Hardware & Software Requirements

Windows 10 with the latest updates (and possibility to install software) is sufficient.

Otherwise please check below.

Each participant in the course should have access to software enabling contact with the trainer (one of the below):

- MS Teams client
- Microsoft Edge (RS2 and later)
- Google Chrome (latest or previous version)

According to <https://docs.microsoft.com/pl-pl/MicrosoftTeams/get-clients#web-client>

Access to the virtual machines where the exercises can be carried out requires a browser supporting HTML5.

¹ UTC + 2h in summer time period, UTC + 1h in winter time period

Training schedule

Tuesday

8:30 - 9:00 Logging on to the platform and checking settings

9:00 Starting the training

A few words of introduction

In the first part, some general information is given regarding the asix® platform, the licensing method, form of sale and choice of user licence.

The basic configurations of the app are also presented, from the simplest to the most expanded and multi-level.

There is also a discussion on the license discount system and the objectives of the certified Asix Package Integrator (API) programme.

The first part does not require participants to play any active role in getting to know the asix® platform.

First elements of the Asix.Evo application

The second part begins with a discussion of the Asix platform's software requirements and system installation using the set of installation discs provided.

After installation, the trainer followed by the trainees submit a new application using the creator. There is a step-by-step discussion of all questions related to exchanging data with the PLC, defining the communication channel, variable definition bases, configuration of network connections between workstations, definition and parameterisation of archive resources.

Finally, several (5 do 6) variables are defined, which enable data exchange with the Simatic S7-1200 PLC.

Discussion of elements of the Asix.Evo project environment and the purpose of the project catalogue. The application is created bilingual from the start.

When defining the individual elements of the app, participants repeat the trainer's editing tasks to ensure the state of the app being constructed is consistent.

Wednesday

8:30 Starting the training

Visualisation of Asix.Evo

Over the following days, the main topic will be the creation of the visual part of the app using Asix.Evo technology. The trainer starts the lessons by providing a pre-prepared base of variable definitions, discussing the non-typical elements - variables using state sets.

Creating the first graphic elements

Creating a new window, dividing it into panels. Synoptic diagrams, default diagrams for panels - why they are assigned to the panels and how they are defined.

Basic objects : Text, Meter. Showing the advantages of a full variable definition in the base in order to use its attributes for parameterising objects (display limits, limit values, units, etc.).

Editing operations on objects (equalisation, overlay, grouping, etc.).

Using global properties to define repeatable elements of the application.

Defining object patterns based on an individual Text object, going through an analogy to a diagram template (diagram of a measuring station).

Other 'analogue' objects: Bar, Gauge, Browser.

Various methods of parameterising Text object using references to elements of the variable definition base and using expressions.

Launching the application

Launching the entire app or a single diagram in test mode (preview).

Creating short-cut to start the application from the operating system level, activating the app from that short-cut.

Discussion of the programme's operating modes.

Control of the variables from an object is shown using the Button object on an example of a Chart object and a Chart controller object (controlling the content of the Chart window, time horizon, etc.) : several Charts from different groups, one Controller which has a variable group set.

Sending commands from the Button and Text object with and without confirmation, confirming for selected objects, groups of objects with the same name.

Thursday

8:30 Starting the training

The AsTrend programme

Activating the programme, describing basic use, templates, reports. Blank template for special uses.

Visualisation of Asix.Evo contd.

'Discrete' objects using the example of Image object representing the state of the driver operation. Binary variables used. Selective control using bits from binary variables in order to activate and stop the driver, confirming malfunctions. Making the state of objects (OK and cancel buttons) dependent on the state of objects observed.

The Variable Table object and use of its columns to open a measurement's control window, AsTrend programme in order to display the variable history or print it as a pdf. Defining drop-down Menus. Expanding the template to include a drop-down menu - sending the parameters from the template to the menu. Other discrete objects: Pipeline, Conveyor, Tank. Overlaying objects, using transparency of objects based on the example of indicating tank levels.

Parameterisation of the security system

Discussion of the system for safeguarding the app, defining users, roles and authorisations. Checking authorisations in diagrams.

Multi-workstation configurations

Defining workstations and their roles. Access mode for process data - via the Data Server, over the network, using a locally activated app.

Alarm system parametrisation

Discussion of basic concepts - defining alarm domains, alarm recognition strategies, defining alarm texts.

Table of pending and historic alarms, monitoring the state of alarms in the objects

Friday

8:30 Starting the training

Web Application

Methods of publishing the app, parameterisation of the browser. Publishing the app with indication of identical functionality, connecting participants to the trainer's app. Control using the app, and lack of the control - full version and Lite client version.

Scripts

Discussion of the system of app scripts.

Discussion of the Application interface along with examples of uses. Resident scripts.

Reports, scripts

Recording reports - those already existing in the AsTrend programme, and including creation by a script report creator.

Producing a report manager in the app, associated actions.

Discussion of reports created using the MS SQL Server Reporting Services technique – creating a query, using the query to design a report template in Report Builder.

Activating a report in MS IE. Publishing a report. Accessing reports with the aid of the inbuilt report browser and operator action.

The Asix Excel Add-in module – instant reports in an MS Excel spreadsheet – requirements, creation of a report.

Other questions

Synchronisation of multi-workstation applications.

Connection and script diagnostics.

Combining an app created by several designers.