

PLATFORM THREE

Bring your NanoTest system up to date with the Platform Three system upgrade, a simple upgrade suitable for both Platform One systems (300, 500, 550 and 600 control units) and Platform Two systems (NTX control units).

Overview

Platform Three (P3) simplifies the operation of your NanoTest whilst still retaining the same system flexibility. It also improves your NanoTest in the key areas of usability and performance.

The system introduces more automated features than ever before, including automated bridge box adjustment and software based pendulum balance. This reduces calibration, experiment set-up and maintenance times, and makes the system simpler for new users.

Visually the system has only one change; the Bridge Box is replaced with a Piseca depth measurement system, shown in fig 1.

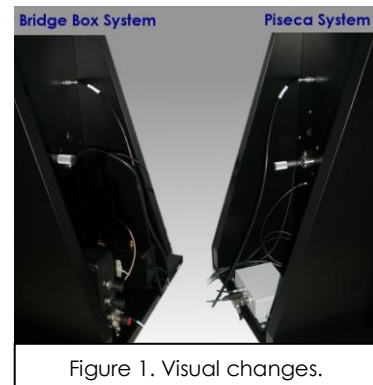


Figure 1. Visual changes.

Main advantages:

1. No bridge box adjustment

P3 completely removes the Bridge Box from your NanoTest system, replacing it with a state of the art direct metrology sensor and signal conditioning system. This new unit is set-up on installation, and doesn't need any user adjustment, greatly enhancing system usability. This will be of great benefit to new users, as it reduces training time, and makes system operation simpler.

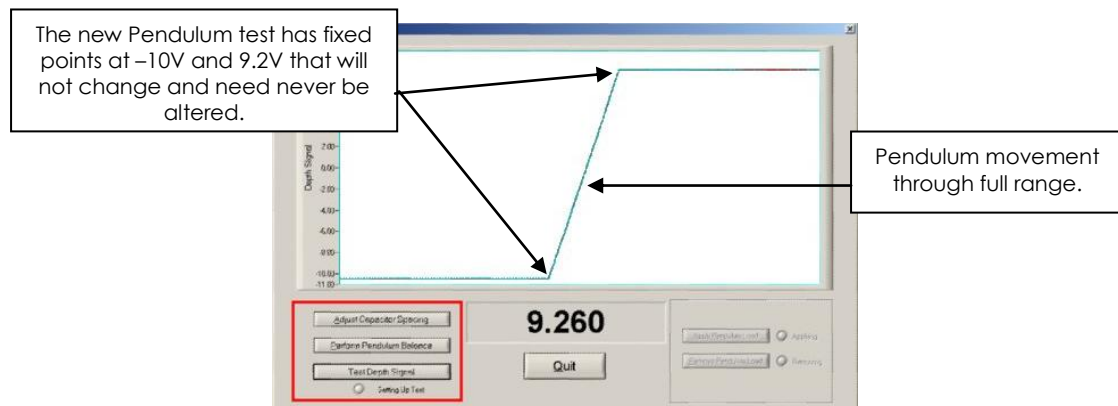


Figure 2. New pendulum test does not require adjustment, as the bridge box is completely removed from the system.

2. No Balance mass adjustment

P3 includes a 'soft' balance mass adjustment. This means that the pendulum is now balanced automatically by the system, meaning no more adjustment of the balance mass regardless of what indenter or module is added to the pendulum.

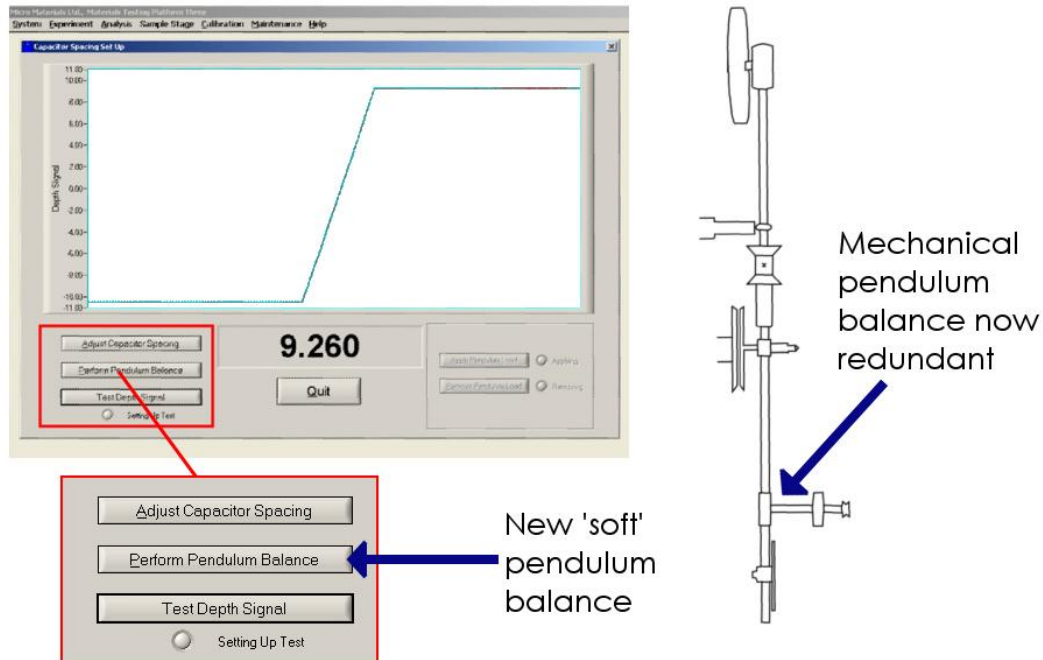
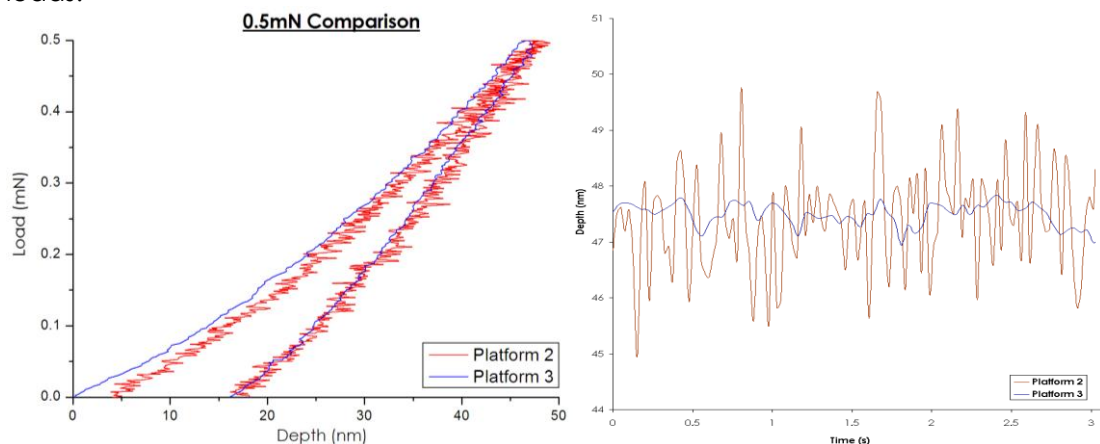


Figure 3. The pendulum is now automatically balanced by the software making the old mechanical balance redundant.

3. Improved Stability and Performance

P3 improves further on system performance due to a lower noise floor and greater depth resolution than seen on previous systems. An example of this can be seen in figure 4. Figure 5 shows that inherent stability of the system is 88% better than that of a platform two (NTX) system, when comparing dwell data on stainless steel at 0.5mN. This improved performance allows for greater accuracy at lower depths and smaller loads.

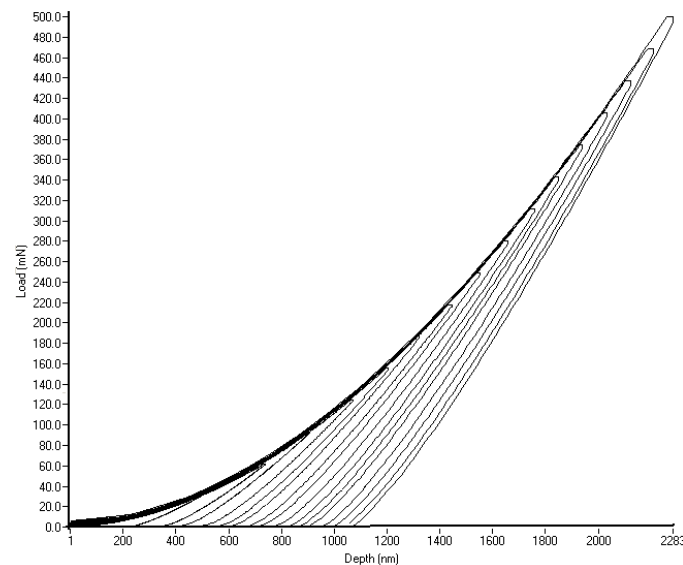


Figures 4, 5. Show significantly lower noise levels and improved stability on the P3 system compared to Platform 2

4. Software

P3 includes the latest supported software, ensuring you have the most up to date system available. All the latest software updates are available through www.micromaterials.co.uk free of charge to all customers. P3 software includes major updates whilst still retaining the same user interface.

The ability to set up wide load ranges whilst retaining the same data points per curve proves very useful for running quick schedules. Figure 6 shows 0.1mN to 500mN in one experimental set-up without range switching.



Figures 6. A set of indents from 0.1mN to 500mN performed in one experiment, without user intervention.

Upgrade routes

Platform 2 customers

The NTX controller is fully compatible with P3 so only the new depth sensor. A visit from an MML engineer is required.

Platform 1 customers

Platform 1 customers will need to upgrade to the NTX controller in order to benefit from P3. A visit from an MML engineer is required.

For pricing information please contact your local MML representative or email us on info@micromaterials.co.uk

