



Modernising Legacy Automation Systems for Enhanced Reliability and Performance



The Challenge:

- A manufacturing customer was operating multiple production lines with aging automation systems, including legacy VFDs, PLCs, and servo drives.
- As spare parts became harder to source and maintenance requirements increased, the customer faced:
 - Higher risk of unplanned downtime
 - Reduced operational efficiency
 - Rising support complexity

The Solution:

- HoST developed a phased migration strategy to modernise critical automation components while minimising disruption to production.
- The project included:
 - Upgrading legacy PowerFlex drives
 - Migrating PLC systems to Allen-Bradley ControlLogix architecture
 - Replacing obsolete servo drives and motors with integrated servo motion solutions.

Solution Migration

HoST supported the customer across **two key machine upgrade projects**, covering multiple production assets and legacy Rockwell Automation systems.

Project 1: Pen Sinking Machine – 2 Machines

Function: Precision tube cutting



PowerFlex 755TS

Replaced ageing PowerFlex 700S drives with a modern platform that improves reliability, simplifies maintenance and supports predictive diagnostics.

Project 2: USG Machine – 5 Machines

Function: Cannula tip grinding



CompactLogix 5380 Controllers

Replaced obsolete ControlLogix L6 controllers with a high-performance platform that improves processing speed and supports future expansion.

PowerFlex 525

Replaced legacy PowerFlex 4 drives with a compact, flexible solution for improved motor control and easier machine integration.



Kinetix 5500 Servo Drives

Replaced Kinetix 6000 drives with an integrated motion platform for improved machine performance and simplified system architecture.



Kinetix VPL Low-inertia Servo Motors

Replaced legacy TL Series motors with high-performance servo motors for faster response and greater positioning accuracy.



Potential Migration

- 40 PowerFlex 700S to be migrated (Est. value US\$100K)
- 90 Kinetix to be migrated (Est. value US\$400K)
- 30 ControlLogix L6 to be migrated (Est. value US\$600K)



The Implementation

- Migration completed during scheduled shutdowns with minimal disruption to production.
- Existing control logic was successfully retained, reducing commissioning time.
- HoST delivered complete engineering support from planning through commissioning and operator training.

Results & Benefits

- Following the upgrade, the customer achieved:
 - Improved system reliability and reduced risk of unexpected downtime
 - Enhanced machine performance and operational stability
 - Increased availability of spare parts and long-term supportability
 - Simplified maintenance and troubleshooting processes
 - Improved production efficiency and equipment lifecycle management

Project Timeline

Assessment

Planning

Migration

Testing

Commissioning

Training

Conclusion

By modernising the customer's legacy automation system, HoST delivered a reliable, scalable platform that improves production performance while supporting future expansion and long-term maintainability.



Why HoST?

- ✓ Certified Rockwell Automation Solution Partner
- ✓ Complete project execution from assessment to commissioning
- ✓ Local engineering support in Singapore
- ✓ Long-term maintenance and lifecycle services



Contact Us

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