



CD Sorting a Number One Hit for Bertus

SDIGreenstone has supplied a high speed CD/DVD sortation system to Dutch specialist record supplier Bertus that now enables the company to turn round orders in less than a day. The automated system has the capacity to sort up to 50,000 CDs per hour.

Bertus, based in Capelle aan den IJssel near Rotterdam, is a wholesale distributor of CDs, DVDs and vinyl records. It was set up 30 years ago by its present owners, who were then basically hippies selling 'alternative/progressive' music LPs out of a garage.

Today the company is one of Benelux's leading suppliers of rare and obscure titles, including back catalogues and world music – and titles on vinyl, which is still in demand from the club DJ community. They source from some of the smallest independent labels worldwide and their boast is that if they can't get hold of an album, it doesn't exist. The company also handles distribution for some of the larger mainstream record labels, for whom such an operation has become too expensive. Bertus supplies to record shops, mainly specialist outlets, throughout Benelux. It has around 300 regular customers.

For the past few years Bertus bucked the trend in the music industry, where sales of CDs and music DVDs has declined as a result of the availability of downloads via the internet. Bertus has grown steadily, and has recently moved into new purpose-built premises in Capelle ann den IJssel.

The Process

On receiving an order from a record store Bertus sources the required title through its own database (which carries more than 500,00 titles) or by surfing the internet – which it does anyway on a daily basis. The company has around 10 major suppliers and up to 300 smaller ones. Bertus pledges to deliver the album to the record store within a day of receiving it in Capelle ann den IJssel.

Goods arrive at around 08.00 in the morning; the orders have to be despatched by 14.00. The same applies to products which are distributed for the major record labels. This requires a system to sort mixed consignments of CDs etc, with a high degree of speed and accuracy, into batches for specific stores.

In 2001 **SDIGreenstone** supplied Bertus with a rudimentary custom-built sortation system that had 30 'drop zones' each allocated to specific stores. As Bertus took on more customers, the manually-loaded sorter had to run several times during the day, with the store allocations changing for each run. This was slow and cumbersome, and was impacting

on the efficiency of the order assembly operation – incapable of keeping pace with the increasing demand driven by growth in sales.

Improving the Process

With the new **SDIGreenstone** sorter Bertus has adapted the way orders are assembled. On receipt of orders from the various customers, Bertus's warehouse management system (WMS), which was developed in-house, generates picking lists identifying which titles need to be taken from stock. At this stage the products are not assembled according to customer; they are instead batched by title and shape (single CD, double CD, DVD etc). They are stacked – barcode labels uppermost – in specially-made wooden 'pigeon hole' units on trolleys, which are wheeled up to the **SDIGreenstone** sorter.

The New SDIGreenstone Sorter

The core of the system is a flat sorter, in a large (46 metres long) carousel format, which has been highly modified for the Bertus application. A conveyor carries flat trays, specially designed to carry CDs and DVDs, round the carousel. Each tray carries one item. There are now 322 drop zones, more than enough to accommodate all of Bertus's existing regular customers. So once the system is loaded, only one sortation run is required each day.



Products are loaded onto the system via a 'De-Stacker', from where they travel by an inclined flight conveyor into the trays to the overhead Induction Station on the carousel. The custom-designed De-stacker is a major innovation. Previously CD/DVDs had to be fed one by one into the system. Now the batches of product are simply taken from the 'pigeon hole trolleys' and loaded into the De-stacker. The De-stacker can take up to

75 items at once, and can be adjusted to take different types of product – single or double CDs, CDs in plastic or cardboard sleeves, or DVDs. The machine automatically adjusts according to the thickness of the item. The De-Stacker feeds individual items onto the flight conveyor, where they are automatically spaced to synchronise with the orientation of the trays on the carousel.

At the Induction Station at the top of the flight conveyor the products' bar codes are read by an in-line scanner. Bar code labels on CDs and other similar media are notoriously small – so as to interfere as little as possible with the cover design – and can be difficult to read. **SDIGreenstone** had to fine-tune the scanning process to ensure guaranteed first-time accuracy.

Information scanned from the barcodes is fed back into Bertus's WMS, so it knows which items are in the system, and in which trays. Interrogating the order schedule the WMS then issues signals to the sorter which, by reading the bar code on each CD with in-line scanners installed round the system, releases the required items into the correct, store-specific, drop zones.

The base flaps on the trays carrying the CDs are activated by solenoid trip switches that receive pulses from the WMS to open above the required drop zone. The trays open 'with the flow' of the conveyor so the CDs slide out gently (CD cases are rather brittle!) down chutes into the 'store boxes', which are mounted on rollers. When the boxes are full they are rolled off, and the items are transferred for consolidation, packaging and despatch. Because of the increased number of drop zones the sorter can now run interrupted, topped-up with consignments loaded into the De-Stacker, until all the store orders have been completed.

The system automatically detects when a store box at a drop zone is full, and will not release any more items into it. When a box is full a light on the drop station illuminates, and the drop zone number flashes up on an LCD display panel above the sorter.

Some Facts and Figures

- Bertus holds up to 1 million titles in stock.
- Store orders can vary from one to thousands of items.
- Bertus is shipping up to 3000 orders a week.
- That can be up to 100,000 individual items.
- The sorter carousel is 46 m long, 3.5m wide and 2.2m high.

- The system is currently sorting 30,000 items a day.
- But it has the capacity to sort 50,000.
- The innovative De-Stacker concept has proved so efficient that **SDIGreenstone** is now producing units for other record manufacturers and distributors.

Why SDIGreenstone?

Bertus's Frank Schippers:

- **"Excellent experience with previous system."**
- **"Other companies said a 350+ drop zone sorter wasn't possible."**
- **"A no-nonsense approach. Other companies' contracts were as thick as bibles!"**
- **"Other companies simply wanted to sell us standard kit: SDIGreenstone was prepared to think outside the box to come up with creative solutions...."**
- **"...the De-Stacker, for example, to handle different types of product."**
- **"Partnership-based approach to business: SDIGreenstone were prepared to exchange experience and ideas with us."**
- **"The system is remarkably quiet: our guys like to have music playing in the background...!"**



Our Clients: Success Stories

We want to thank each and every one of the friends we have made over the past 25 years of service to the retail and retail support industries. Your success stories have become our success stories! We are justifiably proud of the success that you have had in the implementation of our systems, helping to make your organizations more effective, more efficient and better places to work.

<p>Great Britain Asda BHS Burberry CML EXEL Matalan Meyers Prestige Primark SRGent Selfridges The Gap TK Maxx TNT Express UCI Logistics</p> <p>Specialty Stores Ann Taylor Armand Thiery Barney's Bob's Stores The Buckle, Inc. C.R. Anthony Casual Corner Group, Inc. Charlotte Russe Charming Shoppes Clothestime Contempo Casuals Deb Shops D & L Stores Eddie Bauer Fashion Bar Gantos The GAP Goody's Grupo Hecali Gymboree Hartmarx Hit or Miss Hot Topic J Crew Kids 'R' Us Kuppenheimer Liz Claiborne Mariposa Max Mara Men's Wearhouse Mikasa Neiman-Marcus Nordstrom Pacific Sunwear Patis Royal Pinstripe Petites Raleigh's Reitman's Samsung/Essex Fashions Stage Stores Suburbia Syms Tilly's Today's Man Vogua/Body Shops Weatherwax Wilson's The Leather Experts Women's World Shops</p> <p>Off Price Retailers/ Discount Stores Factory 2-U Filene's Basement Mariposa 1/2 Price Stores Pennsylvania Fashions Ross Stores Saan Stores Styles For Less T. J. Maxx Value City Dept. Stores</p>	<p>Mass Merchants The Caldor Group J.C. Penney Matahari Mervyn's Montgomery Ward Sears Roebuck & Co. Target Australia Zeller's</p> <p>Catalog Chadwick's of Boston J. C. Penney J. Crew Nordstrom Spiegel's R.A.T.P.</p> <p>Hypermarkets/Grocery Almacenes Paiz Matahari Zeller's</p> <p>Department Stores Abraham Straus Almacenes Paris Bamberger's Barney's Beall's 3 Beall's Bros. Bon Marche The Bon Ton Boscov's Broadway Southwest Bullock's Carson Pirie Century 21-Department Stores Dayton's D.H. Holmes Dillard's Elder-Beerman Emporium Emporium Capwell Field's Filene's Foley's Frederick Nelson Goody's Gottschalk's Hess's Home's Hudson's Bay Company J. L. Hudson's Jones & Jones Kohl's Dept. Stores Lazarus M. Epstein Placy's Marshall Fields May D & F May Company McCurdy & Company McRae's Mervyn's Montgomery Ward Parisians Peebles Stores Porteous Proffitt's 1/2 Price Stores Sak's Fifth Avenue Salinas & Rocha Scott & Co. Sear's Roebuck & Co. Simpson's Swezey's Value City Von Maur Woodward & Lothrop ZCMI</p>	<p>Specialty Merchandise ASUCLA Athlete's Foot Bellagio Hotel The Big Party British Home Stores/ MotherCare Circuit City Stores Copeland's Sporting Goods Cracker Barrel DIN Footaction Gart Bros. Guitar Center Imaginarium Lids Meldisco Mirage Hotel Natural Wonders Oshman's Paramount Pictures Salinas & Rocha SIL Sporting Goods/Footwear SportMart Things Remembered Transworld Entertainment Treasure Island Hotel Video Visa Warner Bros. Studio Stores</p> <p>Manufacturers/ Wholesalers Alliance Distribution Bugle Boy Byer California Chorus Line Eber International Exel Logistics Farmers Flag Trucking Company Garment Resources Gilbert East Gilbert West Impressions IPC Italian Club Jerry Leigh of California Joni Blair Kandy Kiss of California Levi Strauss Liz Claiborne LTA Logistics M.V. Kasch MacMillan Publishing Maidenform Marvesa Max'lara Mikasa Operon Distributors Rutger's Express Samsung/Essex Fashions Teddi's Third Party Logistics Tradis International Tropi-Cal 3rd Party Provider/3PP</p> <p>Australia Coles Meyer Flair Fashion Hugo Boss In2store Katies Fashion Target Australia 3rd Party Provider/3PP</p>	<p>Brazil Carrefour</p> <p>Canada Field's Greeberg Stores Hudson's Bay Company Mariposa Reitmans Saan Stores Simpson's Simpson-Sears Woodward's Department Stores Zeller's</p> <p>Chile Almacenes Paris DIN Falabella Johnson's Marvesa Ripley Tradis</p> <p>France Armand Thiery Brice Carrefour Cello Laurent Correr Etam Lingerie Eram Prêt à Porter 123 Orsay Finkie Kiabi</p> <p>Indonesia Matahari</p> <p>Korea Samsung/Essex Fashions</p> <p>Mexico Grupo Hecali Salinas & Rocha Suburbia Video Visa</p> <p>Netherlands Aurora Bertus grootandel en distribute Bleckmann Logistics Caterpillar Charles Voegle Netherlands Clarks Shoes ES Fokker Aerostructures JBC M&S Mode Miss Etam Oilly SCI Computers Snickerwear TNT Logistics Zaza Fashion</p> <p>New Zealand Farmers Garment Resources Pumpkin Patch The Warehouse</p> <p>Spain Charanga Cortefiel Hanson & Cawley R M Trade (PreNatal) TNT Logistics</p>
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Conveying Ideas and Merchandise



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