Coupling intelligent field devices to S+Melody controllers using PROFIBUS, HART and Modbus are the topics of this course. Basics on the communication protocols as well as the implementation of the couplings in the control system will be trained.

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

Participant profile
S+Melody users planning or employing the coupling of intelligent field devices using PROFIBUS, HART or Modbus.

Prerequisites
The participation in the courses S301M and then S313 are required. Basic knowledge of digital data transmission is an advantage.

Learning objectives
Upon completion of this course the participant will be able to
- Explain fieldbus technology basics, particularly PROFIBUS and HART
- Plan a Melody-System with PROFIBUS and HART devices.
- Install and configure the required software components
- Configure and commission PROFIBUS and HART devices using device specific DTMs
- Configure and commission PROFIBUS devices via gsd file.
- Configure cyclic HART communication
- Use Melody Analyzer to troubleshoot disturbances on the PROFIBUS network.
- Exchange/ replace PROFIBUS and HART devices

Topics
- Basics on PROFIBUS / HART / Modbus
- Bus access procedure, cyclic and non-cyclic communication
- Topology of a Melody-System with PROFIBUS, HART and Modbus devices
- Coupling of HART devices via PROFIBUS-DP and S800-I/O
- Coupling of HART devices via Melody-I/O
- Configuring PROFIBUS DP Master
- Configuring PROFIBUS DP Slaves
- Configuring PROFIBUS PA Slaves
- Configuring modular field devices based on DTMs and gsd-files
- I/O function blocks for PROFIBUS and cyclic HART communication
- Installing DTMs, updating DTM library
- PROFIBUS Diagnostics using Melody Analyzer

Duration
4 days
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<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
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<tbody>
<tr>
<td>Course Overview</td>
<td>PROFIBUS DP Master: Characteristics of the Melody PROFIBUS Masters, Redundancy</td>
<td>PROFIBUS DP Slaves: Configuring, commissioning and testing PROFIBUS devices via gsd-file and Default-DP-DTM (UMC100)</td>
<td>PROFIBUS PA Slaves</td>
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<td>Basics on PROFIBUS and HART</td>
<td>Configuring PROFIBUS communication parameters</td>
<td>HART Communication: Using HART-DTMs to parameterize HART devices</td>
<td>OPTION: Confuring, commissioning and testing a Modbus-Communication</td>
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<td>Topology of a Melody-System with PROFIBUS and HART devices</td>
<td>Installing DTM library</td>
<td>HART Communication: Configuring cyclic HART communication via Melody-System-I/O and S900</td>
<td>OPTION: Configuring devices specific diagnostics messages</td>
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<td>PROFIBUS DP Slaves: Configuring, commissioning and testing PROFIBUS devices with devices specific DTM (S800/S900)</td>
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<td>PROFIBUS diagnostics via Melody Analyzer</td>
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We also offer this training on site – at a time convenient for your purposes. Please contact us! We look forward to preparing a customized offer for you.