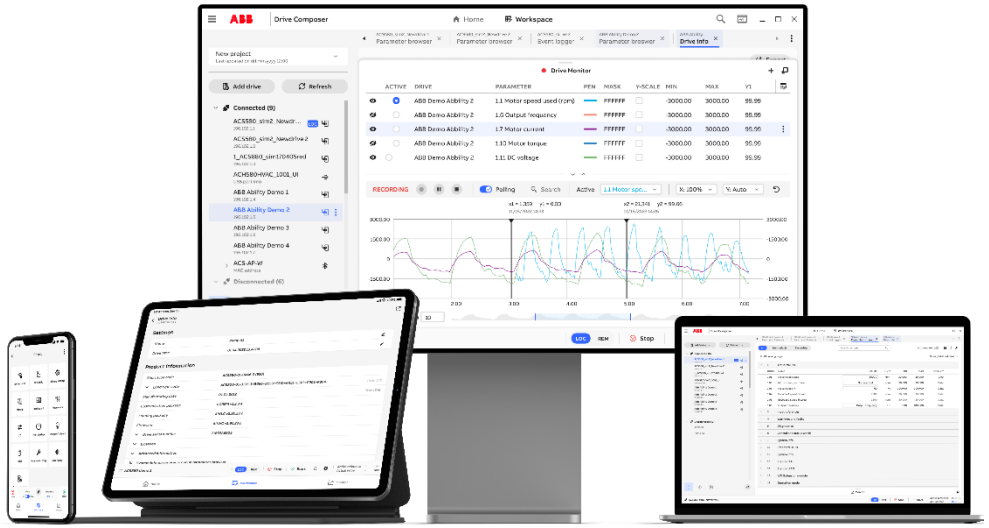
25.6.2025 REV F, 9AKK108471A3304

DRIVE COMPOSER 3

Product training material
(Without videos)



ENGINEERED
TO OUTRUN

This is the beginning of a wonderful journey

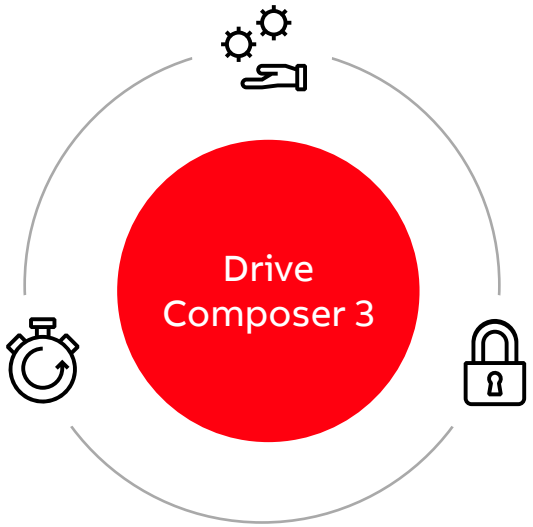
Drive Composer 3 is the first step in renewing the ABB Drives User tools.

Drive Composer 3 is the user tool for commissioning optimized for ACS380-E and supporting all other all-compatible drives.

Drive Composer 3 value propositions

Drive Composer 3
Value propositions

Ease of use
Easy to get started
Backwards compatible and futureproof
Common tool for both PC and mobile devices



Increase efficiency
Fast connectivity options
Quick, effortless commissioning
Advanced features for power users
Cloud access

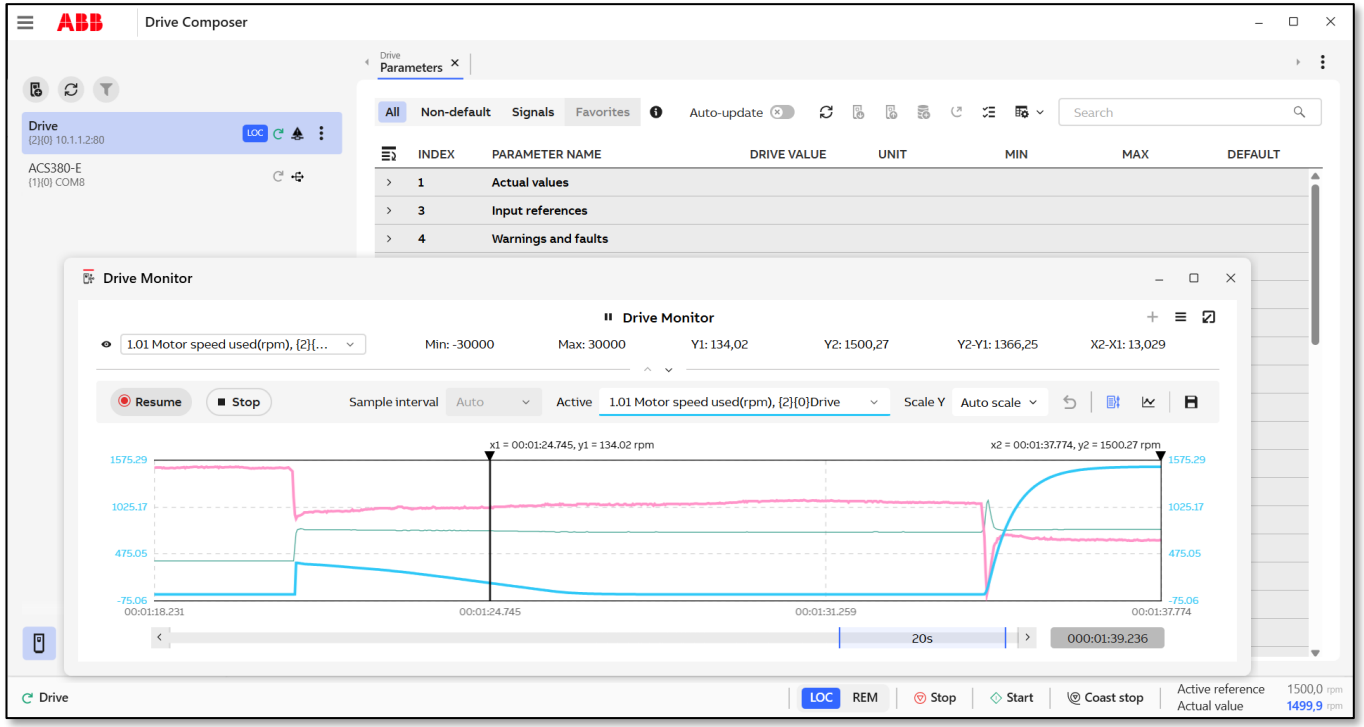
Reliability and security
Reliable remote troubleshooting
Secure by design
Smooth and regular application updates

Drive Composer 3 demonstrations

Major changes to previous versions

1. Free version will include ethernet-based tool network communication support
2. New windowing system allow opening multiple windows. Only one instance of application is possible at a time.
3. A lot of the functionality have been reimplemented to be more reliable, faster and easier to use.
4. Pro features will be introduced starting from 2026. There will not be separate application for pro, but the new licensing system will enable accessing features based on the user's subscription level or license.
5. Drive navigation now shows the discovered drives as soon as possible.

Note: keyboard shortcuts have not been implemented yet.



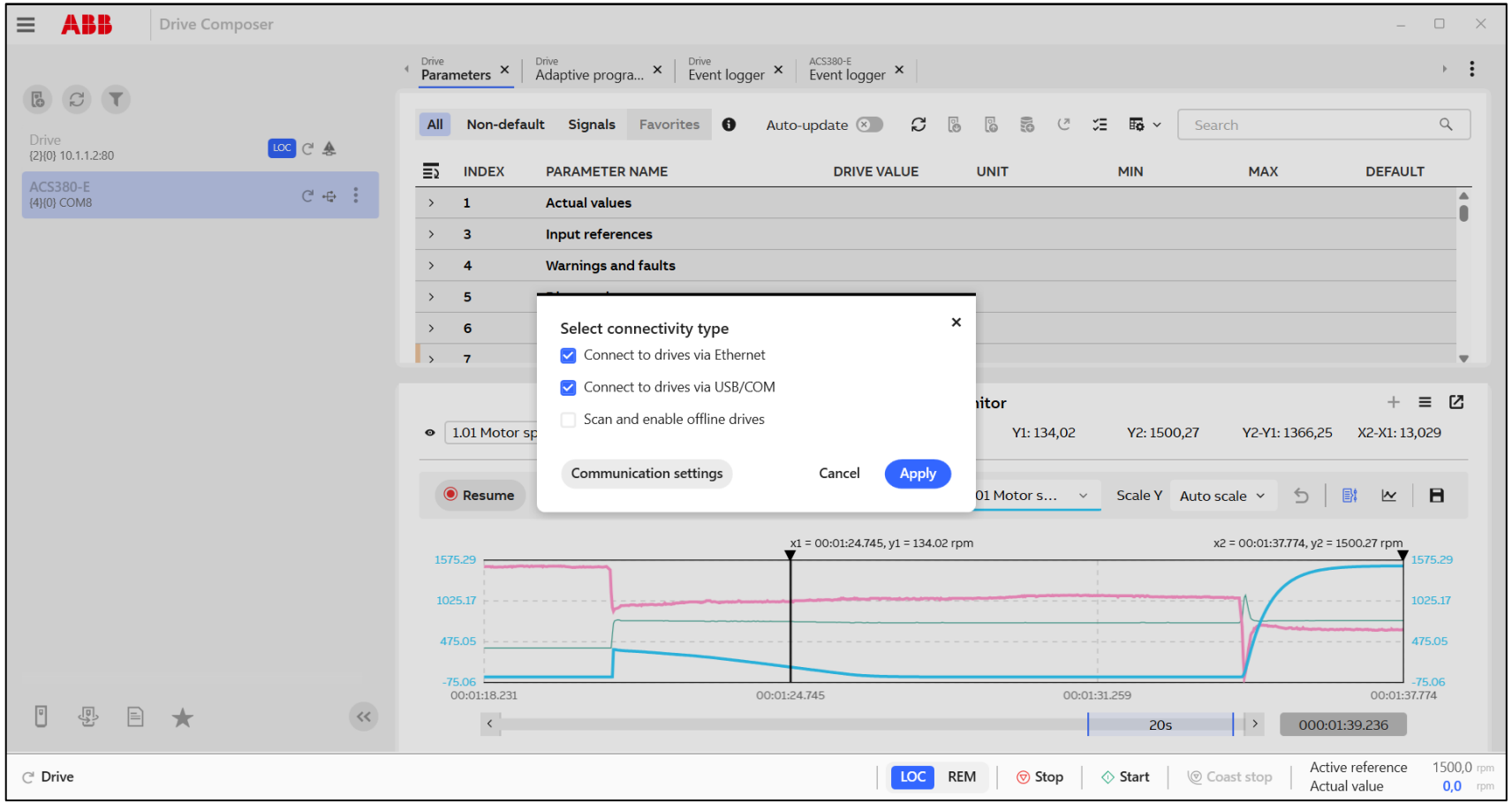
Connectivity to drives
Enhancements

USB and Ethernet supported

- USB
  - Drive Composer 2 problems to be resolved
  - Maximum of 20 drives supported, 32 using panel bus
  - Speed improvements with ACS380-E
- Ethernet-based tool network
  - More reliable access to drives even over remote access
  - Speed improvements with ACS380-E and upcoming drives

Note: drive node ids change now differently than in DC2. They are dynamically generated.

Bluetooth support coming later.



Parameter browser

Full access to parameters

Full access to parameters

Simple filtering of data

- Non-default values
- Signals

Search

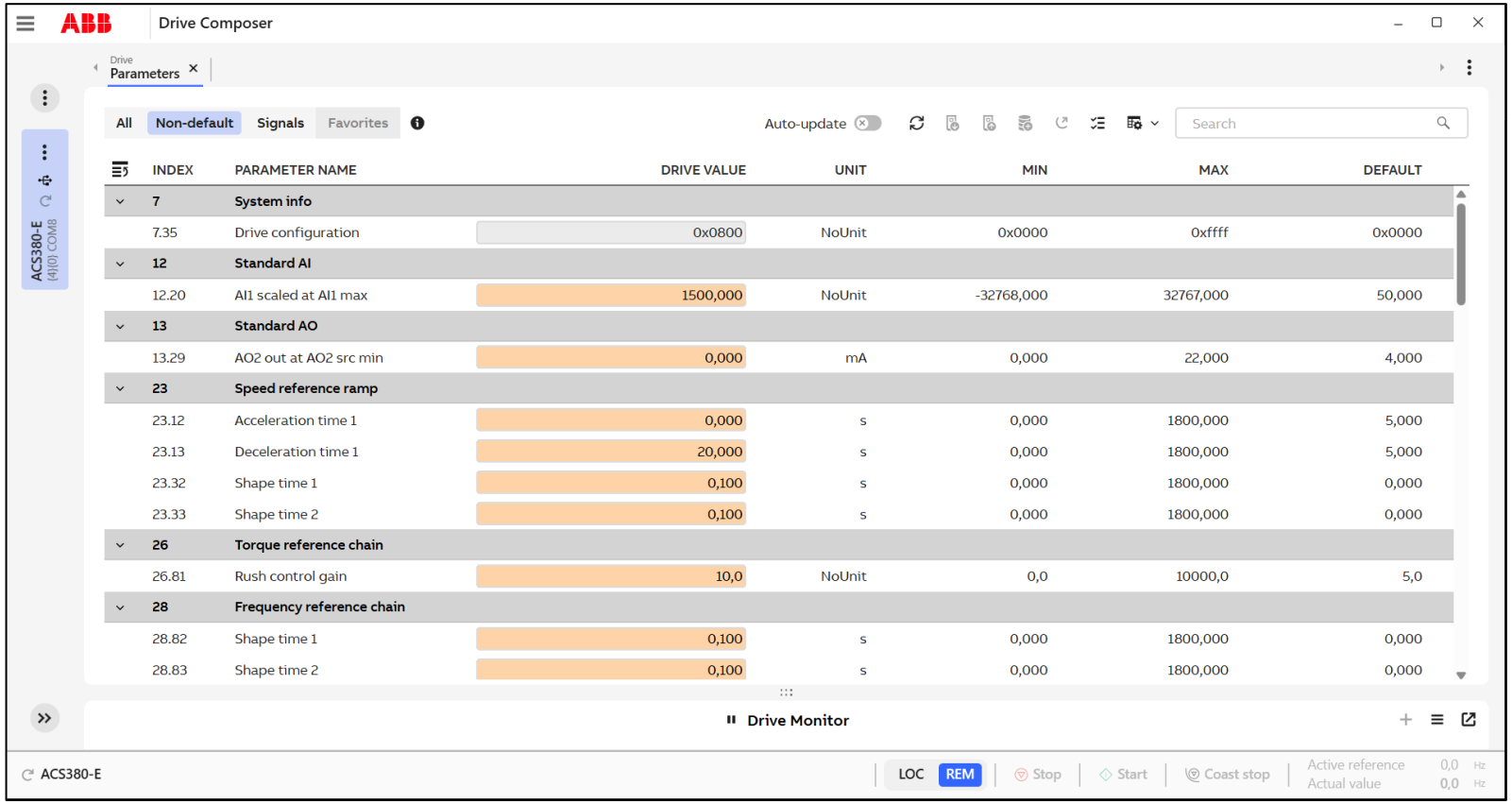
Copypaste values

Send signal to Monitor

Known omissions from current release:

- Favorites
- Parameter comparison
- Offline user sets

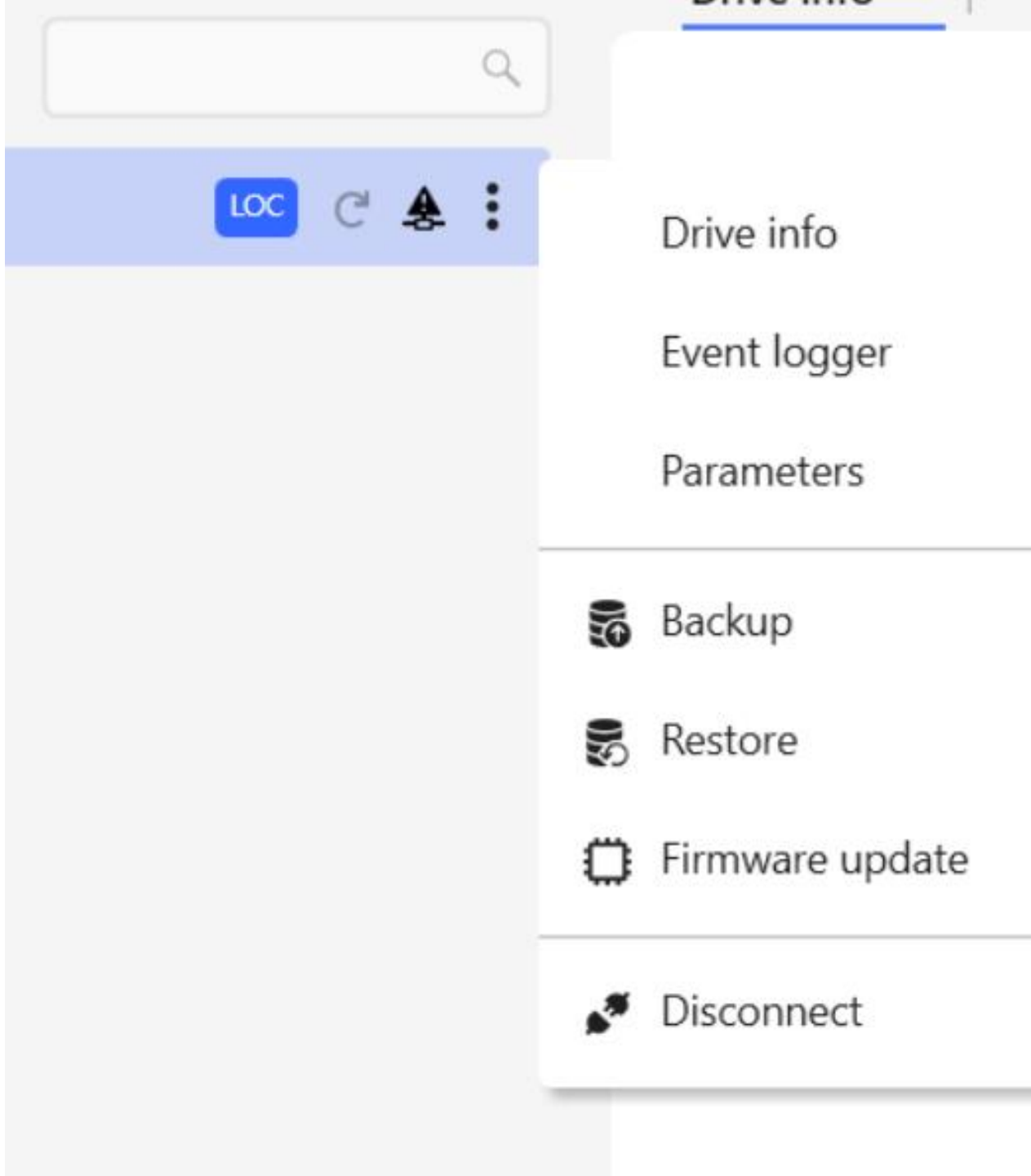
Hint: you can zoom with CTRL-Mouse wheel



Backup and restore
Key changes and plans

- Initial version has very little functionality
- ACS380-E introduces new backup and restore functionality which is:
  - More robust in weak network conditions
  - Fully compatible with “old” Drive Composer backup format
- Advanced restore and network backup have been planned
- “Network restore”, “Restore with firmware” have been identified as future improvements

- Known issues: backup file not compatible with DC2 and the values are not accessible offline.
- New file format will be introduced for ACS380-E backups: .dcbak
- Note: Restore is only possible in Local control. DC3 is not currently providing tooltip to assist with this.



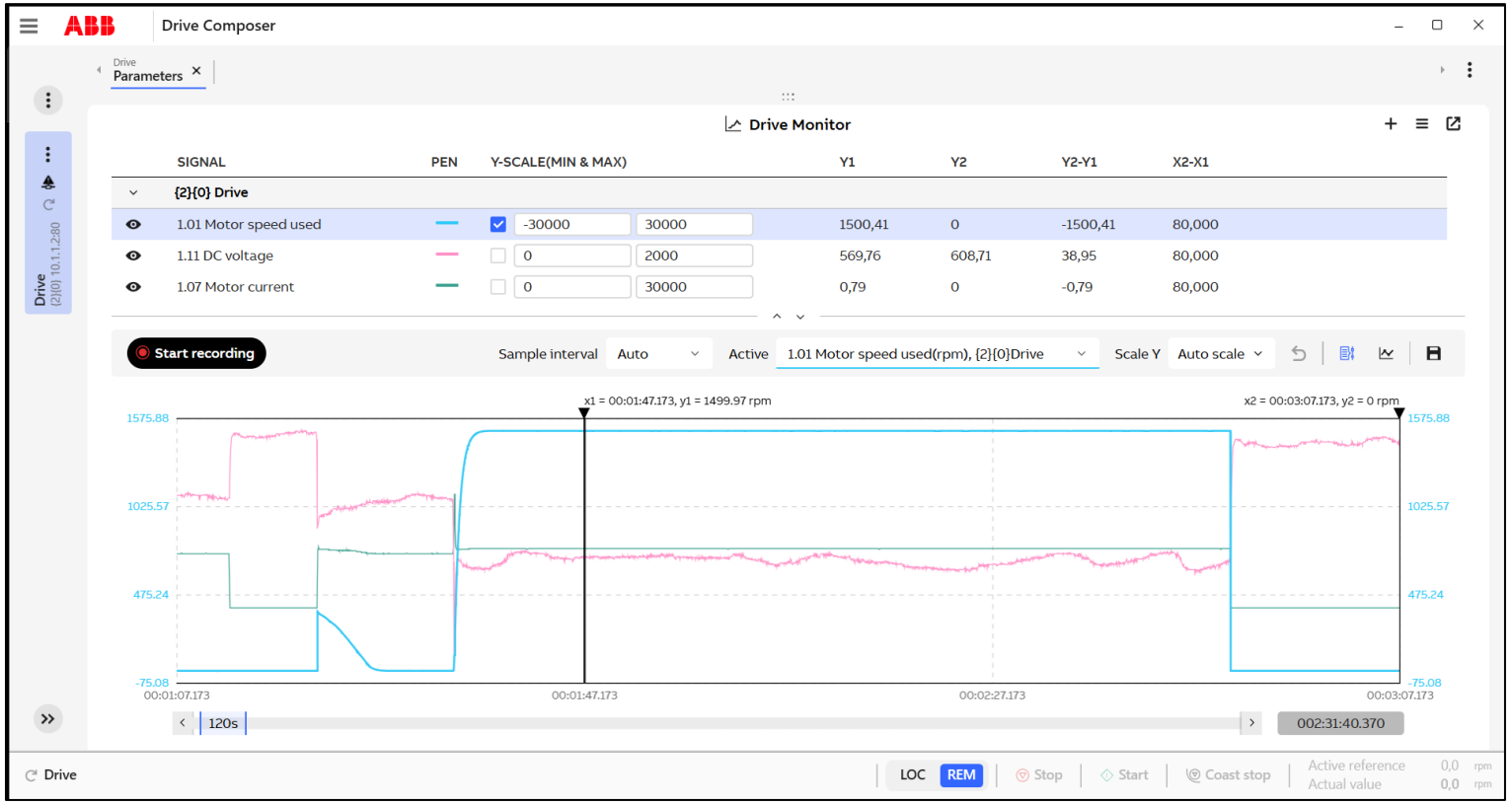
Monitoring
Key functionality

- 8 visible signals in free version from a single drive over Ethernet or USB
- Add signals from parameters or from Monitor signal selection view
- Saving and opening the monitor file
- Using right mouse button, it is possible to scroll the graph
- 120 second limitation removed*

Future:

- Multidrive monitoring and supporting 28 signals per drive in DC3pro
- Exporting the monitor data in .csv-file
- Saving monitor configurations for quick repetition of tasks

Hint: in the signal selection dialog, double-clicking automatically sends the value to other side.



* Current limitations in zooming into data are temporary due to performance issues in very large files

Monitoring
Details

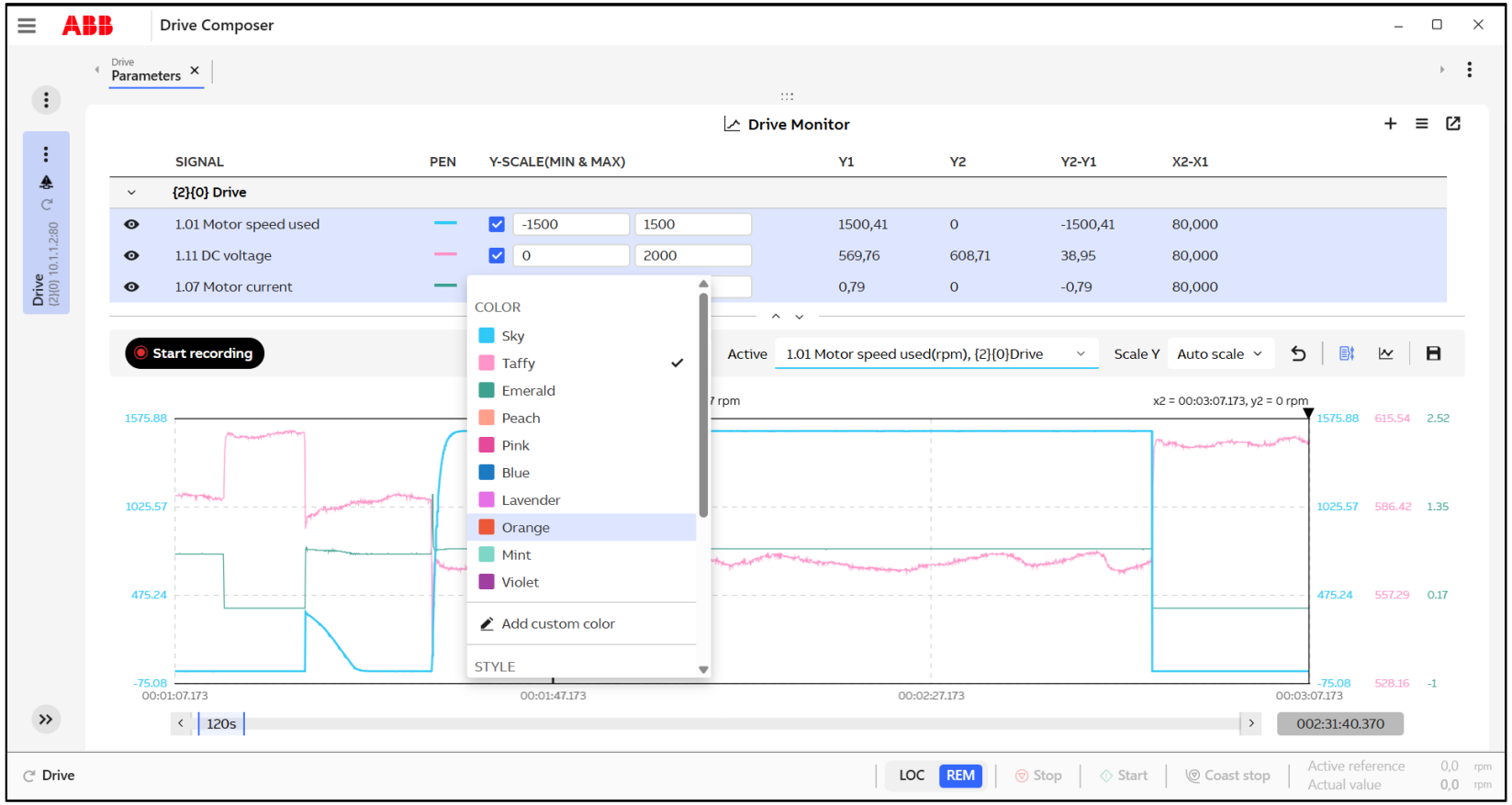
Controls to define what is visible in the graph

- Change the color and style of the graph
- Define mask of the signal to show the relevant bits

Possible to see calculations between x1 and x2 in real time

Define the Y Scale while monitoring

- Auto scale focuses on the visible values
- Min – Max allows specifying the scale based on the min and max values of the signal

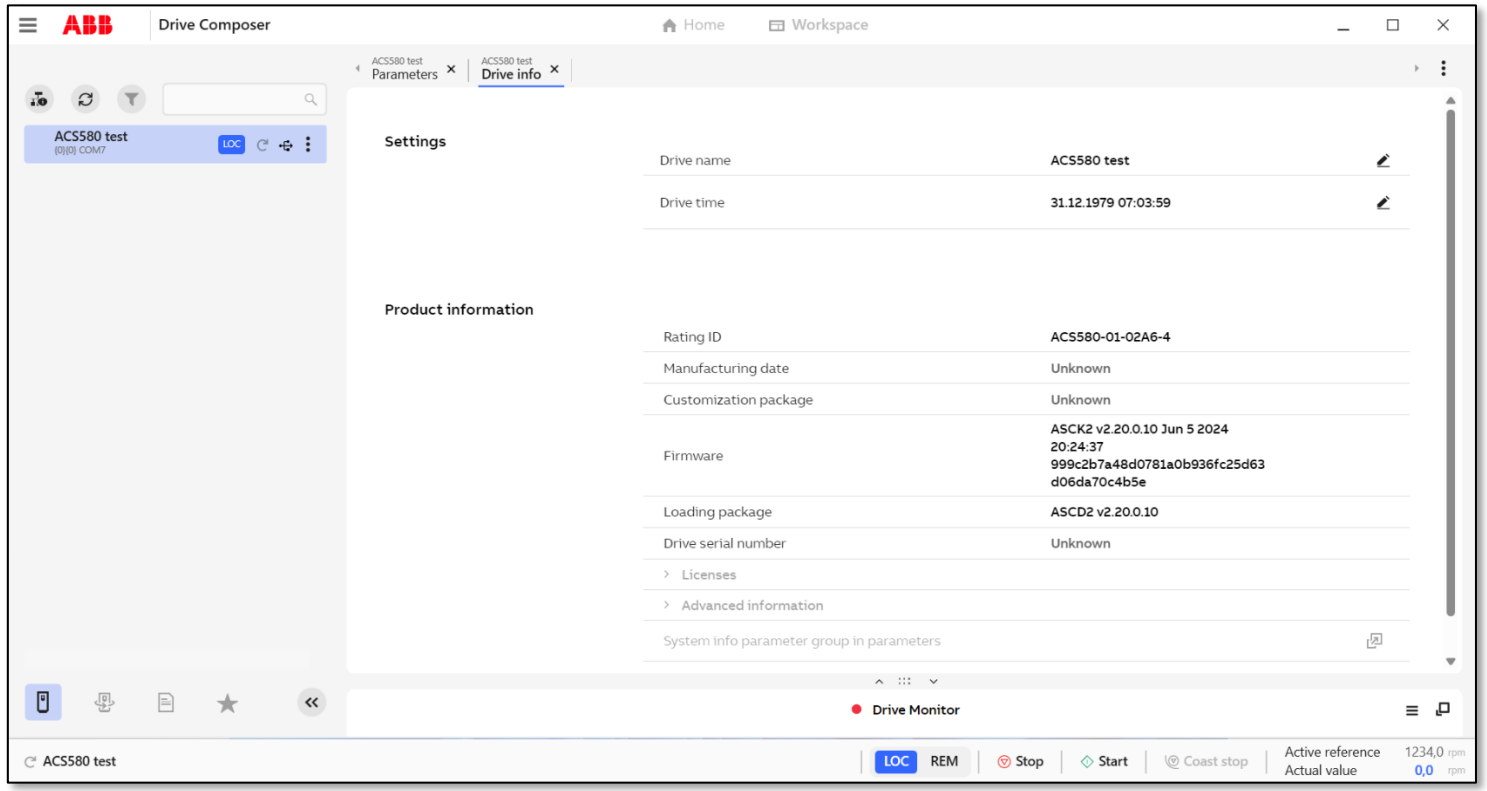


Drive info

No big changes to DC2

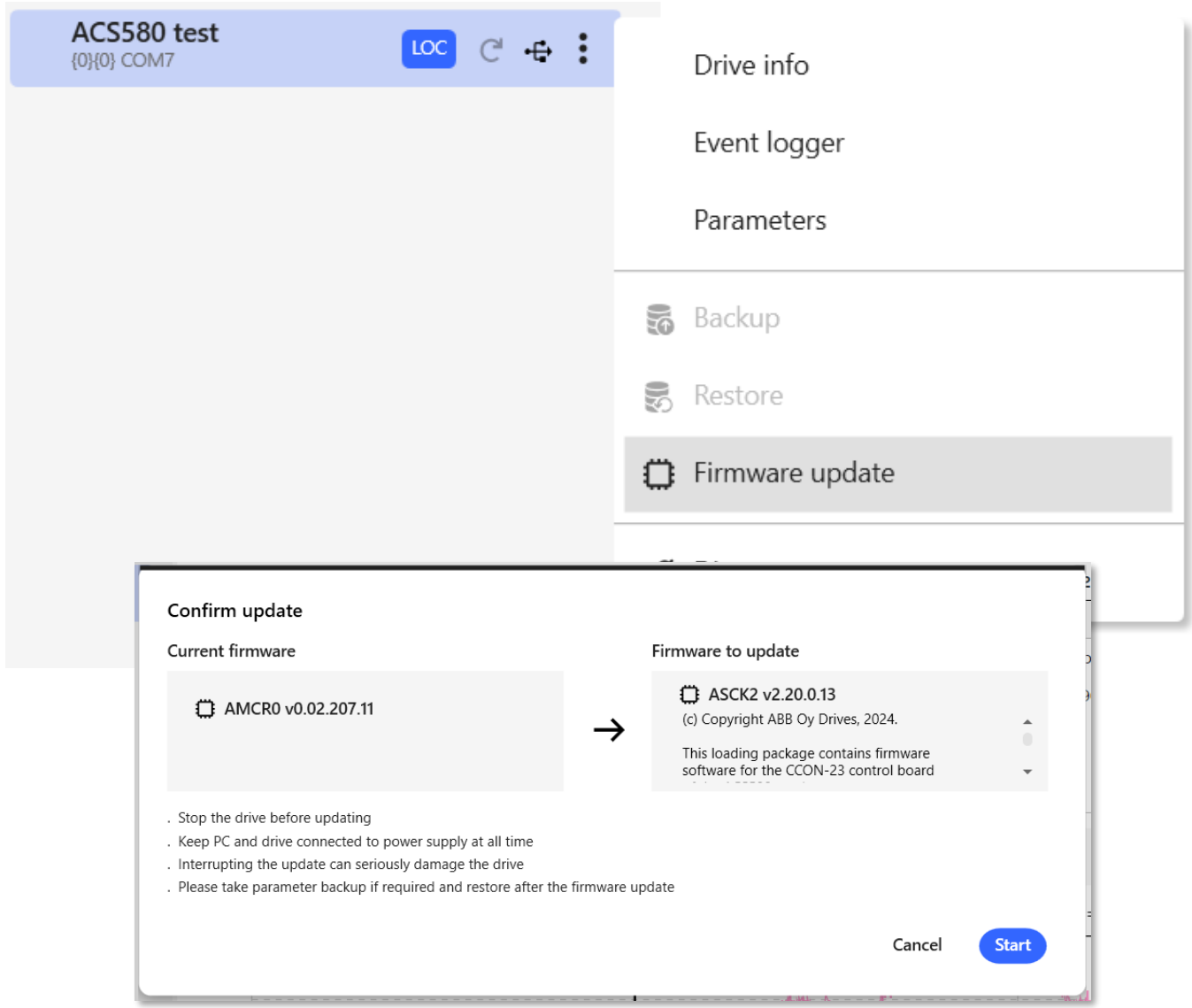
- See the basic information from the drive:
  - Serial number
  - Firmware and loading package version
  - Rating ID
  - Drive licenses
- Setting time and date of the drive
- Defining a name for the drive

Future: easy synchronization of date and time



Firmware update

- First release is simplified experience to load the drive firmware from local PC.
- Future release will allow updating drive and all options' firmware from local file or from the cloud.

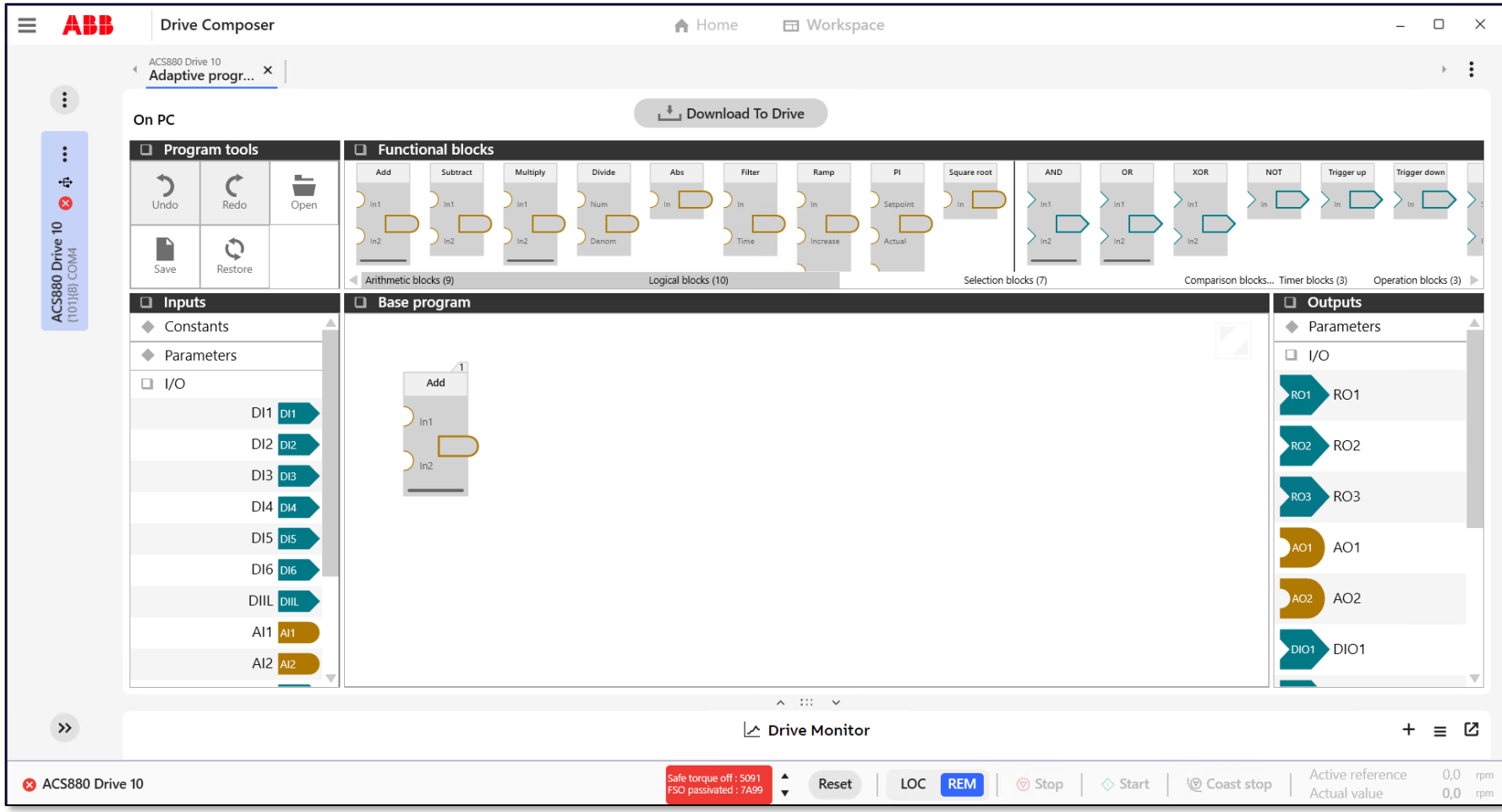


Adaptive programming

Currently slightly improved version of DC2 version.

Future plans:

- Printing support
- Adding some new blocks alongside firmware changes
- Changing the program size calculations



Offline drives

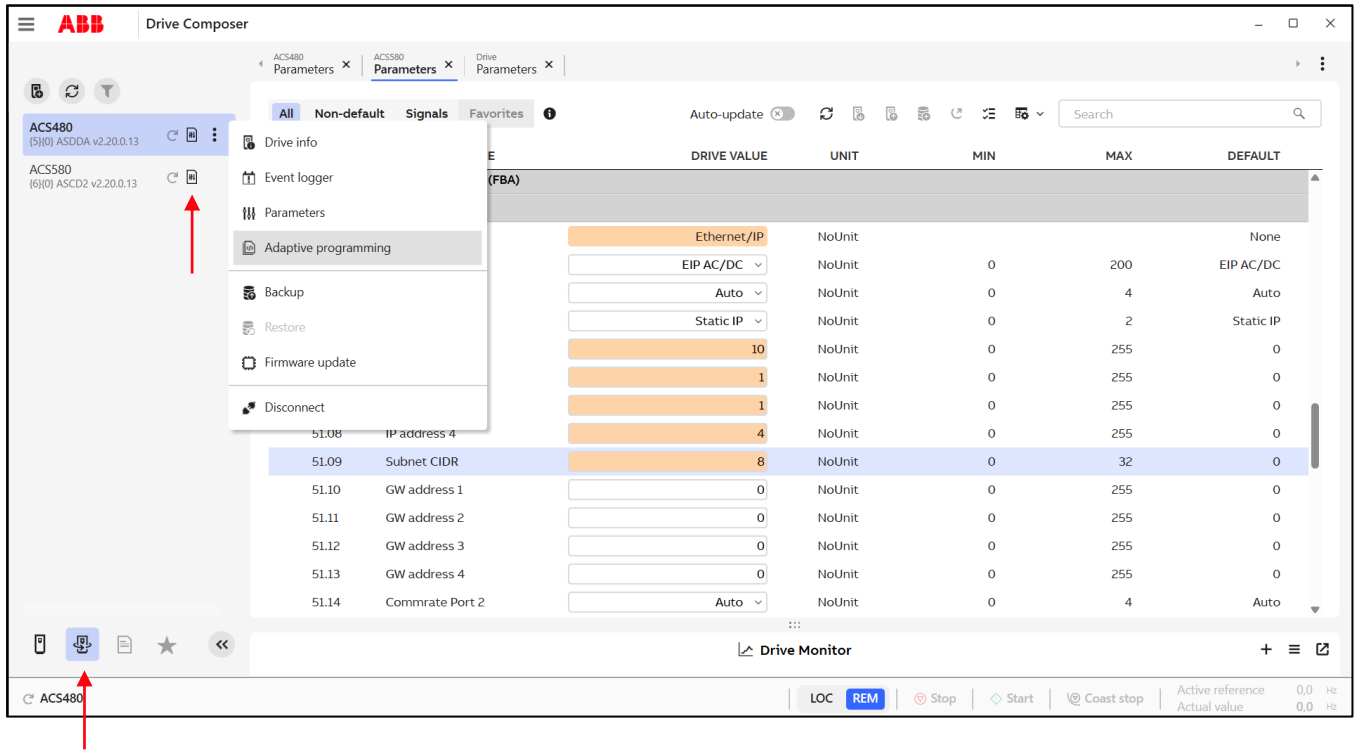
Offline drive enables parameterization without drive HW.

Backup and restore enables saving created files to and from drives.

Supports currently for ACS380, ACS480, ACS580.

Downloading the files currently from https://accessmanagement.motion.abb.com/polaris/#/dofsDevices (not directly from the application).

- Import file requires a firmware loading package .signed from the cloud



Future:

- ACS380-E coming in 2025
- Direct downloads from cloud
- Future drives supported once firmware loading packages are added to the cloud
- Virtual Drives support in 2026

Cybersecurity
Target: IEC 62443-4-2 SL2

Application and development processes follow the IEC62443-4-1 guidelines (ML3)

Drives SL1 supporting features

Drives SL2 features support coming

Drive Composer is focused on supporting the drives cyber security. The different supported functionality depends on the drive model.

Next steps

Value propositions for DC3

Expected timelines for fulfilling

Ease of use

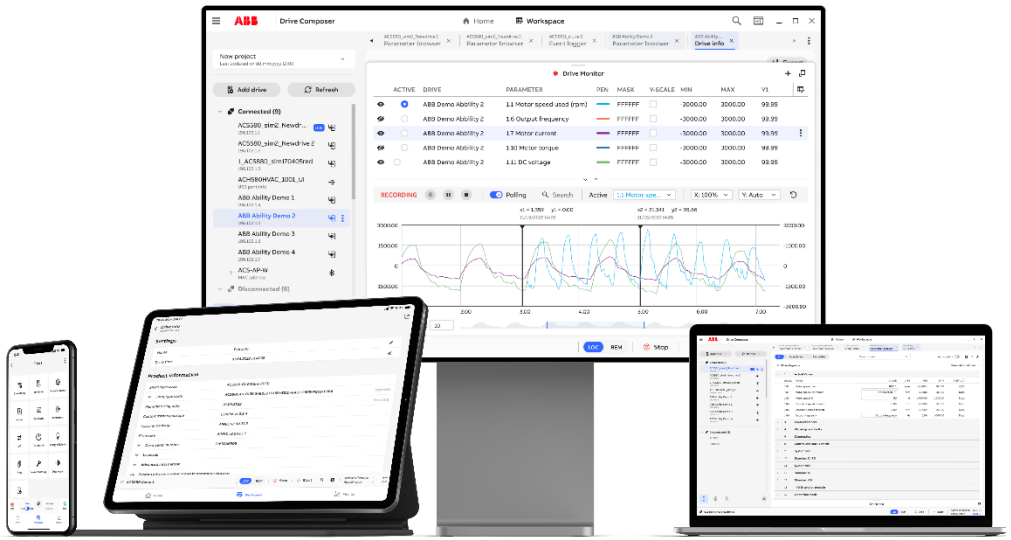
• Easy to get started	Now
• Backwards compatible and futureproof	Now
• Common tool for both PC and mobile devices	2026

Increase efficiency

• Fast connectivity options	Now
• Quick, effortless commissioning	H2/2025 onwards
• Advanced features for power users	2026
• Cloud access	2026

Reliability and security

• Reliable remote troubleshooting	Now
• Secure by design	Now
• Smooth and regular application updates	Now



Features currently in progress

Free features to be added (2025-2026)

- Firmware updates from the cloud
- Further offline configuration options
- Full support for Backup and Restore
- Datalogger support for ACS880
- Wizards for easy commissioning

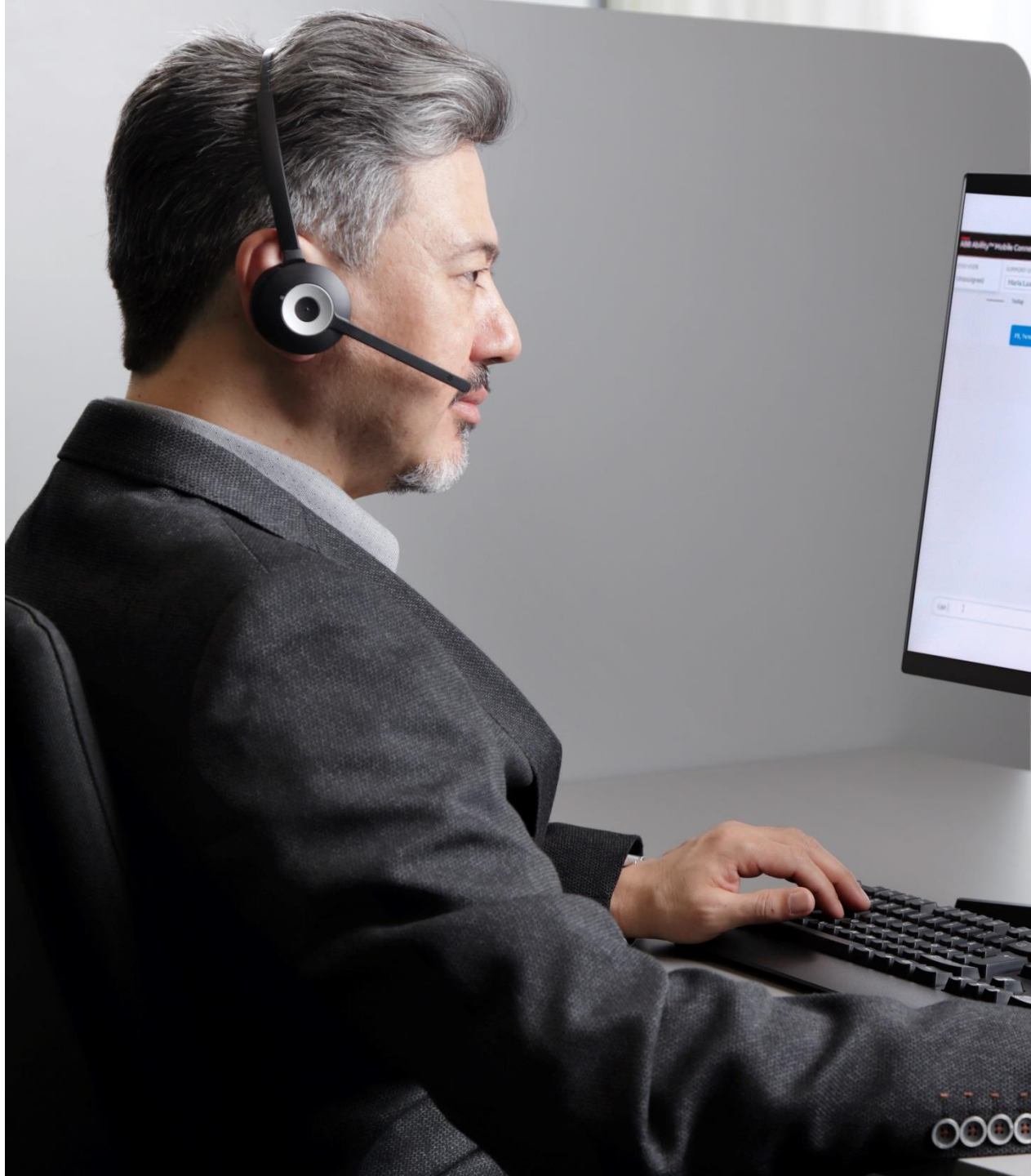
Pro features in next releases (2026 plans)

- Functional safety configuration
- Automation integration improvements
- Parameter comparison
- Cloud features
- Diagrams
- Virtual Drives

Regular application updates with new features every 3 months

How to install Drive Composer 3 and provide feedback

Download from ABB website:
https://new.abb.com/drives/software-tools/drive-composer

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