

NYHEDER

# Startdrive i TIA-portalen V17

Keep the World in Motion





# Dagens værdter



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# Agenda

User Management

Optimization

Safety

Openness

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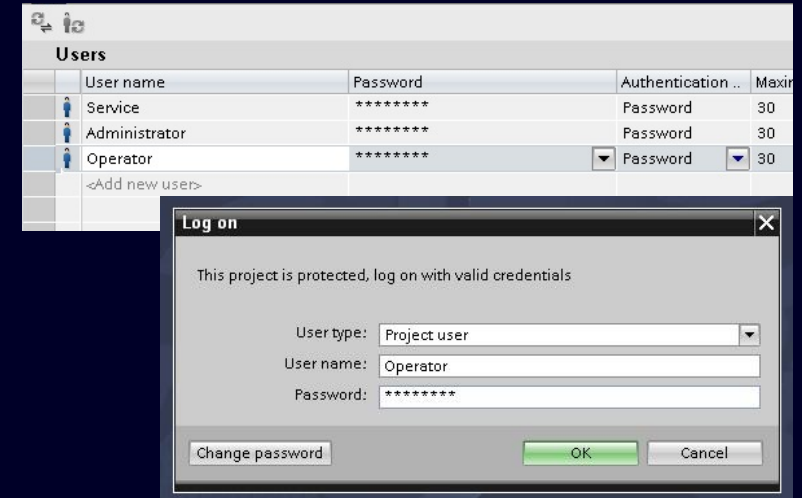
# UMAC in TIA Portal

## User Management and Access Control

### What is UMAC?

Handling of **users** and their assigned **rights** for a TIA Portal project. Possibility to have Admin users or users with limited reading / editing rights. There is a wide range of predefined roles and the possibility of creating new roles with specific rights

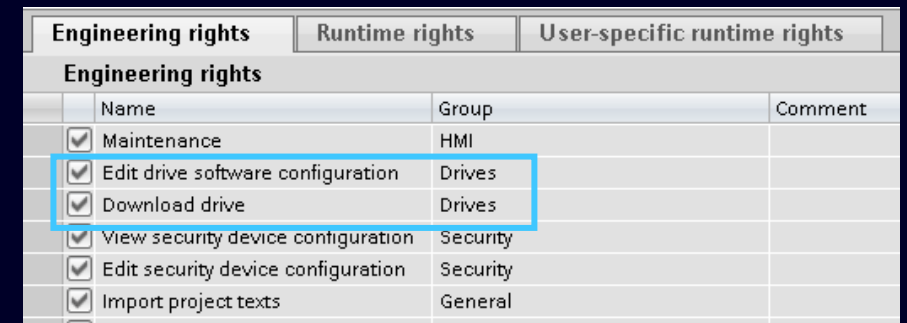
→ Principle of least privilege



### What's new for Startdrive V17?

New function rights for **drive parameterization** and **drive download** (separated from PLC / HMI handling).

→ Possibility of defining users which are allowed to edit drive parameterization but not the PLC program or vice versa



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User Management

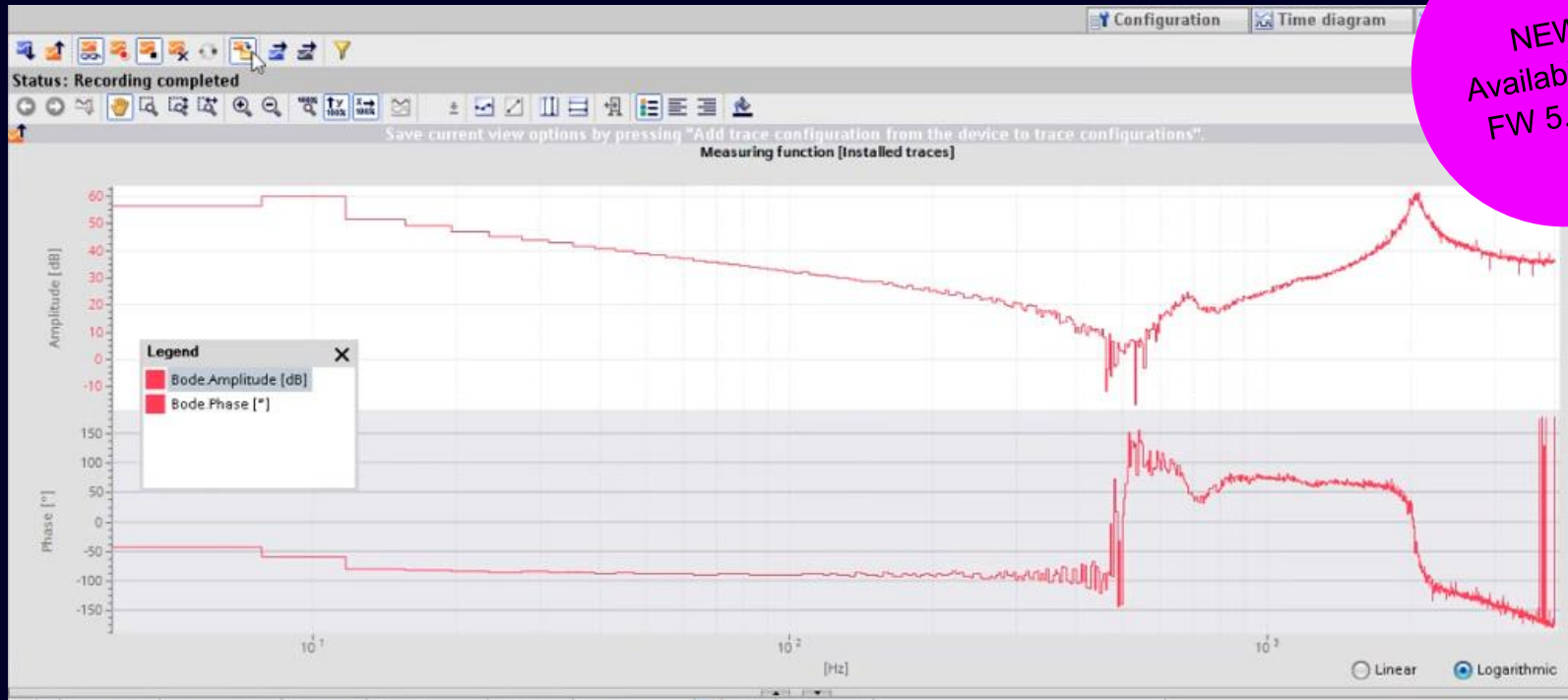
Optimization

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# New features for SINAMICS S120

## Measuring functions and bode diagram



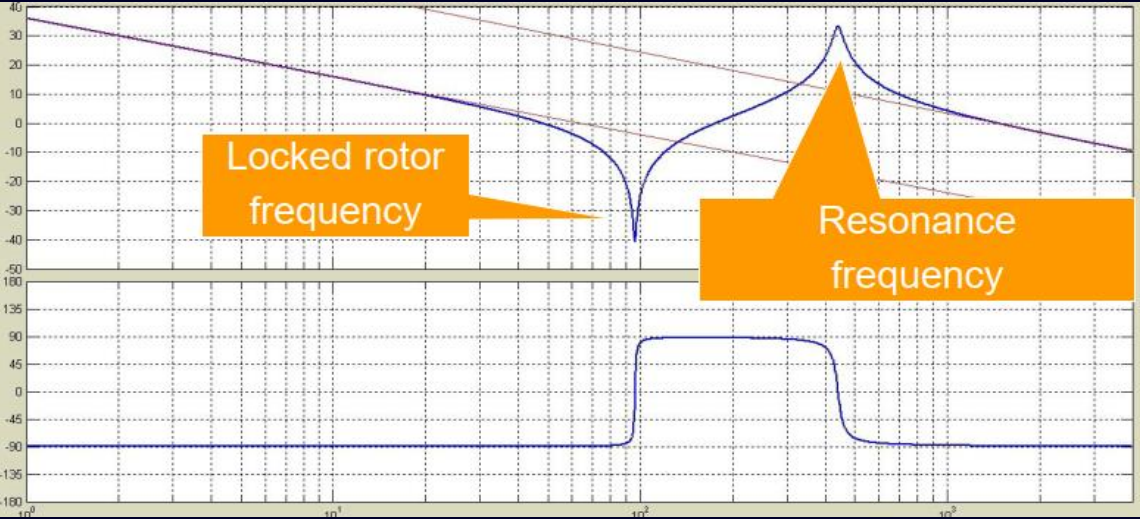
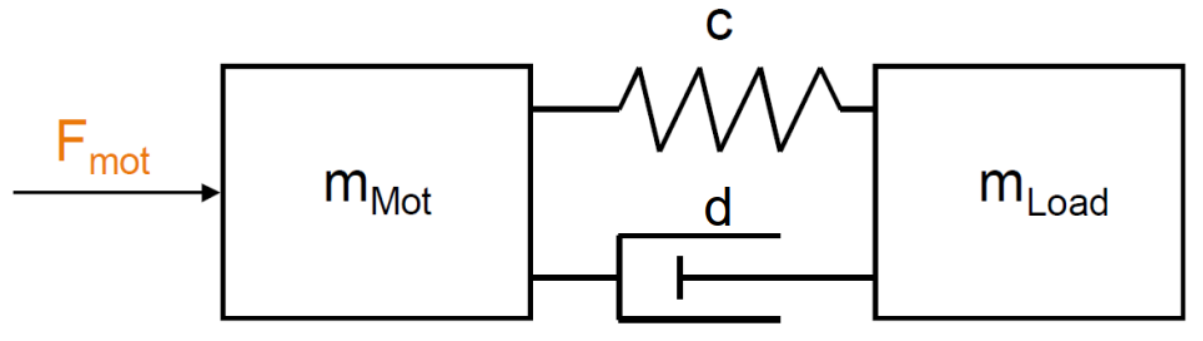
NEWS  
Available from  
FW 5.2 SP3



Measuring functions are part of the SINAMICS Startdrive Advanced license.

# New features for SINAMICS S120 Bode plot

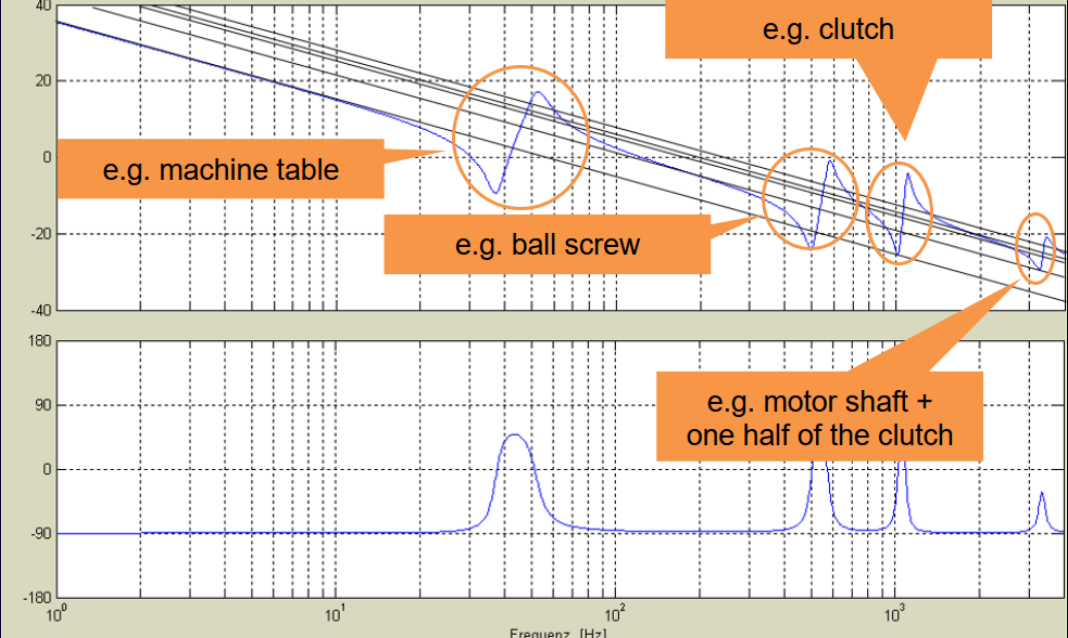
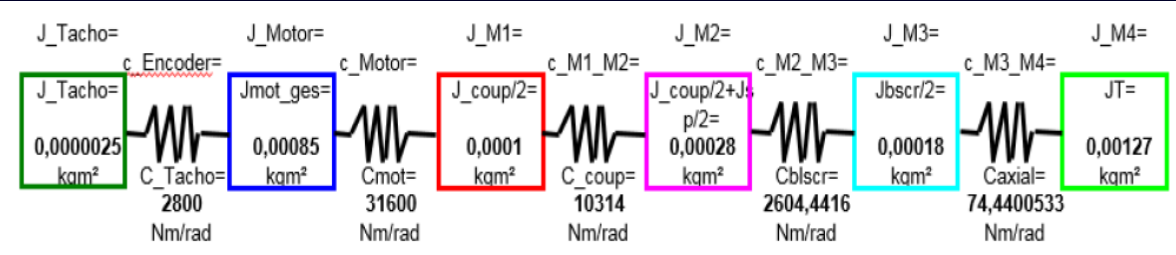
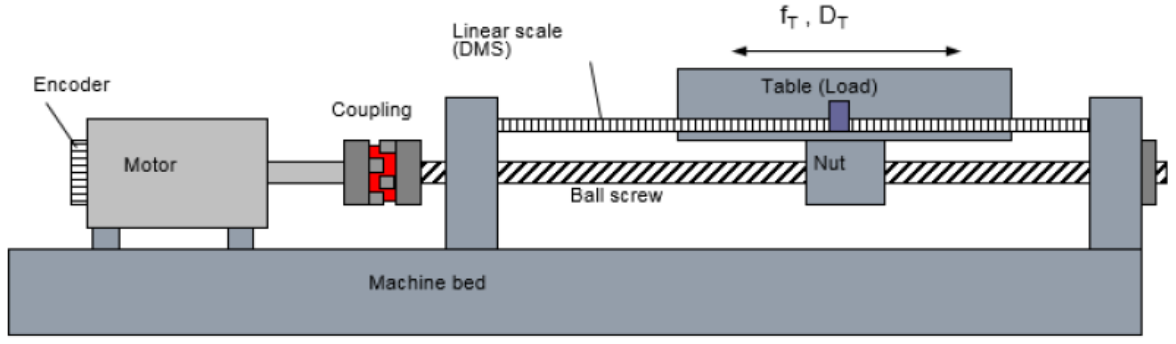
## Fundamental ideal two-mass-system





# New features for SINAMICS S120

## Multi-mass-system



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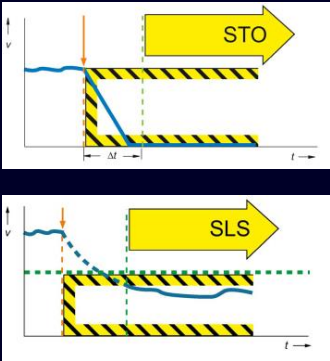
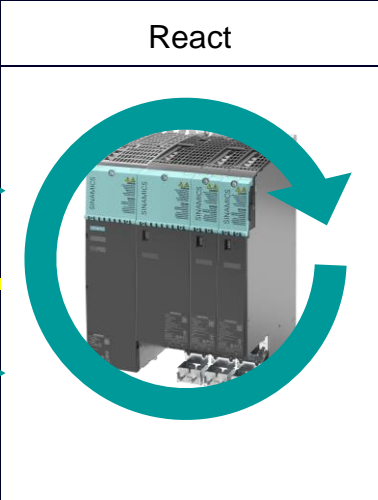
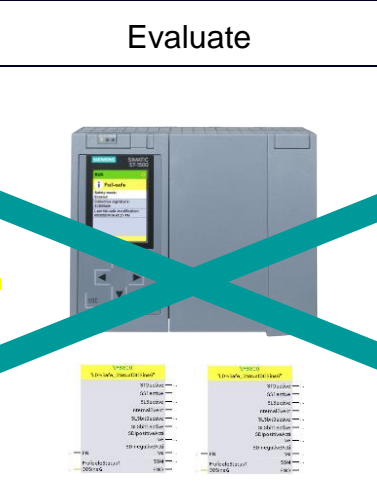
Safety

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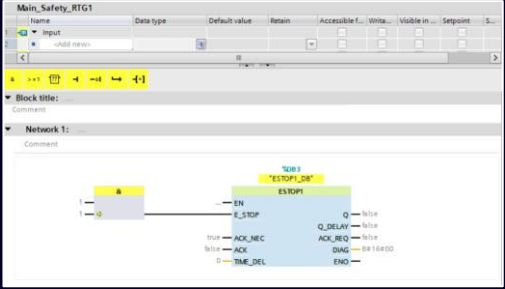
# Safety documentation tools

## Safety Activation Test

## Safety Acceptance Test



Certified SINAMICS Safety Integrated functions



F-program is blackbox  
F-signature and Safety print-out

# Safety documentation tools

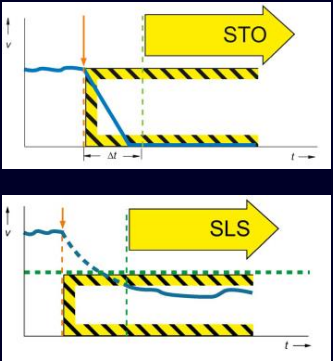


## Hvorfor?

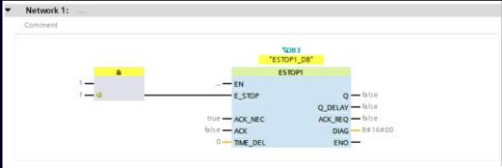
- CE mærkning?
- DS/EN 13849-1
- DS/EN 13849-2, kapitel 8
- DS/EN 62061, kapitel 8

## Validering og dokumentering

## Acceptance Test



Certified SINAMICS Safety Integrated functions



F-program is blackbox  
F-signature and Safety print-out

# New Safety Activation Test Workflow & required license

1. Define all safety functions via the wizard: operation mode, input conditions, expected reaction (this step can be done by the project engineer already in advance to the commissioning phase)
2. After machine commissioning execute the tests and go through all defined safety functions using the guided step by step assistant
3. Automatic creation of the test protocol with all necessary information

! Safety validation is an important step on the way to the required CE-marking of the machine!

The screenshot displays the 'Drive unit S120 - Safety activation test - SF 1' configuration window. The main area is divided into several sections: 'Name' (Not-Halt Handbediengerät), 'Description' (Drücken Sie den Not-Halt-Taster am Bediengert. Der Not-Halt-Taster am Handbediengerät ist muss entriegelt sein.), 'Selection of operating mode' (Operating mode: Automatik, Variable: 'Obs.1' Betriebsart, State: True), 'Input conditions' (Sensor: 'Not-Halt Bediengert', 'Not-Halt Handbediengerät'), and 'Expectations' (Aktor: Drive a\_obs\_1, Drive a\_obs\_2, Hydraulik: 'Vencol\_1'). Below these are sections for 'Preparation of the test' and 'Starting the acceptance wizard'. On the right, a 'Test of the Safety Integrated Functions' table shows the test results for various functions, including 'Test description', 'Status', and 'Test conditions and expectations'. The bottom part of the image shows a 'Step by step assistant' window with progress indicators for 'Eingangsbereitungen initialisieren', 'Ansteuerung durchführen', and 'Reaktion überprüfen / Test abschließen'.



Safety Activation Test is part of the Safety Acceptance Test and thus also part of the SINAMICS Startdrive Advanced license.



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# Openness Startdrive V17

## What is Openness?

With openness it is possible to control the engineering with TIA Portal externally through a self-written program.

### TIA Portal Openness API

- Start TIA Portal
- Add/delete device
- Open/save/close project
- Add hardware components

### SINAMICS Startdrive functions

#### External Object Model

- Object attributes
- Article number
- FW version
- TypeName
- Telegram configuration
- Download

#### Parameter access

- Setpoint channel
- EPOS settings
- ...

#### Drive Function Interface

- Motor & encoder
- Activate/deactivate drive object
- Save RamToRom
- Factory reset
- ...

# Openness Startdrive V17 SDC tool

The screenshot displays the SINAMICS Serial Drive Commissioner (SDC) tool interface. The window title is "SINAMICS Serial Drive Commissioner". The main menu includes "Create", "Update", and "Online".

The interface is divided into two main sections:

- Main:** Shows a dropdown menu set to "Conveyor (S210)" and a large blue icon representing a drive unit.
- Copies:** Shows a sequence of five drive unit icons connected by plus signs, indicating multiple copies. Below this, the configuration options are:
  - Number of copies: 4
  - Append start number to master copy (Conveyor\_1) - Start with number: 1
  - Connect to subnet PN/IE\_2  Connect to IO system of PLC\_1
  - Connect interface X150 port P1 R of copied drive to interface X150 port P2 R of previous drive

A "Create Copies" button is located at the bottom of the "Copies" section.



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