CAN

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Product Manager

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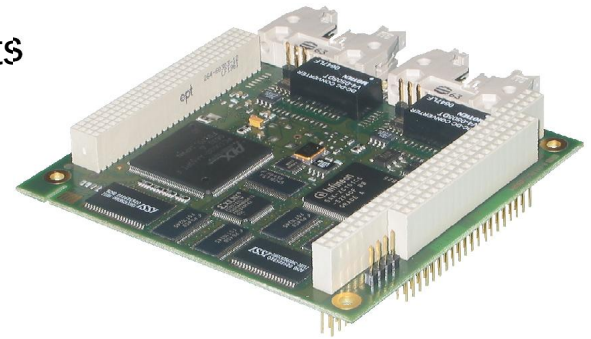
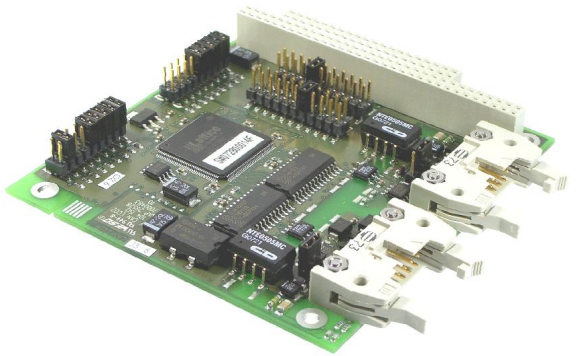
Product update

CAN interface boards

- current year is very successful
- sales concentrate on CAN-ACx-PCI, CANusb and CAN-AC2-104
- Please be also aware of our younger products
  - **CAN-PRO-104+**
    - PC/104plus and PCI/104
    - powerful active boards
  - **CAN-OEM-104**
    - PC/104 (ISA)
    - cost-effective passive boards

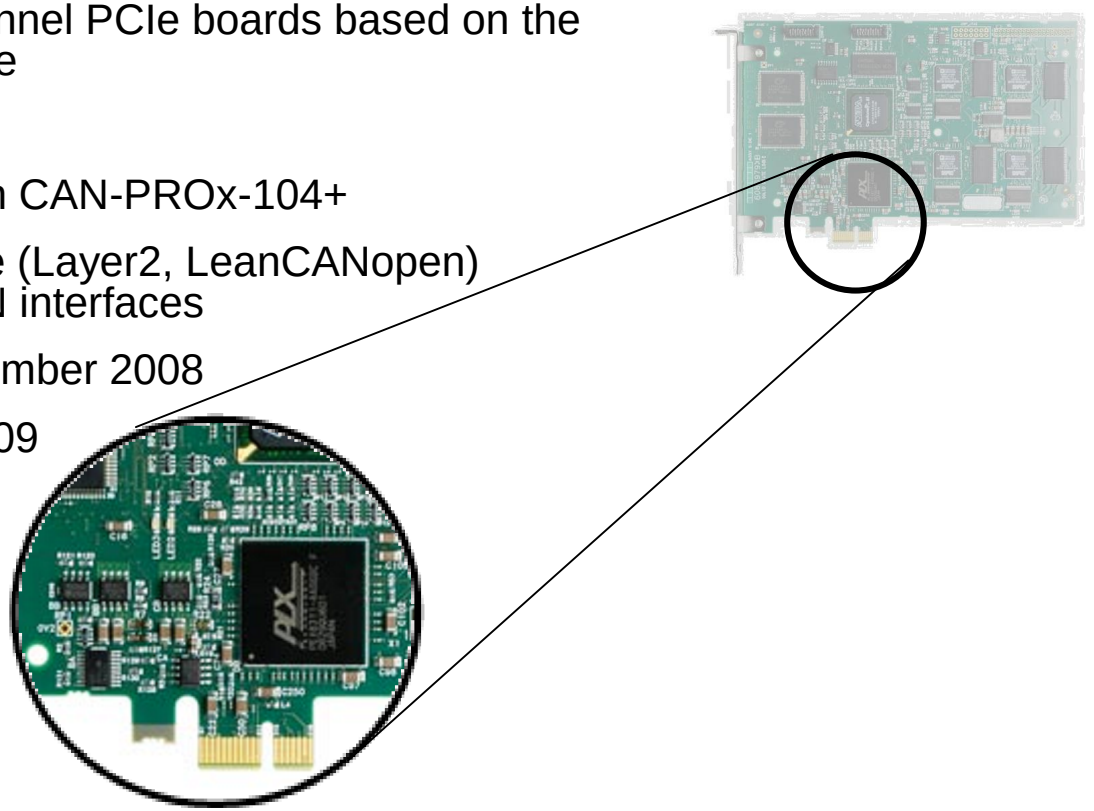




CAN products - Outlook

CANpro PCIexpress Boards

- single and dual channel PCIe boards based on the CANpro architecture
- single PCIe lane
- fully compatible with CAN-PROx-104+
- software compatible (Layer2, LeanCANopen) with all Softing CAN interfaces
- samples early December 2008
- product January 2009



CAN products - Outlook

CE.NET 6.0 drivers

- for
  - CANpro (PCI/104, PCIe)
  - CAN-OEM (PC/104)
  - CAN-ACx-PCI
  - CANusb
- release is planned for end 2008

BC-200-CAN

- CAN tester - Softing branding
- final negotiations regarding DeviceNet version
- release scheduled for end 2008
- J1939 planned for May 2009

CAN Tester BC-200-CAN

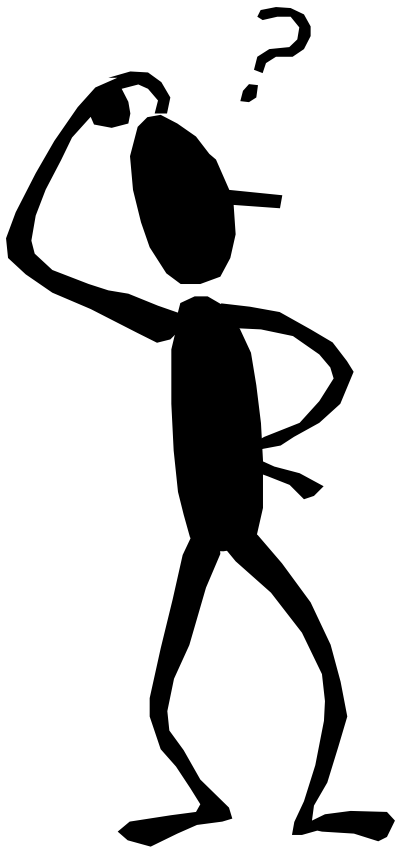
BC-200-CAN is a universal measuring instrument for

- commissioning,
- analysis,
- monitoring,
- troubleshooting
- and service/maintenance

of CAN based networks.

CAN Tester BC-200-CAN

Typical communication problems on a CAN network include:



- Missing or too many bus terminations
- Bus-cable and/or spurs too long, wrong cable types
- Defective bus drivers
- Excessive contact resistances at the connectors/terminals due to aging/corrosion
- Transient breaks on moving cables
- Cable routed through environments with strong interference

CAN Tester BC-200-CAN

Product features:

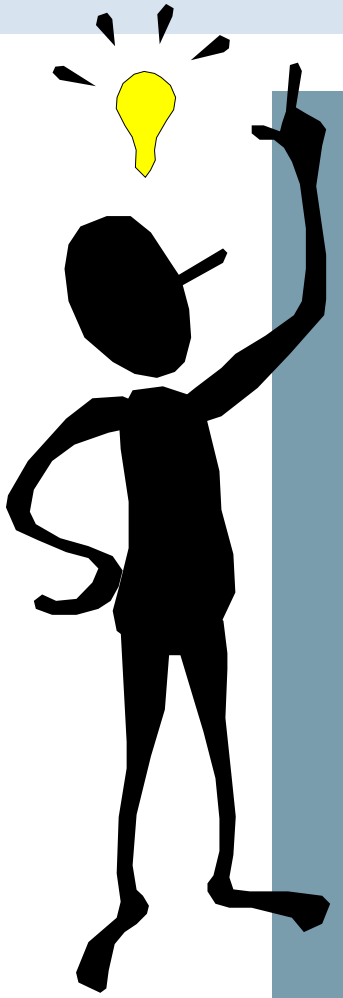
- Bus systems: CAN bus, CANopen and DeviceNet
- Automatic baud rate detection
- Automatic detection of connected devices
- Device and measuring-point related display of the signal conditions:
  - overall quality level (0 ... 100 %)
  - disturbance-free voltage range
  - rising and falling edges
  - oscilloscope display with frame analysis for the complete message frame

cont' …

CAN Tester BC-200-CAN

Product features:

- Real-time monitoring of physical and logical errors (online logger)
- Continuous monitoring of CAN bus status, CAN bus traffic-load, error frames (active/passive errors)
- Real-time capable hardware trigger output for user or error-related analysis by way of external DSO
- Easy-to-use compare feature with previous measurements
- Detailed test report
- Integrated CAN bus monitor (transmit/receive functions)
- Wiring test (line short-circuits, line breaks, bus termination, the loop resistances



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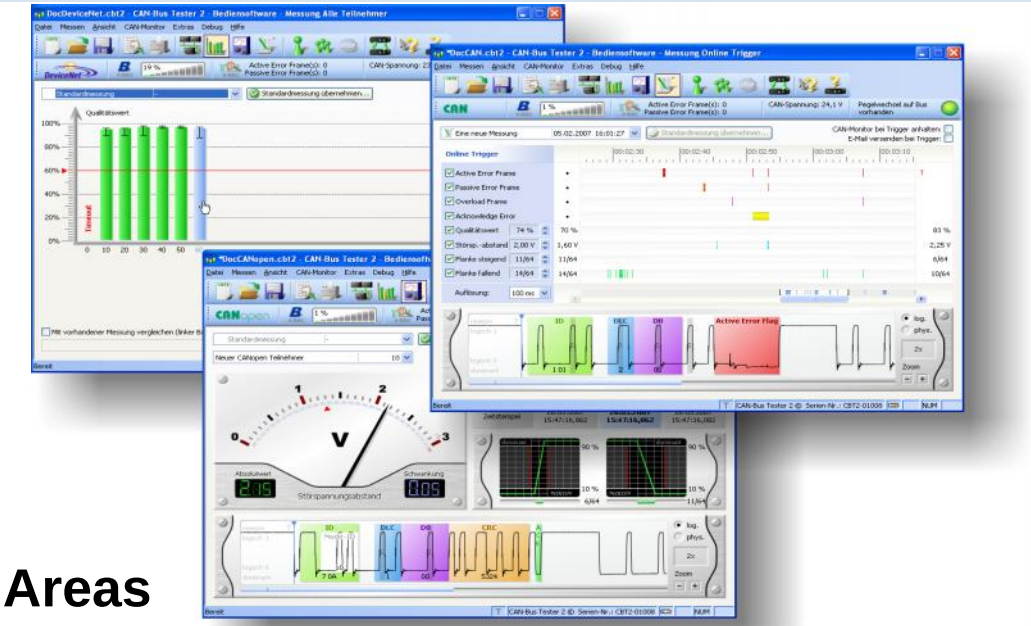

Application Areas

- Commissioning of CAN bus installations, wiring test, module check
- Service/maintenance of CAN bus installations
- Analysis and troubleshooting of the physical bus characteristics
- Development of CAN bus modules
- Final testing in the production

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CAN Bus-Applications:





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BC-200-CAN Connectors

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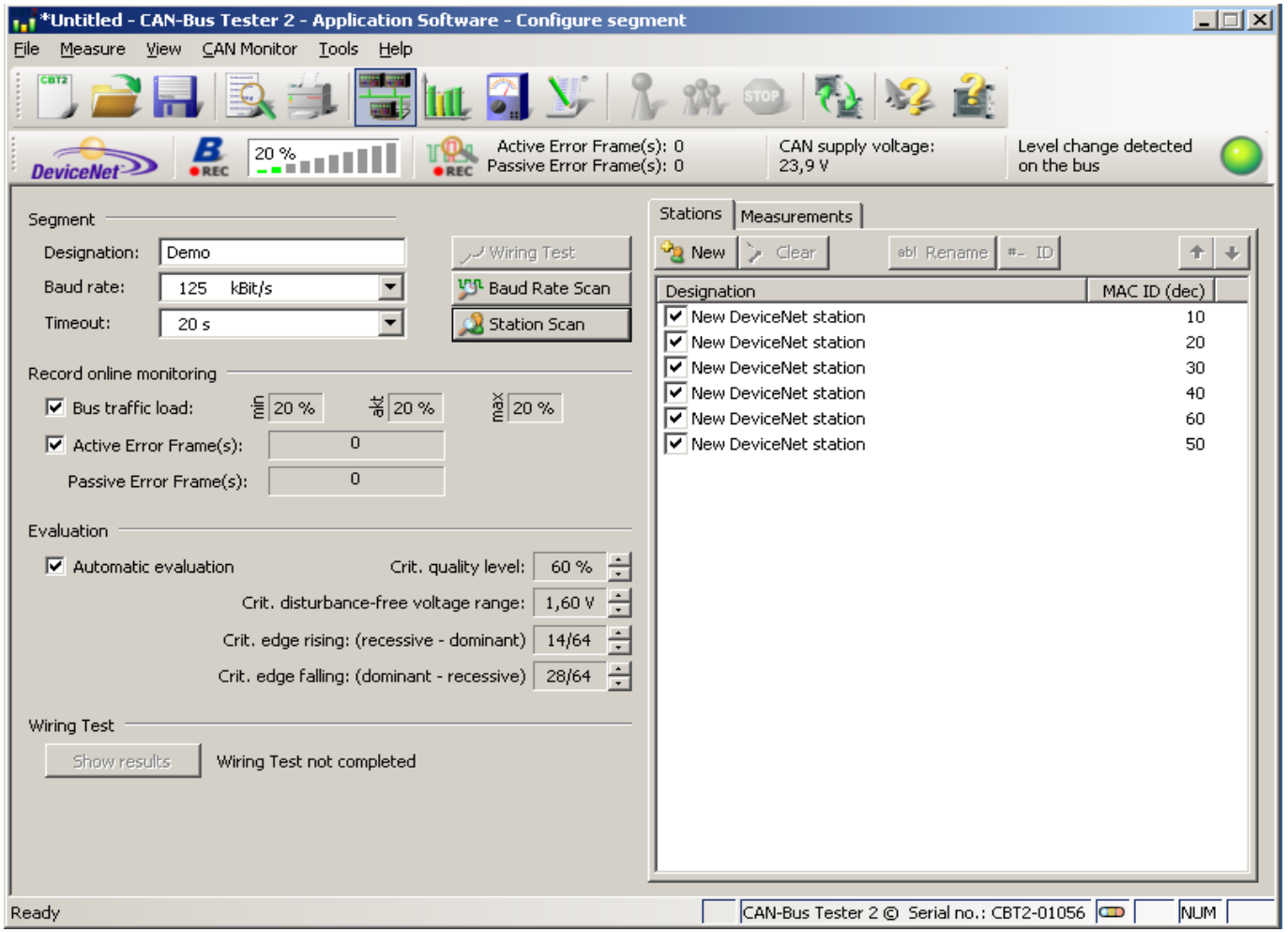
Configure CAN bus segment



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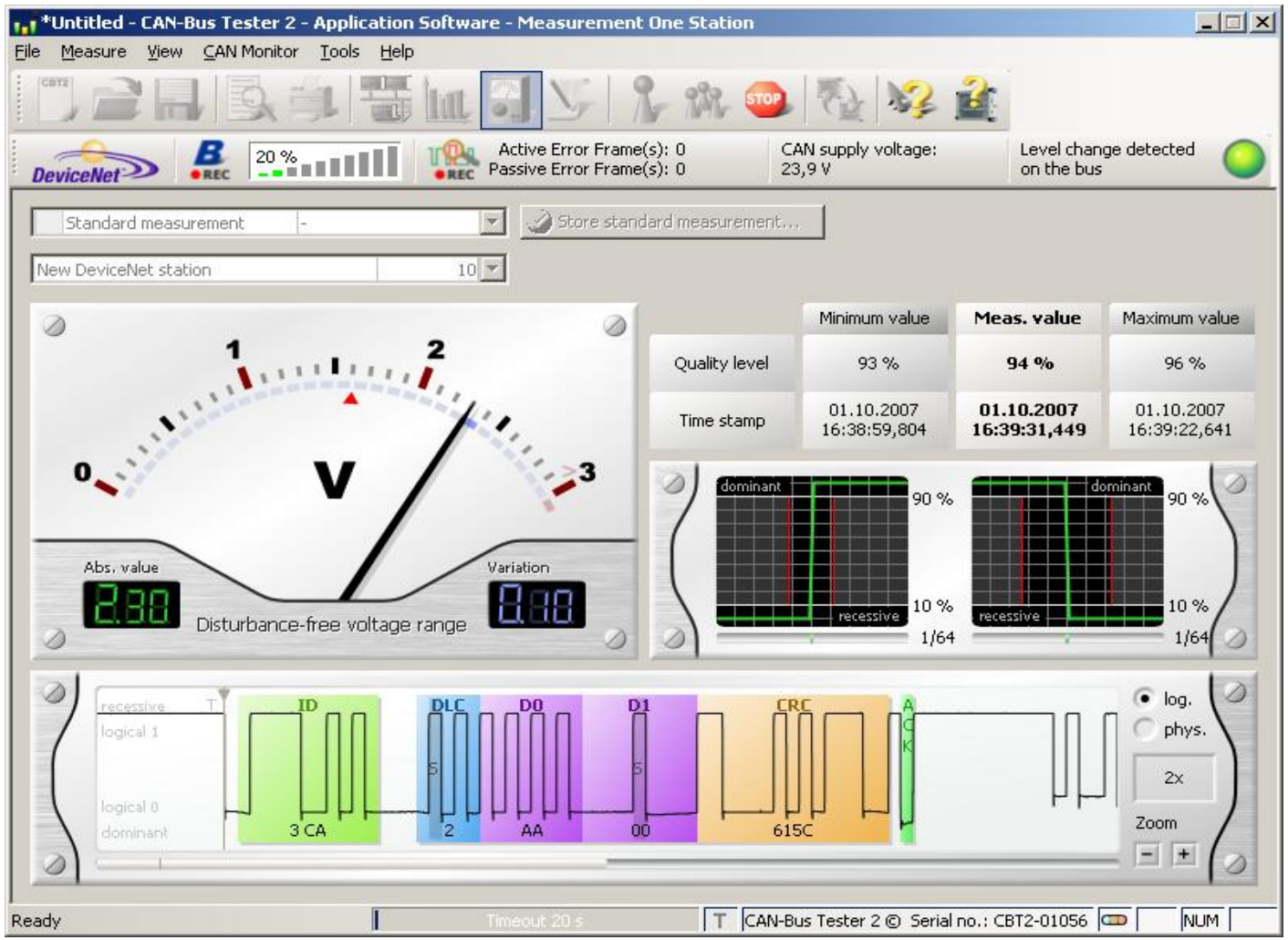
Disturbance-free voltage range



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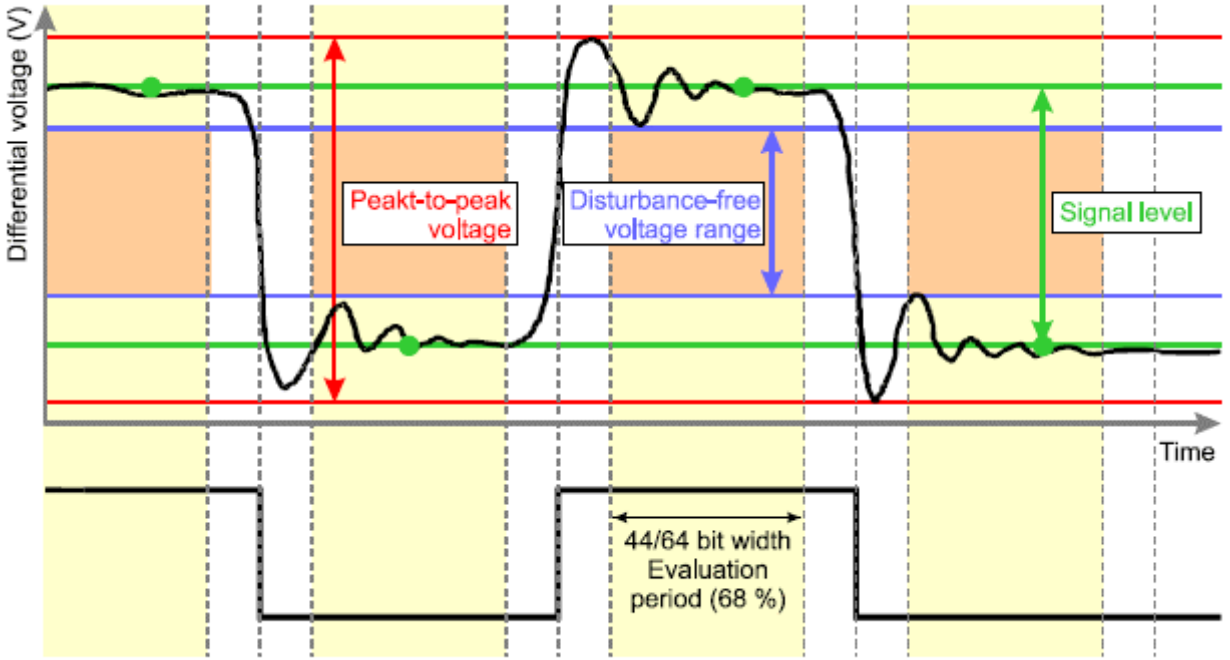
Definition of disturbance-free voltage range, peak-to-peak voltage, and signal level



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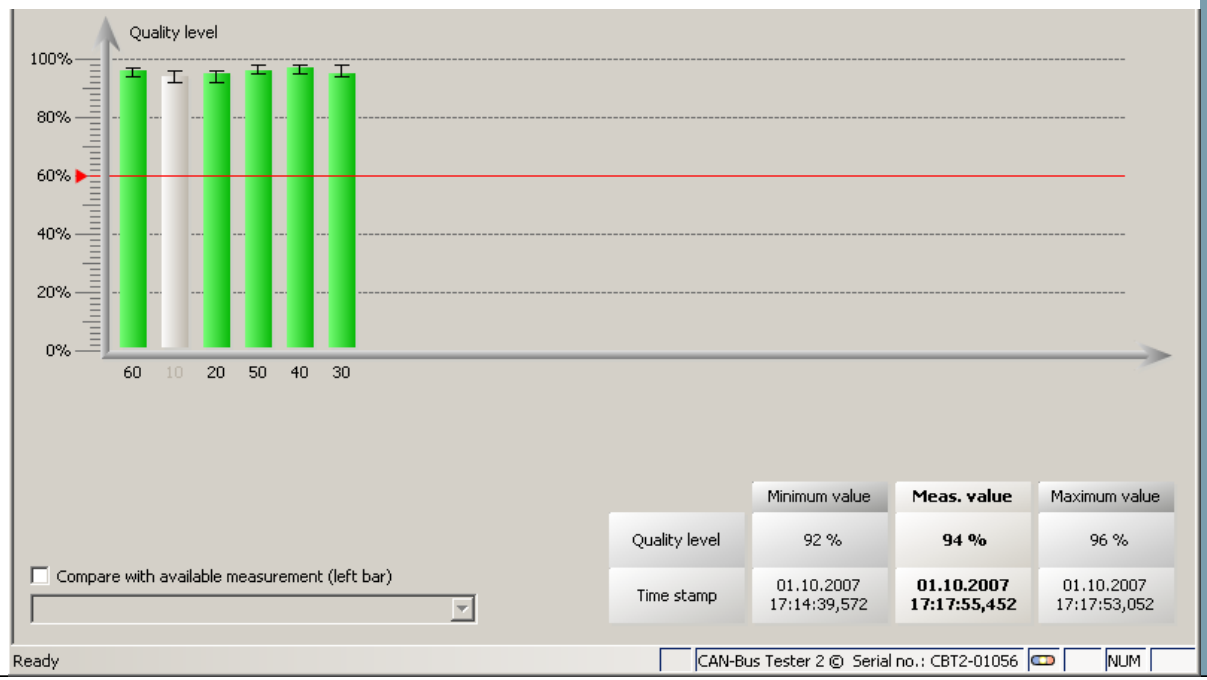
Quality level

The quality level is a general expression of the signal quality on the bus. The value range is 0...100%. The value is determined from the following three components of the signal quality:

- Edge steepness
- Disturbance-free voltage range
- Reflection



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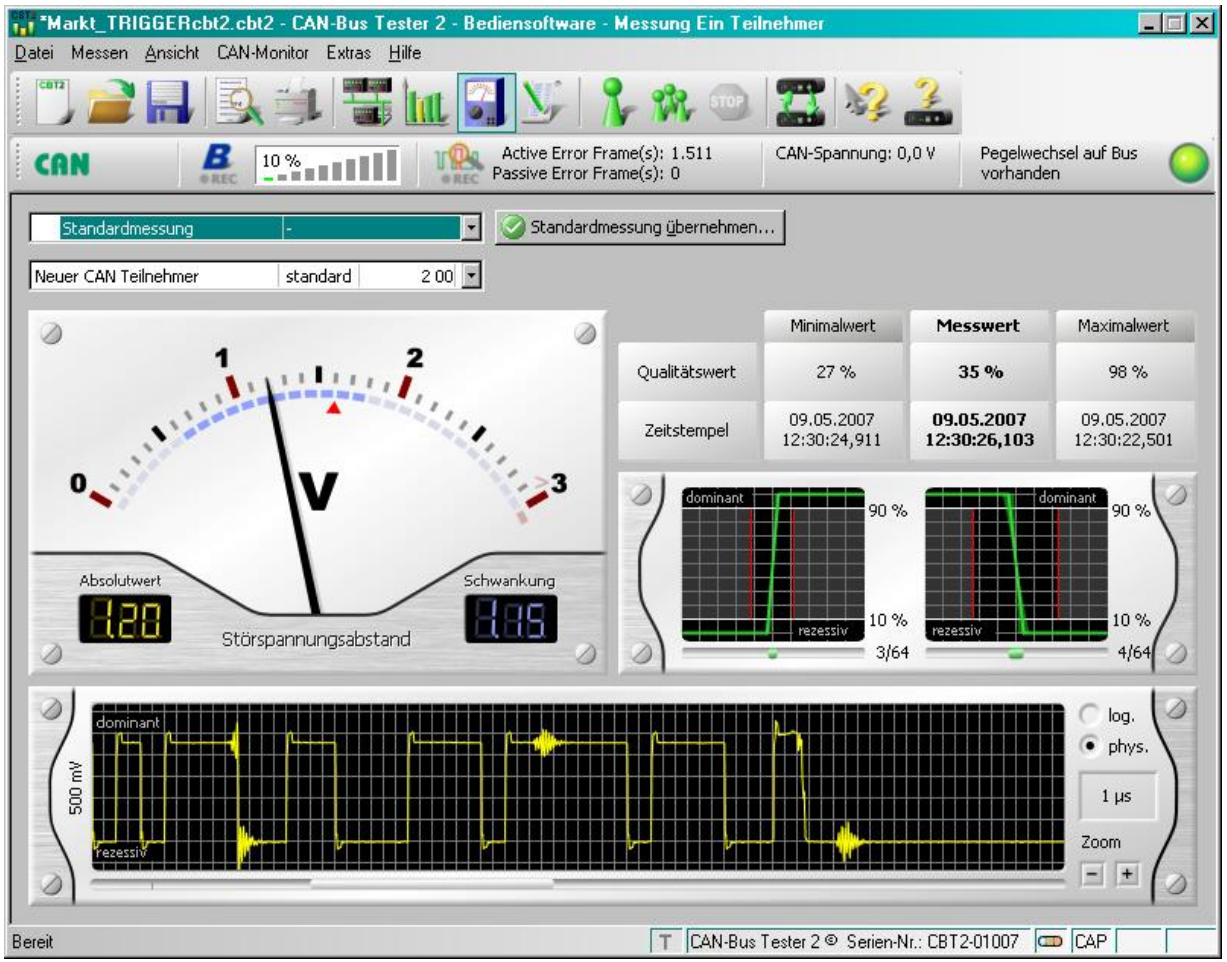
Error example: Cyclic disturbance every 40 µs



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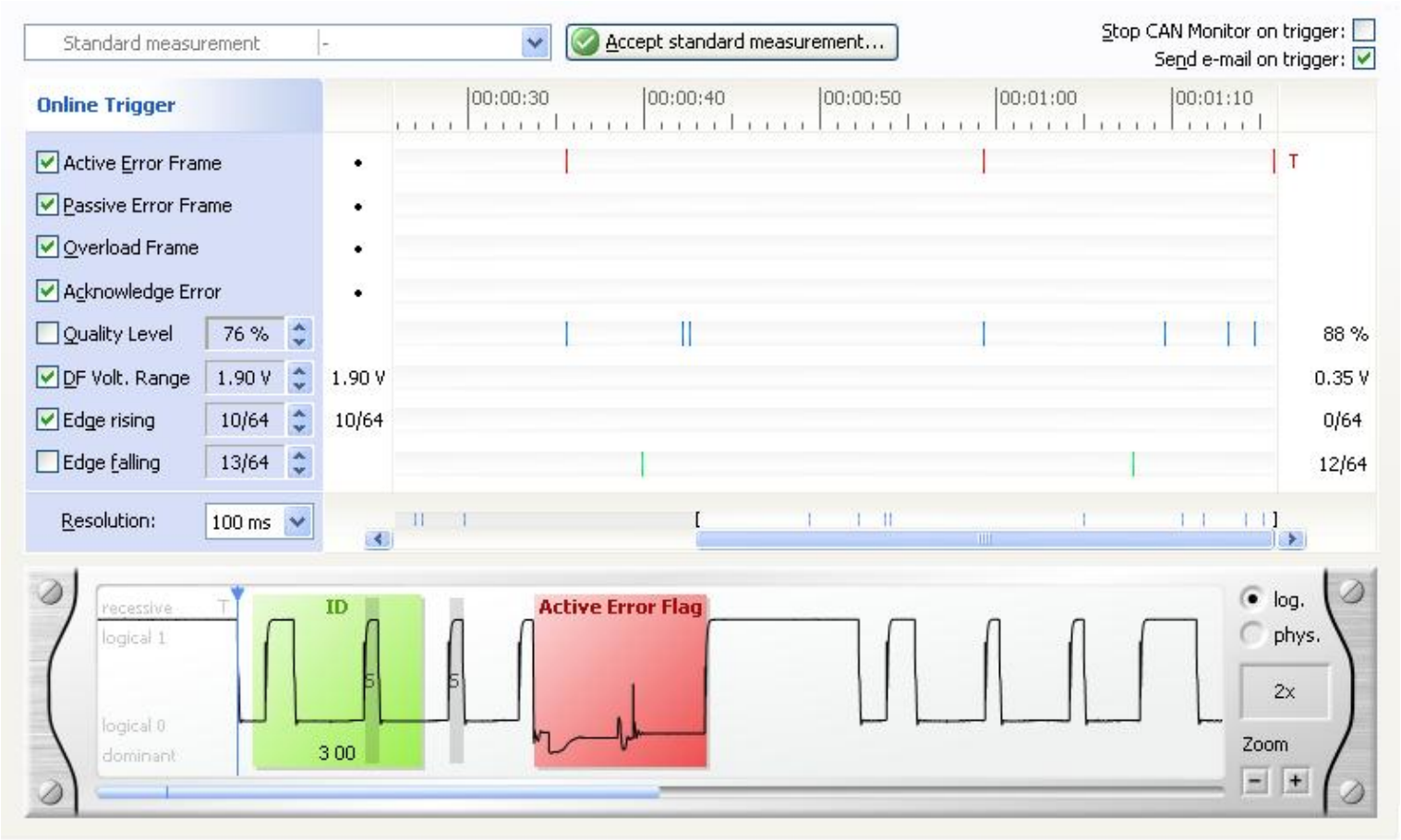
Online- trigger



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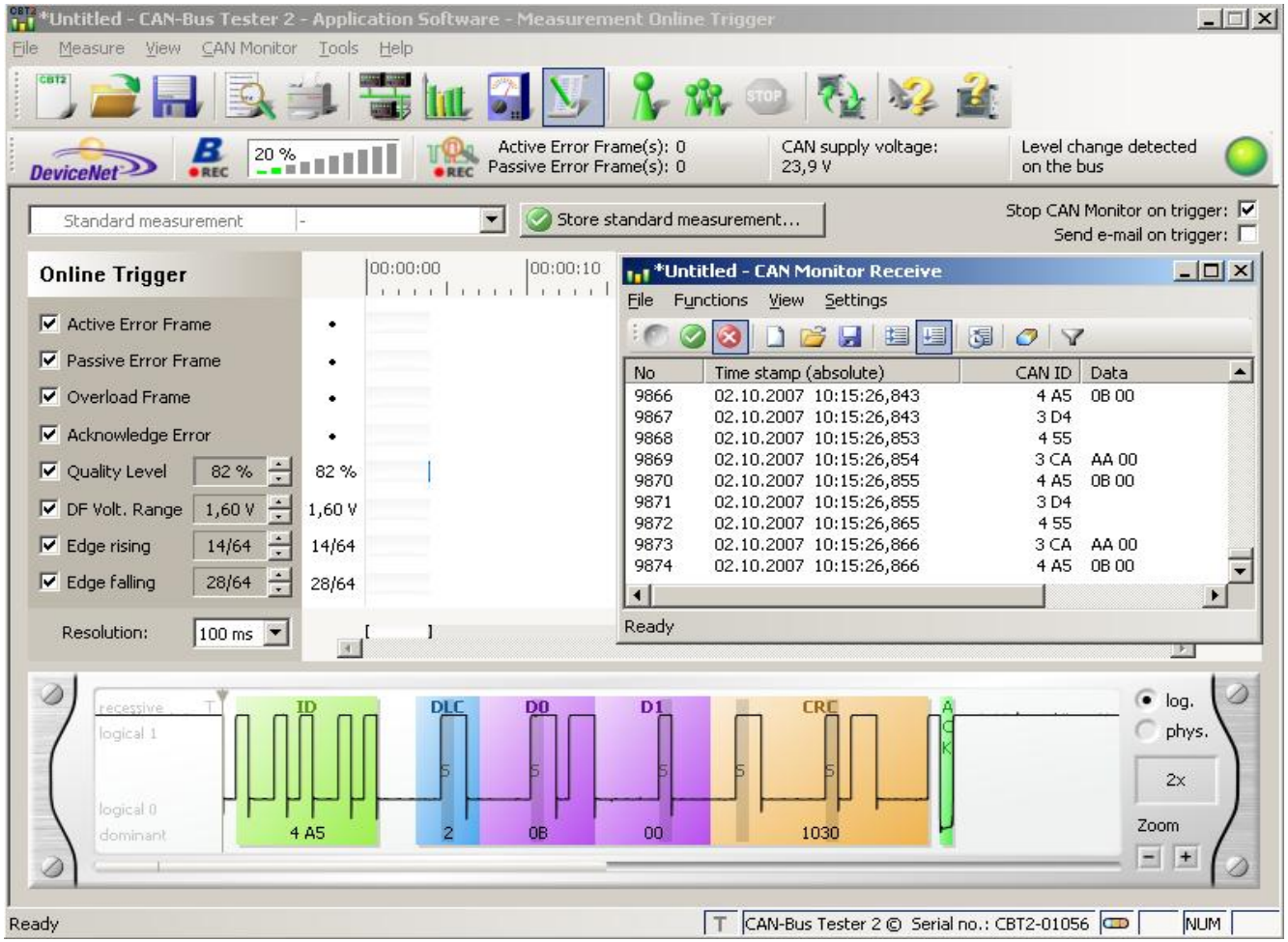
Online trigger and monitor



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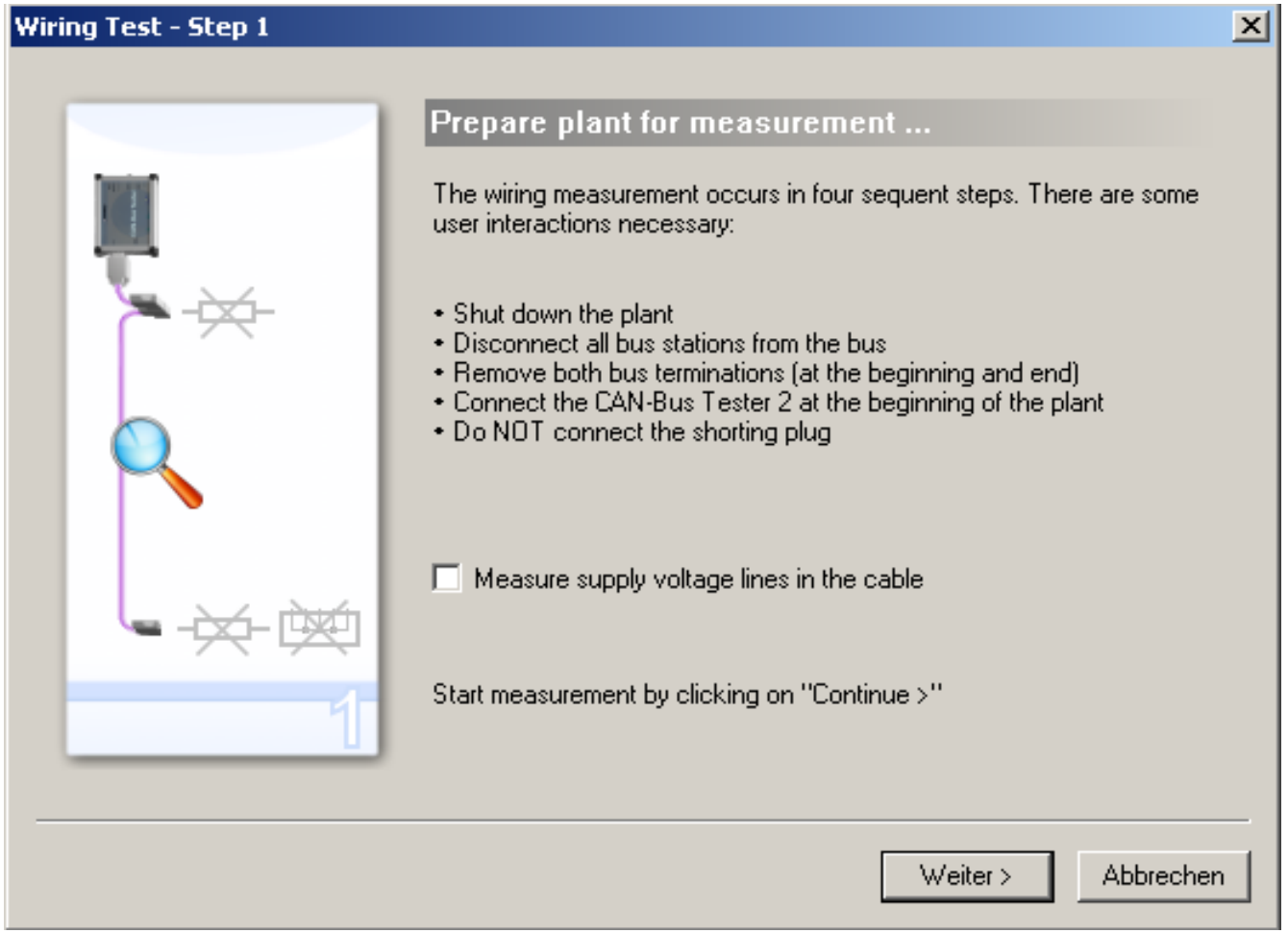
Wiring Test: Step 1



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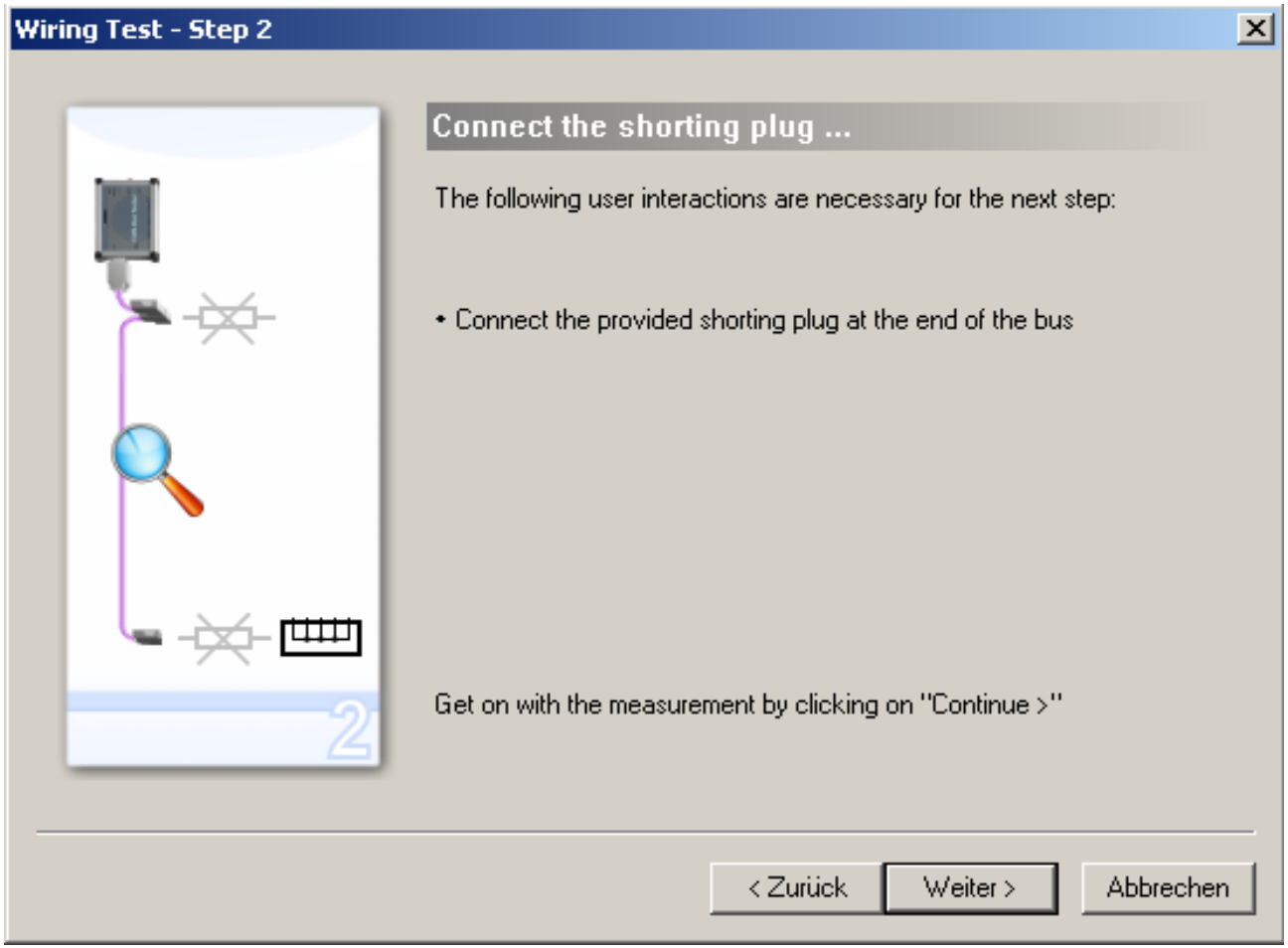
Wiring Test: Step 2



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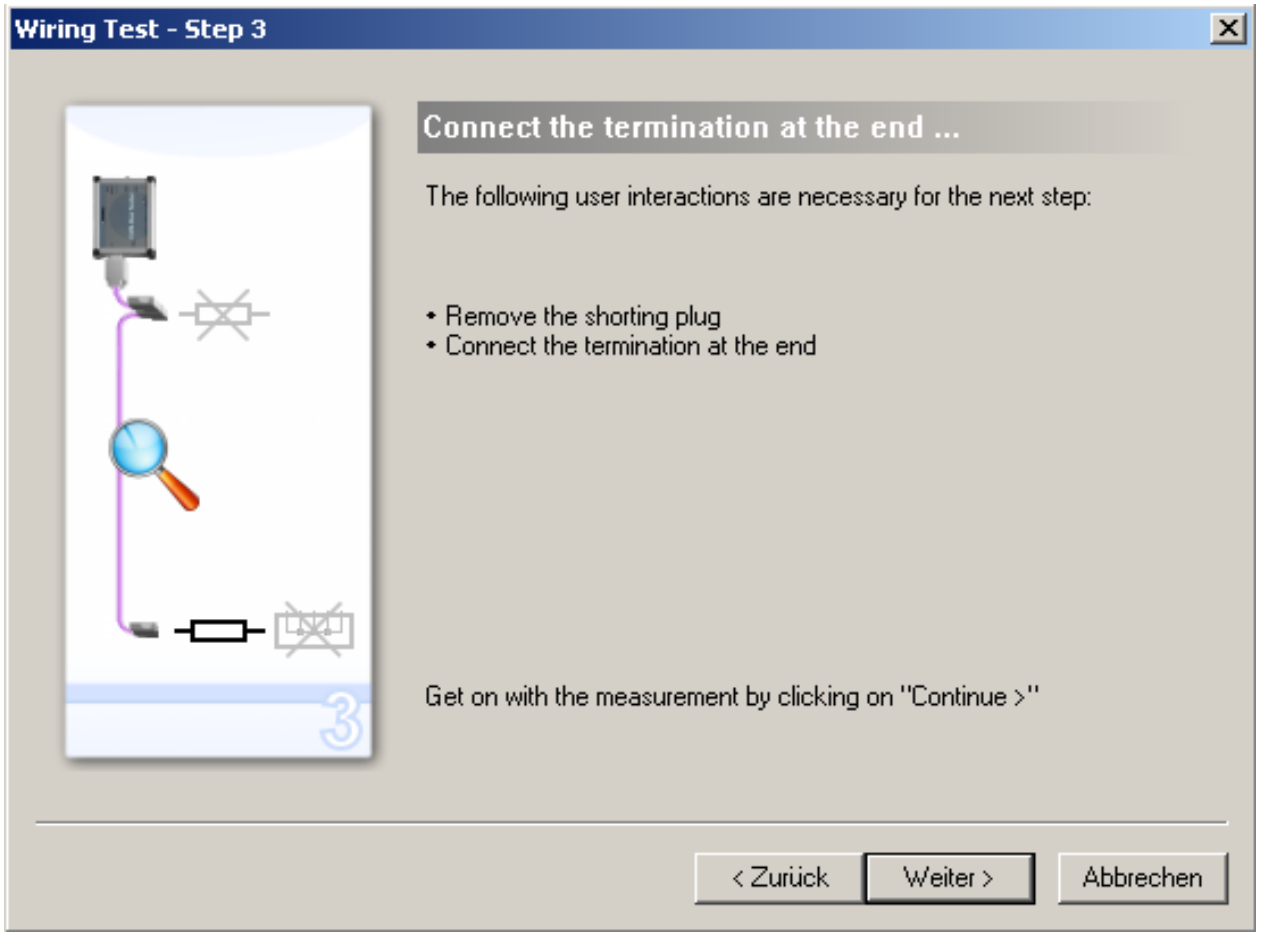
Wiring Test: Step 3



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Wiring Test: Step 4