



Huxley Bertram Engineering: A Revolutionary Powder Compaction Simulator

Huxley Bertram Engineering approached the team to develop software for their prestigious HBE Servo-Hydraulic Powder Compaction Simulator.

**Huxley
Bertram**



The Company

Huxley Bertram are a Cambridge based engineering organisation who specialise in the design

and build of bespoke turnkey solutions. Having worked with PTP for over 20 years HBE approached the team to develop software for their prestigious HBE Servo-Hydraulic Powder Compaction Simulator.

The Specification

The HB Servo-Hydraulic Compaction Simulator is a world-class measuring instrument for the pharmaceutical industry. The Compaction Simulator is a highly sophisticated research tool for the creation of new tablets which enables formulation scientists to accurately replicate any tablet press conditions and test if the formulation is viable.

PTP have worked previously with HBE to develop previous Powder Compaction machines. When working with HBE in an earlier trial, PTP identified the cost saving implications of combining the machine's servo controller, motor controller and the data acquisition hardware. PTP also demonstrated the feasibility of integration.

The Aim of the project was to develop, install and commission software
to improve the usability and robustness.

The Project

PTP's project manager began by taking a full survey to determine areas of improvement which could be made to all three software applications (run setup, machine control and data presentation & analysis).

NI hardware was chosen to replace the current hardware and both the hardware and software were developed simultaneously.

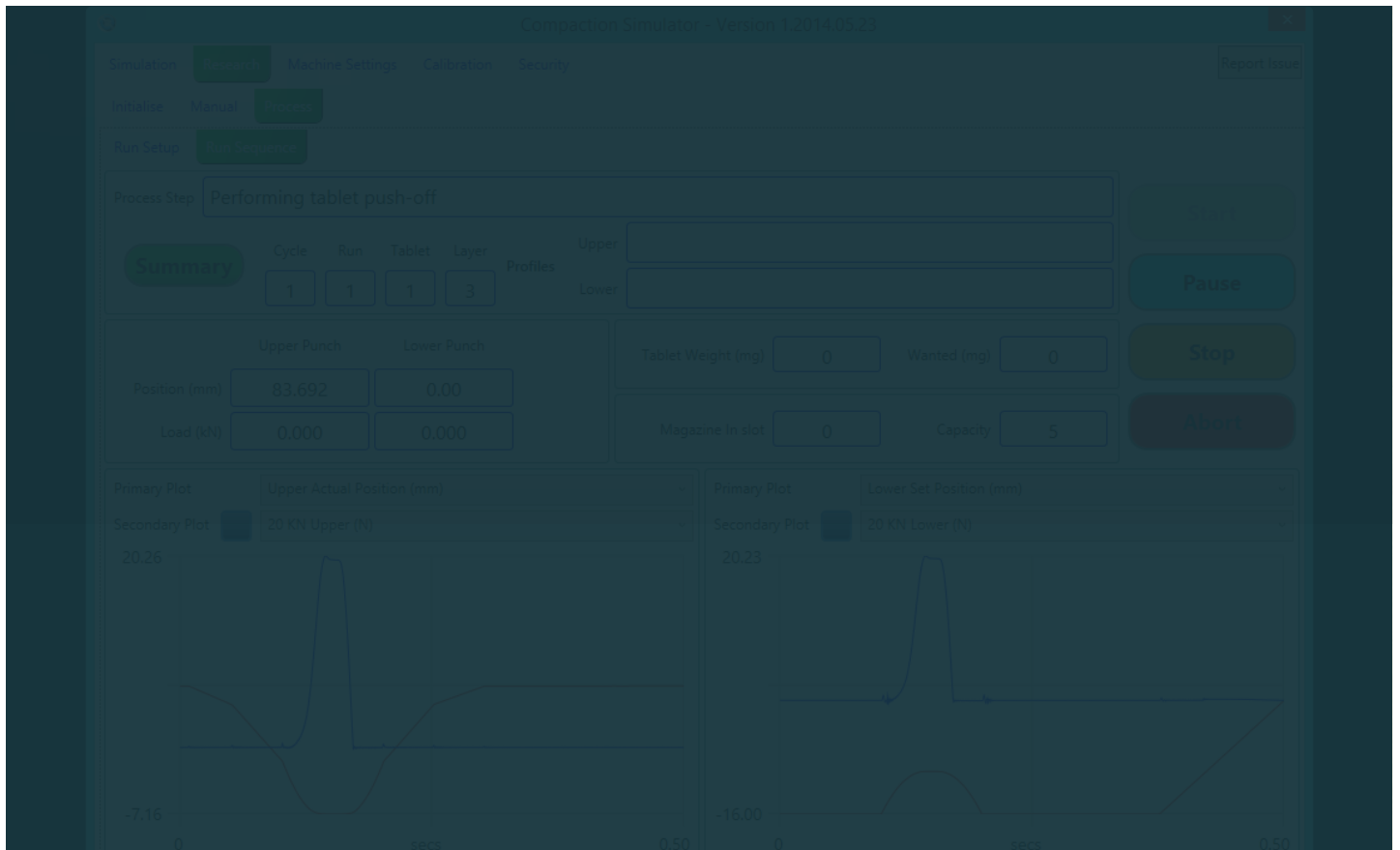


Challenges Included:

- › LabVIEW FPGA / Real Time & .NET
- › Micron Accuracy Positional Control & Data Logging
- › Multiple Configuration Parameters
- › Legacy Software Support
- › Hardware/ Software Developed Concurrently
- › Evolving Specification
- › Interaction with an array of Stakeholders
- › Hardware Integration



The product required Multiple Configuration Parameters and a Graphical User Interface (GUI) which enabled this to be carried out simply and efficiently. A great understanding of the hardware's capabilities was needed to successfully develop the software as was the ability to evolve the hardware and software simultaneously.



✓ Success

This project presented many challenges relating a bespoke and highly complex and evolving specification. Working in partnership with a range of Stakeholders required a collaborative approach and management of expectations which ultimately resulted in the successful development of a unique piece of software which is now used in every compaction simulator produced.

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