

WOOD INDUSTRY



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WRAP**

**JULY/
AUGUST 2017**
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The business side of woodworking



**Tech ballet
at Muskoka
Cabinet**

**Design versus
production:
Creative tension
that works**

**Three steps to
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WOOD INDUSTRY

The business side of woodworking

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Association connection

Professional associations such as AWMAC, IDC and NKBA provide valuable marketing advantages to the wood processing sector.

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Canadians wave the flag at AWFS 2017

Full aisles, busy booths, new connections, a birthday party for Canada — everybody looked happy at Las Vegas.

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Taming technology to promote efficiency

Eric and Luke Elias of Muskoka Cabinet in Alberta, Ont., had the vision to implement pioneering technologies. Today, automation allows them to control costs and quality.

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From the editor

Show business

Well, we've had it. Nowhere to go from here. GreenIn-Urbs, a European think tank citing its top achievement as an interactive website, has determined that trees create VOCs and contribute to ground-level ozone.



Kerry Knudsen

Or, at least, they funded the study reported in May on ACS, (American Chemical Society). ACS, according to ACS, advances science, advocates for chemistry, enables career development, educates the public, supports future chemists and promotes diversity.

Thank goodness we have another association of pure scientists promoting diversity. It's clear the others never got the job done. Diversity, of course, is the act of destroying the careers of people brighter than yourself so you can get their jobs. Etymologically, it's the opposite of unity.

Unity once was a good thing. So were trees. Shows what we know.

Canada Night at AWFS was another enthusiastically attended affair, this time starting at 5:00 p.m., right after the show closed on Wednesday. Several attendees showed up having come straight from the plane and hotel check-in, and not yet registered. For those, we worked around the scanner and got them in, anyway. (*See page 22.*)

For years, I thought I hated trade shows. They were hot, chaotic, noisy and full of pitfalls. Then, one day as we were preparing for "just another trade show," and this was in an entirely different industry, I realized that I was looking forward to it. Today, I love the chaos, the people and the energy, and have for years.

There is a heartbeat to a show. It starts off slow, both in our industry and in other industries comprising family owned businesses. Assuming the true show starts on Wednesday, and many do, entrepreneurs and small businesses often cannot justify taking off a full week, so they elect to travel on Wednesday, attend the show on Thursday and Friday, and stay the weekend in the show destination. This often makes the first show day a relatively slow day. This is hard on the sales staff.

However, everybody that comes to look is also there to buy, and by and by they filter into the back booths, hoping

to find a niche supplier or a deal. At the end, everybody is served, either meeting or not meeting expectations. This is pretty much life on life's terms. So I like it.

Next up: WMS – Canada's show for the secondary wood-products manufacturing industry.


As with AWFS, there is not a single economic indicator that argues against growth across the board in our sector. There may be a lack of unity, but that is on us, not the shows. As we have discussed, there are three communications factors that affect the health and growth of any industry. Those three are a professional trade media (whether print, broadcast, digital or whatever), a unified trade association and a comprehensive trade show. These are the glue that binds an industry together, when done properly, and they are the solvent that pushes us apart, when abused.

In theory, a media's readers are the same as the association's members, are the same as the trade show's attendees, and the media's advertisers are the association's supporting members are the show's exhibitors. As such, the three factors should be able to communicate, cooperate and facilitate without having to compete, since the prime objective of all three is to support the readers/members/attendees.

Of course, where there is power there is strife, and that is the way of the world. And it is the duty of the industry to watch closely where the line of self interest comes close to the line of sector interest, and to make certain self interest don't conflict with and harm the long-term health of the industry at large.

Come November, *Wood Industry*, during the tenure of the WMS show, will host a Manufacturers' Roundtable to discuss matters that concern the readers/member/attendees, and to discuss them on a confidential basis. I will be the only non-manufacturer in attendance, and I will field questions from you and present them to you and your peers for discussion. I will not sermonize or speechify. I get to do that all the time. The idea is a fair, confidential and independent forum for you to raise and discuss any issue you can imagine, as long as it is of interest to the industry.

November will be here before we know it. I know it, because July is already gone, and I'm still thinking it's March.

WMS will be a pivotal show this year, and we look forward to seeing you at Booth #1537. 

Comment at www.woodindustry.ca

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Guided by association



*Designer networking
is a key
marketing advantage*

When businesses think about marketing nowadays, there are many vehicles to consider: internet, social media, advertising, trade shows, ad mail, showrooms and direct sales. But can industry associations provide another key element to growing your business?

Peter Gallagher, president of AWMAC Ontario (Architectural Woodwork Manufacturers Association of Canada, Ontario chapter) and president of Convoy Custom Interiors of Concord, Ont., believes they can. AWMAC welcomes two kinds of members to its events — manufacturing members (millwork shops) and associate members (suppliers) — where networking fosters positive industry contacts.

His association presents “lunch-and-learn” sessions at the offices of architects and interior designers (A&D) across Canada. “It’s a low-cost way to get in front of the A&D community,” says Gallagher. The hour-long sessions are a way for architects and interior designers to gain valuable CEU (continuing education unit) credits required to maintain professional credentials. AWMAC presentations at the events are approved by the Toronto, Ont.-based Interior Designers of Canada (IDC). In interior design, a select number of continuing education units (CEUs) may be required over a designated period of time by a professional organization or by legal registration through a particular jurisdiction.

The content of the sessions is also directed by the A&D hosts, according to Gallagher. “If the firm wants us to talk about finishing at one session, and substrates at the next, then we can tailor the presentations to those needs.”

Clinton Hummel, president of IDC and of Paisley Park design studio in North Bay, Ont., says his association also has many regional events that cater to the industry. “IDC provides the platform for members and industry to connect,” he says.

IDC’s DesignEx trade shows are said to be a great alternative to regular trade shows. They are cost-effective,

intimate events where, instead of a booth, companies are given a table top to showcase their newest or most popular products to qualified professionals and specifiers, including interior designers, architects and others from the industry. The program is held 12 times annually with shows in B.C., Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia and Newfoundland.

Hummel notes that the association website provides a meeting point for both interior designer (ID) and industry members. “It would be up to the (ID) members to go in and say ‘I’m looking for a manufacturer of cabinet work,’” he says. “So I go into the list and I see who is there.” Similarly, an industry member can go into that list and see what designers or design firms are in their particular area that they want to do business.

“Alternatively, as a designer we are working on a commercial, corporate new build. Say we have \$1 million of millwork. If it’s in a particular region I’m going to look at local manufacturers to see who could handle that type of work. Invite them to tender or maybe other tenders if it is an invitation to tender. I think from those types of cases you are going to get more relationships or new relationships to start because it might be a millwork company that I have never worked with before. We are doing that consciously by daily reaching out to different companies.”

IDC member Susan Rea, principal at Susanrea Interior Design in Winnipeg, Man., appreciates the regional events. “Designers are all very visual,” says Rea. “If we can be in a show and see something and talk to the people who have made it — that really sticks with us way more than reading about it. Those are the most valuable pieces for me — going to the design and trade shows.

“Most of the woodworking shops that I work with are mostly from prior experience or from recommendations from colleagues, or I might have seen their work somewhere at a show,” Rea notes.

Another avenue that Rea uses is listing her company on Houzz, the home design website and social media plat-

form based in Palo Alto, Calif. While she paid for a subscription at one time, Rea has switched to the free listing available to designers and didn't find any difference. "I have the same amount of contacts from the paid as from the free one. I do get quite a few contacts from Houzz — I know a lot of my clients really like it. I will put idea books and folders up there and we will share them. As a resource tool I use it a lot with my clients."

For Clareville Distinctive Kitchens and Baths in Brampton, Ont., using web services Houzz and Homestars can cost hundreds of dollars a month, according to Demetri Psarianos, vice president operations and corporate affairs. However, Clareville is dedicated to raising — and keeping — its high profile online. Recently it received the support of Ottawa, Ont.-based Business Development Bank of Canada (BDC), a bank that works with companies to maintain "best business practises" in order to grow.

According to Luke Psarianos, Clareville's president, BDC wanted to come into his operations to provide a boost with all of the marketing programs at the company, as well as teach it about website optimization. "We kickstarted and/or revived our social media presence," says Psarianos. The company created its own LinkedIn page and updated all of its individual LinkedIn profiles. "There was a lot of mentoring and coaching done, such as determining how many leads you would need to bring in a certain amount of business per month and meet quotas."

BDC offers many different modules for operating businesses, many that Luke Psarianos was familiar with, but that it was good "to refresh our mind and to learn and move forward. It was about six sessions that were an hour to an hour and a half long. We did it over the course of about two months."

Clareville is also actively engaged with the Hackettstown, N.J.-based National Kitchen & Bath Association (NKBA), another organization that features both designers and manufacturers. NKBA is an international non-profit trade association that promotes the professionalism of the kitchen and bath industry, has credit programs that offer students a specialty in kitchen and bath design, and owns the annual Kitchen & Bath Industry Show (KBIS) trade show.

NKBA offers regional seminars, according to Luke Psarianos, as well as plant tours. "We were asked if we would be interested in providing them with a tour when they are in this part of the city. Others can see how our methods might work for them — and we can even learn from other companies.

"In the past, we put ads on the NKBA website when we

were looking for new employees."

Luke Psarianos has design expertise in-house at Clareville, but is not shy about partnering with interior designers, either. "We work very closely on a daily basis with one ourselves and find he is excellent at what he does. It adds real value to the company." He adds that an interior designer at another kitchen company recently approached him to carry Clareville's product in its showroom. "They were interested in dropping one of their lines and carrying ours," he says.

The work of interior designers contains an element of vision — of what tastes will become, and perhaps influence them. Kevin Humphries, marketing manager of IDC industry member, Mercury Wood Products, in Vaughan, Ont., looks to Europe for trends. Mercury imports panels from the region that are turned into kitchen cabinets, cabinet doors, store fixtures and wall panels. "They tend to be a couple of years in advance of us in terms of colour selection and textures," says Humphries. "This is the main reason that interior designers and architects really like to zero in on this. Their reputation depends on how nice they can make these interiors and these choices."

Mercury sells 4 x 8 and 5 x 9 sheets to cabinet shops



IDC DesignEx events in, top to bottom, Moncton, Okanagan, Saskatoon, and Niagara on the cover. Their regional scale offers excellent opportunity for wood manufacturers to connect with design pros.


in Canada, along with edge banding to go on the panels. The company also represents some domestic lines that it sells and promotes to architects as well. "By the time the architect or designer chooses a colour or a finish to the time the project gets installed it could be, in the case of condominium towers, two or three years before you see the building go up."

Humphries laments the practise of "value engineering" that happens when large construction projects linger on too long and cost overruns creep in by the time the kitchen manufacturer has his turn. "He gets to the developer and they say 'where are we going to save money here? We've got an \$8 million building here. We've got to cut some corners. What about those fancy German panels they've got in the kitchens? We had better get that switched around for a cheaper one.' So there is constant value engineering going on.

"So sometimes there is a disconnect between the trades and the designers and architects. But the designers' reputations depend on them putting together really nice packages."

When it comes to cabinet material certifications, Betsy Natz, ceo, Kitchen Cabinet Manufacturers Association (KCMA) of Reston, Va., notes that "KCMA's certification programs provide our members with the unique opportunity to distinguish themselves in a competitive market."

For example, the KCMA A161.1 program is performance based, according to Natz. "The test methods in the standard simulate what the typical consumer will subject the cabinets to during their lifetime of use. The test methods include load, impact, long term cycling of doors and drawers, as well as various finish tests such as stain and chemical resistance, and detergent and water resistance." The KCMA's two-day Environmental Stewardship Program (ESP) certification is prescriptive based, points are earned towards certification by employing specific green practices in the purchasing of materials, manufacturing process, and community relations. Points need to be earned in each of the five sections of the ESP specification and a minimum of 80 total points need to be earned for certification.

"Both programs require, at a minimum, annual review for continuing compliance," says Natz. These programs are promoted through KCMA's website, lunch and learns with architects and designers, promotion of KCMA and the certification programs at trade shows, as well as a soon to be offered online course architects and designers can take to earn continuing education units. 

** The board of directors of the Nepean, Ont.-based Canadian Kitchen Cabinet Association (CKCA) was asked to contribute to this article, but refused.*

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AWMAC names new president and board of directors



The **Architectural Woodwork Manufacturers Association of Canada (AWMAC)** based in Calgary, Alta., has announced Larry White as its new president, succeeding Carlo DeFrancesco, who now becomes past president. White is currently the sales manager at **Upper Canada Forest Products** in Calgary, and has

been an AWMAC associate member with the Southern Alberta Chapter (SAB) since 2001, and has sat on SAB's board in a variety of positions. The 2017-2018 board of directors has been announced, and includes new Manitoba director Rick Mostert. Other directors are Rudy Bardeck, Chris Weening, Ed Holzapfel, Kerry DePape, Jeff Clermont, Steve Blight and Martin Boutet.

been an AWMAC associate member with the Southern Alberta Chapter (SAB)

Richelieu welcomes customers and suppliers



This summer at its Mississauga, Ont., location, **Richelieu Hardware** opened its showroom doors — and pitched tents outdoors — for customers and suppliers to sample its broad range of hardware and accessories used by furniture and cabinet makers. This year the distributor also featured an in-house series of one-hour “Trends Events” seminars presented by design experts. The seminars addressed a number of design issues, including challenges from lighting strategies to incorporating sliding hardware for maximizing usage of small spaces.

in-vest-ment (in'ves(t)mənt) noun

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Grass restructures management team

Höchst, Austria-based movement hardware manufacturer **Grass GmbH**, is restructuring its management team. Thomas Zenker (centre), previously Works manager at the Götzis site, will assume responsibility for the Operations division with



immediate effect and will also act as management spokesman. Thomas

Müller (right) will be the general manager responsible for development of the product range in the future. The new head of Internal Services will be André Stiller (left).

Axyz celebrates 6,000 CNC routers built in Canada



Burlington, Ont.-based **Axyz International** has announced the delivery of its 6,000th machine. The company first started making CNC routers at its Burlington, facility in October 1994. Currently it builds in excess of 400 machines per year for their customers around the world. **Delviro Energy** of Toronto, Ont., is the customer who purchased the 6,000th table (shown).

Jamison Scott wins WMMA's Baldwin Award

Forest Hill, Md.-based **Wood Machinery Manufacturers of America** (WMMA), the national trade association for those who make machinery, cutting tools and supplies for the woodworking industry, has announced the winner of its Ralph B. Baldwin Award, the association's highest honour. The award was presented to Jamison Scott, past president of the association, by WMMA president Chris Hacker.

WMMA has also announced its new officers and directors. Newly elected directors are: Dick Cowan, board member, of **Rees-Memphis**, Memphis, Tenn.; Brian Donahue, board member, of **Safety Speed Manufacturing**, Ham Lake, Minn.; Brad Graves, board member, of **Accu-Router**, Morrison, Tenn.; and, Paul Wilmes, treasurer, **Mereen-Johnson**, Minneapolis, Minn. Continuing in their terms as board members are: Allen Eden, **The Original Saw**



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**WOOD
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Canada Night



Company, Britt, Iowa; Jim Last-er, **Newman Machine Company**, Greensboro, N.C.; and, Allen Turk, **Precision Drive Systems**, Bessemer City, N.C. Remaining in their positions are Chris Hacker, **James L. Taylor Mfg**, Poughkeepsie, N.Y. as president; Stephen Carter, **Williams & Hussey Machine**, Amherst, N.H., as vice president, and Jamison Scott, **Air Handling Systems**, Woodbridge, Conn., as immediate past president. Other past presidents remaining on the board are John Schultz, **Super Thin Saws**, Waterbury, Vt., and Mark Chappell, **Alexander Dodds Company**, Grand Rapids, Mich.

Festool launches U.S. manufacturing operations

Festool USA has announced that it has started producing its FS Guide Rails, an integral system component and accessory of many of its power tools, at the company's North American headquarters in Lebanon, Ind. Festool plans to expand its Lebanon-based manufacturing facilities for additional production lines and other products in the future. The guide rails production uses U.S.-sourced material and will begin shipping throughout the U.S. and Canadian markets in late 2017.

KCMA announces directors

The non-profit Kitchen Cabinet Manufacturers Association (KCMA) of Reston, Va., representing nearly 80 percent of the U.S. cabinet market, has announced its 2017 board of directors. The board currently is made up of 17 member companies officers, including: president of the board Rich Tobin of MasterBrand Cabinets; vice presidents Stephen Wellborn of Wellborn Cabinets and Edwin Underwood of Marsh Furniture Company. The executive committee is made up of the chairmen of each committee. The committees are: Communications, Government and Regulatory Affairs; Associates Committee; Environmental Stewardship Committee; and the Standards Committee. The KCMA helps to establish manufacturing safety and certifica-

tion standards for cabinet design, hardware, stains and finishes.

CMA elects new board

The Cabinet Makers Association (CMA) of Chicago, Ill., has elected its board of directors for 2017-2018. The CMA members re-elected Leland Thomasset of **Taghkanic Woodworking** of Pawling, N.Y., to serve another three-year term. Matt Wehner of **Cabinet Concepts by Design** in Springfield, Mo., was also elected by the members to



Monica Soos

member Scott Comstock of **Woodperfect Custom Cabinetry** of Forney, Tex.

serve on the board for three years. In addition, **Monika Soos** (shown) of **Sofo Kitchens** in Maple Ridge, B.C., was voted in by the board to serve for one year — the term balance of exiting board

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Acimall votes in new executives



Acimall, the Italian woodworking machinery and tools manufacturers' association, has re-elected president Lorenzo Primultini (centre) and appointed two new vice presidents. Primultini is president of sawmill equipment manufacturer **Primultini s.r.l.** in Marano, Italy. The new vice presidents are Luigi De Vito (right) and Raphael Prati (left). De Vito is the director of the Wood Machinery division at **Scm Group** of Rimini, Italy,

and Prati is corporate marketing and communications director at Pesaro, Italy-based **Biesse Group**.

SawStop to be acquired by TTS Tooltechnic Systems

Tualatin, Ore.-based **SawStop** has announced that it has been acquired by **TTS Tooltechnic Systems**, a



third-generation family-owned company based in Wendlingen, Germany. The TTS group of companies includes **Festool**, **Tanos**, **Cleantec** and others, and employs more than 2,500 people around the globe. SawStop's current management team will con-

tinue to operate the company out of its Oregon headquarters. SawStop, established in 1999, makes table saws that stop and retract the blade on contact with skin. The company's saws are designed to minimize saw-related injuries and the costs associated with them.

Axalta completes Valspar acquisition

Axalta Coating Systems, a global supplier of liquid and powder coatings, has completed its previously announced acquisition of the **Valspar North American Industrial Wood Coatings** business. Valspar divested the business in connection with the antitrust approval of its acquisition by The Sherwin-Williams Company. The purchase price for the transaction is \$420 million US, subject to certain adjustments set forth in the Asset Purchase Agreement. The acquired business had net sales of approximately \$225 million US in 2016.



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Picture Grit and Tory design teams Order or chaos?

There is a lot to be known when one sets out to design products. Probably too much. The complexities of production have multiplied with advances



Paul Epp

in technology and now its unlikely that an individual will be able to obtain a comprehension sense of what can be done and how to do it. It remains incumbent upon

designers to know a lot but there are limits to what an individual can either grasp or retain. So now a lot of design work is undertaken by teams. They may be formally organized within a company or they may be de facto arrangements, comprised of a range of individuals even within a range of organizations, who collectively contribute to a shared outcome.

This seems to be a reasonable arrangement for the accomplishment of common goals. In fact, it allows individuals to work to their strengths. It is unlikely, although not impossible, for people to be equally talented across areas of potential specialization. Design is one such area and technology, or the making of things, another. Designers usually benefit from working with others who have a superior understanding of how things can be made. I recall reading an interview with the Danish master furniture designer Hans Wegner, who expressed some scepticism about the Studio Furniture phenomenon in the United States. He thought the odds

weren't good that a single designer/maker would be adequately gifted in both design and production, to ensure the best results (with, of course, some latitude for exceptions). And he was trained as a cabinetmaker himself.

When I was a design student, in a school that prioritized learning through direct interaction with materials and tools in proper Bauhaus fashion, it occurred to me that my scope as a designer would be enhanced by a better understanding of production. I was lucky enough to secure what was then called a (very modest) apprenticeship and now would be called an internship, with Craftwood Industries. The proprietor, Gary Sonnenberg, took this arrangement seriously and made a point of exposing me to the full range of operations. Thanks to him, my scope was, in fact, enhanced. Many other subsequent work and educational experiences have increased my understanding of technology even more and I feel have contributed to my capacity as a designer.

However, while designing for industry, I have usually had to receive the assistance of technical staff whose understanding of the specific job at hand was superior to my own. And as an academic, teaching product design, I have relied on technical staff to assist my students in the realization of their material dreams. And these interactions have brought me to consider the differences in these roles.

Designers, by the demands of their job, must behave in what I might describe as a liberal way. They must be open to ideas, possibilities and questions. They must retain a great lati-

tude for the considerations of novel and even revolutionary prospects. Their role is to be transformative. In contrast, the custodians of technical knowledge will typically behave in what I might describe as a conservative way. Their role is to protect and perpetuate a body of knowledge that must be treated with great respect and which ought to be suspicious of radical ideas. So a dynamic is established that will likely contain some elements of divergence and disagreement. This situation is, occasionally, exasperated by a cultural tendency to privilege the results of cerebral activity over that which appears to be manual. Our society tends to reward and acknowledge those that work with their minds over those that work with their hands. That the foundation of our industrialized society is dependent upon those that understand and perpetuate technical expertise is often left unacknowledged.

This inherent difference in attitude and operation is fundamental to the performance of product design. The designer must be open to new ideas and the technical expertise that is brought to bear must be cautious and careful. Together, advances are made. The designers have to push the technical people and they, in turn, have to push back. The maintenance of a friendly and mutually respectful relationship is critical, even though it can be, at times, challenging. It is useful for designers to remember that eventually, if they are successful, they will in turn rely on their technical compatriots to conserve the changes that they have mutually secured.

Liberal and conservative. Or, expressed differently: order and chaos. Apollo and Dionysus. We need the dynamic of these divergent positions to stay productively balanced, even though it's not always easy or comfortable. It's just the way it is. Sounds a bit like politics, doesn't it?

Paul Epp is an adjunct professor at OCAD University, and former chair of its Industrial Design department.

Craft a digital technology strategy

Shake up your factory

Just like with everything else in life, you most likely need a plan if you're going to have a chance to succeed at all. This rule applies to



Alain Albert

purchasing manufacturing technology, too. Just going out and buying the latest computer controlled gizmo because it's shiny or because your competitor

has one is not a great strategy. You could even say that it's closer to what a dog does when it sees a squirrel, than it is to a well thought-out plan.

Of course, nothing ever goes according to plan, but having one goes a long way to making sure that you've given some thought to the process and it also gives you the ability to think critically about your manufacturing activities and what you need to do to improve them.

You've probably been working at what you do for years now, and you have amassed a lot of experience along the way. There's a good chance you made a few mistakes over the years, and over time you've learned a thing or two from these errors. Formalizing a strategy will give you the chance to visualize what you are intending to do and gives your brain the chance to process it against all your knowledge and experience to see if it makes sense or not. This is the main reason it's a good idea to put these ideas on paper and mull them over for a time.

Step 1: Biggest bang for your buck

When you start deliberating, take a good look at the whole business. You probably have a favourite activity in the business and you might be tempted to purchase new technology for this task alone. But it may not be the one holding you back from getting where you want to go. Take a good look at all aspects of the business and analyse where you can benefit the most from additional help. The most obvious silos are: sales and marketing, administration, product development, supply chain, production, shipping and customer care — but you don't have to stop there.

Step 2: Put numbers to paper

What is the price, right? No, forget about the price right now. You don't need to think about the price this early in the game. Why? Because it's never going to be about the price. If there was a million-dollar technology available that would ensure you could increase your sales and your net profit and lower your lead time, and it paid for itself in two years, it would be worth the price.

Instead of worrying about the price, ask yourself: Where are we struggling right now? Is it long lead times, lack of workers, engineering delays, lack of sales? Whatever it is, quantify it, find a way to put a number to the problem and track it over time.

Step 3: Peer into the crystal ball

Not kidding. Now you must look into the future and imagine what your life will be like once you are using the new technology. This will give you

a picture that you can then compare with Step 2.

Here are a few examples where digital technology can be deployed:

Sales and marketing: Whatever technology interests you to help with sales and marketing, one thing is for sure. It all starts with visual content: images and video. You can't ignore this any longer, so think about setting up a small studio in a corner of your shop. Get a tripod, some good lighting and learn to take good pictures, lots of pictures.

Product development: Are you still one of those factories drawing by hand on a drafting board? Yes, this is still a thing. Parametric software can automate this process and output photo-realistic sales images at the same time. Software can help you achieve levels of precision and perform tasks that could never be done by humans manually; there's no debate about this.

Software gives you the ability to build your space or your product virtually before you even start cutting a piece of wood. This characteristic alone has led to rapid progress in the field of product development.

Technology exists that uses lasers or photogrammetry to reproduce the interior measurements of a space accurate to fractions of millimeters. Making templates for a countertop used to take hours, and can now be done with more precision in a matter of minutes. The same kind of technology can be used to 3D-scan objects, so you can reproduce them later on a CNC router.

Supply chain and resource planning: There is a software category called Enterprise Resource Planning (ERP, *see page 16*) that is in fact a number of different applications integrated together, that automate administrative functions in a manufacturing setting.

The Internet of Things (IoT) is the inter-networking of disparate devices so they can exchange data and offer enhanced services. IoT is growing very fast and as a result, more sensors and data capture devices are coming

out that will help us to gather data and fine-tune our manufacturing processes in real time.

Manufacturing technology: CNC technology is evolving very fast and we're now seeing machines on the market that barely need human intervention. Some will allow the operator to build furniture and cabinets without having to go through the whole CAD/CAM dance ahead of time. They are basically a plug-and-play furniture factory in a box. Other systems will integrate a CNC, a dowel inserter and an edgebander with a robot arm and produce a fully automated, lights-out production division.

You can now find digital fence systems at the woodworking store that can be mounted on a table saw, a miter saw or a moulder, and they are quite affordable. This technology is easy to master, and will have a significant impact on the process they are associated with.

Robotics are being used more and more to automate complex manufac-

turing processes. Because there are so many of them around, the price has been coming down drastically lately. We're getting very close to living like the Jetsons.

Material handling: Smart inventory systems are popping up all over. Whether it's a robot on a track that feeds sheets to a CNC router and a panel saw, or a smart bin system that hands you the inventory you need for a specific job, or the little robot cart that wheels the right parts to the next machine on the factory floor, you can expect material handling to become increasingly automated.

RFID tags are being used by more factories in our sector so that they can keep track of their inventory and their Work in Progress (WIP) on the fly, without having to manually scan barcodes.

Finishing technology: Flat-line finishing spray systems have reached the point where they are competitive with traditional spray technology.

Add a smart sander in the front and a UV curing oven in the back, and you can have fully finished, ready-to-pack parts in less than 20 minutes.

Packaging and shipping: Even the shipping department is seeing its share of innovation with on-demand, made-to-measure, custom box-making equipment. It's basically a CNC for making custom cardboard boxes.

In conclusion, there is a good chance the new technology you are considering today will automate tedious, uninspiring work and leave more time for your workers to be creative and fully inspired to do their jobs. This new technology might even give you a market advantage, so go back to your shop and find something you can improve. 🍁

*Professionally trained in architecture, **Alain Albert** has worked in wood as an entrepreneur, in production management, in design and as a digital manufacturing consultant. Contact: aalbert@wimediainc.ca.*

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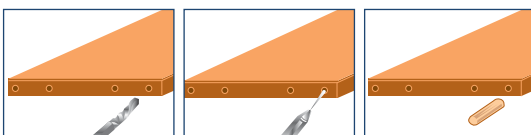
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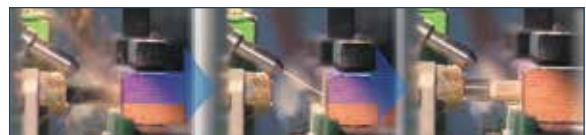
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THE SHOP OF THE FUTURE – NOW

Bells and whistles go to the bottom line

When a wood shop wants to automate its manufacturing operations, often one or two processes get a high-tech upgrade. Not so Muskoka Cabinet Company of Alfred, Ont., down-river just east of Ottawa.

“Every inch of space is planned, equipment racks, shelving and ductwork is designed to be flexible to suit the changing needs of production as we automate,” says president Luke Elias.

Clearing the path for automation that now includes a custom radio-frequency identification (RFID) system, a “smart” enterprise resource planning (ERP) system and lately, automated guided vehicle (AGV) carts, has been the goal of business graduate Luke Elias since he purchased a 13-year-old company in 1989. His brother Eric joined in 1992 from the banking industry and is senior vice president.

The siblings are both from the Ottawa area, and the company also maintains a showroom downtown for

sales, and where designers can transmit their software files directly to the shop. Luke leads the manufacturing technology innovation, while Eric oversees sales operations. The latter describes the company selling to as far as Kingston, Ont., to Montreal, Que., and Barrie to Waterloo, Ont.

“We’re able to compete with big guys in Toronto,” says Eric Elias. He notes residential construction, condominiums and the rental conversion market are currently fueling the business.

Even property managers and general contractors can take advantage of Muskoka Cabinet’s cloud deployment and review orders on-site with a tablet computer. Luke Elias notes that in the future, with improvements to the Apple mobile operating system, tablets will be able to read the RFID tags embedded in the cabinets. This will allow for the accurate re-ordering of parts and traceability of defects back to the shop floor, he says.

The Elias brothers have overseen the transition of Muskoka Cabinet from its commercial origins to servicing the residential market exclusively by 1999. During this time, the company management took note of software then on the market that could help design kitchens and make cutlists.

By 2000, the company implemented nested-based manufacturing, a first in Canada, according to Luke Elias. “We also had a computer network set-up since 1993, something unusual for the time,” he says. In 2003, Muskoka Cabinet introduced cabinets manufactured from strawboard.

The next technology milestone was 2004 when an ERP system was introduced on the shop floor that would communicate between computers installed at each workstation and the front office. This implementation occurred at the company’s new location just up the street from the original one.

That was when Luke Elias learned overnight the real costs of material

handling. “Or better yet, the savings realized by reducing the time spent loading, unloading and remaking parts that were damaged as they were pushed around the factory floor,” he says. Before the move, the company spent months planning and streamlining parts flow with the use of conveyors, a parts sorting station and labelling. Production in the new plant doubled in the first month using the same number of people and machines. “I had no idea we were wasting that much time on material handling in our old factory,” he says.

As years passed and production grew, it became apparent a considerable amount of manual labour was still used to sort, label, load and unload

parts. “We knew there were savings to be had if we could automate these labour intensive, mundane tasks,” he explains. “Robots were a possible solution as they could be programmed to handle and manipulate custom-sized pieces.”

To make this next transition, Muskoka Cabinet called upon the expertise of Automatech Robotik of Saint-Apollinaire, Que., in 2012. “Their robotic assisted nesting cell solution was a natural as it solved many of our goals,” says Luke Elias.

The Automatech robotic work cell was designed to have a three-year payback, but actually clocked in at two years, due to the existing deployment of automation in other areas, such as RFID and smart carts. The Wi-Fi activated carts employ flashing LEDs below slots to indicate where operators should place components from the same cabinet order.

Initially, the work cell took the place of such manual jobs as loading sheets on the nesting table, unloading cut parts, cleaning the spoiler board and feeding the horizontal boring machine. “In addition,” Luke Elias says, “the robot provided a unique solution to au-

tomate the application of RFID labels and RFID tag insertion as it is the perfect tool to orientate parts so they can receive additional operations.”

This is where the integration of technologies really starts to get interesting, according to Luke Elias. “So far, with no manual intervention we have loaded a sheet on the nesting table, unloaded cut parts from the table, fed selected parts to the horizontal boring and dowel insertion machine, applied RFID surface labels and inserted RFID tags into wood parts that require finishing. We have then created smart parts heading down a conveyor to the edgebanding machine for their first manual operation.

“Parts are edgebanded as required and the part’s RFID tag is read as it leaves the edgebander’s return conveyor. Reading the tag activates a wireless LED array on a slot in a smart cart, which tells the operator where to place the part in the cart. Each slot in the smart cart contains parts for a single cabinet.

“And presto, the parts are presorted, and ready for assembly.”

The current stage of automation rivals anything that could be found at an Amazon warehouse.

When the latest AGV-equipped smart cart is full, it is deployed to a parking area until the cart is called upon by the finishing or final assembly departments. Inventor, builder and former medical doctor, Les Buhler, describes the unique AGV requirements as being “able to move 10,000 lb loads in tight spaces — aisles with no room to spare.” Buhler also helped to develop the solution for embedding RFID tags into cabinet component panels so that they can be read at each process location throughout the shop. The solution involves cutting a narrow biscuit on the spine of each panel so a folded RFID tag can safely be inserted. The tag is designed so its RFID antenna is not damaged by this insertion process.

Each AGV sports eight Lidar units — the same technology being tested by big automakers in driverless road vehicles — and four infrared (IR) “beacons.” Together, the Lidar and IR scanning technologies ensure the



Each Smart Cart has flashing LED lights to indicate where to place parts or where to pick parts, depending on the colour. Note the green light under the middle bin. Below, Each part is fitted with an RFID tag, most of them inserted into the panel and covered with edgebanding so the tags can be read, even years later if the part needs replacing, but is invisible.





ABOVE: The cabinet assembly department, with smart carts on the left, cart "parking lot" at the top and warehouse shelves on the right.

RIGHT: The relatively few employees Muskoka has tend to be multiple-skill experts with long-term tenure.



AGV carts can navigate smoothly from workstation to workstation, and from parking lot to parking lot, with a stop at the assembly station along the way. No following rails on the floor.

The integration of robotics, RFID, smart carts, AGVs and ERP system facilitates an automatic, part processing, part sorting, part movement, part status, and part costing as each station and process reads each part as it passes through. Assemblers adjacent to the shipping department receive jobs via Windows tablets at each height-adjustable workstation table (to relieve back stress) or can access their jobs by picking a panel off the smart cart for their table's RFID unit to read.

Even when product is being palletized at the loading dock, RFID readers are used on the shipping doors and the system automatically applies a shipped status to product as it gets loaded on the truck. A robot AGV, much like a giant Roomba floor cleaner, wraps the assembled cabinet order with clear plastic by circling the pallet repeatedly until the shipment is safe for transport.

Luke Elias notes that Muskoka Cabinet has received and continues to receive substantial support from a National Research Council program (IRAP) for technology R&D and implementation. "We would not be as advanced as we are without their support," he says.

IRAP industrial technology advisor and professional engineer Bernie Schmidt says the NRC has worked with Muskoka Cabinet for five years now — and that it is continuing its relationship. "The story is not finished!

"We accelerated their technology adoption and introduced business resources," says Schmidt, "by developing a robust technology roadmap and an IP (intellectual property) protection strategy." He noted that after two or three years, IRAP (Industrial Research Assistance Program) was noticing the potential for commercialization of the technological developments at the company.

The opportunities and key innovative elements in the Automatech-



ABOVE: Luke Elias, president of Muskoka Cabinet, explains to a tour group how RFID tags are inserted into panels.
RIGHT: Muskoka Cabinet senior vice president Eric Elias (in blue) gets a shop floor update.

Muskoka robotic work cell project were the integration of technologies, robotics, RFID and ERP. “Truly an Industry 4.0 solution that has enormous potential,” says Luke Elias. “Automatech (also an IRAP client) totally embraced the project and opened up their system to integrate with ours. They are the only industry partner we have ever had to embrace what we are trying to achieve.” For this reason, smartMRP Inc., Muskoka’s sister company, has partnered with Automatech to implement RFID part and product tracking systems in other shops, and has some projects currently in process that have the potential to fulfil the promise of commercialization seen by Schmidt and IRAP.

The cabinet manufacturing business can be highly profitable, the Elias brothers believe. In 2015, Muskoka Cabinet had a gross margin that exceeded 40, with a net profit before tax exceeding 20 percent. On \$10 million in sales, for example, that would translate into a \$2 million net profit, the company explains.

Administration and engineering offices occupy 2,000 square feet and manufacturing 10,000 square feet, with the warehouse and assembly departments accounting for 6,400 square feet. “Depending on demand,” says Luke Elias, “we run two shifts in some departments up to 24 hours, and six days

a week in others. smart ERP keeps our inventory requirements to just-in-time so little space is required.”

Muskoka Cabinet’s commitment to its smart ERP system means that the constantly evolving tool connects everyone in the organization on-site and off-site with pertinent real-time information. “People are the most important asset in any organization, giving them a well maintained ERP system to work with reduces mistakes and therefore stress and will lead to a happier more productive work force.”

The total number of employees varies from 55 to 60, including the designer showroom, with 25 required for the shop floor.

Production manager Sylvain Gariépy arrived as an 18-year-old to join the company that had only five employees at the time. Learning on the fly came naturally. “I always liked working with wood, but other things came up on the job such as computers and RFID,” says Gariépy. “Some people don’t want to learn new things but they’re limiting themselves.”

Today he continues to look for better ways to make products, including acquiring new equipment and justifying its payback. Working leaner, fixing machines and reducing downtime all play their part, according to Gariépy.


The company pays attention to the cosmetic look of the shop floor to pro-

vide a pleasant soothing environment for the employees. “You may have noticed the colour scheme is blue and grey,” says Luke Elias. “Our conveyors, safety fences, duct work, air lines and most equipment have custom-ordered paint finishes. Have you ever seen a light grey robot?”

Making the technology transition to 100 percent water-based finishes was a grueling process taking several years, however. The company’s finishing line commissioning process was a disaster, admits Eric Elias. “We threw \$100,000 worth of materials at it, even though it was tested before being installed in our shop,” he says.

Muskoka Cabinet is a manufacturer and distributor of Breathe Easy Cabinetry. The cabinets are constructed of non-toxic, environmentally friendly products such as responsibly harvested solid wood, formaldehyde-free cabinets, and non-toxic water-based glues and finishes.

Some consumers are quite sensitive to chemical off gassing in wood products, so when Muskoka Cabinet finally did get its finishing line up and running properly, one particularly allergic potential customer put their product to an unusual test. “She actually slept with a part under her pillow,” says Eric Elias. “And we got the order.”

In all, a designers’, producers’, marketers’ and consumers’ dream. 

Stomping out a work place requirement

High heels

Mr. Mason has just opened a new restaurant that he hopes will compete with such large restaurant chains as The Keg, Joey's and Earl's. When you attend



David Alli

the restaurant you notice that your server, Katherine, is knowledgeable, polite and gracefully glides between tables and patrons to accurately serve your order all while wearing very high heels. You don't pay any real attention as the sight of a server in a short skirt and high heels has become somewhat of a norm at many restaurants you attend. You pay your bill and leave a tip, and you plan to

attend again in the near future.

After six hours, Katherine's shift ends and the first thing she does is kick off her high heels and put on a pair of running shoes. About a week later, Katherine decides to substitute her black running shoes in place of her high heels because her feet and back are in pain after working several long shifts at the restaurant. During this shift, Mason politely reminds Katherine that her running shoes are not part of the dress code at work, and Katherine insists that it is not fair that she is required to wear uncomfortable shoes while her male counterparts can wear regular black shoes. Mr. Mason refuses to change the dress code policy as he has seen many large restaurant chains that have staff dressed similarly to his.

Shortly thereafter, Mr. Mason finds himself being served with documents that allege that his dress code for female employees is discriminatory and he is being sued by Katherine. A hearing takes place at the Ontario Human Rights Tribunal, and it is decided that Mason has to pay damages to Katherine as well as re-write his employee dress code to not be discriminatory.

I can say truthfully that I am a grown man who has never worn heels. I have nothing particularly against them, but gender norms aside, they do not seem very comfortable or safe to wear. Nevertheless, most women that I know teeter about four to five inches off the ground, and function confidently in their high heels.

I would imagine that if a woman chose to slip on a pair of ballet flats and carry on with her day, she would not be in violation of any rules that could get her in trouble at work. However, as seen in Katherine's case, workplace dress codes that apply to women in certain fields can foist unrealistic requirements upon them, and have detrimental impacts on their health.

In British Columbia, the government recently moved toward addressing the issue of mandatory high heels in the work place. A bill was introduced by Andrew Weaver, the Green Party leader, to prevent different footwear requirements for different genders. Interestingly, the issue was not framed as a gender one but rather a health and safety issue, as there is a risk of physical injury from slipping or falling, as well as possible damage to the feet, legs, and back from prolonged wearing of high heels while at work.

The B.C. government amended its Occupational Health and Safety Regulations under the Workers Compensation Act to reflect the desired change to have standardized health and safety requirements for all footwear in the workplace.

Section 8.22 of the Regulations requires that footwear must be "of a design, construction, and material appropriate to the protection required and that allows the worker to safely perform the worker's work." Further, when determining what qualifies as appropriate footwear the following factors must be considered: slipping, tripping, uneven terrain, abrasion, ankle protection and foot support, crushing potential, potential for musculoskeletal injury, temperature extremes, corrosive substances, puncture hazards, electrical shock and any other recognizable hazard. Accordingly, the most critical aspect of an employee's footwear is its safety and suitability to prevent injury. The changes to the B.C. Regulations will be enforced by WorkSafeBC, the body that oversees workers safety in the province. WorkSafeBC will also be developing a guideline for employers and employees to support the amended regulation.

Many critics of mandatory high heels have been vocal that the shoes on women's feet are part of a much larger

issue of sexualizing women in the workplace, which could lead to workplace harassment and other serious problems.

In Ontario, the Human Rights Commission has put forward a policy position that addresses more than just shoes, but also the requirements for female workers to wear low-cut tops or short skirts as the same could violate the Ontario Human Rights Code. In fact, in Ontario, there are human rights decisions dating back to the 1980s that have found that dress code requirements can have an adverse impact on women's rights in the workplace.

Over a year ago, the Ontario Human Rights Commission had issued a warning to such large restaurant chains as The Keg and Earl's over their allegedly discriminatory dress codes. At this point, the Ontario Human Rights Commission has reported that the response from companies has been encouraging, as all of them are either developing new policies or amending existing ones. For example, Earl's now permits their female worker to wear black pants as opposed to black skirts if they so choose. Nevertheless, the Ontario government has not taken the same steps as in B.C. whereby they have amended regulations under workplace safety legislation.

The amended Regulation in B.C. and the policy position by the Ontario Human Rights Commission does not mean that women cannot wear high heels. On the contrary, women can choose to wear shoes that they wish as

long as they are suitable for the particular work environment. Showing up to a construction site in a pair of heels will obviously not be permitted, but if a woman chooses to wear high heels during her shift as a hostess that is absolutely permissible.

Any new female workers starting at Mason's restaurant may or may not choose to wear high heels. However, they can rest assured that Mr. Mason cannot require them to slip into a pair of five-inch Prada pumps. Mr. Mason will continue to have the right to dictate what the dress code will be for his employees, but he has to make sure that he complies with health and safety standards and that his policy is not discriminatory in its application.

An employer is under many obligations to ensure that their company is operating in accordance with the law. Legislation is frequently changing, especially in the area of workplace safety. Being pro-active and seeking legal counsel before implementing policies and procedures in the workplace can result in a substantial savings to a company in the long run, as it minimizes the risk of liability in the future.

David Alli of Brampton, Ont.-based Lawrences represents and advises employers in all areas of employment law.



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AWFS wrap: Excitement plus Canadian content in Vegas

AWFS this year in Las Vegas was like a new show. It was busy, happy, and we heard none of the complaining that has been almost an obligatory part of trade shows since the recession. People are pumped.

Software was among the leaders in audience interest, having finally crossed the bar into being actually practical. Cim-Tech's Solid-Cim 3D was among the show-stoppers, with a non-stop queue of on-lookers at every demo. The last time we saw interest like that was likely

when Saw Stop introduced its weiner-on-plywood demo at IWF about 17 years ago.

Wood Industry's own Canada Night event (above) was also met with enthusiasm, providing the promised Canadian beer, Canadian videos and canapes, plus a quiet place to recover, following the show on Wednesday night.

As usual, the show led its educational seminar sessions with need-to-know business features, including



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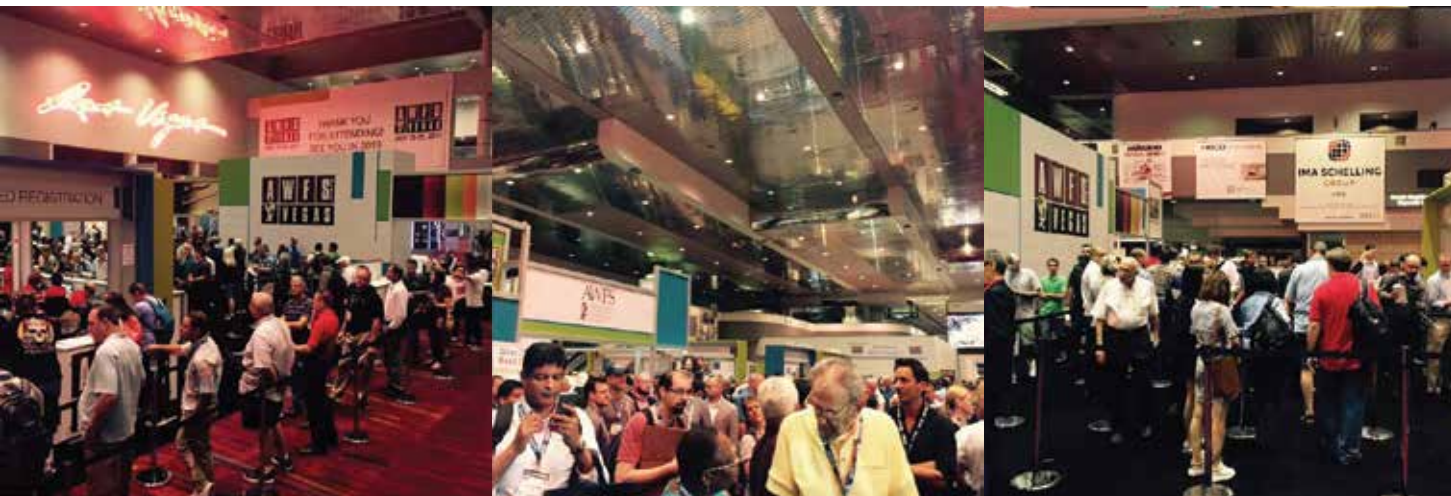
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sessions on how to strengthen your online and social media presence, management by measurement and general management issues.

The Wood Career Alliance continues to assert its influence nationwide, under the careful direction of Scott Nelson, and the Architectural Woodwork Standards version 2 was introduced.

One particularly interesting development was the presentation of three sessions presented entirely in Spanish. Canada has an ever-increasing number of Latino workers, and as they begin to spread out from whatever industry that brought them to Canada, they will prove to be energizing and eager to bring value to our skilled labour force.

One clear observation about Las Vegas as a trade-show destination is that AWFS remains a strong draw for owners and managers to bring family members, as Las Vegas years ago abandoned its primary draws of gaming and partying, to supplement them with shopping and world-class entertainment.

As a business-marketing magazine company, we strongly recommend that anybody with an interest in retail should visit some of the retail shops associated with the convention hotels. Here you can see what millions of dollars of marketing savvy can put together in terms of environment, kitsch, customer flow, lighting, colour, aisle size and so on, in order to capture the attention and the favour of visitors. In Vegas, retail is not a joke; it's a religion, and there is much to be gleaned from its deacons.

Finally, if you go to Vegas and miss watching the people, you are missing an education. Coming from every part of the world and from every economic class, it is interesting to watch them adopt a Vegas persona and act it out as if it were their own. It may seem clownish for some factory worker to strut around with sunglasses at midnight and two models on his arms, or to see a clerical worker renting a Ferrari for two hours, but it's an insight into what people's motivations are, and how they act when given a chance. At least, it's interesting to us.



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New Products

Squaring frame upgrade compensates for angular positioning



The circular saw models SC30P and SC40P from **Casadei Busellato** can be equipped with a new squaring frame to compensate the angular working position to ensure processing flexibility. New options for the circular saws Xenia 30, Xenia 40, Xenia 60 And Xenia 70, such as prearrangement for dado, allows users to fit a tool and expandable saw. The possibility to equip Xenia 30 and 40 with pre-arrangement for processing of other materials like plastic and some type of metal also increases the saws' flexibility.

www.casadeibusellato.com

Jobsite radio features Bluetooth streaming

Festool has introduced the Sysrock jobsite radio. The jobsite radio weighs close to 0.7 kg and measures 102 x 149 x 94 mm. Radio features include Bluetooth streaming capability, hands-free calling, aux-in, FM radio reception, built-in microphone for taking hands-free calls and a 2.5



in., 10-watt speaker. The unit can be powered with the supplied power cord or by Festool flat pack batteries (10.8 to 18.0 volt). The internal mount

is compatible with Festool Magnetic SysLite adapter for attachment to an available camera tripod. A hanging hook is supplied as well.

www.festoolcanada.com

Wide-belt sanders with super aggregate



Wide belt sanders from **Felder**, Format-4 “finish” 1352 and 1353 modular, can be equipped with different units such as contact-bars module, cutterblock planing head, sanding cushion unit or structuring brush. A new cutterblock planer aggregate with 1350 mm processing width on the machine in-feed side is optional. Sanding height ranges from 3 to 170 mm, variable feed speed adjustment is from 2.8 to 20 m/min, with operation via a 7 in. touchscreen. Either as a 2- or 3-belt machine, users can decide the individual equipment and configuration of the processing units. In addition, the feed belt speed can be adjusted continuously from 2.8 to 20 m/s to suit different surfaces.

www.felder-group.ca

Semi-automatic contour edgebander

Vitap S.p.A. and **Atlantic Machinery** have announced the Stellar, a semi-automatic entry-level contour edgebander. What sets the Stellar apart from other entry-level edgebanders, the companies say, is its movable support arm. The adjustable swivel arm is equipped with a vacuum pod that holds the panel in



place, which allows for large panels to be edgebanded. No longer does an operator need to struggle with large panel pieces to hold them in place, they say — the articulated arm performs this part of the operation.

www.vitap.it

Intelligent tooling employs embedded chip technology



Intelligent tooling solutions from **Leitz** use embedded chip technology and specialized QR codes that allow users to monitor tooling processes without shutting down production. On-board information such as tool geometry, maximum rpm, direction of rotation, setting dimensions, feed rates and cutter compensation are engineered into the tools, optimizing processing functions—including productivity, quality and efficiency. This electronic connection allows for: assessment of the tool condition (wear); determination of the remaining tool life – including forecasts about performance time; allocation to the machine – including optimal changing cycles; allocation of maintenance parameters; and, tool tracking.

www.leitztooling.com

Pusher optimizing crosscut saw



The Superpush 200 pusher optimizing crosscut saw from **Salvador** is said to be able to increase productivity considerably and improve wood yield. It is simple and flexible since no adjustments or particular movements are needed, the company says, just rest the wood on the in-feed conveyor and the saw takes care of the rest. Features includes: saw blade diameter of 500/550 mm; maximum pusher speed of 60/180 m/min; minimum saw cycle of 0.2 seconds; maximum cutting capacity of 300 x 95 mm or 240 x 150 mm; 6 atm compressed air pressure; and, a working height of 900 mm (± 20 mm). The unit has a special 30° inclined plane, runs on Windows software and has safety

closing protection on back side.
www.salvadmachines.com

Smooth running wooden drawer hardware

The Quadro bottom mounted drawer runner from **Hettich** adds optional synchronization for the push-to-open



function as well as a 4D front panel adjustment capability. The adjustment capability lets installers adjust drawer fronts vertically, laterally and in depth and tilt. This also provides a solution to realizing large size drawer fronts with narrow gaps, the company says.

www.hettich.com

Net sanding discs resist edge wear on sharp corners



Mirka has added to its dust-free net sanding line-up with the launch of Abranet Ace HD discs. HD stands for heavy duty and is constructed of a polyamide fibre net backing that resists edge wear when sanding sharp edges and corners. The strong bonding of ceramic grains provides fast stock removal for heavy duty sanding tasks, such as sanding of various wood types, various composites, and stripping of old paint and lacquer. Grits come in P40, P60 and P80.

www.mirka.com



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New Products

Digital operator guidance system



The Altendorf Magis digital, graphical operator guidance system is not a cut optimization program but is said to be smart software that takes the data from cut optimization, detects the configuration of the saw and visualizes everything. The loaded dimension specifications for manual fences or automatic adjustment of motorized fences are clearly visible and simplify work from the outset, the company says. Easy-to-understand icons on the screen of a tablet guide the operator step by step, even through operations involving complex nesting. In addition, a label showing the content of downstream processing can be affixed to finished workpieces. The cutting to size of panel-shaped materials

and extruded products is presented visually before the first cut.
www.altendorf.com

Furniture production without programming



The Nextec software system from **Weinig** permits automated furniture production without programming. The system operates in tandem with the CabinetSelect database, whereby a click of the mouse is all that is required to select the desired piece of furniture. Create any piece of custom furniture by then simply adapting dimensions and quantities, the company says. The Nextec system writes the required nesting programs for formatting, drilling and grooving in the background — all the operator has to do is position the panel and press the “Start” button, it adds. Over 300 carcass furniture models

ready for production are in the 3D CabinetControl database.

www.weinig.com

Stained wood components in variety of finishes



In addition to recently released gray and neutral toned stains, **Elias Woodwork** has now added more stain colours on maple, alder, cherry, oak and bamboo. The colours include aspen-alder-roasted barley, partridge-alder-smoky mirror, cayman-cherry-shadow wall, boulder ridge-maple-arctic whale, and chalet-maple-peace river espresso. Stained wood is growing in popularity again, the company says, and plans to grow in this department.

www.eliaswoodwork.com

Concealed hinges streamline furniture design



The concealed Tiomos hinge system from **Grass** was designed to not intrude upon furniture design by being almost invisible, the company says. The hinge is recessed in the cabinet and thereby is flush with the surfaces of the door and of the inside wall of the piece of furniture. The hinges can be adjusted in three dimensions, feature a damping mechanism in the closing action and allow for an opening angle of 105°. The minimum door thickness required is 18 mm.

www.grasscanada.com

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Current business highlights...

- Canadian municipalities issued \$7.7 billion worth of building permits in May, up 8.9 percent from April and the third highest value on record. The multi-family component rose 15.0 percent in May to \$2.3 billion, following a 6.9 percent gain in April. —*Statistics Canada*
- Following a decline in wooden furniture imports in March, U.S. imports grew 18 percent in April to \$1.47 billion US. Year-to-date imports were 9 percent higher than in April 2016. Imports from Canada, Vietnam, China and Europe increased in April, while Mexico, Malaysia, Indonesia and India exported less furniture to the U.S. —*ITTO*
- Monthly retail sales in Canada rose 0.8 percent to \$48.6 billion in April. The sales rise at building material and garden equipment and supplies dealers of 3.5 percent in April represented an increase for the eighth consecutive month. —*Statistics Canada*
- Real gross domestic product (GDP) in the U.S. increased at an annual rate of 1.4 percent in the first quarter (Q1) of 2017. —*U.S. Bureau of Economic Analysis*
- The U.S. goods and services deficit was \$47.6 billion US in April, up \$2.3 billion from \$45.3 billion US in March. April exports were \$191.0 billion, \$0.5 billion US less than March exports. April imports were \$238.6 billion US, \$1.9 billion US more than March imports. —*U.S. Department of Commerce*
- Architecture firm billings in the U.S. increased for the third consecutive month in April. However, the Architecture Billings index (ABI) score of 50.9 for the month indicates that fewer firms reported billings growth this month than in March. Firms told the American Institute of Architects (AIA) that plenty of work remains in the pipeline, though, as inquiries into new projects and the value of new design contracts both increased again in April. —*AIA*
- March U.S. residential building permits totalled 1,260,000, up from 1,113,000 in March 2016, a rise of 13 percent. —*NAHB*
- Wholesale sales in Canada increased 1.0 percent to \$61.0 billion in April over March, a seventh consecutive monthly advance. Gains accounting for 41 percent of total wholesale sales, and were led by the machinery, equipment and supplies subsector. —*Statistics Canada*
- The U.S. Housing Market Index (HMI) for June was 67, up from 60 in June 2016. The index is based on a monthly survey of National Association of Home Builders (NAHB) members. The survey asks respondents to rate market conditions for the sale of new homes at the present time and in the next six months as well as the traffic of prospective buyers of new homes. —*NAHB*
- Condominium starts in Winnipeg, Man., have risen steadily during the period from 2010 to 2016, according to a report by Canada Mortgage and Housing Corp. (CMHC). In 2010, there were 478 units started while there were 783 units started in 2016, a rise of 164 percent. —*CMHC*

Take ShopBot CNC Out for a Spin

The ShopBot Desktop MAX with 6" Rotary Indexer

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- The share of foreign buyers in the Montreal residential market is increasing but remains low overall, according to a new Housing Market Insight (HMI) report released by CMHC. Over the first part of 2017 (January to April), about 235 foreign buyers were recorded in the Montréal area — an increase of nearly 40 percent compared to the same period last year. —*CMHC*
- The U.S. Department of Commerce has added 6.87 percent in preliminary average anti-dumping tariffs for Canadian softwood lumber imports. —*Fordaq*
- The Canadian business sector must prepare itself now for major technological changes coming to the labour market that could affect up to 32 percent of jobs, according to participants of a roundtable hosted by the Canadian Chamber of Commerce called Skills for an Automated Future. Current training programs need to do more to adapt in this new climate, the roundtable found. —*Canadian Chamber of Commerce*
- European Union imports of tropical sawnwood decreased by 10 percent to 180,000 MT in the first quarter of 2017. —*Fordaq*
- According to a study called Windows Market in the U.S., the residential market for plastic windows through 2021 is projected to advance 5.7 percent per year to \$5.8 billion US, outpacing 4.0 percent yearly gains in the commercial segment. —*Freedonia Group*
- The value of Brazilian wood panel exports (MDP/MDF/HB) grew 24.6 percent in the January-April 2017 period reaching \$86 million US. —*Fordaq*
- Sales of newly built, U.S. single-family homes in May rose 2.9 per cent to a seasonally adjusted annual rate of 610,000 units over April. —*Fordaq*
- In 2016, the Italian wood and furniture sector generated revenues of about €41 billion, up 2.2 percent compared to 2015, states the first report from industry association FederlegnoArredo (FLA). According to the FLA's research centre, the sector's sales abroad increased 5 percent in Q1 of 2017 compared to the same period of 2016. —*ItalyEurope24*
- China's wood-based panel exports in 2016 totalled 15 million cubic metres valued at \$670 million US, a year-on-year increase of 2 percent in volume but decrease of 5 percent in value. Plywood dominated wood-based panel exports in 2016 and accounted for 76.5 percent of the total wood-based panel exports. —*Lesprom*
- Overall growth for exports of Canadian goods is forecast to increase by 6 per cent this year and by another 5 per cent in 2018. —*Export Development Canada*
- In 2016, analyst firm App Annie estimates that global gross consumer spend on mobile apps was \$1.3 trillion US. This figure is forecast to increase by 385 percent over the next five years to \$6.35 trillion US. —*Statista*
- According to the National Kitchen & Bath Association (NKBA), the latest data on the size of new homes built in the U.S. last year was about 2 percent smaller than those built in the prior year. The average home was 2,640 square feet in 2016, down from an average of 2,687 in 2015. —*NKBA*
- While sales at U.S. building materials stores fell by 1.7 percent in March, they recovered some of that loss in April, according to the National Kitchen & Bath Association (NKBA). April sales reached \$31.2 billion US, up 1.2 percent from March's volume of \$30.9 billion US. Through April 2017, year-to-date sales are 5.9 percent ahead of last year. —*NKBA*
- The American concept of a “forever home,” or a house that will last through all phases of a person's life, is outdated, according to a new consumer survey. The survey, conducted by Wakefield Research earlier this year on behalf of Taylor Morrison, found this view held by 56 percent of 1,000 U.S. adults who have purchased a home in the last three years, or who are likely to purchase a new home in the next three years. —*Taylor Morrison*
- April 2017 U.S. foreclosure market data shows foreclosure filings — default notices, scheduled auctions and bank repossessions — were reported on 77,049 U.S. properties in April, down 7 percent from the previous month and down 23 percent from a year ago to the lowest level since November 2005. —*Attom Data Solutions*



Sept. 5 – 7

ExpoDrev

Krasnoyarsk, Russia

www.krasfair.ru/en/events/expodrev_en/

Sept. 12 – 15

FMC China

Shanghai, China

www.fmcchina.com.cn/en-us/

Sept. 12 – 15

Drema

Poznan, Poland

www.drema.pl/en/

Oct. 4 – 5

Canada Woodworking West

Abbotsford, B.C.

www.canadawoodworkingwest.ca

Oct. 10 – 13

SICAM

Pordenone, Italy

www.exposicam.it/en/

Oct. 14 – 18

Intermob

Istanbul, Turkey

<http://intermobistanbul.com/en/>

Oct. 14 – 18

High Point Market

High Point, N.C.

www.highpointmarket.org

Nov. 2 – 4

WMS: Woodworking Machinery and Supply Conference and Expo

Mississauga, Ont.

www.wmscanada.ca

Nov. 8 – 10

Greenbuild

Boston, Mass.

www.greenbuildexpo.com

Nov. 29 – Dec. 1

The Buildings Show

Toronto, Ont.

www.thebuildingsshow.com

Casadei-Busellato

www.casadei-busellato.com 12

CNC Automation

www.cncautomation.com 9, 15

Colonial Saw

www.csaw.com 22

Epilog Laser

www.epiloglaser.com/
[wood-industry](http://wood-industry.com) 8

Felder

www.felder-group.com 11

Festool

www.festool.com 2

Grass Canada

www.grasscanada.com 31

Hoffman Machine Company

www.hoffman-usa.com 26

Osborne

www.osborneposts.com 25

Safety Speed

www.safetyspeed.com 25

Salice

www.salicecanada.com 32

Sames Kremlin Inc.

www.sames-kremlin.com 23

ShopBot Tools

www.shopbottools.com 27

Vortex Tool Company

www.vortextool.com 21

WMS: Woodworking Machinery and Supply Conference and Expo

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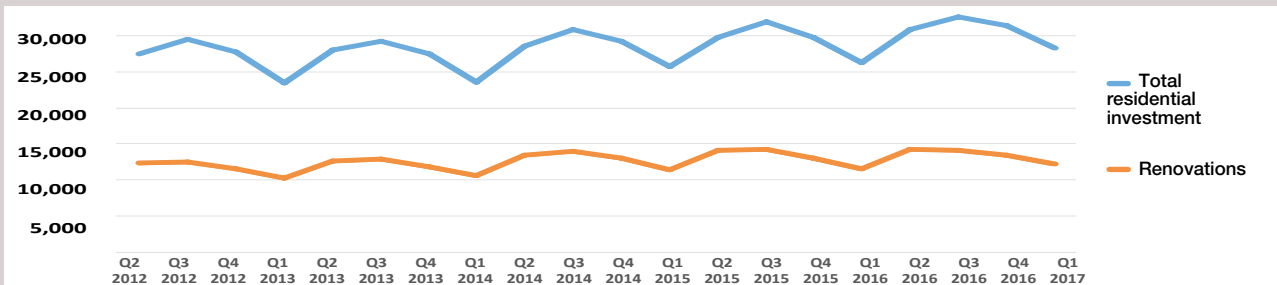
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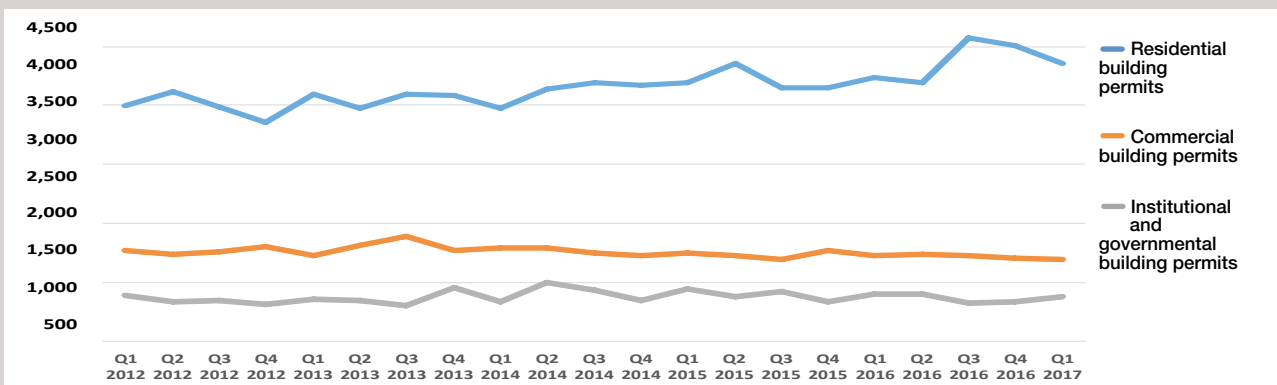
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By the numbers

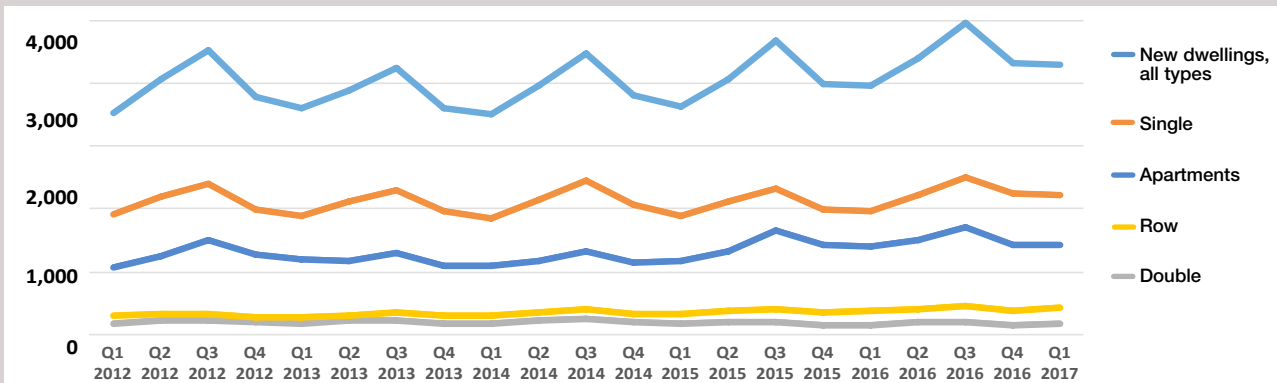
Residential construction investment In millions of dollars



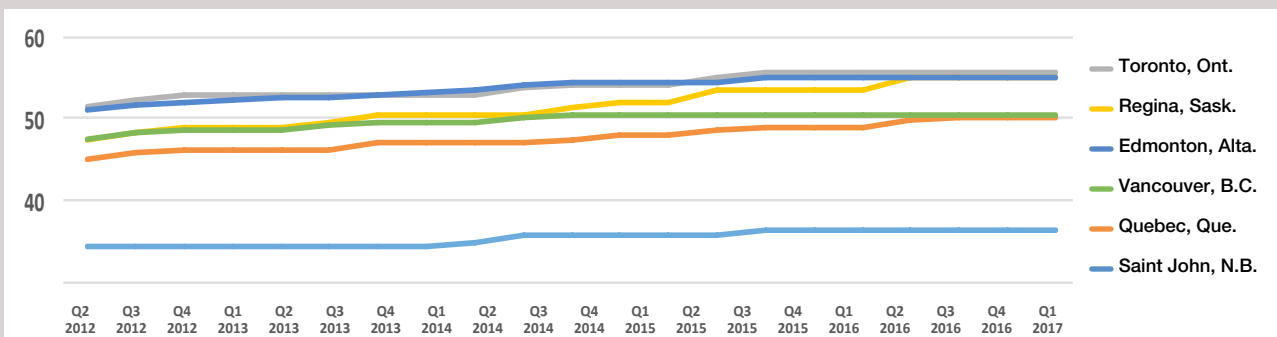
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