



A Rockwell Automation Company

Molson Breweries US Filter System

The Client:

Molson Breweries has facilities strategically located across Canada to service both the domestic and export market. Molson has recently consolidated its holdings and closed several of its

breweries while increasing production at others. The Regina facility required expansion in order to take on a larger portion of the domestic supply.

The Requirement:

Molson Breweries in Regina wanted to expand their filter capacity and upgrade the filtration process as part of an overall plant expansion and upgrade to meet increased production demand. The new filter system consisted of a "US filter" brand filter, two chillers, and a number of associated mixing tanks, holding tanks, pumps, and valves. Molson wanted the process to be as automated as possible to insure a constant beer flow through the filter. Archiving of process data was also an important requirement. The filter

operator required information on the operation of the filter as well as from the bottling cellar in order to know which tanks were available to send beer to. The operator needed the ability to develop a fill queue which would identify which tanks would be filled and in which order, and have the system handle tank changes automatically.

The Design Solution:

Molson uses Allen-Bradley PLC 5s and Intellution FIX as their standard controls equipment. The first phase of the project which was completed by Hinz in 1995 used an existing PLC 2/17 and FIX running on Windows 3.1. This was upgraded to an AB 5/40E and FIX running on NT 4.0. The PLC and Fix workstation was part of a plant wide Ethernet Fiber Optic network connecting the majority of the PLCs and FIX workstations together.

The PLC consisted of the local I/O rack which controlled the filter system, and a remote rack which controlled the de-aerated water system. There was also two 1336 variable frequency

drives connected to the remote I/O network which operated variable speed pumps.

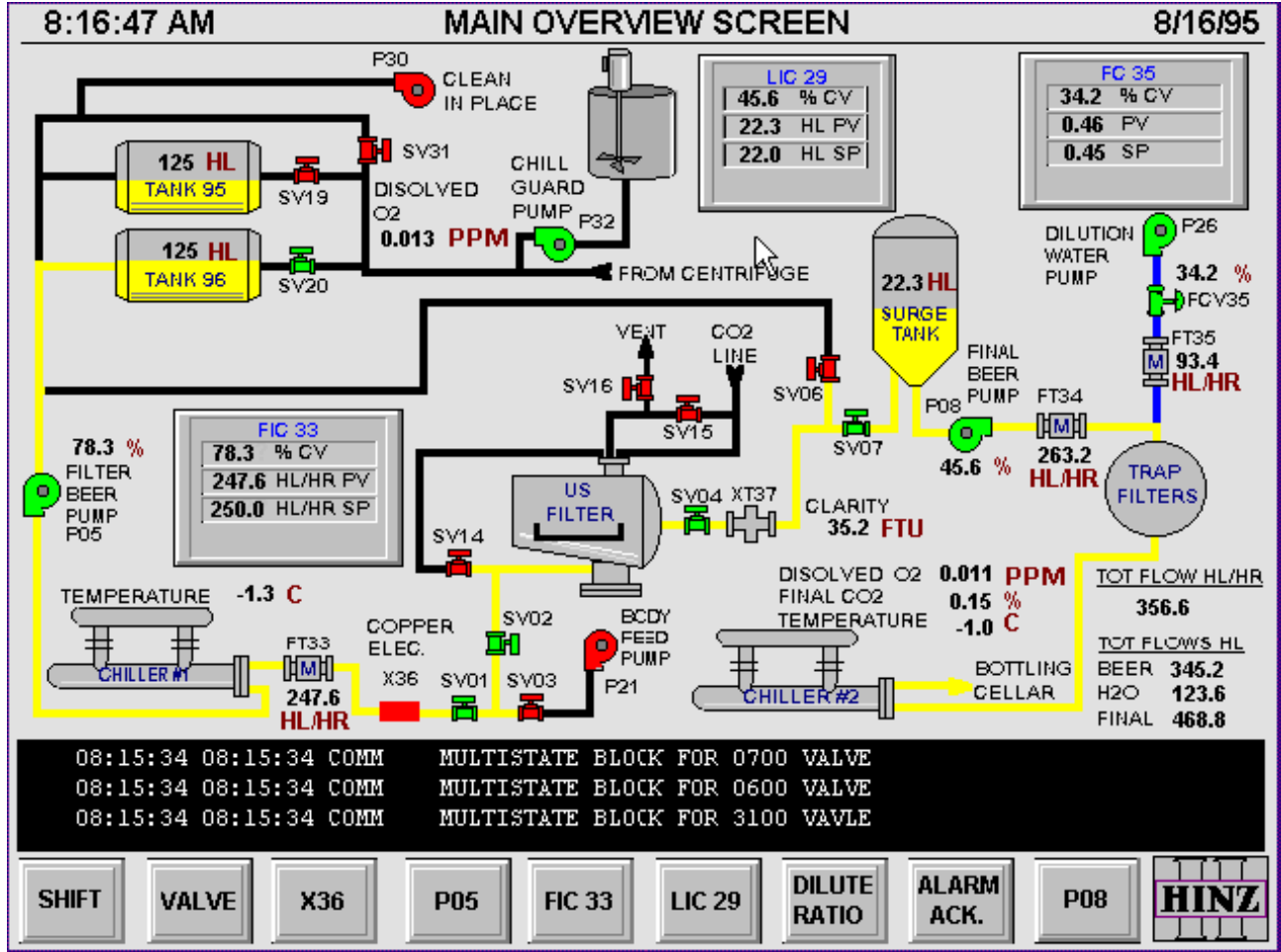
The operator interface was designed using the function keys of an industrial computer only. A mouse or trackball was undesirable because of the adverse environmental conditions. From the FIX screen the operator controlled the operation of the filter and the de-aerated water system as well as configuring the fill queue.

Important process data such as temperatures and flow rates are trended and saved for future reference.



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System Specifications:

- Allen-Bradley PLC 5/40E
- 200 discrete, 20 Analog I/O
- Intellution FIX HMI
- 7 graphics pages
- 2 Allen-Bradley 1336 VFD drives

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

www.hinz.com