S4 Basic programming course
Course Description

Course Duration
The duration is 4 days.

Course Type
This is an instructor led course. Approximately 75% of the time is used for hands-on labs and exercises.

Course Goal
The goal of this course is to teach students the basics in programming industry robots with an S4 controller.

Student Profile
This training is targeted to robot programmers and service engineers that need to modify robot programs.

Prerequisites and Recommendations
None

Course Objectives
Upon completion of this course, students will be able to:
- Practice all areas of safety as it pertains to the robot.
- Properly start-up, operate and shut down the robot.
- Perform program storage and retrieval.
- Manual and program control of inputs and outputs.
- Define tools and work objects.
- Edit programmed positions.
- Create a program with subroutine structure.
- Program instructions, such as output control, decision-making, operator dialog and clock.
- Name I/O and data with proper names.
- User Module programming techniques.

Main Topics
- Basics in robot programming
- Structured programming
- Conditional control
- Digital I/O signals
- Communication with operator
- Define and use tools
- Define and use work objects
- Create/define offset
- Event log
- Backup and restore