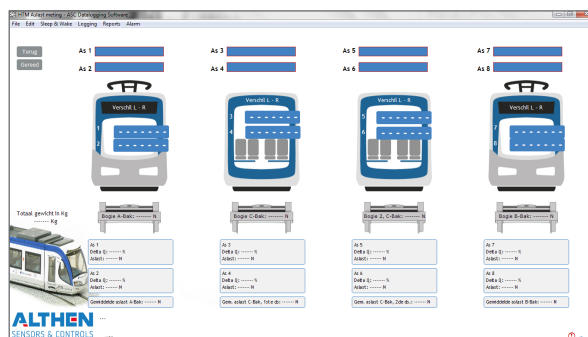




A WIRELESS WHEEL LOAD MEASUREMENT SYSTEM

- Simple (easy to handle by operator)
- Wireless communication (no cables)
- Smart software (integrated calculations and reporting)
- Robust system design
- Fully covered service (calibration)

Typical applications: Tram maintenance, metro maintenance



Description:

This wireless wheel load measurement system has been developed to accurately weigh and determine the balance of each and every individual axle. Using weight values of all 16 wheels the software calculates axle load, bogie load, averages and balance.

The results are shown in both a number-view and a visual view, taking your specific tolerances and calculations into consideration.

Finally a report will be generated and automatically saved making sure no data is lost.

N WIRELESS WHEEL LOAD MEASUREMENT SYSTEM CONSISTING OF:

- 16 x Wireless rail beam loadcell
- 1x Protective case with integrated Laptop
- 1x Customized software

PROTECTIVE CASE WITH INTEGRATED LAPTOP AND SOFTWARE

- Industrial protective case with custom inlay
- Integrated wireless communication receiver (range 800 mtr)
- Integrated laptop with SSD
- Including customer specific software
- Special charging system

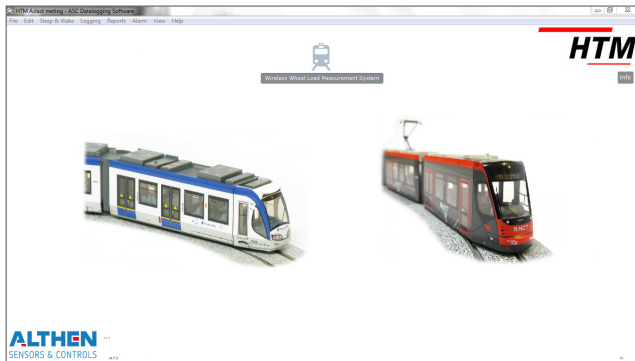
N TECHNICAL SPECIFICATIONS RAIL BEAM LOADCELL

- Measurement range: 50 kN (various ranges on demand)
- Accuracy: +/- 0,1% FS
- Safe load: 150% FS
- Breaking load: 300% FS
- Operating and compensated temperature: -10 - 45°C
- Integrated loadcell amplifier + wireless 2.4 Ghz transmitter
- Integrated accupack
- Lithium-ion AA rechargeable batteries
- Magnetic charging connector (no plug)
- Including rings on both ends for easy handling
- Protection degree: IP65

SERVICE LEVEL AGREEMENT

Althen offers various services to assist and make your life easier. A service level agreement could help meet your calibration standards. Please contact us for more information regarding different possibilities.

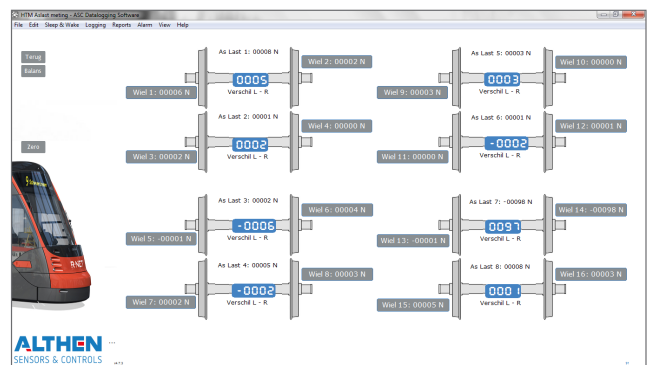
Step 1: Select the model of your tram or metro



Step 2: Measurement results, overview of all 16 wheels

After placing all 16 loadcells on the track right under the lifted vehicle, the maintenance engineer can zero (Tare) all sensors at once before actually lowering the vehicle onto the loadcells.

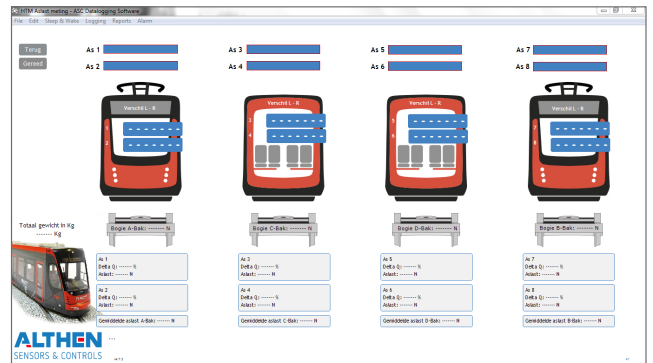
Showing the live results of every single wheel the software calculates axle loads and the difference in balance for every single axle. This screen can be used for live results during the balance adjustments as well as the next screen that offers a more visual overview of balance per axle.



Step 3: Front view overview per bogie

The following screen shows a visual representation of the 4 bogies. This gives the maintenance engineer all needed data about load on each bogie and at the same time an easy visual overview of the balance for each axle.

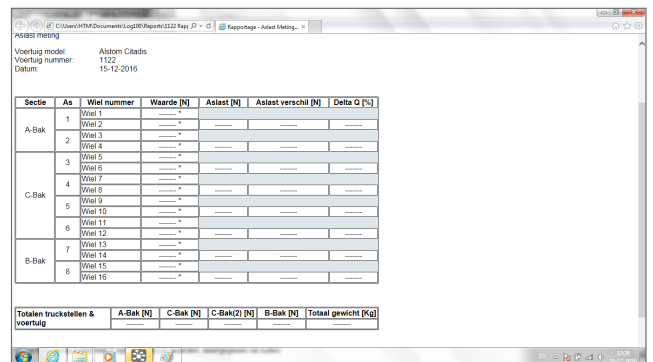
In addition the software calculates and shows average axle loads for each axle individually as well as the total weight of the complete vehicle. After adjustments have been made the maintenance engineer can create a report at one click by entering the vehicle number and his name. An automated report will be quickly generated and saved at the same time.



Step 4: Report of weight and balance measurements

The automated report generated by the software includes all measured data and relevant calculated key-data necessary to meet maintenance requirements.

Upon request the software can be designed and modified, feel free to inform about possibilities.



* Screenshots shown above are for demonstrating purposes only, actual design may vary per project.

The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.