DIRTT
on ICE
DIRTT ENVIRONMENTAL SOLUTIONS IS A MODULAR WALL MANUFACTURER IN CALGARY, ALBERTA. THEIR ACRONYM STANDS FOR DOING IT RIGHT THIS TIME. FROM INCEPTION, THE COMPANY’S GOAL WAS CHOOSING SOFTWARE CAPABLE OF PROVIDING A SINGLE, SEAMLESS EXPERIENCE FROM INITIAL CLIENT CONCEPT AT POINT OF SALE THROUGH TO MANUFACTURE AND DELIVERY. WHILE BULKY ERP (ENTERPRISE RESOURCE PLANNING) TYPE SYSTEMS CLAIM TO PROVIDE SUCH SOLUTIONS, THE FOUNDERS’ PAST EXPERIENCE PROVED QUITE THE OPPOSITE. IN FACT, THE ELIMINATION OF THE REQUIREMENT FOR AN ERP SYSTEM WAS PARAMOUNT FOR DIRTT.

“DIRTT product flexibility is limitless,” says DIRTT CEO, Mogens Smed. “We allow complete customization in design – to the extent that without ICE we could not even specify the products properly, let alone manufacture them. We are where we are today only because of ICE.” As the company’s name indicates, environmental sustainability is in their mandate. That, combined with client-customized product offerings means they do not need or even want printed product catalogues. Their sales and marketing teams exclusively use ICE and its family of tools to communicate the unlimited array of solutions.

Design to Sale to Order

Over 90 DIRTT distribution partners and countless architectural and design firms working with DIRTT use ICE in their everyday work. It is a visual communication and marketing tool that simultaneously provides their specification and order placement. Salespeople too can create initial layouts in front of their clients and tour them in interactive 3D. Immediately clients are engaged, informed and empowered.
CAD functions are virtually non-existent at DIRTT. In Mogens Smed’s previous wall manufacturing company more than 70 CAD people performed the duties one person now does at DIRTT. Instead, ICE provides the automation of drawings and eliminates the auditing process. Four-weeks from order to delivery is the standard for DIRTT, with three weeks being typical. In extreme situations, they have been known to deliver in days. This, with a fraction of the personnel typically required for configured/manufactured products. The company has the fastest sign-off to installation time in their industry. Speed to delivery alone has resulted in DIRTT winning many contracts.

Order to Production

With each line drawn in ICE, the DIRTT product rules, parameters and specific manufacturing knowledge run parallel with the design as it is conceived and modified. The ICE file provides information directly to the machine software in DIRTT’s production facility to create the Wall parts. This eliminates human error that often occurs in the transposition of numbers during the manual transfer of information. Beyond DIRTT own factory floor, ICE communicates to their vendors’. XML files produced using ICE allow the same automation for externally manufactured components such as glass tiles. (See the Goldray Glass case study.) “The importance of single source information is an advantage that cannot be overstated,” says Tim Harris, the director of software/production implementation at DIRTT. “All the upfront work with a client is not only what they want, it’s what we know we can make. The quote and shop drawing are completely connected.”
For DIRTT, the ICE platform represents a new paradigm. They manufacture their Walls directly from the live ICE file information, rather than from the manipulation and re-use of static legacy records such as standard drawings and BOMs (Bills of Materials). In fact, most DIRTT components do not even have part numbers. Instead, they are tracked with an ICE produced barcode unique to that specific part. This approach is faster and more accurate than digging up a single drawing from a previously made component. This also means DIRTT has no need for a bulky PDM (Product Data Management) system to manage and maintain thousands of drawings and BOMs. Engineering change is instant and without compromise, as the change is made in just one place; ICE.

**Production to Installation**

Eliminating manual steps and human interpretation throughout the process also ensures the correct DIRTT products arrive at the site. Even the installation information is from the same source: The signed-off ICE design. Further, since the DIRTT Walls are designed for reconfiguration to suit the client’s future needs, ICE can be used when the client moves, adds or changes the walls in the space. This full-circle approach redefines the goal of front-to-back integration.

DIRTT started marketing their solutions in May 2005. Since that time the company leapt to the forefront of their industry and is recognized as the unqualified champion from a design, delivery and sales standpoint, all due in no small part to Ice Edge Business Solutions. For more information on DIRTT go to www.dirtt.net