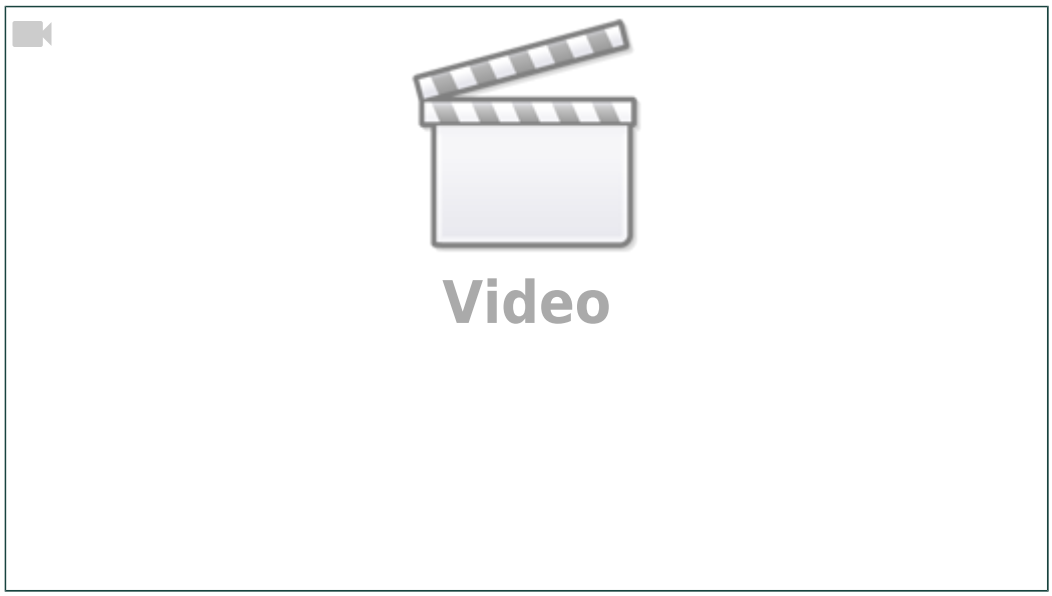
NILAB Starter Software

NILAB Starter provides a simple and straightforward way to quickly configure the motion parameters of the integrated drive of the miniature and standard tubular linear motors. Pre-installed, user configurable application-based GUIs are also available with this interface.

This software can be downloaded here: NILAB Starter



The main advantages of NILAB Starter are:

Item
Little to no programming experience required
Menu-driven, Windows based, easy setup
Pre-programmed with application-specific features
Real time analysis with diagnostics
Data and graphical feedback tools: 4 channels oscilloscope
Online firmware repository for update on the field
Auto-teach function for single and parallel motion

Changelog

[2.4.4.5] - 08.10.2026 - new function for Special Project - Multi drive - bug fixes

[2.4.4.4] - 01.09.2026 - bug fixes

[2.4.4.3] - 20.07.2026
- Added scope channel SVM

[2.4.4.2] - 02.07.2026

[2.4.4.1] - 01.05.2026
- Bug fixes

[2.4.4.0] - 28.04.2026
- Bug fixes
- New LED indicators

[2.4.3.9] -24.04.2026
- New real-time trend graph on Show variables
- Bug fixes

[2.4.3.8] - 16.04.2026
- Parameters Windows new design with statistics
- Motion Controller with new Option for Digital Outputs configuration (uPLC programming)
- Home Setting with new Option related to uPLC programming

[2.4.3.7] - 08.04.2026
- Added force as a visualization parameter inside Show variables
- Increase Dimension of + and - Buttons inside Motion Task wizard
- Corrected Bug on warning in expert menu'.
- Corrected bug on download diagnostic data when not connected

[2.4.3.6] - 01.04.2026
- Added two new operators in uPLC Editor
- Added in expert mode the Parameter 224 - Amplitude autogain for SIN/COS Signals
- Remove button for Default values on Controller configuration : added Parameter overviews with comments.

[2.4.3.5] - 20.03.2026
- Improved Modbus communication with a proper timeout value as Default
- Added increasing timeout time dynamically also for signed integer Modbus read
- Limited value (max 250ms, min 1ms) of the timeout time on the communication interface.

[2.4.3.4] - 05.03.2026
- Changed Controller configuration View
- Added Gravity Feed Forward Parameter in the Controller window
- Added Option Relative positioning inside Motion controller

[2.4.3.3] - 09.02.2026
- Corrected Parallel Motion window functionality
- Corrected progress status bar resizing with the application resize

[2.4.3.2] - 28.01.2026
- (Bug fix) Corrected Autoscale button with realtime scope and empty scope
- Added USB Full Speed Option
- Added MODBUS Over USB functionality

[2.4.3.1] - 26.01.2026
- (Bug fix) Corrected oscilloscope calculated difference channels
- (Bug fix) Corrected autoscale calculation
- Added legend Variation on the oscilloscope channel for difference channels

[2.4.3.0] - 09.1.2026
- Added teach button for Motion table
- Added New Motion wizard capability on Motion Controller window
- Added maximum limit warning on the diagnostic window

- Added check on max current vs max Hardware Limit

[2.4.2.9] - 18.12.2025
- Added Autoscale button on scope window
- Added Parameter Tracking master scale on Parameter window
- Corrected Motor type list

[2.4.2.8] - 02.12.2025
- Renewed scope window
- Added real-time visualization on scope window of variables in the Status area

[2.4.2.7] - 17.11.2025
- New Status area with parameterizable Show Variables
- New diagnostic Alarm stack visualization
- Increased Interface Speed

[2.4.2.6] - 14.11.2025
- Added homing loop calibration Parameters
- Move home Offset Parameters in the Parameter window
- Bug fix on the Position loop divider write and read - Parameter 85
- Added Color Change when Parameter Change on expert window
- Fix max current Limit to 20 A
- Added check on the pole pitch and Motor type values
- Move commutation offset Degrees value under commutation offset parameter

[2.4.2.5] - 10.11.2025
- Added PWM Frequency Parameter (Expert mode)
- Added Commutation current (Expert mode)
- Added Tracking Minimum time Parameter
- Unchecked CANopen Status update in communication window as Default
- Scope sampling time and length recalculated in respect to PWM frequency
- Filtering frequency of loop changed functionality (Cut-off frequency instead of time)

[2.4.2.4] - 04.11.2025
- New uPLC interface with Editor, Toolbox and Compiler Features added

[2.4.2.3] - 21.10.2025
- Added Modbus sync By table index (trigger mode)
- Added Modbus sync table idx and set value
- New Installation setup

[2.4.2.2] - 15.10.2025
- Added Modbus Baudrate Speed Connection
- Added Modbus Baudrate Parameter
- Added check box after Firmware download
- Corrected Parameter Change Color

[2.4.2.1] - 13.10.2025
- Added row indicators
- Added Modbus sync trigger Option
- Added Modbus sync Buttons
- Bug fix Dump window

- Bug fix load Combo list
- Better Arrangement of text

[2.4.2.0] - 25.08.2025
- Added uPLC Memory Dump
- Added welcome Music on Splash screen
- Added Version update check on startup

[2.4.1.9] - 14.08.2025
- Corrected bug related to the load of configuration file (device_list combobox)
- Added Dump window for Motor Parameters load and save to file

[2.4.1.8] - 18.07.2025
- Added Dead Zone parameters in Controller window

[2.4.1.7] - 17.06.2025
- Added timeout counter visualization
- Corrected RX timeout Setting with higher Speed
- Bug fix Project save and load file (write Encoder/Phase Parameter unchecked Option in saved file)

[2.4.1.6] - 20.5.2025
- Added alert text for permanently Parameter store

[2.4.1.5] - 25.3.2025
- ADDED DS402 TXPDO list
- Added Firmware update additional Password unlock “update”

[2.4.1.4] - 25.3.2025
- ADDED DS402 STATE Coding on communication window
- Bug fix read/write of Gateway values

[2.4.1.3] - 05.3.2025
- STO function added

[2.4.1.2] - 10.2.2025
- Bug fix Can timeout value on EtherCAT bus window

[2.4.1.1] - 21.1.2025
- Bug fix coil temp gauge
- New interface design
- Added selection of MODBUS RTU Baudrate on communication window
- Added button to force Auto homing

[2.4.0.5] - 13.12.2024
- Added button for autohoming
- Added new machine state - SAFE STOP

[2.4.0.4] - 06.12.2024
- Added Identification button on the communication window

[2.4.0.3] - 18.11.2024
- Added uPLC window for internal PLC programming

[2.4.0.2] - 05.11.2024
- Bug fix - Corrected loading of Parameter from file
- Added Tracking time Display on Motion Control area
- Added selection of Tracking mode in Motion mode

[2.4.0.1] - 17.05.2024
- Bug Fix

[2.4.0.0] - 16.05.2024
- Added EtherCAT Bus converter management

[2.3.2.2] - 16.02.2024
- Added roto-linear motor
- Added selection for inverted encoder counts
- Added pulse / train option for future implementation
- Added trend information on the motor / drive temp
- Added Parallel motion window for pick and place and interpolated application

[2.3.2.1] - 07.12.2023
- Added in motion table trigger mode the option CAN_SYNC

[2.3.2.0] - 14.11.2023
- Added CANopen DS402 status visualisation
- Added CANopen Baudrate parameter in motor parameter window

[2.3.1.9] - 06.11.2023
- Added Manual mode in Expert window
- Added Encoder Autocalibration in Expert window
- Corrected filter for Motor load and Coil temp

[2.3.1.8] - 02.11.2023
- Diagnostic data are split into graphs
- Motor coil temperature filtered

[2.3.1.7] - 02.10.2023
- Added a control on the minimum waiting time in motion control table
- Added procedure to avoid problem on motor control when new configuration is downloaded.
During download the motion task is stopped, then restart when the download procedure is finished

[2.3.1.6] - 28.09.2023
- Corrected oscilloscope functionality
- Added new signal about the internal states and trigger
- Added motion state machine display on the status windows

[2.3.1.5] - 25.04.2023

[2.3.1.4] - 16.04.2023

New feature

[2.3.1.3] - 12.04.2023

Bug fixes

[2.3.1.2] - 04.04.2023

Bug fixes

[2.3.1.1] - 01.04.2023

Bug fixes

[2.3.1.0] - 26.03.2023

New Functions

[2.3.0.14] - 20.03.2023

New functions

[2.3.0.13] - 16.02.2023

New functions
- Added parameter in position window size in Motor parameter window

Bug fixes
- Correct drive reset button function

[2.3.0.12] - 23.12.2022

Bug fixes

New functions

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