



A Rockwell Automation Company

## **Bristol Aerospace Ltd. Package Boilers Control Systems Upgrade**

### **The Client:**

Bristol Aerospace is subsidiary of the Magellan Group of aerospace companies. They provide aerospace design and maintenance services for military and commercial aircraft. Bristol Aerospace is situated in

Winnipeg, Manitoba with other facilities throughout the province.

### **The Requirement:**

The systems being upgraded was the control systems for three package boilers at Bristol Aerospace's main site. The existing system used three Westinghouse PLCs to run the boilers in electric mode and the electric side of a dual gas/electric heating system. The PLCs also monitored safety interlocks for the boilers and were networked together using physical I/O to transfer signals between PLCs. Bristol Aerospace

wanted to upgrade the PLC system with newer hardware, modern PLC networking and an advanced control system allowing multi mode operation and distributed power consumption control.

### **The Design Solution:**

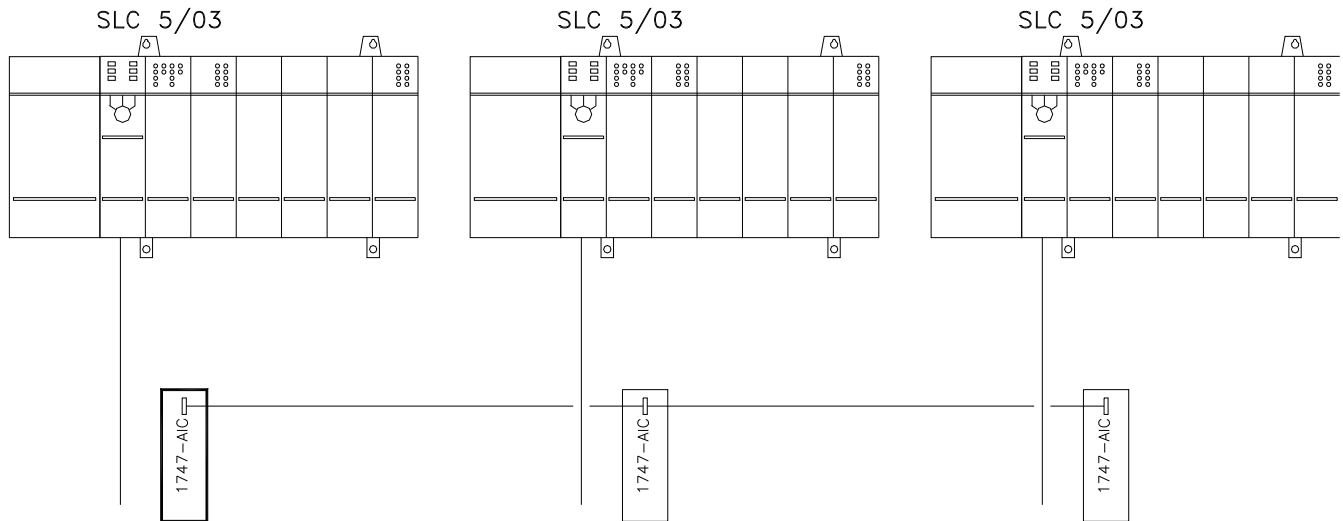
The control solution for Bristol Aerospace revolved around replacing the existing Westinghouse PLCs with three Allen-Bradley SLC 5/03 PLCs and associated field IO. The PLCs were networked together using the RS 485 network protocol and tied to the existing boiler control structure. Advanced controls were implemented to allow each boiler to operate in 3 different heating modes using electricity, natural gas or

a combination of both. As well, a power monitoring system was implemented to allow unused plant electricity to be distributed to the boilers on an equal basis.



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### System Specifications:

- 3 Allen-Bradley SLC-5/03 PLCs
- 200 Digital I/O
- 16 Analog I/O
- 6 PID Loops
- 3 DH-485 Network Modules

For further information or to contact a Hinz office near you, please check our website at:

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