Course description

T564
Freelance
Advanced Configuration Controller

Course goal
The course goal is to configure automation exercises with the examples of monitoring, open loop control and closed loop control functions. The configured functions are commissioned and tested.

Learning objectives
Upon completion of this course the participants will be able to:

- Interpret the task management of the Freelance controllers and use the knowledge target-oriented in a project.
- Configure and commission complex control structures with Control Builder F.
- Configure and commission User defined function blocks.
- Configure and commission Sequential Function Charts (SFC).
- Transfer information across projects, using structured data types.
- Optimize a closed loop controller using self tune functionality.

Participant profile
Freelance users who want to deepen their configuration knowledge of the Freelance controllers.

Prerequisites
The participant knows the features of the Control Builder F project tree as well as the structure of hard- and software modules. He is well trained in configuring and commissioning basic functions.

Topics
- Configuration of programs according to the IEC 61131-3 standard using FBAD and SFC-Editor
- Project, configuration, resources, tasks,
- Programs, function block diagrams, function blocks
- User tasks, system tasks
- Project tree, hardware specifications, project database
- Signal names and signal routing
- Complex control structures including feed forward.
- User defined function modules by FBAD
- Sequential function chart (SFC) and sequence control
- Send / receive functionality with structured data types.
- Self tune functionality
- Commissioning of programs

Course type and methods
This is an instructor led course with interactive classroom discussions and associated lab exercises. Approximately 50% of the course is hands-on lab activities.

Duration
The duration is 5 days.
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Course outline

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commissioning the Base Project.</td>
<td>Use of Control Builder F Viewer.</td>
<td>Communication across projects with Send/Receive functionality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Structured Data types and their use.</td>
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<td></td>
</tr>
</tbody>
</table>

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