

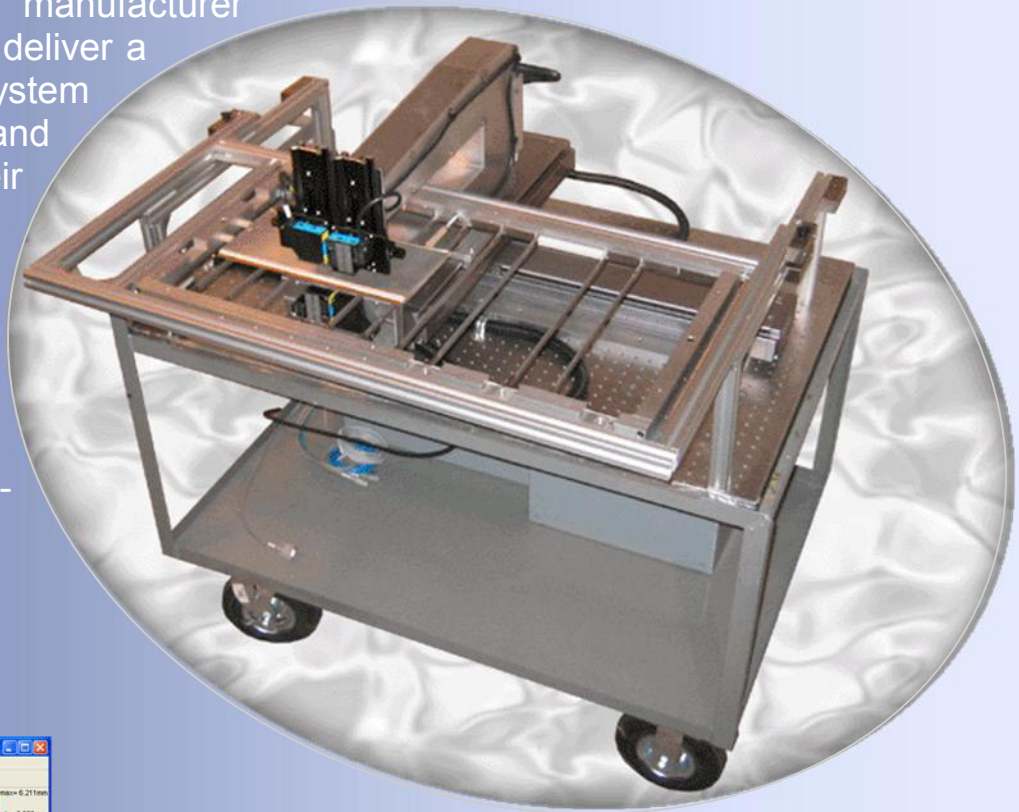


APPLICATION STORY

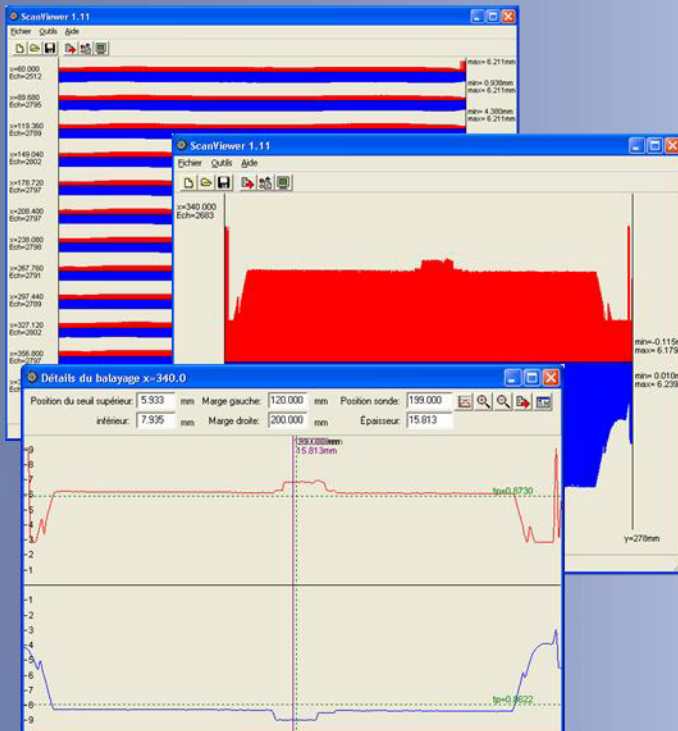
HIGH PRECISION LASER PROFILING AND ANALYSIS SYSTEM

A high efficiency battery manufacturer has asked AXIMETRIX to deliver a precision laser scanning system capable of measuring and analyzing the profile of their battery cells.

This process is used in the R&D and quality control departments to define critical manufacturing variables as well as determine failure causes in defective units.



Scan Viewer software



Main characteristics :

- 4 laser heads for dual range capacity.
- 500 Hz sampling speed on the 4 channels.
- Simultaneous top and bottom scan.
- Scan resolution 0.0008inch (20 microns).
- Two axis servo AC linear motors for very smooth and accurate motion.
- Electromagnetic noise suppression design.
- ICPDAS Windows CE.net computer.
- Automatic calibration sequence
- Data gathering software (BATSCAN)
- Data analysis software (SCAN VIEWER)
- Data filtering algorithms.

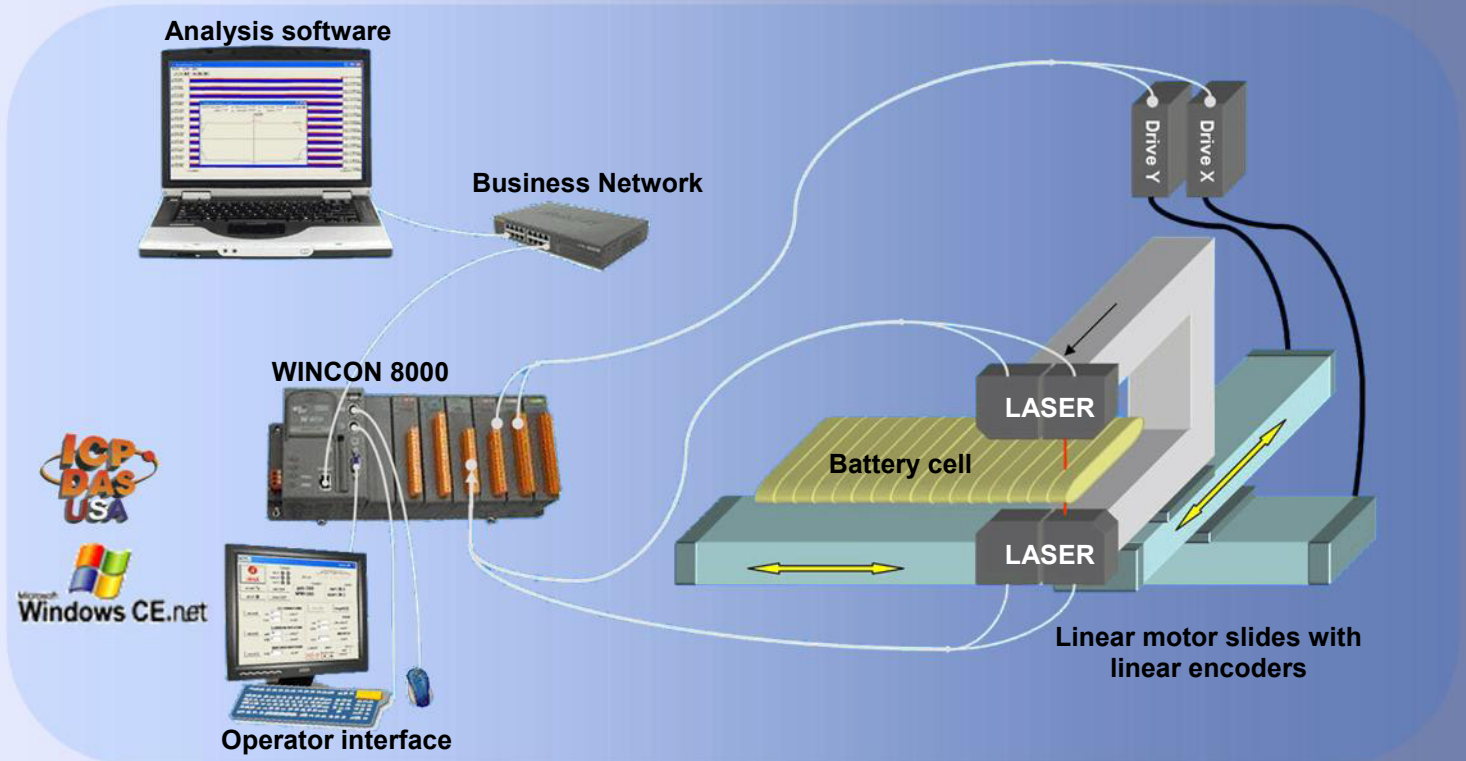


System Description

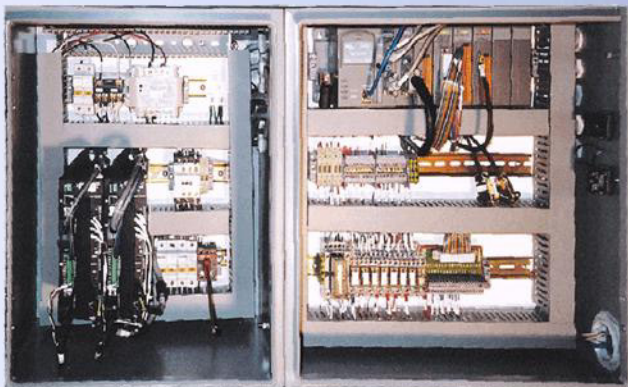
The operator loads the battery cell in the cradle and defines the scan area required. Once done, the system runs a self calibration routine and then proceeds to scan the part at 500 samples per seconds.

A scan file is generated and transferred on the network for further analysis with the **Scanviewer** software.

The scanning and motion control is entirely controlled through the **Wincon 8000** computer for precise and high speed data acquisition

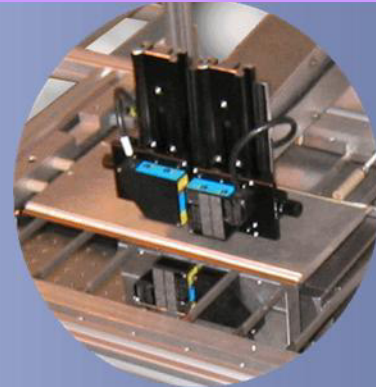


Main control panel



The control panel is assembled to minimize the EMF noise generated by the servo amplifiers, power supply, and shop environment

Laser head assembly



The top and bottom of the part are scanned simultaneously for exact thickness measurements.