

# TAM API Developer Training

---

## Requirements:

- Experience with the TAM System Explorer
- Knowledge in an object oriented programming language

**Date:** Thursday, 12. (English) September 2024

**Aim:** Ability to create your own applications and automation using the TAM API.

**Instructors:** Christian Marrocco, Nicola Steffen

**Participants: (#Number of Participants#):** ...

## Material:

- Motors, drives, and power supplies from Triamec

## Preparation:

- Revisit the TAM System Explorer
- The participants bring their own laptops
- [Current TAM Software](#) installed
- One of those:
  - Visual Studio 2017 Express – free
    - Install the .NET Framework 4.8 Developer pack
  - Visual Studio 2019 or 2022 – free for open source projects and small organizations
    - Select the .NET desktop development workload
    - Add the optional .NET Framework 4.8 development tools

---

## MORNING

Start: 08:30

**Aim:** Workflow and basic knowledge about TAM API and the IDE

### TAM API Introduction (~30min)

- For new participants: Introduction from TAM API Teaser
- For participants that already visited the TAM API Teaser: Make sure your software environment is able to run Hello World!

### Hello World! Hands-On (~1h30min)

- Basics of IDE
  - Project system
  - Dependency management (NuGet)
  - Debugging

- GUI designer
  - Basics TAM API
    - Read and write registers
    - Axis control
- 

## COFFEE BREAK

15min

---

### Acquisition Sample Hands-On (Part 1, ~1h30min)

- Asynchronous programming
  - Perform measurements
  - Perform move sequences
  - Performance optimization
- 

## Lunch 12:15

---

## AFTERNOON

Start: 13:30

**Aim:** Build advanced knowledge about the TAM API.

### Acquisition Sample Hands-On (Part 2, ~1h)

- Solve remaining tasks
- 

## COFFEE BREAK

15min

---

### Machine Copy (~30min)

- Definition, use cases and elements of a machine copy
- Code samples for automation

### Conclusion of the official program (~15min)

- Summary
- Outlook

### Participant-specific topics (~1h30min)

- Depends on the wishes and needs of participants
-



End: ~ 17:00