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10 good Arguments For PROFIBUS-Tester 5

PROFI BUS

Industrial

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NEW Profibus Tester 5

PROFIBUS troubleshooting has never been so easy!

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Contents:

1. Stand-Alone Mode

Rapid Network Analysis without a PC

Experience Softing´s unique “All in One” - Philosophy:

All essential test functions integrated into one device:

- Cable Test for commissioning
- Bus Status for easy and quick good/bad distinction
- Signal Quality of the entire network and all individual nodes

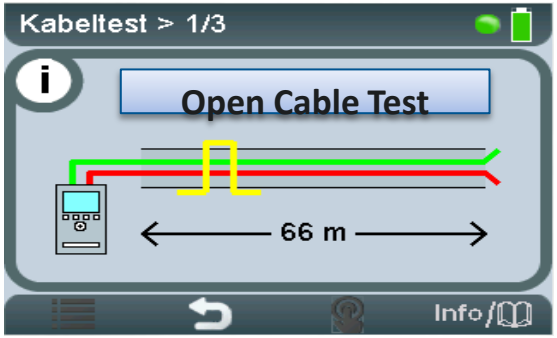
Easy and intuitive operation with just one scroll wheel and four click buttons.

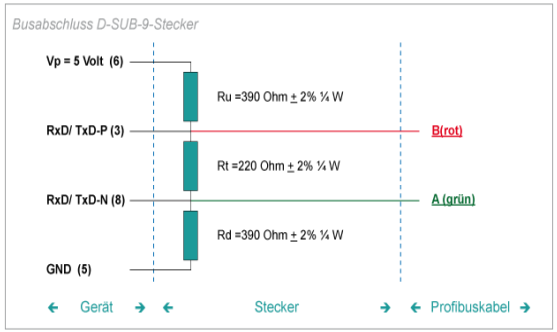
Battery Powered:

Test without mobility restrictions and without annoying power supply – just move easily from one test location to the next

2. Cable Test

Easy test of the PROFIBUS cable in 3 steps





Cable Test:

The „Cable Test“ function examines the cabling in PROFIBUS segments.

It is indispensable for commissioning a network!

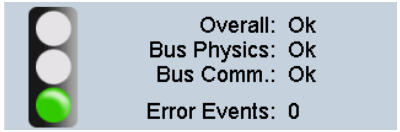
The cable test

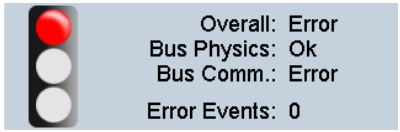
- includes the detection of cable segment length
- scans for unwanted reflections on the line
- verifies proper termination of the cable
- provides a detailed failure description and an estimation on the distance of the failure from the test location in case of a failure of the cable

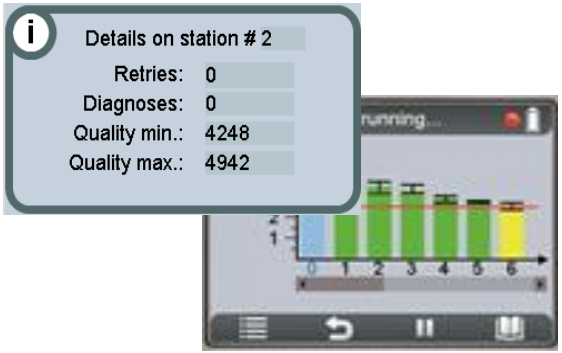
You do not need an extra tool anymore for cable test!

3. Bus Status

First overview on the health of your PROFIBUS network







Bus Status:

For easy and quick good/bad distinction:

- Get an immediate overview whether your network is healthy or whether it needs maintenance (green, yellow, red)
- In case of failures you can look for more details on the specific node and the type of problem

Signal Quality:

Provides you with an easy overview on the signal quality of the entire network and all individual nodes

No special PROFIBUS know how required for these tests !

4. Overview Window of PB-DIAG-Suite

The most important information is just one click away

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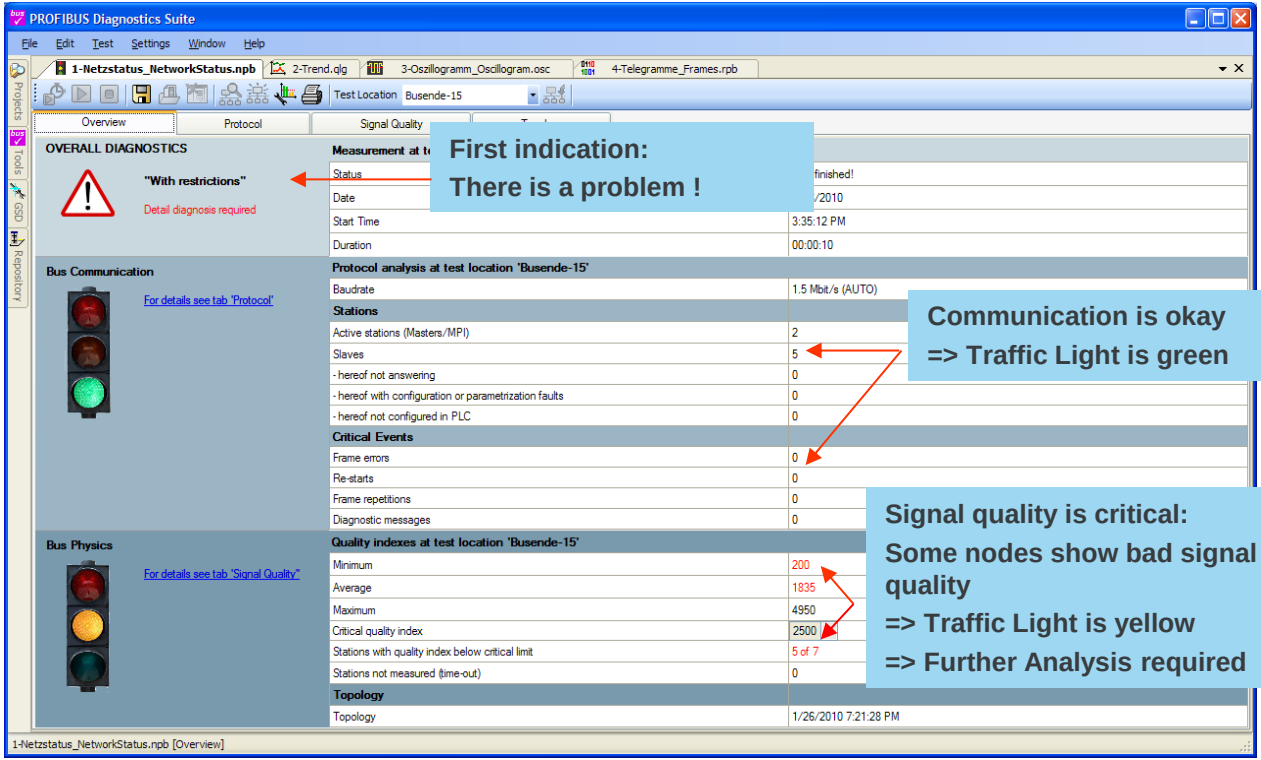
PB-DIAG-Suite,
the free PC software for
PROFIBUS Tester 5:

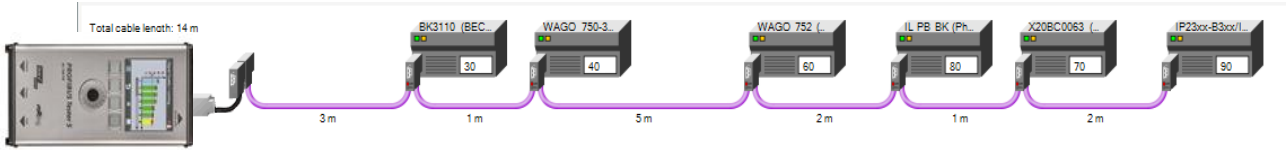
Get a quick overview with PB-DIAG-Suite:

- Is your network OK or do you need more detailed analysis?
- In case of problems: are they related to communication or to electrical problems?



5. Topology Scan of PB-DIAG-Suite

Why a correct topology scan is so important



In most PROFIBUS networks the physical layout bears little or no relation to the PROFIBUS addresses.

PROFIBUS Tester 5 gives you:

- The correct sequence of the PROFIBUS nodes for easy location of failures
- The complete cable length: is your network too long for your baudrate?
- The distance between the nodes

correct sequence

wrong sequence

Correct Sequence as shown by PROFIBUS Tester 5:

Here you can see a significant drop between node 11 and 12 due to high transient resistance (e.g. corrosion in the PROFIBUS cable).
This feature is a great help to localize problems!

Wrong Sequence:

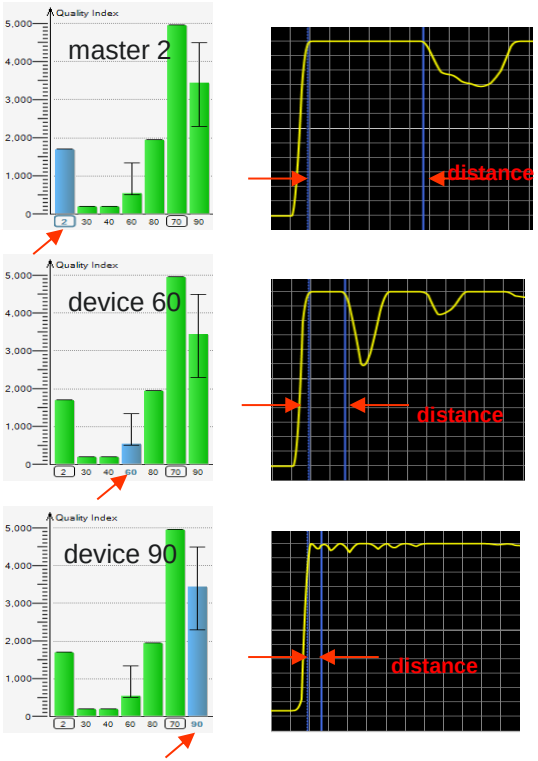
This view shows the same network sorted by node-No.

The sequence of the nodes is wrong!

Would you be able to localize the problem in this view?

6. Oscilloscope of PB-DIAG Suite

Identify and localize potential failures by wave form analysis



These graphs show the signal shape from 3 different stations:

- master No. 2 at the left end of the network
- device No. 60 in the middle of the network
- device No. 90 at the right end of the network

In the oscilloscope view you can clearly see that the signals of the respective nodes are distorted by reflections.

Please note*:*
The distance between the rising edge of the signal and the position of the reflection indicates the distance between the respective node and the cause of the reflection

These three oscilloscope views show that the distance to the cause of the reflection is decreasing the closer you come to the right end of the network at device No. 90.
In this case the reflections are caused by a missing terminator at device No. 90

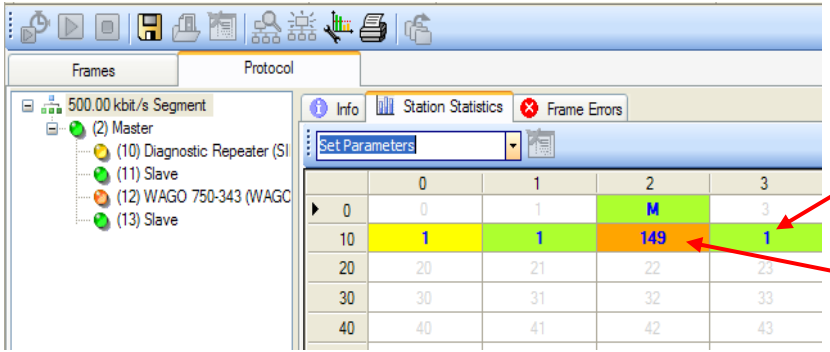
7. Retries, Diagnostic Frames, Restarts

What do they tell you for preventive maintenance ?

They provide an easy way to predict potential breakdown situations:
Problems can build up even if the network appears to be functioning normally.
Breakdowns can be predicted by monitoring specific frames like

- Retries,
- Set Parameter (restarts),
- Get Diagnosis

PROFIBUS Tester 5 offers you an overview of these specific frames at a glance!



Station Statistics on Retries, Set Parameter and Get Diagnosis

Preventive Maintenance becomes easy!

- small number of events (Retries, Set Param, Get Diag) can be tolerated by the bus
- larger numbers indicate potential failures

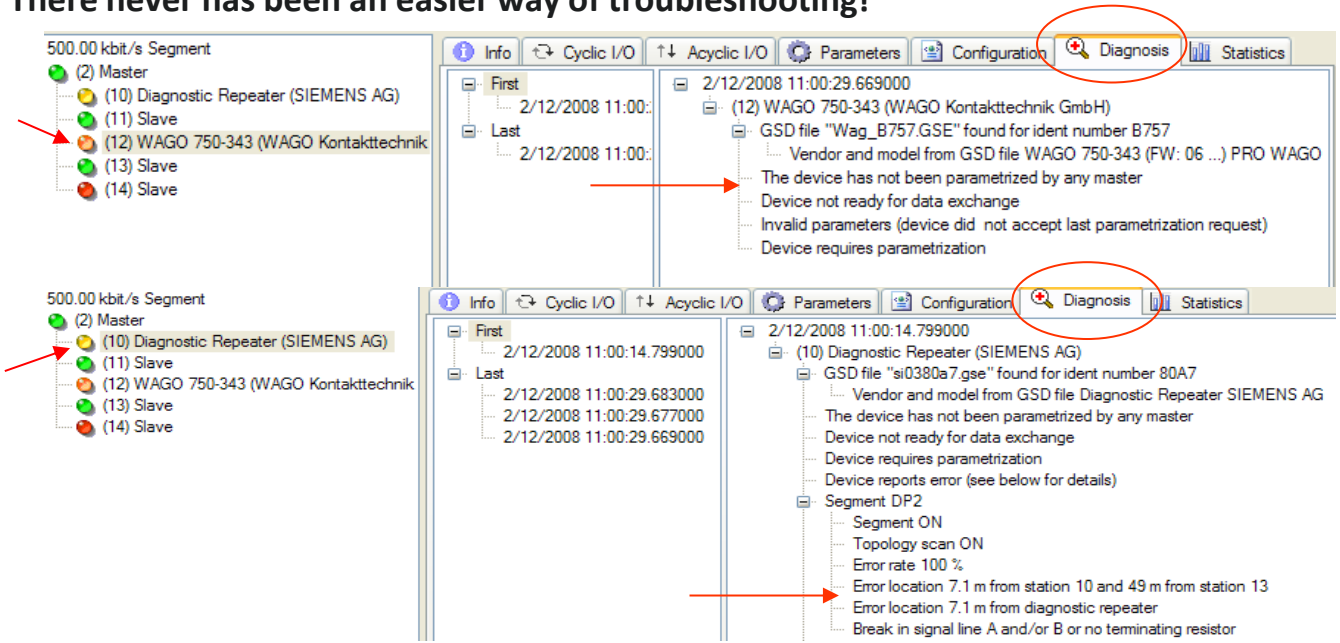
8. Display of Diagnostic Messages

Displayed in plain text instead of HEX strings

Below are examples of diagnostic messages in plain text from a WAGO device and from a Siemens Diagnose Repeater.

Reading the log gives a simple indication of the problem.

There never has been an easier way of troubleshooting!

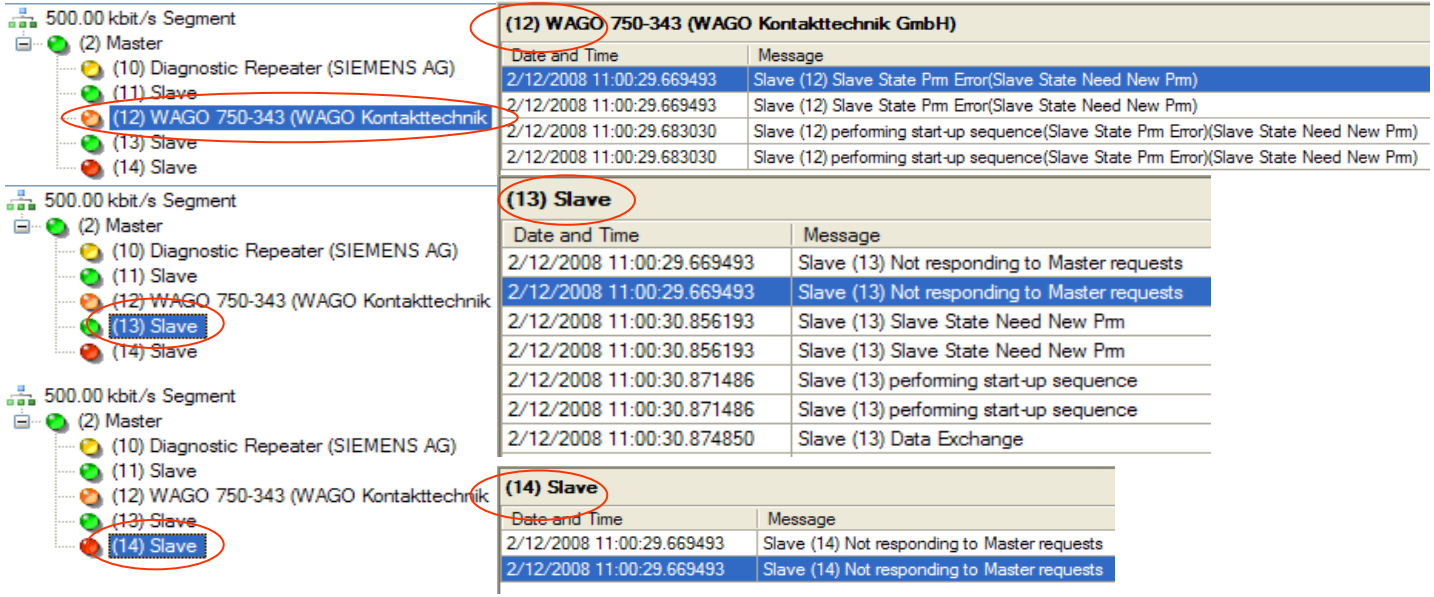


9. The Communication Log View

Records all significant events

PROFIBUS Tester 5 features the unique Log-View

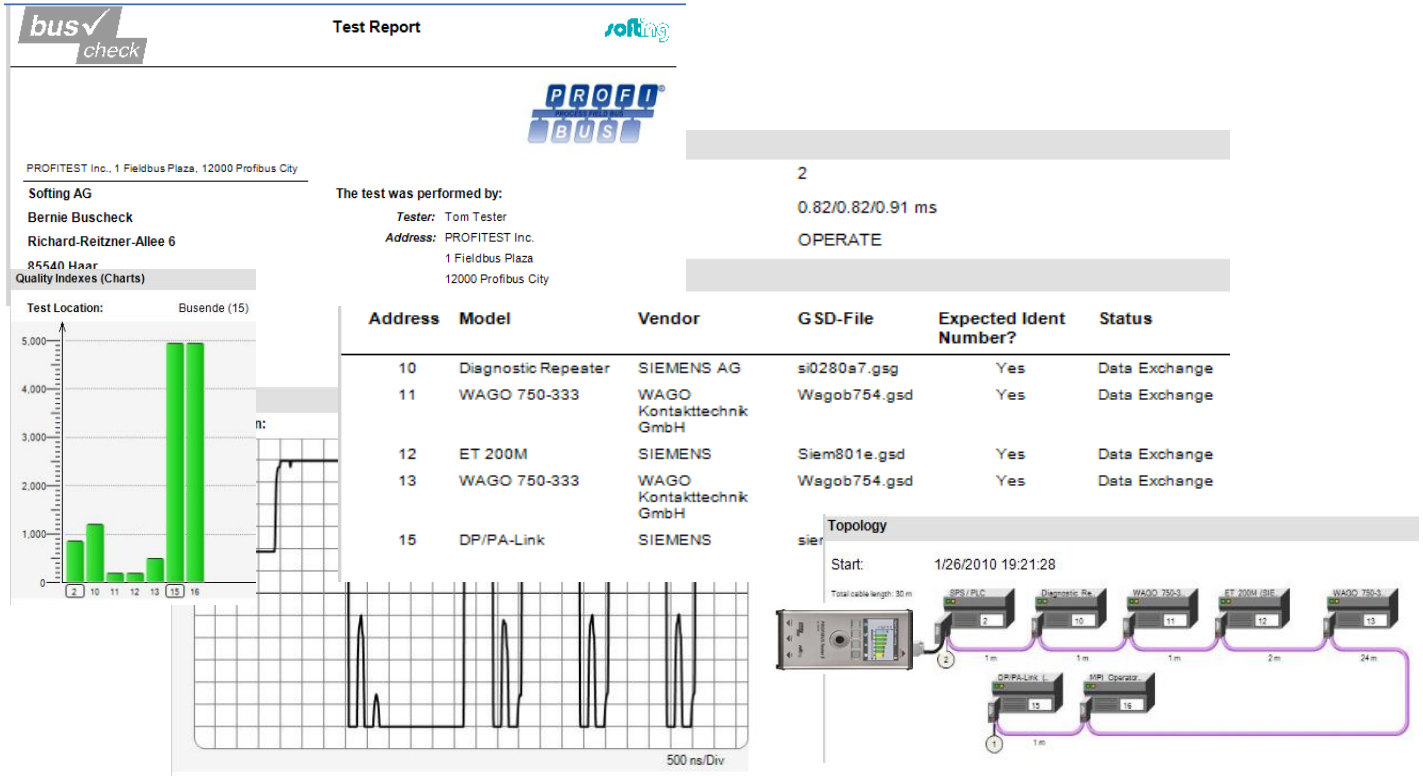
It gives you an easy overview of the start-up sequence between the master and the related devices. If the communication cannot be established you will already find here indications for the reason.



Log View

10. Automatic Report Generator

Generates a detailed report with only a few clicks



New PROFIBUS Tester 5

Your Key Benefits

- Just one tool for commissioning, troubleshooting, preventive maintenance:
  - Cable test
  - Protocol analyser for PROFIBUS-DP and PA (option)
  - Signal quality

  ➔ Get maximal functionality for minimal investment!

- Easy to use:
  The most functions do not require special PROFIBUS know-how:
  - good / bad distinction indicates demand for maintenance
  - clear distinction between communication or electrical problems
  - clear indication from where to track a failure

- Unique Stand-Alone-Mode for testing without PC

- Battery powered, no hassle with external power supply

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Thank you for your Attention

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