



Transport & Logistics

ASG Road Transport



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BAR CODES ENABLE DELIVERY OF EUROPE'S FIRST WEB-BASED CONSIGNMENT TRACKING SERVICE

ASG Road Transport and WM-Data Implement Bar Coding and EDI Solution Based on Zebra Printers

ASG Road Transport a major transportation and logistics services provider

With operations in Sweden, Denmark, Norway and Finland it provides global services for the transportation of all types of goods, including hazardous and temperature-sensitive materials, via rail, road, air and sea. ASG is responsible for warehousing operations and goods terminals and usually subcontracts the actual transportation.

ASG was the first company in Europe to offer a web-based consignment tracking service to its customers via the use of bar codes. The company also encourages all its customers to implement a software solution called 'Pilot', which means that all orders can be received electronically by ASG. All transportation administration is managed electronically with the sophisticated use of bar codes. The integrated solution enables advanced customer communication, facilitating the availability of data to both ASG and its customers.

Bar Coding the Future

According to Björn Hedenborn, manager of ASG's Customer IT-Services, automatic identification (auto ID) and electronic data interchange (EDI) are not optional, but essential components for the success of its operation. "We believe that in this business, users of bar codes and EDI will be the winners. Today, we receive about 60 percent of our orders and transport administration documents via EDI. Our goal is for 100 percent of our customers to use bar coding and EDI, for even greater safety and efficiency. After 16 years of electronic communication between ASG and our customers, we know that this is a key to our success and it is undoubtedly the way of the future."

ASG began the Pilot project in 1991 in co-operation with WM-Data, recognised leaders for auto ID logistics and transport solutions, and Zebra Technologies, worldwide leaders in bar coding and labelling printers. Both ASG and WM-Data had previously used Zebra printers and were impressed with their performance.

The Pilot System

Robert Claesson, WM-Data transport product manager, was the lead project manager for the Pilot system: "Pilot simplifies the production and handling of transportation documents. One of its most notable features is that it is a standard software system – it does not need a dedicated computer system in order for an organisation to implement it. Data from any databases in OLF/MPS (order, warehouse, invoice/material and product management) and RPS (resource planning software) systems can be imported. Pilot automates everything from assembling transport data, printing documents and bar code labels and the calculation of freight rates through to facilitating the tracking of goods."

An ASG customer that has installed Pilot simply accesses the application when they have goods to be shipped. The user is presented with a series of fields to be completed, with the assistance of on-screen explanatory text. Each package is assigned a unique number by the system. When the customer selects the transportation company, Pilot automatically adapts the documents to match the requirements of this specific company. For example, companies may have different insurance documents.

The data is then forwarded to ASG via telephone, fax, EDI or the Internet – the Pilot system enables EDI or the Internet to be used easily and the use of these media means that no physical paperwork needs to be generated at any stage of the order. The order and transport data are sent directly to the ASG mainframe. This generates an automatic registration; calculates freight rates, the duration of the shipping, the number of re-loadings if the goods are going abroad, and the expected time of arrival and returns this information to the customer, together with an order acknowledgement. Companies with regular shipments can use ASG's Reference Debit Invoicing facility, which combines the customer number with a reference code to send an invoice electronically to the customer's account department.

Bar Code Labels

The system depends on high quality bar code labels. When the customer has entered the necessary data, Pilot automatically prints the required number of labels. Each label has a unique identification, which is vital for scanning packages at each re-loading site and on final arrival. The scanned data is sent back to ASG for tracking. The bar code also contains essential data such as the package weight and contents. Even if the customer does not use EDI, ASG recommends that all packages bar coded, so that it is easier to obtain information during transportation.

Solution technology...

Stripe™ Pilot

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“We have been very satisfied with the stability and durability of Zebra printers”

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If a consignment requires a particularly large amount of information on each package, a special 2-D, machine-readable bar code called PDF (Portable Data File) is used. This has a capacity 100 times greater than a traditional bar code of the same size and is typically used on products with high safety sensitivity.

Zebra Printers

WM-Data bases the majority of its solutions on Zebra printers and recommends that ASG customers use Zebra's Stripe range printers. "The bar codes are scanned by many different types of laser scanners and we recommend Zebra printers to ensure label integrity and the correct reading of bar codes", says Claesson. "In most cases, this will be the 'Stripe' range, due to its stability, flexibility and durability. ASG has used Zebra printers for many years."

"The Zebra printers are robust and able to work continuously for many hours when handling large volumes of labels," he continues. "They are modular and therefore easy to service and adjust to a variety of purposes. WM-Data is highly experienced to install and service Zebra printers and adapt them for special applications. Over the years WM-Data has delivered up to 3,000 Zebra printer for transport applications."

Björn Hedenborn of ASG adds, "We have been very satisfied with the stability and durability of Zebra printers against dust, sunlight and extreme heat and cold – conditions often found in warehouses that can affect the performance of machinery. In the ASG freight terminals and customer warehouses the printers are often in use for hours on end, and the Zebra printers cope with this continuous operation without any problem."

Barcodes Facilitate Communication

Björn Hedenborn continues: "One of the most important things about our service is that we make information available to our customers as and when they need it. We believe that the levels of communication and the relationship we have built with our key customers as a result are unrivalled."

Bar codes play a role at each stage of the transportation process. When the truck initially collects the goods, the driver scans the bar codes on each package and sends the data to the ASG mainframe database. The goods are then transported to a terminal for sorting and co-loading with other consignments for the same destination.

Each time the goods are re-loaded, typically at borders, the goods are re-scanned. This procedure ensures that ASG can constantly keep track

of the total quantity of packages. The reporting procedure from each terminal enables ASG to know how the shipment is progressing against schedule. If the goods are delayed, ASG can inform the customer, who in turn can inform the recipient, even before a problem is noted.

When the goods arrive at the final ASG terminal before delivery to the recipient, they are scanned and weighed to check that the actual weight of each parcel corresponds to the weight stated by the customer. If the total weight is lower than stated, an adjustment of the data for invoicing purposes on the ASG mainframe is made. The goods are then delivered to the final recipient.

It is the constant availability of information via bar code scanning that has enabled ASG to offer its Internet consignment tracking service, whereby customers simply log onto the ASG website, enter their consignment number and they can obtain information about the exact status of a particular consignment directly on the screen.

Bar Coding Facilitates New Communication Services

By bar coding, ASG is able to offer its customers its standard 'Information on Delivery' service which makes consignment tracking an integral part of ASG's service. The company also offers a 'Proof of Delivery' service whereby the driver scans each package of the consignment and records the status on a portable terminal – for example, "Consignment delivered to (recipient's name) at 09:27 on 9 February." This information is e-mailed directly to the ASG Goods Tracking Service which automatically sends an electronic receipt to the customer.

In the case of a package disappearing, it is possible to track where the package was last scanned. Tracing of the package can then be started from this specific terminal.

Bar Codes Will Be Standard

The use of bar code labelling, EDI and the sophisticated Pilot solution means that ASG can take care of the basic transport administration automatically, leaving management free to focus on developing new services and an even more efficient delivery of current services. Bar coding is likely to become standard across the industry as it will take longer - and therefore be more expensive - for companies such as ASG to handle goods from customers that do not implement auto ID and EDI.

For further information on Zebra products or to find a local supplier, visit the Zebra website or contact us at:



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