



# Programming Training

## Goal

This course enables the participant to create typical industrial applications in the VAL 3 programming language or to competently manage and modify programs from existing installations.

## Participants

Persons involved in the programming of robot systems.

### Please note!

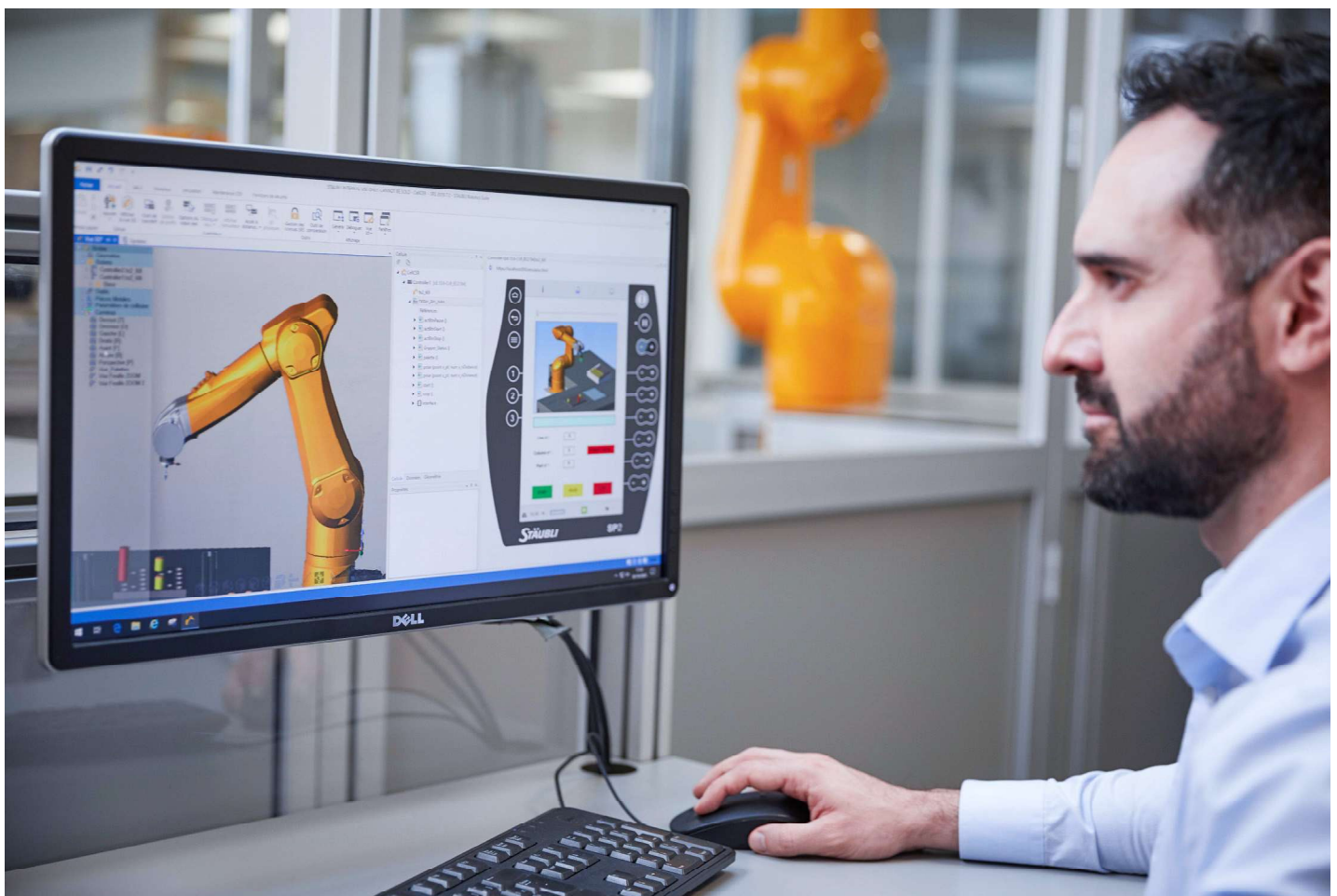
The practical skills to safely operate Stäubli robots are a prerequisite. As preparation for this course, especially for CS9, it is strongly recommended to have previously attended the basic training module.

## Benefits for the participant

- The course facilitates confident operation and the skills needed to switch to application development with VAL 3.
- The participant learns to use the Stäubli Robotics Suite software for programming and troubleshooting.
- The participant will acquire the ability to implement robot movements in a maintenance and wear-friendly manner, and thereby avoiding excessive load on the robot, which can lead to increased numbers of malfunctions and failures at an early stage.
- Efficient fault management in the VAL 3 application to clearly identify the root cause of the problem and enable a prompt restart ensuring minimal downtime in the case of an issue.

## Prerequisites

- Confident use of a PC and knowledge of Windows applications
- General understanding of the logical structure of programs in a higher programming language such as Basic, Pascal, C or Java with regard for example, to: variable management, program loops, querying of conditions, etc.
- Handling of the Stäubli pendant, teaching of points



## VAL 3 for CS8C

### Prerequisites

none

### Recommendation

Preparatory participation in the basic training CS8C is recommended.

### Contents

- Safety instructions
- Creating and editing programmes
- Robot movements
- Debugging
- Digital inputs and outputs
- Structured programming
- Multitasking
- Three-dimensional arrays
- Collections
- User-defined structures
- Online Debugger
- I/O management
- Additional features
- Presentation of Stäubli software products, Stäubli Robotics Suite and its components
- Programming of the user page

**Duration: 4.5 days**

**Course number: 8.3.1**

**Location: Bayreuth**

## VAL 3 for CS9

### Prerequisites

Basic training CS9

### Contents

- Safety instructions
- Creating and editing programmes
- Robot movements
- Debugging
- Digital inputs and outputs
- Structured programming
- Multitasking
- Three-dimensional arrays
- Collections
- User-defined structures
- Online Debugger
- I/O management
- Additional features
- Presentation of Stäubli software products, Stäubli Robotics Suite and its components
- The contents of the update training

**Duration: 4.5 days**

**Course number: 9.3.1**

**Location: Bayreuth, Asten, Hannover**

## VAL 3 Update CS9

### Prerequisites

Programming training CS8C or CS9

### Contents

- User Page Designer
- Data Binding
- Security functions of CS9 compared to those of VAL 3
- CS9 Emulator
- Teach pendant SP2

### Goal

Getting to know the new features of the CS9 operating system version 8.x

**Duration: 2.5 days**

**Course number: 9.3.2**

**Location: Bayreuth, Asten, Hannover**