

A Rising Champion:

VPI integrates manufacturing processes with CANTOR ERP Solutions

Our competitive market demands ever faster response, better service and highest quality for the lowest possible prices. How can today's smaller profit margins, increased competition and falling home sales be addressed properly? How can an operation sustain their growth despite? These ongoing challenges are forcing companies to improve and optimize their operations to secure their future market positions. For one Spokane manufacturer on the rise, the solution was clear; they set out to find a Window and Door ERP Software Solution to meet all their growing needs at once.



From left to right: Mike Paquin (CEO VPI) and Horst Mertes (Director Sales and Marketing Albat+Wirsam North America).

An on-going success story: When Burke Blevins purchased Vinyl Products Inc. back in 1993, it had been operating for seven years with only 10 employees in a small, 10,000 sq. ft. factory in Spokane, WA. After just four years under his successful management, the window maker, now known to the industry as VPI, had grown substantially. With turnover catapulting from \$ 1 million to \$10 million, profits soared. VPI had outgrown their original headquarters in record time. By 1998, they were upgrading to a new 48,000 sq. ft. facility.

More than a few growing pains: Rapid growth and new product lines had quickly made production impossible to manage without some kind of software. In the beginning, this

was handled in-house; an ambitious employee with undisputable IT-talents devised and administrated VPI's first production management system. By 2005, orders were tumbling in, and product specifications were becoming more sophisticated by the hour. VPI soon realized they had outgrown their in-house constructed software system, and were in desperate need of an ERP solution that could effectively manage their production volume.

A flexible ERP-for-Windows system with Dealer Service – is there such a thing?

The search began for a full-service partner to provide a state-of-the-art ERP (Enterprise Resource Planning) software solution specifically for window and door manufacturers. VPI's

CEO Mike Paquin was looking for a system to not only suit their present needs, but one able to handle the upcoming challenges as they continued to grow – one which could be completely integrated and custom-tailored to their company's individual market needs. Sights quickly focused on the software "Made in Germany", CANTOR's Integrated ERP Solutions for Windows and Doors. With its Microsoft SQL platform and user-friendly graphic surface; detailed and integrated CAD/CAM solutions; flexible design program for all window shapes and types; as well as technical feasibility checks and full capacity and delivery planning features, this was the most convincing software of all. Even more, CANTOR's full-service Dealer System would allow them to accurately plan, quote and



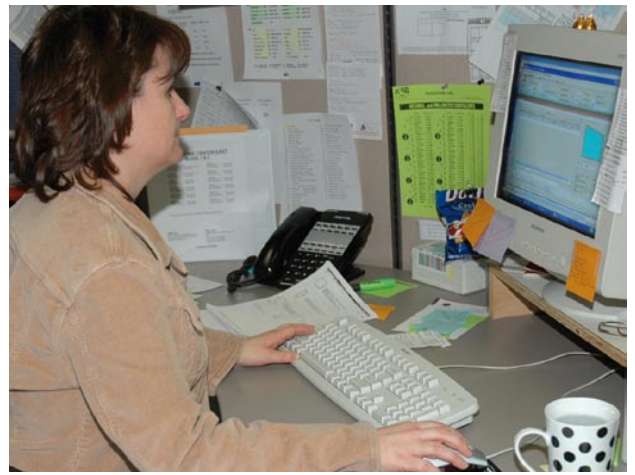
The brand-new 90,000,000 sq. ft. production and administration building in Spokane



Accentrim Grid: a totally new approach to decorative beveled glass for vinyl windows and patio doors. For a fraction of the cost of traditional beveling, grilles are unrolled as tape 'from the spool' and applied directly to the sheet.



Material for top products: Thanks to CANTOR material management (stock management module), the stock on hand can be minimized which reduces the working capital. Whenever an order is entered at VPI, stock control 'knows' which products have to be reserved or ordered. Left: Cut sheets ready for IG production.



Order entry via CANTOR: Once entered, information can be directly accessed by all business units

enter orders directly into the system.

VPI has been successfully running their operations with optimization and production control software from Albat+Wirsam for years. Having heard of software from A+W's subsidiary for window and door production, CANTOR, VPI's good experiences with A+W's state-of-the-art technology, as well as their excellent relationship with A+W North America in Seattle, made them want to learn more.

Everything at once: a multi-tasking nightmare at peak season

In 2007, with the annual turnover doubling to well over \$20 million, VPI had once again painfully outgrown their facilities. The machinery fulfilled all the requirements of a modern IG and window production facility: with an up-to-date SuperSpacer system and clever Accentrim Grid set-up, producing myriad forms and combinations, VPI was best equipped – from the glass cutting table to the end assembly of the window. Still in all, customers were asking for even faster delivery, and material management was indeed a problem. Without a branch specific ERP solution to keep pace with the increasingly complex and fast-paced work-flow, this rapidly growing company would soon become unmanageable. When VPI took possession of their ultra-modern, 90,000,000 sq. ft. facility in July, Mike and Burke were set on getting their production into top form as quickly as possible. In the midst of their peak season, they set out to do the impossible, or at least the inadvisable; undertaking the execution of three monumental projects at once.

Going for the whole nine yards in just two months, they moved their entire facility, implemented the CANTOR ERP software system, and set-up shop to introduce two new prod-

uct lines: Synergy, a premium product for the replacement market, and Endurance, designed to meet the increasing demands on quality and performance, especially residential buildings and condominiums.

Cooperating with their glass partner PPG, VPI became the first manufacturer in the U.S. to offer SunClean/Solarban 70XI as standard glazing in their Synergy Premium series. The Endurance window series is setting new standards of performance in the multifamily housing sector.

Burke and Mike were excited about launching the new lines. Knowing it was time to phase out the old and bring in the new, they were confident of the long-term benefits these new products would bring them. The transition required intensive organization at the beginning, of course, but the fewer components necessary for production of these new lines meant less inventory to keep track of in the long run. The overall savings in time, manpower and materials for this ultimately far superior end-product were strong arguments for immediate implementation.

Simultaneous chaos, most would say. Controlled lunacy, Burke would later say. "Everything hit at once," says Mike. "But the CANTOR software took control with sovereignty." Now that the tasks have been completed and everything's in place, VPI knows they made the right decision at the time. But, Mike's quick to point out, he'd never do it again! Now, with everything under one roof and all materials and supplies in easy reach, VPI are rapidly forging plans for future growth and optimum use of their facilities:

Clear displays provide necessary production information at machinery terminals & workstations. Stacks of paper on the shop floor are passé thanks to CANTOR CIM integrated software.

clean, dry and under perfect storage conditions, accurately cataloged for electronic inventory thanks to the newly installed CANTOR Stock (Materials) Management System.

"CANTOR was the best option among the finalists. We are confident that we made the right decision. The software is very user-friendly, robust and handles our business very well", continues Mike. "Our employees using the CANTOR system perform their daily tasks with ease, and I hear no complaints. In my position in the company, I don't usually hear the good things, just when things go wrong. So far I've heard nothing bad, and even some good things! So we're very happy. CANTOR works very well for us, and I'm confident that the software was a sound decision", he elaborates.

Lean Manufacturing thanks to Networked Production and Capacity Planning

To comfortably handle their entire business processes from start to finish, VPI now has multiple workstations, connected to a central Microsoft SQL Server® Database, managing their workflow in the commercial area. VPI can be sure





Left: CANTOR-controlled, 2 high-tech Stuertz welding machines guarantee high throughput. Intelligent networking eliminates the need for data storage media.



Right: Assembled and glazed, finished units are fitted with a barcode label. A quick scan updates the status – immediately readable throughout the CANTOR system.

that the feasibility checks and technical restriction barriers incorporated in their new software system will avoid any production errors; and, the user-friendly, graphical front end will guide the operator effortlessly and successfully through the various production processes, regardless of how complex!

At VPI today, all orders are automatically planned by the Capacity Planning module; ensuring that machinery, stock and purchased parts are available when needed, and that production processes are completely synchronized. The production start date is calculated by means of reverse calculation, i.e.: starting production at the latest possible moment. This is lean manufacturing in action – streamlining the work in progress to an optimum flow while reducing the factory space necessary in which to do it. The system presents the production scheduler with all details as to what needs to be batched at each individual stage and time; while the purchase agent receives information as to what special parts need to be purchased. The tangible result: all information arrives at the right time and at the right place.



Remakes online in real time: XOPT-ON online control allows trouble-free cutting. Large scale CutTV breakout display visualizes breakout patterns and stacking instructions.

Complete, on-time, paperless: CANTOR CIM Window Manufacture is bar-code controlled

VPI produces all their IG units in-house. The CANTOR system collects and filters all the component details: quantity, sizes, sealing and spacer types, as well as the BOM – and sends this complete information package online to ALCIM, the production planning and control system from Albat+Wirsam. ALCIM plans and schedules all production steps for the IG units, including cutting and spacer applications, in accordance with and in complete synchronization to the window production sequence. As production batches are created and released to the shop floor, all data is instantly visible at the individual CANTOR CIM stations – completely paperless; controlled by bar-coded labels for the individual parts (profiles, frames, sashes, etc.) The CANTOR CIM setup at VPI features monitoring stations at Profile Cutting, Welding, Assembly, Glazing, as well as shipping. These stations, connected to the PLC controllers of the production lines, create all necessary CNC codes in sync. Each monitoring point can be individually configured for each application and includes a fully automatic remake system: individual profiles, frames, sashes or even complete windows can be rejected at any time by fully configurable reason codes, and then re-ordered electronically. A final inspection station ensures effective quality control before the windows are scheduled onto trucks: for prompt shipment to the customers' sites on the promised delivery dates!

On-Line Dealer Support: CANTOR's fail-safe system for specs and ordering

VPI will soon be installing CANTOR Dealer System software at the first ten retail partner sites. The advantage is nearly identical order processing functions on both sides: with this new system in place, dealers will have the comfort of handling all their commercial processes in-

ternally, with the full spectrum of VPI's product and technical information at their fingertips. Fully up-to-date specs, automatic price calculation and precise delivery information for all of VPI's products, in a user-friendly, technically fail-safe order format, will become available on line; making dealers' lives easier – and sales higher. Perfectly compatible with VPI's format, orders arriving electronically, via EDI, will be immediately entered into VPI's database for confirmation and processing. When VPI has confirmed the order, complete with stock, production capacity and shipping information, dealers receive order confirmation and a firm



CANTOR CIM: printed labels just-in-time, wherever needed

delivery date: a reliable basis for the scheduling and processing of orders on both sides! Based on Microsoft® Windows, the program is easily integrated with other Microsoft® Office products, like Word or Excel.

“Made in Germany” goes off without a hitch

Ralf Kurpjuhn, President of CANTOR Germany, sums up: “This was an absolutely successful pilot project! From the start, VPI knew what they wanted, and we know what they wanted, too. The chemistry was right, and communication was at an excellent level throughout the setting-up of the project – a real accomplishment with

our international team of German, American and French technicians!" Asked what he liked best about working on the project in Spokane, Ralf replied,

"I guess the most impressive thing about the project was the intuitiveness and understanding among the players every step of the way: CANTOR understood from the start the type of system needed to facilitate VPI's future growth. CANTOR software is a truly integrated ERP system that is flexible, user friendly, and has all the necessary components VPI needed to achieve lean manufacturing. As we proceeded to fill-in the software with "life" – meaning VPI's own requirements and special features – it was a straightforward matter for the CANTOR team to integrate and customize the software to VPI's specific needs. Again, the co-operation and communication was perfect."

CANTOR: Doing the job quickly and right

With the CANTOR system up and running, Mike has been able to relax and enjoy CANTOR's completely integrated graphical surface and user-friendly interfaces. No technician himself,



Warm[®]edge and SuperSpacer[®]: This popular spacer system, boasting excellent low-E properties, is extremely easy to process. Ultra-resistant to ozone, sunlight and oxidation, its long-lasting colors are essential when matching the spacer color to the window color.

the window business, and CANTOR does, too. With a mouse click here and a mouse click there, CANTOR software intuitively guides me to the next place I need to be to get the job done quickly and right!"

Quality is where the future is

VPI has found its market niche where high quality materials and workmanship are in demand.

With contracts increasing in the multifamily housing sectors, Burke is happy to have stayed true to their high quality motto, and away from producing relatively inexpensive "Plain Jane" models. "They're not what we're into. And, today, they're not where the future is!" he goes on to say.

VPI's experienced and skilled craftsmen take great pride in producing the most attractive, high quality and best performing windows and patio doors in the industry. State-of-the art machinery and an intelligent, branch-specific software solution are prerequisite for upholding VPI's quality and healthy profit margin in future. Parallel are superior components like PPG[™] glass products, Super Spacer[™] structural foam spacers and VPI's own heavy duty vinyl construction. All

VPI windows are thoroughly tested for structural and thermal efficiency; their construction ensuring superior performance, such as water abatement and wind deflection, even under extreme weather conditions. Each window is certified to meet AAMA forced entry and NFRC emissions standards. VPI stands proudly behind every window they sell!

Intelligent Technology for Lean Manufacturing

CANTOR, a full subsidiary of Albat+Wirsam Software for Glass and member of the Glaston Corporation since last July, is gaining territory by leaps and bounds on North American soil. Established as a leading developer of software for windows and doors for more than ten years in Europe, CANTOR is a relative newcomer to the US market sector. "The diverse specs and market profiles on this side of the Atlantic have been a real challenge", Fred Montgomery, Executive Vice President of Albat+Wirsam NA, quickly admits. He and Horst Mertes, Director of Sales and Marketing, have done their homework, however, and rewarding clients like VPI and other blue chip companies now lining up in the wings are proof of this. As Mike Paquin aptly puts it, *"Working with VPI, CANTOR has surely come a great way in building expertise and market recognition for their fine products."* Horst agrees, adding his delight at the success VPI is already reaping!



Quality and esthetics: a VPI designer window view of the lake

he's delighted to understand the logic and practicality of the system, praising its simplicity. *"The straight-forwardness of CANTOR software really impresses me. I don't need to be a computer expert to get the job done – I know*

Want to know more?

Call or email us today to schedule your FREE consultation & demo, and see how CANTOR Software can keep you ahead in today's competitive race!

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