

## TEST AUTHORIZING

# Sequence Editor — code-free test authoring

Build test sequences without writing code. The Sequence Editor is a purpose-built workbook editor that understands your test structure — typed steps, guided cell builders and a single home for signals, variables, instruments and limits.

| Step # | Description                                                                          | Step Type               | 1                                    | 2                          |
|--------|--------------------------------------------------------------------------------------|-------------------------|--------------------------------------|----------------------------|
| 1      | Setup: start CAN bus                                                                 | Start CAN               | PACK_CAN1                            |                            |
| 2      | Setup: start merged instrument log                                                   | Start Instrument Log    | Logged                               | Merged                     |
| 3      | Setup: reset cyclor                                                                  | Write Inst              | NHR 9200: Reset                      |                            |
| 4      | EX1: start CC-CV charge (mode 2, 14 V, 10 A)                                         | Write Inst              | NHR 9200: Output Operation           | 2,2,14,10,10000,0          |
| 5      | EX1: one-shot alert marker - fires ONCE if V<13.2 OR I>11, even if it flickers       | If Any Once             | NHR 9200: Voltage, NHR 9200: Current | Greater Than, Greater Than |
| 6      | EX1: one-shot laper cutoff - fires ONCE when V<13.8 AND I>0.5 together               | If All Once             | NHR 9200: Voltage, NHR 9200: Current | Greater Than, Less Than    |
| 7      | EX1: pace the monitoring loop (1 s)                                                  | Wait                    |                                      |                            |
| 8      | EX1: keep looping while still charging (V>13.8 OR I>0.5) - plan if Any as loop guard | If Any                  | NHR 9200: Voltage, NHR 9200: Current | Less Than, Greater Than    |
| 9      | EX1: safety net - make sure output is off                                            | Write Inst              | NHR 9200: Output Operation           | 0,...                      |
| 10     | EX2: launch BOTH channel loops from one step (comma separated names)                 | Start Parallel Sequence | Cycle_A, Cycle_B                     |                            |
| 11     | EX2: Main is free here (prompts, logging, safety all still live)                     | Wait                    |                                      |                            |
| 12     | EX2: wait for both branches to finish (2 h timeout)                                  | Wait Parallel           | All                                  | 7200                       |
| 13     | Done                                                                                 | End                     |                                      |                            |

Sequence Editor — a CC-CV charge sequence with parallel monitoring branches and limit logging

## At a glance

- Typed test steps with pick-to-select cell builders — no syntax to memorize
- CAN signals, variables, instrument configurations and limits managed in one place
- Conditions composed from your variables, commands and an expression library
- Instrument wizard builds command libraries for new equipment
- EVA reviews the sequence and proposes changes you approve

## What it does

### Authoring

- Guided step types: instrument write / read, waits, If Any / If All, loops, Goto, parallel start / wait, prompts, end
- Compose conditions from variables, instrument readings and expressions
- Set up parallel branches, waits, timeouts and limit logging directly in the sequence
- Array variables for multi-cell and multi-channel data
- Placeholder hints cleaned up on save so workbooks are always runtime-ready

### Test assets

- Instrument wizard and instrument database: VISA, SCPI/TCP, NI-XNET and Vector CAN, DAQmx and ADAM modules
- DBC import for CAN signal definitions; J1939 and UDS frames
- Variable manager with initial values, types and groups
- Workbook manager for versions shared across stations
- RTSP camera discovery for synchronized video in EB Playback

**“No proprietary scripting language to learn. No per-vendor lock-in. One platform from first sequence to full lab.”**

Your test is a workbook: sequences, signals, variables and limits in a structured format your whole team can review and share.

## In the suite

**EBE Test**  
runs the workbook unchanged

**Sequence Editor**  
Authoring

**Prompt Builder**  
binds displays to these variables

**Lab Manager**  
distributes workbooks to stations

**EB Playback**  
replays what the sequence logged