BECKHOFF New Automation Technology

TwinSAFE Tutorial 11 | EN

Download Safe Address

Safe addressing of AMP and AMI

9/9/2021 | Version: 1.0.0

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1 Introduction

TwinSAFE includes several innovations that bring more functionality and performance to your safety controller. A major innovation is that the functionality of the safety controller is integrated in each TwinSAFE component. This means that you can, for example, use a TwinSAFE input component both as an input component and the safety control integrated on it to use application-specific pre-processing.

This is tutorial 11 of a tutorial series.

The aim of this tutorial series is to familiarize you with the TwinSAFE innovations using individual examples.

This tutorial is about the configuration of an address on an AMP8xxx. The procedure is identical for AMP and AMI.

1.1 Issue statuses

Version	Comment
1.0.0	• First released version
0.0.1	• First draft

1.2 Requirements

Meet the following requirements for this tutorial:

- TwinCAT 3 version ≥ 3.1.4024.11
- TwinCAT Safety Editor TE9000 ≥ 1.3.0

1.3 Starting point

At the starting point of the tutorial

- a TwinCAT 3 project with I/O configuration exists.

1.4 Demo system

1.4.1 Hardware

The demo system of this tutorial consists of the following hardware:

- CX for EtherCAT communication and the standard PLC controller
- EL6910 as master TwinSAFE Logic
- EL1918 with safe inputs for reading light barrier signals
- Light barrier
- AX8000-x2xx
- AMP8040-0030-0104

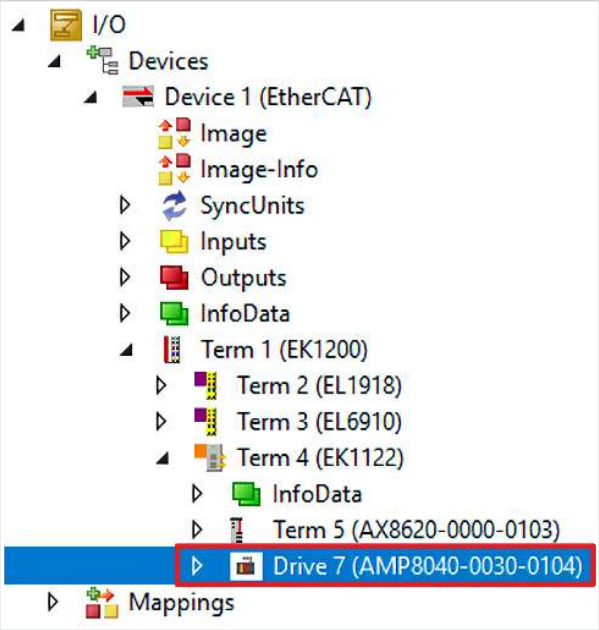
1.4.2 Desired functionality

This tutorial describes the implementation of the following functionality:

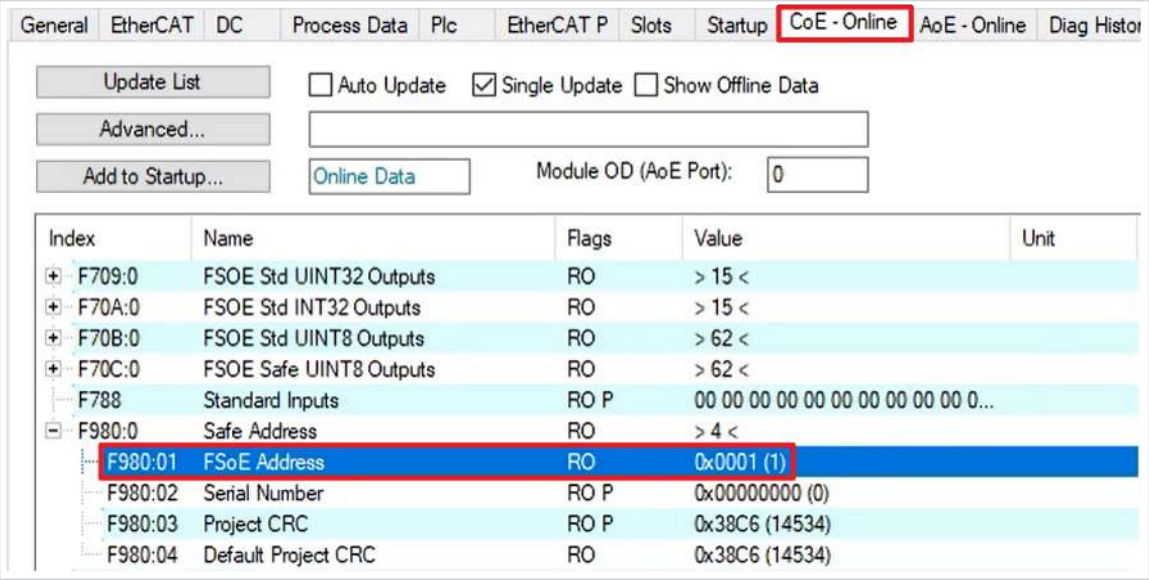
- Configuration of an address of the AMP8040-0030-0104

2 Demonstration

Proceed as follows to set a safe address:

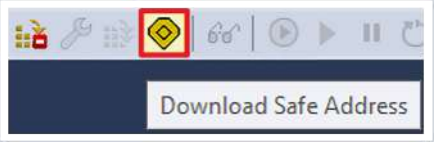


1. Open safe motion component

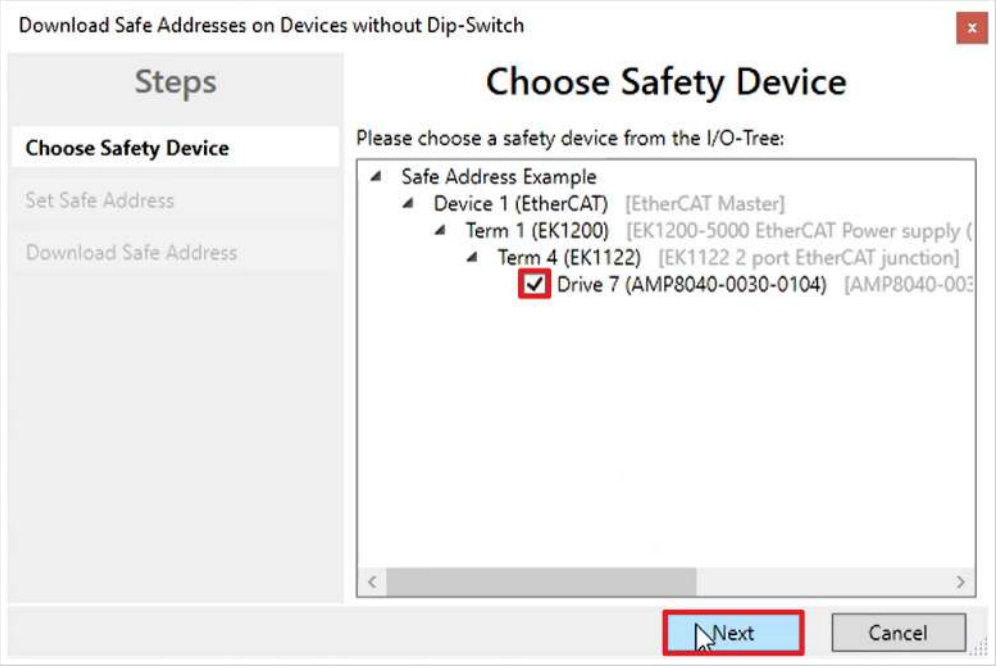


2. Open tab ”CoE-Online”

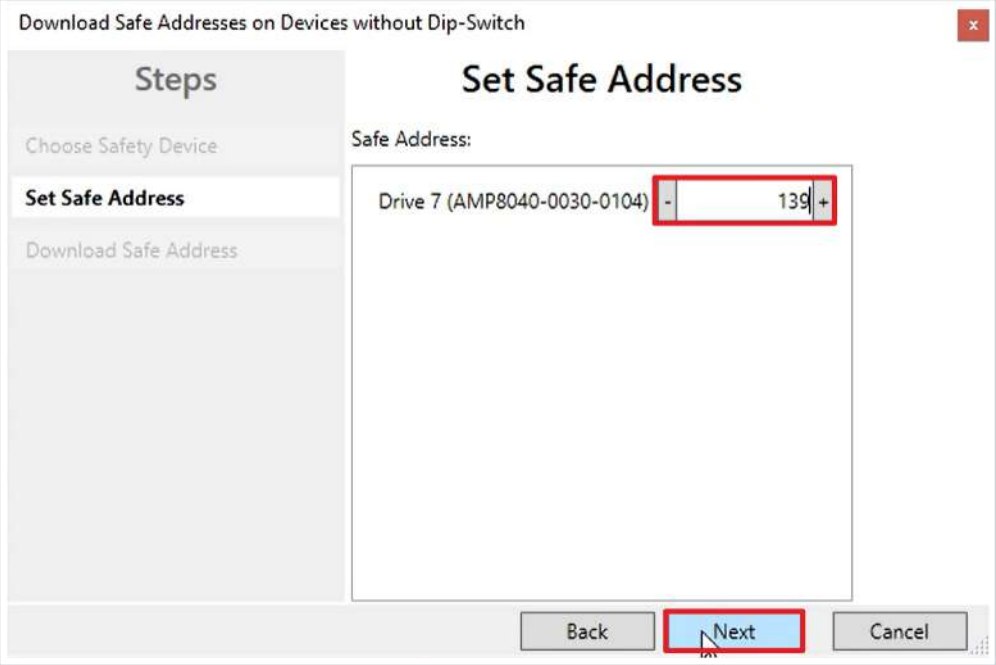
At index F980:01 you see the current FSoE address.



3. Click on “Download Safe Address” in the menu bar

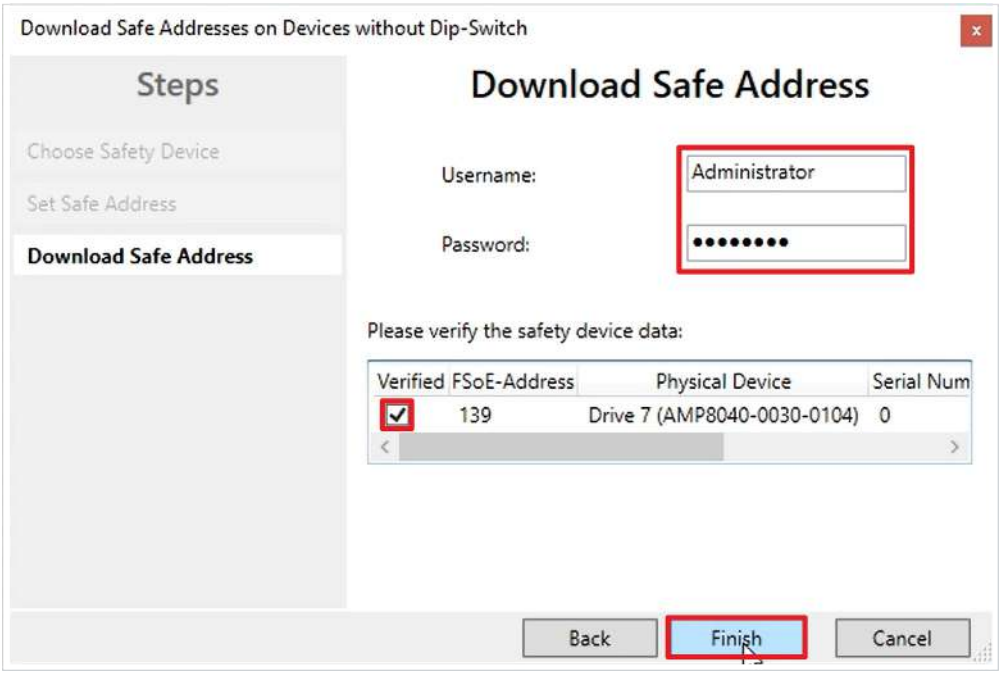


4. Select safe motion component in “Choose Safety Device” window
5. Confirm selection with “Next”



The “Set Safe Address” window opens.

6. Enter desired address
7. Confirm entry with “Next”

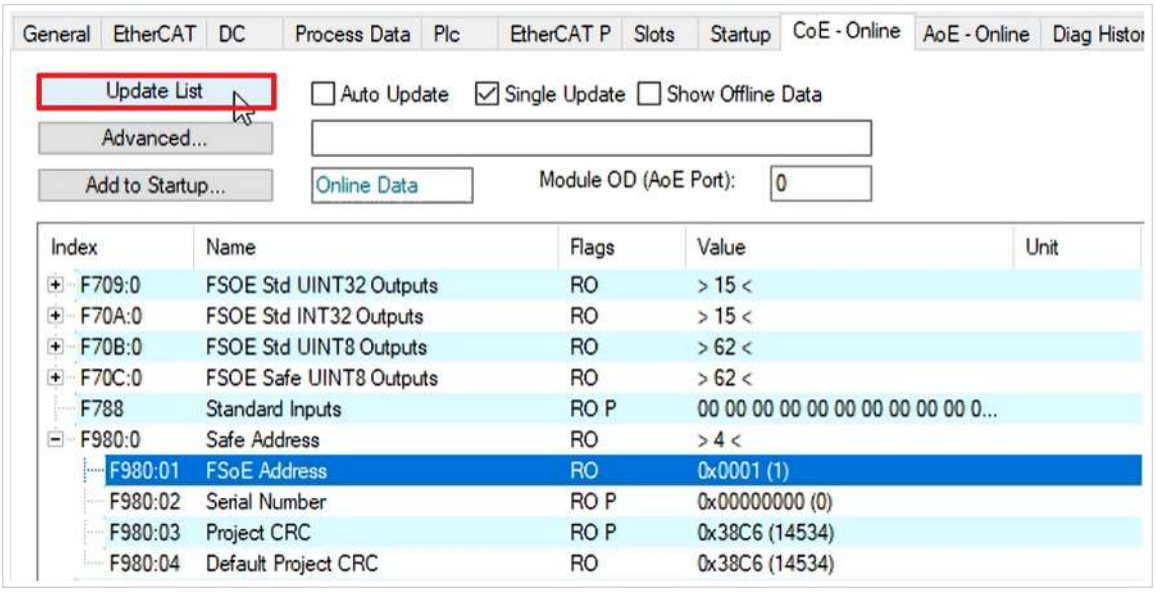


8. Enter the user name and password in the “Download Safe Address” window

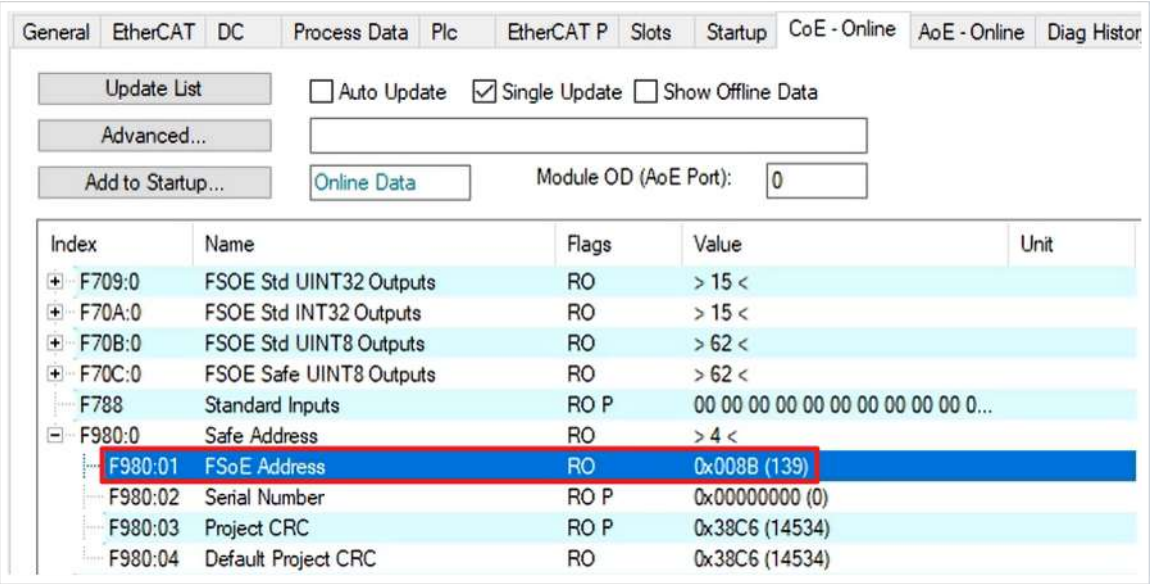
Default user name: Administrator

Default password: TwinSAFE

9. Select safe motion component you want to download
10. Close window with “Finish”



11. Click on “Update List”



You will now see at index F980:01 that the new FSoE address has been successfully set.

3 Alternative address configuration

- Without using TwinCAT 3
- Using the TwinSAFE Loader
  - TwinSAFE-Loader.exe
  - new additional call parameter "--writesafeaddress139".

More Information:
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