



NAME OF THE PROJECT
EQ5-20 Migration

FIELD
Food Industry

LOCATION
Montreal

YEAR OF ACHIEVEMENT
2023-2024

Context

The client wanted to maintain and renew its automation machinery to compensate for equipment obsolescence. He therefore mandated PCI to carry out a study of possible solutions while considering that machine downtime was limited to carry out this modernization. PCI then had to carry out the project while minimizing the impacts on production.

Mandate

PCI's mandate was to carry out a complete study to migrate the old PLCs to a new generation. To do this, PCI carried out surveys, then modified the panel plans and ordered the necessary equipment. Concerning the programming, this had to be migrated and modified to improve security including PLCs, remote inputs/outputs and SCADA. Complete and functional commissioning had to be completed in 4 days.

Tasks performed

- Electrical survey for updating plans
- Analyzes of existing programs, for drafting functional documents
- Control panel detail engineering
- Development of mechanical plan
- PLC programming
- SCADA programming
- Supervision of electrical work
- Creation of security validation documents
- Test, functional validation and security
- Commissioning and support

Solutions provided by PCI

- PLC migration of the process (Allen Bradley SLC 500 - CompactLogix 5380)
- Safety PLC migration (Allen Bradley SmartGuard 600 - CompactLogix 5380)
- SCADA modernization (AVEVA InTouch)
- Integration and programming of new sensors in the machine safety chain to improve it

Tools and methods used

- Project management
- Electrical and mechanical drawing software
- Rockwell RSLogix 500 & Rockwell RSNetWorx
- Rockwell Studio 5000
- AVEVA InTouch