

Technical Illustration

Corel solution gives smaller companies a big competitive advantage

"The fact that we don't have to re-draw things is saving us time and money—money we can pass on to our clients, which makes us more competitive."

Michael Levesque
President and Chief
Technology Officer
ESI

*Engineered
Systems*
INCORPORATED

COMPANY

Engineered Systems Incorporated (ESI)

CHALLENGE

To find time- and cost-saving efficiencies that enable ESI to compete successfully with larger companies.

SOLUTION

Corel® DESIGNER™

BENEFITS

Corel DESIGNER ensures precision, an improved workflow and significant time and cost savings by eliminating the need to re-draw and recreate complicated technical graphics.

The Story

Engineered Systems Incorporated (ESI) designs, prototypes and manufactures the specialized integrated electronic systems that some of the world's most innovative small companies and largest blue chip clients depend on to power their solutions.

Have you ever wondered what tells a car's air bag to deploy in a collision? Or how a new high-tech kitty litter box knows when the litter needs to be changed? These everyday occurrences are based on intricate embedded electronic systems produced by companies like ESI. But how did this small Canadian company develop the ability to compete with engineering firms twice its size?

The Challenge

To earn the business of companies such as Co-Generation Systems Inc., Ontario Public Works & Utilities, General Motors, Advantage Engineering and many more, ESI needed technical design software that allowed it to cost-effectively compete with larger engineering firms. The application would have to integrate seamlessly into a number of other applications and provide a complete design solution that could carry a product from initial concept to production.

The Solution

ESI President and Chief Technical Officer, Michael Levesque first used Corel DESIGNER at university. At that time, it was part of the Micrografx technical design suite. From the beginning, Mr. Levesque found it was easy to use, and it provided him with the detail and accuracy needed to seamlessly, visually convey the electro-mechanical models for each project.

"Corel DESIGNER has been part of my conceptual development since I opened the company. I use it for everything from raw sketches to rendered drawings," he says. "Today, Corel DESIGNER is a key component in my workflow."

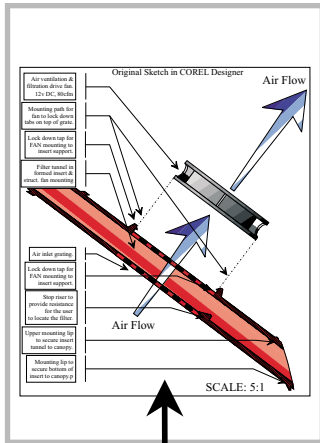
The Benefits

Precision

In ESI's business, precision is key. The ability to create true scale models within Corel DESIGNER is critical since the company is creating documents that are steps away from production.

"When you are working with complex electronic components, fractions of measurements are critical. In my business, accuracy is essential, and no other solution maintains the technical aspects of Corel DESIGNER," he says.

COREL™
Case Study



With the scaled models created by Corel DESIGNER, ESI can import them into EDS SolidEdge (3D mechanical models) and translate them directly into IVEX WinBoard Designer (2D to 3D mechanical platforms for electronic design). This has improved internal workflow and resulted in significant time savings.

Improved Workflow

Leveraging the "track changes" functionality in Corel DESIGNER, ESI can easily identify when changes were made and by whom. This is important when multiple designers are working on a single project, particularly if they are located in different corners of the country. It's critical that version integrity be maintained, and Corel DESIGNER makes this possible.

Corel DESIGNER also supports ESI's project management processes, providing a fully integrated system that tracks hours and provides an accurate log of all work completed. This is particularly beneficial during a project's sign-off, billing and completion phases. ESI can accurately track who has spent time on a project, what that time entailed, when changes took place, where those changes were necessary and why additional resources were required. This tracking function provides a complete electronic accounting and justification of the design platform.

Time Savings

When ESI starts to conceptualize an electronic system, the first sketches are done in Corel DESIGNER. These sketches are then brought into other engineering packages to complete the production process. Modifications are transferred with ease back into the original Corel DESIGNER file to create the data sheets for the final product. Without Corel DESIGNER, ESI would have to re-draw the preliminary sketches in engineering programs like IVEX and SolidEdge, costing the company valuable time and resources.

With Corel DESIGNER, ESI maintains a dynamic link between each program, which allows changes to be simultaneously mapped between each platform, no matter how many people are working on a particular project. This ability to process changes quickly, act on the new information and intuitively pull it together maintains ESI's competitive edge. ESI's designers can also take Corel DESIGNER drawings from one package and accurately import them into word processing and spreadsheet programs to update the documentation for an engineering product on the fly.

"Being able to write descriptions and details and have those details reflected back into the drawing using DDE (Dynamic Data Exchange) is absolutely fantastic," Mr. Levesque notes. "It completes my process using standard tools and allows me to integrate my high-end CAD tools with my operations, documentation and project management software.

The ROI

"Using Corel DESIGNER, ESI has been able to compete and win against larger engineering firms. Offering precision, an improved workflow and significant time savings, Corel's solution has helped Michael Levesque build a thriving business.

"The fact that we don't have to re-draw things is saving us time and money—money we can pass on to our clients, which makes us more competitive," Mr. Levesque says. "It's made the complete loop of concept to reality possible and bridges the gap between my documentation and design software in a totally intuitive environment that visually links my entire operations suite. Corel DESIGNER is key to my business."

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