BANCE

OHL MEASUREMENT SYSTEM

WIZ11

- Highly accurate Ultrasonic measurement of Overhead Line Electrification Catenary
- Easily fitted to any rail mounted vehicle type
- System Analysis:

  - tolerance monitoring for side and height
  - display of overlaps
  - height of the contact wire
  - height of the support cable
  - stagger of the contact wire
  - stagger of the support cable
  - determination of the mast distance
  - determination of the gradient
  - detection of line events (signals, crossings, points etc.)
  - compensation of the vehicle position
  - table printout
  - video surveillance of the contact wire (optional)

- Specification:

- measurement accuracy:	+/- 2mm
- measurements:	23 readings per second
- height range:	1-4m
- stagger range:	+/- 0.5m
- vehicle speed:	≤ 80Km/h
- instrument battery:	8 hours
- instrument weight:	4.5Kg

Overview

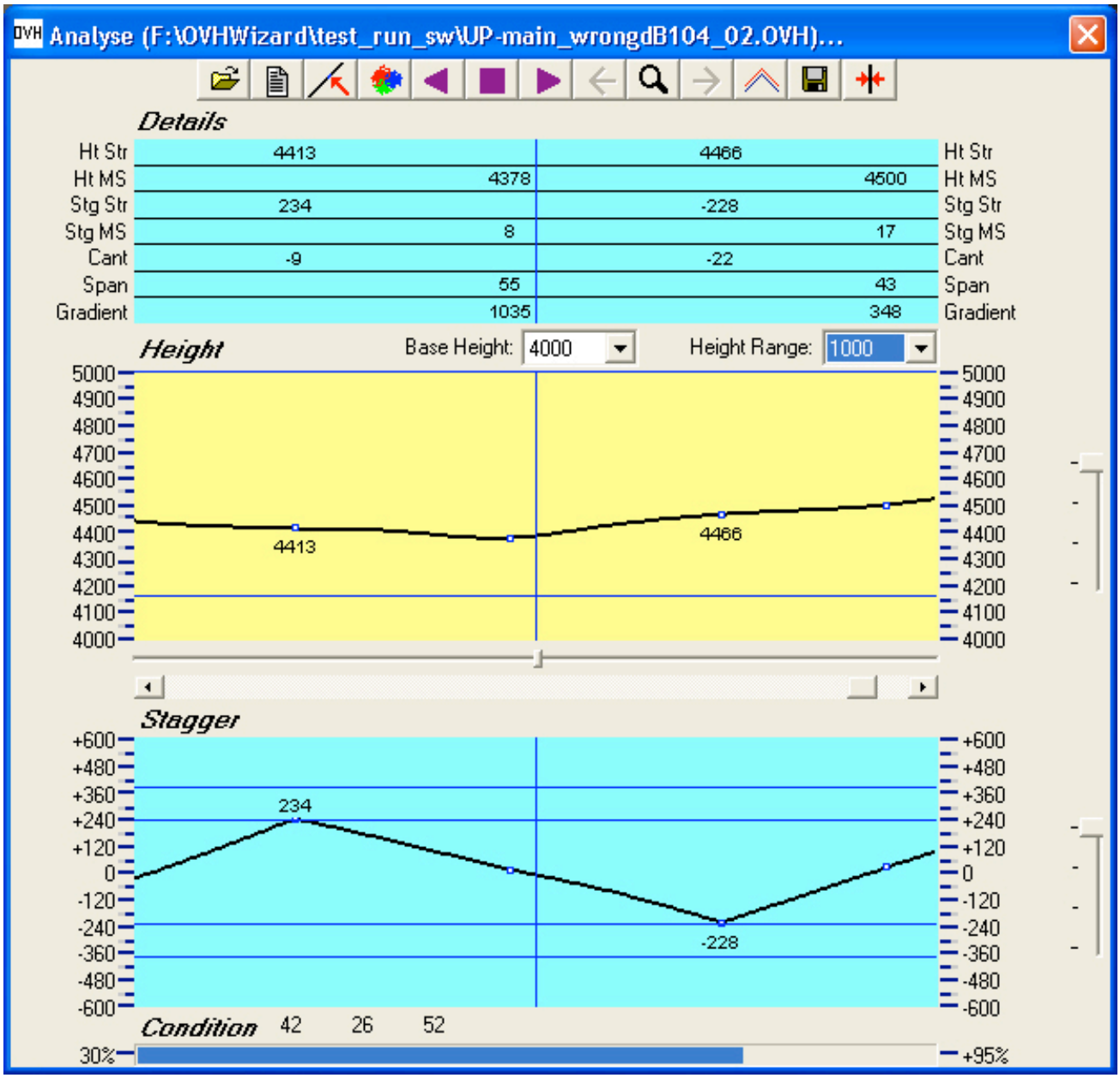
The measuring system is a non-tactile contact line measuring system for determining the contact line height and stagger with and without uplift. This Ultrasonic system offers advantages over optical systems - that it works in direct sunlight, light rainfall or fog. Its light weight (4Kg) provides for ease of handling and installation on any vehicle type.

A simple RS232 link to the PC or laptop enables communication with the measuring software. A special evaluation software which was developed in co-operation with SIEMENS AG allows the measured data to be compared with the given line data and types of catenary.

The system is battery operated and can therefore be used on any vehicle. The exact contact wire position is given by the point of ultrasound intersection from the two sensors. For high precision measurements when the vehicle is moving the instrument offers compensation inputs for the vertical (suspension) and horizontal (track clearance) movement of the vehicle as well as for the rolling angle around a known centre of rotation.

Compensation takes place directly in the measuring system. If the vehicle on which the instrument is to be used already has vehicle compensation, all the measured data of the contact wire position with distance and time reference can be transferred to this system via TCP/IP. The software which runs on all Windows systems enables both measured data entry and online display and a comprehensive post processing after completion of the measurement in addition to creation of the measuring profiles for the vehicle setup.

Online Data Display



Analysis Software

- Presentation of Measurement Data
- Automatic detection of poles and droppers
- Analysis of measurements and checks against construction tolerances (Re100, Re200, Re250, Re330):
  - height
  - lateral position
  - wind deflection
  - gradients
  - detection of dropper position
- Own definition of tolerances
- Handling of large measurements, 100 km and more

Generation of Reports

With measurement data, tolerances and checks