



A Rockwell Automation Company

Albchem Manitoba Ltd. OPC Data Manager Software and Engineering

The Client:

Formed in 1990, Albchem Industries Ltd. is a privately held Canadian company which operates two sodium chlorate plants located at Bruderheim, Alberta, and Virden, Manitoba.

The primary use for sodium chlorate is in the pulp and paper industry. In the pulp and paper industry sodium chlorate is used to produce chlorine dioxide which is the principal bleaching agent in ECF (elemental chlorine-free) pulp. The chlorine dioxide is used as a substitute for chlorine. More than half of North American pulp production uses chlorine dioxide.

In agriculture, sodium chlorate is used as a defoliant, non-selective contact herbicide, and semi-permanent soil sterilant. Other uses for sodium chlorate include: metal treating, mining, textile bleaching, de-inking of recycled papers and the production of rocket propellant oxidizers. Sodium chlorate is also used to produce sodium chlorite, which is used for municipal water treatment.

The Requirement:

After installing a new Rockwell Process Logix distributed control system to run the plant, there was a need to display data from an R2000 cell voltage monitoring system on the DCS screens. It was found that the DCS and the R2000 systems were operating

different versions of OPC and were not capable of communication.

The Design Solution:

Hinz researched the problem and found that the R2000 system was using OPC 2.0 and the DCS was using version 1.0A. The OPC specification states that reverse compatibility is not a requirement.

After consultations with both vendors, it was concluded that neither could supply a solution to the problem within the budgetary requirements of the project.

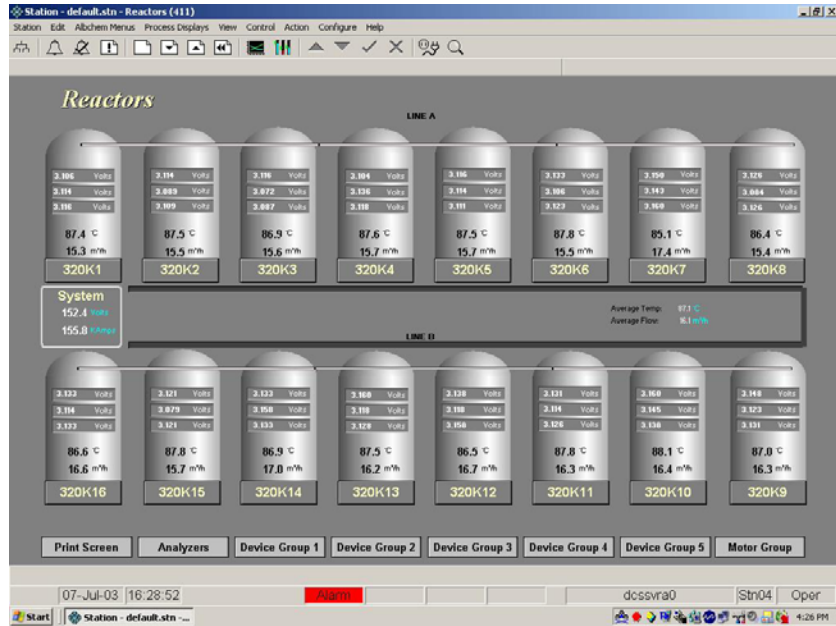
Matrikon, a commercial designer of OPC compliant software, was contacted to supply an OPC data

manager that allowed conversion and flow through of OPC data from OPC servers and clients, which Hinz then configured along with DCS display screens and trending to meet the customers needs.



A Rockwell Automation Company

Albchem Manitoba Ltd. OPC Data Manager Software and Engineering



The screenshot shows the 'Matrox Data Manager Configuration' window. It features a tree view on the left and a table of data groups on the right. The table lists various tags and their associated data points.

Data Group	Tag	A	B	Master (Input)	Acc.	Slave (Output)	Acc.	Type	Value	Quality	Timestamp
cells	32001-02			LocalhostRZF		VT_R4	1.9520	Good	7/7/2003 12:55:46		
	32002-02			LocalhostRZF		VT_R4	2.1970	Good	7/7/2003 12:55:46		
	32003-04			LocalhostRZF		VT_R4	1.9520	Good	7/7/2003 12:55:46		
	32004-05			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:46		
	32005-05			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:46		
	32006-07			LocalhostRZF		VT_R4	1.4820	Good	7/7/2003 12:55:46		
	32007-08			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:46		
	32008-09			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:46		
	32009-10			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:46		
	32010-11			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:46		
A/E Substations	32011-12			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:46		
	32012-13			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:48		
	32013-14			LocalhostRZF		VT_R4	1.9520	Good	7/7/2003 12:55:48		
	32014-15			LocalhostRZF		VT_R4	1.9520	Good	7/7/2003 12:55:48		
	32015-16			LocalhostRZF		VT_R4	1.4820	Good	7/7/2003 12:55:48		
	32016-17			LocalhostRZF		VT_R4	1.2100	Good	7/7/2003 12:55:48		
	32017-18			LocalhostRZF		VT_R4	1.4820	Good	7/7/2003 12:55:48		
	32018-19			LocalhostRZF		VT_R4	1.4820	Good	7/7/2003 12:55:48		
	32019-20			LocalhostRZF		VT_R4	1.4820	Good	7/7/2003 12:55:48		
	32020-21			LocalhostRZF		VT_R4	1.4820	Good	7/7/2003 12:55:48		
32021-22			LocalhostRZF		VT_R4	1.4820	Good	7/7/2003 12:55:48			
32022-23			LocalhostRZF		VT_R4	1.4520	Good	7/7/2003 12:55:48			
32023-24			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:48			
32024-25			LocalhostRZF		VT_R4	0	Good	7/7/2003 12:55:48			
32025-26			LocalhostRZF		VT_R4	2.1970	Good	7/7/2003 12:55:47			
32026-27			LocalhostRZF		VT_R4	1.7090	Good	7/7/2003 12:55:47			
32027-28			LocalhostRZF		VT_R4	1.9520	Good	7/7/2003 12:55:47			
32028-29			LocalhostRZF		VT_R4	1.4820	Good	7/7/2003 12:55:47			

System Specifications:

- Process Logix Distributed Control System
- R2000 Cell Voltage Monitoring System

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

www.hinz.com