TAM API Developer Training

Requirements:

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

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

Instructors: Christian Marrocco, Nicola Steffen

Participants: (#Number of Participants#): to be determined

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