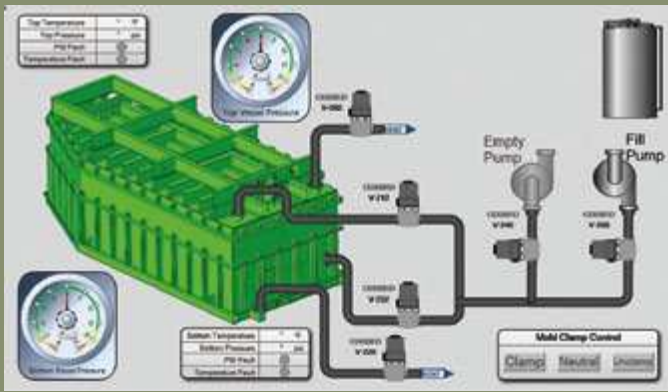


A 3D Rendering of a Boat During Construction Visualized Through GENESIS64/GraphWorX64



Customer Success Story

## VEC Technology, LLC Greenville, PA / Little Falls, MN



A VEC Technology Fluid Transfer Control Screen

### About VEC Technology

VEC Technology's ([www.vectechnology.com](http://www.vectechnology.com)) Greenville, PA. location provides custom composite manufacturing. Its parent company, J&D Acquisitions, also owns Larson Boats ([www.larsonboats.com](http://www.larsonboats.com)), a Little Falls, MN manufacturer of recreation boat hulls that utilizes the VEC process, "a patented, state-of-the-art, computer-controlled manufacturing process that guarantees that every part is made to the most exacting standards of fit and finish, resulting in parts with unparalleled beauty and unprecedented quality."

VEC Technology considers itself a one stop shop for OEMs, providing part concepts, design, engineering, tooling and manufacturing, with seven molding stations at its Pennsylvania facility.

*"GENESIS64 gave us unparalleled flexibility for creating the content we needed. We just plugged [it] onto our system to communicate with all our existing hardware interface drivers and software. With its GraphWorX64 tool, our HMI visualizations are much more intuitive and it was easy to do it myself."*

**Greg Telesz**  
Director of Engineering  
VEC Technology, LLC

The company states that manufacturing cells utilizing its Patented Floating Mold technology receive a "low-cost, high-quality, extremely accurate, closed-mold solution" and that VEC Technology has achieved "great success in the marine, construction, containers, transportation, farming equipment and recreational vehicle markets." Larson Boats, itself a customer of VEC Technology, can process boat hulls in the 17 to 24 ft range at its Minnesota location, which includes eight molding stations and an automation mix plant.

### ICONICS Software Deployed

VEC Technology selected ICONICS GENESIS64™ 64-bit HMI/SCADA software, in addition to BridgeWorX™ (real-time workflow for data bridging), ReportWorX™ (enterprise reporting, charting and analysis), OPC Server (supporting both OPC-UA and OPC-DA connectivity), and WebHMI (Web-based, real-time visualization).

## Project Summary

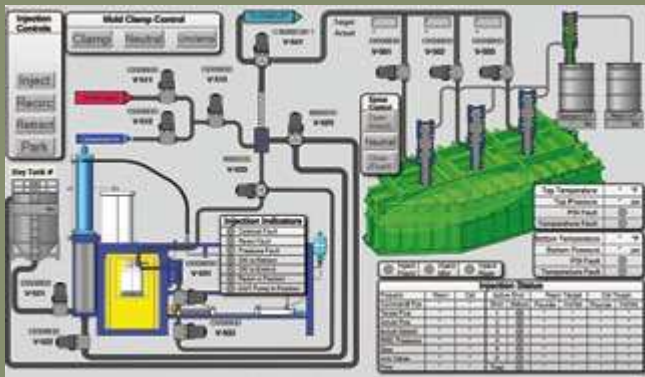
VEC Technology required an HMI/SCADA solution coupled with data bridging/reporting/archiving that can be used over the Web, can integrate with the OPC communications protocol and can directly interface with the company's product databases. They required the solution to control and monitor the company's patented closed molding operations. They wanted a system that could manage various parameters based on several criteria, including the specific product being produced, ambient conditions and material properties. Also necessary was the ability to provide long term storage of multiple key parameters for product warranty information.

approximately 1,200 tags per molding station.

VEC Technology maintains four servers and 16 client stations for this particular project. It uses several Microsoft applications including Microsoft Office, Access (to modify process input parameters) and SQL Server (for long-term historical data storage). Two competitor solutions were considered, and the company had the option to keep their existing software (also by different competitors), before ultimately deciding upon ICONICS.

## Benefits of the System

VEC Technology wanted a single source HMI/SCADA program that would require minimal custom scripting



*Injection Control Screen*



*VEC Production Facility*

The company sought a product with future-proof technology. They also looked for a solution that presented a simple user interface for making edits, as well as an easily maintained Web-based client/server architecture. VEC Technology aimed for a "single vendor" approach, intending to reduce both the number of automation interfaces as well as extra support staff to maintain various systems.

The engineers at VEC Technology allowed themselves a 10-month development cycle for the first installation, ensuring that their in-house personnel would become more familiar with the selected HMI/SCADA solution. The software would need to interface with multiple systems and hardware including eight Modicon PLCs between the two locations, five Delta RMC controllers, temperature/pressure/proximity gauges, scales and valves. The selected HMI/SCADA software would need to handle

and programming. They also required a solution that would run optimally on 64-bit operating systems, as well as easily handle 3D visualization to fully utilize existing CAD data of various equipment.

Additionally, they wanted the software to read and write natively to Microsoft SQL Server and to support global aliasing, in order to minimize development time and costs. GENESIS64 now provides what VEC Technology deems "spectacular" and "rich" 3D graphics with "superb resolution" and an enhanced operator experience, fully utilizing the company's vast CAD investments. The company now utilizes a single database for data logging. ICONICS' BridgeWorX software has helped to eliminate numerous custom VBA scripts.

*Continued on the next page...*

VEC Technology has also reprioritized its operational staff – from eight employees tasked with maintaining multiple systems down to two employees maintaining their new system.

The company's future plans for their ICONICS-integrated application include implementation of downstream postmolding stations to input quality data into databases, eliminating the need for paper forms.

### Case Study Details



- HMI/SCADA Solution
- OPC Server
- 1,200 Tags per Molding Station
- 3D Visualization for CAD Data



*An Operator Monitoring Hull Production*



*VEC Technology Lift Select Mode Controls*

### Conclusion

VEC Technology and Larson Boats required an HMI/SCADA solution that would allow them to continue providing customized options for their own customers. For such requirements, ICONICS' GENESIS64 HMI/SCADA suite and wide range of integrated manufacturing intelligence options are tailor-made.

### Solutions Highlighted



#### GENESIS64

Next Generation in HMI/SCADA Automation Software

#### BridgeWorX

Real-time Workflow for Data Bridging

#### ReportWorX

Enterprise Reporting, Charting and Analysis Software

#### WebHMI

Web-Based Real-Time Automation Software