CASE STUDY

Intelligrated®

# Andlauer Transportation Services Inc.

## High-speed sortation lets ATS deliver at triple the capacity

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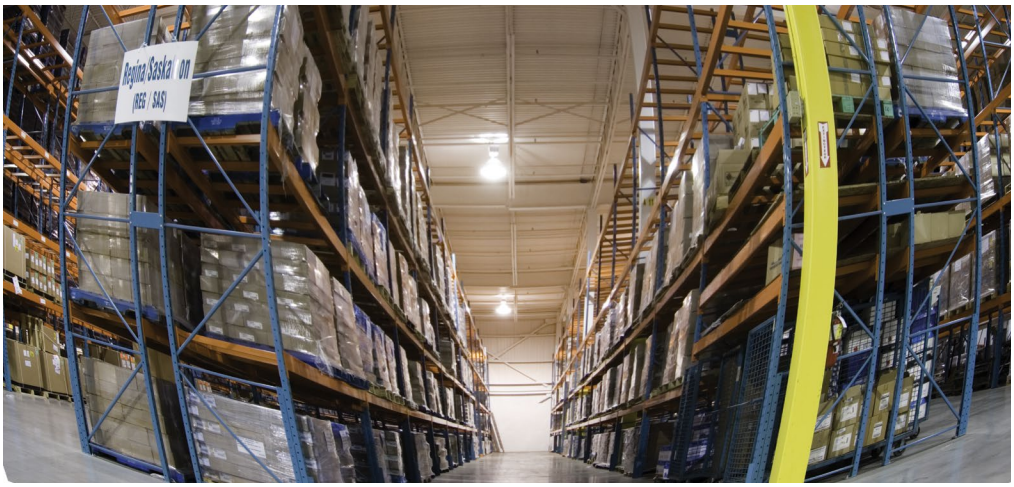
Material handling automation from Intelligrated enables 300% growth in daily volume with 30% fewer personnel




*Please note: Intelligrated® acquired the North and South American operations of FKI Logistex® in June 2009.*

When Michael Andlauer founded the Canadian freight-handling company in 1991 that bears his name, he began with a simple idea: build a freight forwarding and shipping operation so efficient and so dedicated to service that customers would need only one transportation provider for all their needs.

Andlauer struck a chord. Today, 15 years later and as part of a publicly listed income trust, Andlauer Transportation Services Inc.® (ATS) moves approximately 3.7 million pounds (1.7 million kilograms) of freight a day. Posting double-digit growth every year since its inception, ATS has grown by catering to niche industries, providing superior customer service, and innovating with material handling technology to continually increase efficiency and speed.

"Our success story is based on a model that keeps our customers coming back," Beard explains. "More than 50 percent of our customers have been with us eight years or more." The ATS strategy is to provide whatever business-to-business freight service customers need, earning both their trust and their loyalty.

ATS has used its niche marketing strategy wherever it makes the most sense. In Montreal and Toronto, ATS focuses on the health care, cosmetics, pharmaceutical, and retail industries. "We are all things to some people," says Mike Beard, ATS director of marketing.

In regions that do not have concentrated industries, ATS has broadened its customer base by providing other market segments with the same top-notch, customized service it provides to its niche customers.


*Key to throughput levels achieved by ATS in Montreal is Intelligrated's high-speed sliding shoe sorter.*

## A freight handling formula for success

Achieving this intense customer loyalty can largely be attributed to Andlauer's vision but also to his foresight in adopting cross-docking as his core logistics methodology. With material handling automation technology from Intelligrated (formerly FKI Logistex), ATS has so effectively employed cross-docking that it has quickly scaled up to meet its high-volume, high-service levels and the competitive challenges of the on-time delivery market.

Evidence of this successful blend of technology and service is in ATS's new Montreal-area cross-docked facility, where a $3.6 million USD ($4 million Canadian) investment in an automated Intelligrated material handling system.

> **"The only cost-effective way to grow our business is by moving more freight faster in the same amount of time," says Michel Lunardi, ATS's Montreal-based vice president for Eastern operations and sales.**


*ATS has so effectively employed cross-docking that it has quickly scaled up to meet its high-volume, high-service levels.*

ATS's varied and demanding delivery commitments depend on meeting tight time constraints for freight pickup, transfer and receipt across its network of depots. Without material handling automation, ATS would need to build more infrastructure to keep pace with its expanding volume while maintaining service levels.

## From boxes to pallets to truckloads

Whether customers need to ship boxes or full pallet loads, ATS can support fluctuating size and volume demand with its 21 freight depots stretching from Montreal to Vancouver. ATS offers next-day to three-day delivery, as well as both conventional truckload and less-than-truckload (LTL) shipping.

"We do truckloads if the customer needs that service, but it is not a focus for us," Beard says. Rather, the average consignment is about 100 pounds (45 kilograms).

In accommodating its retail market, Beard says that ATS works very closely with customers to process their time-critical deliveries. Customers like video giant, Blockbuster, count on ATS to have new titles in its stores on publicized release dates. Booksellers too, depend on the on-time delivery of bestsellers like the hugely popular Harry Potter series.

"We don't deal on price; we deal on service," Beard says. A customer using ATS will pay a little more than it would for conventional freight service; but they get better handling, more reliability and higher on-time delivery levels. ATS will also resolve any issue or problem the customer may have. "We bend over backward for them," he says. And having the capacity to do that depends on having the right automation in place.

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## Scaling delivery capacity with material handling automation

Facilitating the intense shipping cycles at the core of ATS's business is where cross-docking and material handling automation come in. ATS has found that cross-docking and the high-speed, computer-controlled package sortation system from Intelligrated are the best ways to efficiently handle increasing freight volumes. Arriving packages move quickly in and out of ATS's cross-docked depots with little time or space for storage or margin of error.

While manual sorting worked well enough for most of the 15 years since ATS put its first trucks on Canadian roads, those same trucks bearing the orange-and-aqua ATS logo now move 82,000 pieces of freight a day. Hands and eyes cannot provide the speed or accuracy needed to match that pace.

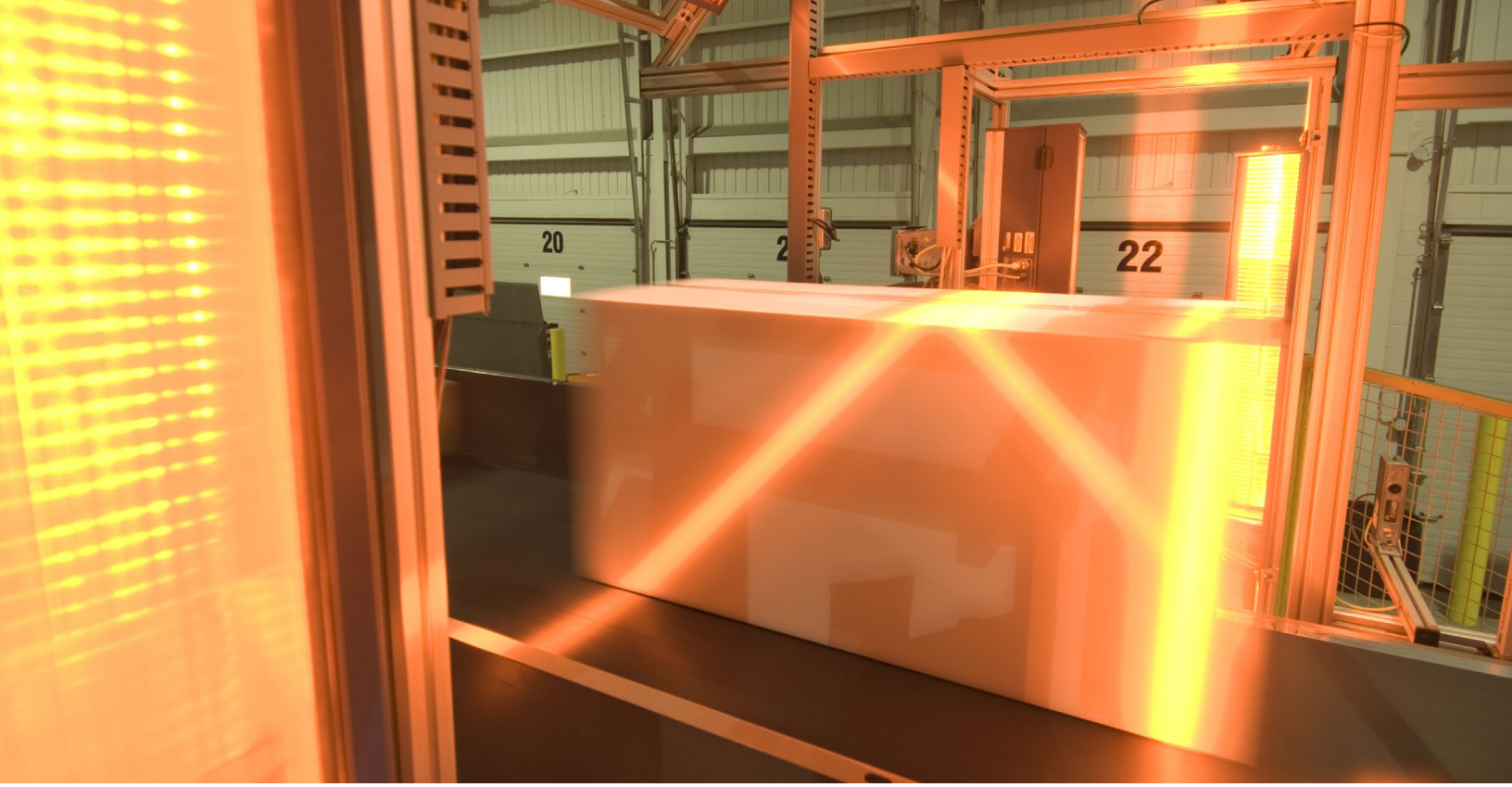
Intelligrated began its relationship in 1993 with ATS by installing conveyors and other ancillary equipment in several ATS facilities, when all sorting was still done manually. ATS also turned to Intelligrated for larger, more integrated projects as the company's shipping volumes expanded to require automated sortation systems.

> **"We've had long-standing experience with Intelligrated," says ATS senior vice president Terry Jessup. To date, ATS has invested about USD 9 million (CAD 10.15 million) in material handling improvements from Intelligrated.**

## High-speed sorter powers growth in Montreal

In the Montreal market, ATS had outgrown its depot in Lachine, Quebec. While Lachine had about 100,000 square feet (9,300 square meters) of space, the configuration was not optimized as a result of years of ad hoc renovations and additions. ATS began planning a new shipping facility in 2005 to be constructed in the Montreal suburb of Laval. By December 2004 installation in the Laval depot had started; three months later it was completed. The new facility, integrated by Intelligrated, has 115,000 square feet (14,415 square meters) of material handling capacity.

Key to throughput levels achieved by ATS in Montreal is an Intelligrated high-speed sliding shoe sorter. Packages travel through the sorter at very high speeds — 350 feet (107 meters) per minute — going left or right to their destination lane from the two-sided sorter. The system has a maximum throughput capacity of 8,400 pieces per hour — more than three times the capacity of the manual-sorting operation in the old facility, which processed 2,500 pieces per hour. With automation throughout the sorting process, accuracy is at 99.4 percent, and missed connections at other depots or the airport are almost nonexistent.




**Lunardi pronounces the Montreal system a complete success. "Last year we tripled our previous volume with 30 percent fewer personnel," he says.**

Intelligrated equipment delivered what was needed to keep ATS's business on its growth track. "Without Intelligrated, we could not be in Montreal today doing the current volume of business," Lunardi says.

## Future expansion plans

After the Montreal installation proved successful, ATS ordered a mirror facility in Vancouver, and Intelligrated again was selected to provide the equipment and software. A system similar to the one designed for Montreal was installed in Vancouver and began operations in early 2006 with the same productivity target and goal for return on investment.

Construction on a new facility in Toronto broke ground in May 2006, and an automation system more than twice the size of Montreal's will be installed there. The Toronto Intelligrated project includes two high-speed sliding sortation systems, capable of running at 500 feet (152 meters) per minute, and an Intelligrated high-speed wedge merge. It will also feature crossover between the two sorters.

ATS plans to bring automation to its other high-volume depots in the near future, including centers in the province of Alberta, which are next on the list.

While ATS can always add more people, trucks and facilities, it looks to Intelligrated systems to help it cost-effectively increase capacity. With its new systems in Montreal, Vancouver and, soon, Toronto, ATS can now scale to meet its demand.

"It's all about capacity and service," says Lunardi. "Capacity and service."

## A Montreal system snapshot

(1) As pallets come in to the loading docks, they are taken off by forklifts and pump trucks to staging areas. From there, ATS personnel hand-depalletize the packages onto one of three Intelligrated belt conveyors. The packages on these infeed conveyors then travel to the depot's upper platform.

(2) The three belt conveyors then merge into two lines of Intelligrated Accuglide™ accumulation roller conveyor, which direct the packages through ATS cubing stations. There, the packages are weighed and cubed, and their bar codes are read.

(3) Next, a recirculation line coming back from the sorter joins the two Accuglide lines. The three lines merge into a single line that feeds the packages through an Intelligrated scanner on the depot's lower level. That scanner communicates with the ATS cubing system to tell the sorter which destination line packages should be sent to.

(4) Customized Intelligrated PC-based control software, integrated with ATS's information systems, directs all the action. ATS has integrated its delivery information system with its customers shipping software so that almost all parcels arrive labeled with ATS bar coding. Some pieces, such as packages being returned to pharmaceutical companies from consumers, still must be manually bar-coded before induction.

(5) The Intelligrated high-speed sliding shoe sorter then sends the packages to one of 38 destination lanes, with an extra line for recirculation. Each shipping method for each destination is assigned to it own lane. Shipments to Vancouver by ground and air are sorted to different lanes, for example. The system's recirculation feature re-inducts any parcel that cannot be properly sorted on the first pass.

(6) Thirty-six of the lanes are Intelligrated gravity roller conveyor and two are Intelligrated-powered belt conveyor. While the gravity roller conveyors feed staging areas for re-hand-palletization and shrink-wrap, the powered belt conveyors feed specific dock doors with high-volume deliveries destined for Montreal and nearby Ontario.

## Equipment lists:

**MONTREAL:** Total footage – 4300ft

- Dual-sided high-speed sortation system running at speed of 350fpm
- Accuglide zero-pressure photo-eye accumulation conveyor
- Belt-on-roller conveyor
- Slider bed belt conveyor
- Gravity roller conveyor
- High-speed merge, curves, junctions, skewed sections
- Entire system under control of Intelligrated PC-based software

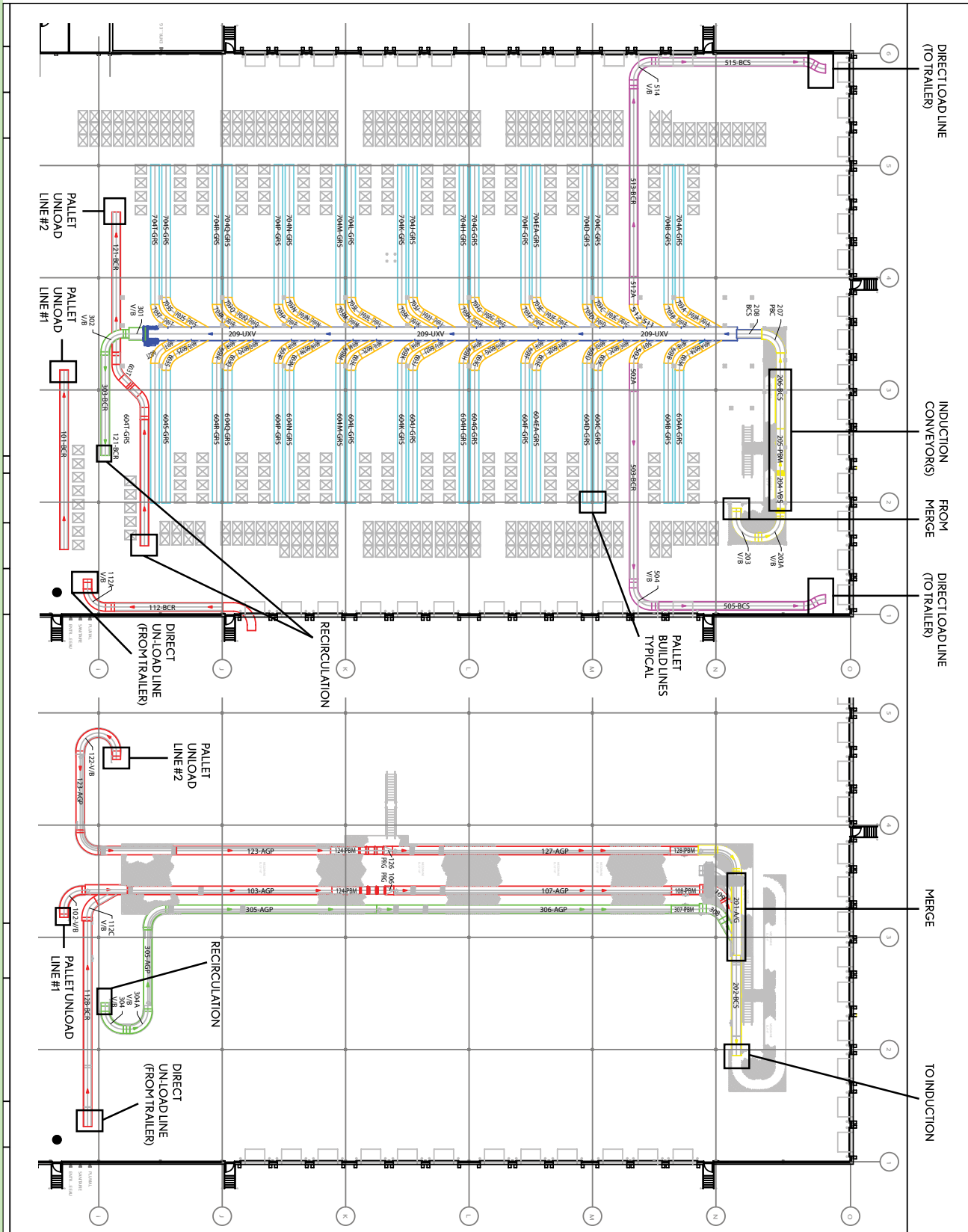
**VANCOUVER**: Total footage – 4500ft

- Dual-sided high-speed sortation system running at speed of 350 fpm
- Accuglide zero-pressure photo-eye accumulation conveyor
- Belt-on-roller conveyor
- Slider bed belt conveyor
- Gravity roller conveyor
- High-speed merge, curves, junctions, skewed sections
- Entire system under control of Intelligrated PC-based software

**TORONTO:** Total footage – 9500ft

- Dual-sided high-speed sortation system 400 ft long with 39 diverts running at speed of 550 fpm
- High-speed wedge merges, each with six infeed lanes
- Servo-driven belt conveyor and gap optimizers
- Accuglide zero-pressure photo-eye accumulation conveyor
- Decline after-sort belt-on-roller conveyor
- Slider bed belt conveyor
- Gravity roller conveyor
- Telescopic traversing unloaders
- Telescopic traversing loaders
- Powered spurs, curves, junctions, skewed sections
- Entire system under control of Intelligrated PC-based software

## Facility schematic



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## About Intelligrated

Intelligrated® is a leading North American-based, single-source provider of intelligent automated material handling solutions that drive fulfillment productivity for retailers, manufacturers and logistics providers around the world. Through a broad portfolio of automation equipment, software, service and support, Intelligrated solutions give businesses a competitive edge and optimize operational performance through increased flexibility, efficiency and accuracy.

Intelligrated designs, manufactures, integrates and installs complete material handling automation solutions including conveyor, IntelliSort® sortation, Alvey® palletizers and robotics, and automated storage and retrieval systems – all managed by advanced machine controls and software. Intelligrated Software offers warehouse execution systems, a scalable suite of software that manages the entire fulfillment process, including equipment, labor and business intelligence, integrated with voice- and light-directed picking and putting technologies.

From concept to integration to lifecycle support services, Intelligrated delivers dependable, sustained distribution and fulfillment success, and maximum return on investment. Intelligrated backs every project with 24X7 multilingual technical support and access to lifecycle service through a network of national, regional and local service centers.

## For more information, contact Intelligrated:

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