

BF Industries improve machine performance with Windows-based CNC controller and multi-axes Ether CAT servos from Inovance

Customer Profile

BF Industries is a manufacturer of pick and place systems for factories and logistics companies, as well as OEMs and integrators. The company is based in Lyon, France, and specializes in end-of-line palletising; their product range includes case erectors, case packers, case closers and palletisers. BF Industries' machines use specialist software developed on Microsoft's Visual Studio. The software defines the size of the pallet, and the size of each individual box, as well as the number of layers required on the pallet. It is then able to calculate the best possible layout of boxes on the pallet.



The Challenge

The customer's overarching need was to cut costs, and achieve maximum flexibility. To that end, three requirements needed to be met.

First, they needed to find a system that offered a Windows-based architecture, in order to allow full compatibility with their Visual Studio-based software. Second, they needed the ability to move interpolated axes at high speeds – up to 100 m/min. And, thirdly, they needed a TCP/IP and DDE interface in order to be able to exchange data efficiently between the CNC and the HMI.

Key benefits:

- Reduced costs due to open CNC architecture
- Increased flexibility
- Improved machine speed and productivity

The Solution

The customer adopted a solution from Inovance that included the PA9000 compact series CNC, along with the GL10 EtherCAT I/O module (with bus coupler), and the IS810N multi-axes servo drive platform, complete with MS1 servo motors. Inovance offered a comprehensive industrial automation control solution that delivered full CNC control of BF Industries' pick and place systems.



The Benefits

The benefits were reduced costs, increased flexibility, and improved machine performance. In particular, Inovance was able to cut BF Industries' costs by hosting their bespoke software application, which they had developed specifically for their machinery, on Inovance's CNC – meaning there was no need for additional hardware. Inovance's open CNC meant that BF Industries' software could directly interact with CNC functions and with the PLC program. Because the software is interfaced with Inovance's TCP/IP CNC and PLC servers, it is able to see the position of the boxes, and to manage interpolated movement, as well as to access data (such as barcodes) that has been read by the CNC/PLC. Additionally, the high resolution feedback delivered by the MS1 servo motors, combined with the outstanding control performance from the IS810N servo drive, significantly increased overall machine speed and productivity.