



A Rockwell Automation Company

Weyerhaeuser - Chemainus Chemainus Sorter Upgrade

The Client:

Weyerhaeuser Chemainus Sawmill Division, located in the beautiful town of Chemainus, BC, is not your ordinary sawmill. With over a century of sawmilling history this mill supplies complex custom cuts to customers all over the world. It harvests only the

highest grade Douglas Fir and Pacific Coast Hemlock and combines a highly skilled labor force with complex technology to provide high quality lumber that is most often used for exposed areas of building design.

The Requirement:

When Weyerhaeuser was looking for a solution to replace their old existing sorter software applications, they came to Hinz. Their existing 70 bin, 20 bin, and Timber Deck, sorter applications were in need of an upgrade. Their GE Series 6 PLCs were being replaced with a new Allen-Bradley ControlLogix PLC.

Along with the PLC upgrade, many new features were to be added to the sorter applications. The existing sorter applications have been upgraded and patched over the last 8 years, causing the applications to be very difficult to modify or debug if problems occurred.

It was determined early on that the available traditional

sorter software packages could not be used due to the customization that the customer required. The solution was to rebuild the sorter applications using modern software tools and using the original as a prototype. The new system would have to support all of the original features as well allow for the addition of many new features.

The customer required that the sorter information be available from any PC in the plant without having to perform complex software installations on each system. The system also had to be easy to maintain.

The Design Solution:

The solution was to reduce the complexity of the sorter applications by building 3 main components: a web server, a database, and a board processing application. The database, which is the heart of the system, is designed to store all of the sort setup and configuration information as well as production and reporting data. By using the strengths of the database a foreman could save, copy, or modify an offline sort, and then download the new sort configuration at a product changeover.

The web server provided an intuitive interface which was easy to access from any PC in the plant. Using a web server avoided complex software setup and simplified maintenance of remote systems. If a change

was required, it only had to be made at the server. The web server application allows for complete sort setup and management. It displays a real-time view of the bin counts and production numbers as well as detailed and summary sorter reports. The sorter reports can be viewed for the current shift or for historical shifts.

The high speed board processing application called Process Boards is used to process new boards and manage the sorter state. The Process Boards application manages the state of the sorter by continually monitoring the PLC and updating the database with production information. The Process Boards application enables the web server to display and modify current information.



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Jun 1 2004 12:06:17 Fbm: 0000 No Home: 0000 Pieces: 0000 Inv Pieces: 0000 Refresh Page

Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7
180	180	180	180	220	220	220
140	120	50	99	123	119	87
14 15 16 17 18	15 16	6 7 8 9 10 11 1...	17 18	19 20	21 22	23 24
Bin 8	Bin 9	Bin 10	Bin 11	Bin 12	Bin 13	Bin 14
220	180	180	180	200	200	200
211	180	13	55	102	98	75
14 15 16 17 18 ...	14 15 16 17 18 ...	14	15 16	16	17 18	19 20
Bin 15	Bin 16	Bin 17	Bin 18	Bin 19	Bin 20	
200	200	300	300	144	300	
3	54	16	180	108	43	
21 22	23 24	14 15 16 17 18 ...	21 22	21 22	6 7 8 9 10 11 1...	

Main Bin Overview Admin Logout Login

System Specifications:

- Web Server – Microsoft Internet Information Server (IIS)
- Web Application – Visual Basic .NET
- Database – Microsoft SQL Server
- Ethernet Driver - Automated Solutions
- PLC - Allen-Bradley ControlLogix

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

www.hinz.com