

## GlaxoSmithKline, Germany A Case Study



# WarehouseManager™ Software Solution for major healthcare group

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*Wolfgang GroB, Head of Distribution Centre*

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### The Customer and his Requirements

GlaxoSmithKline (GSK) – formed by a merger in 2000 between Glaxo Wellcome and SmithKline Beecham – has total sales of almost \$32 billion and employs over 100,000 people worldwide. Following the merger, the group's distribution was totally redesigned from a system in which most manufacturing plants distributed their own products worldwide to a system in which national distribution centres covering the entire group's products were formed in each of GSK's major markets.

In Germany, where GSK has 3000 employees and sales of about EUR 900 million, the production site at Bad Oldesloe was chosen as the distribution centre for the German market. This meant that Bad Oldesloe had to be equipped with new software and hardware systems to cater for the major increase in its distribution activity.



**The Solution**

With the new distribution network requiring some 400 products, 80 vaccines and 1300 promotional articles, the existing distribution system at GSK Bad Oldeslow needed major investment. The existing software was far too rigid and could not cater for more than about 300 products.

As an interim measure, the promotional materials were housed off site in a rented warehouse. The decision was made to use a pick-by-light system with stock in carton flow racking and transport conveyors, all controlled by a new warehouse management (WM) software system. The new WM software would need to report to the existing ERP system (SAP R/3) and control various sub-systems. The new building will, in time, accommodate the promotional materials back within the site. Swisslog was chosen to supply and implement its WarehouseManager™ and Material Flow Control software, along with its Pick-by-Light System.

The integrated Swisslog software solution controls all the warehouse and dispatch functions including:

- \_ Goods receiving with mobile RF identification of incoming products
- \_ Crossdocking of items needed for immediate picking
- \_ Buffer storage in a high bay warehouse
- \_ Goods picking for replenishment by RF
- \_ Whole pallet and whole carton picking
- \_ Automatic carton erection, labelling and insertion of goods receipt note
- \_ Conveyor transport to picking faces
- \_ Pick-by-light order fulfilment
- \_ Quality control by sensitive weight check
- \_ Selective quality control station

**Logistics Data**



**Overall facility**

Customer orders processed per day 1,000  
(with an average of 10 order lines)

**High bay warehouse**

Ambient and cool storage  
System input (pallets / day) 50-70  
Pallet storage positions 855  
Very Narrow Aisle trucks with RF terminals 2  
Full carton picking zones 4  
(from 49 pallet locations)

**Order picking system**

No. of pick faces in the system 763  
No. of pick stations 11

Weight check station sensitivity

1 gram +/- 1%

**Shipping**

Shipping units / day 1500-3000  
No. of shipment types 19  
Shipping unit types (package/carton/pallet sizes) 8

**Hardware platforms**

HP Server memory 1GB  
Mirrored systems discs 2  
External 36GB mirrored discs 6  
Operating system HP-UX 11  
Database ORACLE 8.1.6 Enterprise Edition  
Operating system, PC workstations NT4.0  
RF System Psion-Teklogix



## Interview



Wolfgang Groß  
Head of Distribution Centre

**Swisslog:**

What level of service do you offer your customers?

**Herr Groß:**

*"All orders taken today are delivered tomorrow. Swisslog's Warehouse-Manager™ software selects wholesaler orders and these are picked in the mornings, with orders for hospitals and pharmacies being picked in the afternoons. The road transport and door-to-door deliveries are contracted out."*

**Swisslog:**

What is the basis of your order picking system and why was it chosen?

**Herr Groß:**

*"We use the pick-to-carton system here at GSK. As we have a standard range of products, it is simpler and more cost-effective to pick straight into the shipping carton. WarehouseManager™ calculates a 70% carton fill and chooses one of three standard carton sizes. Two of these are automatically erected and labelled with the customer's details. A goods receipt is dropped into the open box but this list is purely for the customer; we do not use it in our picking operations. When whole cartons, whole pallets or single items are required, the label is issued at a parallel station and affixed to the sealed unit, which is then fast-tracked by the conveyor to the checking and dispatch area."*

**Swisslog:**

How do the cartons get to the pick-by-light stations?

**Herr Groß:**

*"Sensors read the barcodes on the open cartons and transport them only to the pick stations required for that order. This frees up the transport conveyor and reduces the risk of bottlenecks. At the pick stations, the operators have no paperwork to refer to - they only act on the computer-controlled pick lights."*

**Swisslog:**

What do you rate as the most important element in the system?

**Herr Groß:**

*"Without a doubt, it is the Warehouse Management software. There is almost nothing that it does not control and therefore there is almost nothing that would work without it."*

**Swisslog:**

How did you select your warehouse management software?

**Herr Groß:**

*"We obviously had some experience from our previous stand-alone system, but we knew that the major changes in GSK's distribution strategy required a more flexible approach. Balancing the need for the latest technology with the need for a proven product means that we have to select our suppliers very carefully and trust is a key factor."*

**Swisslog:**

How has the Swisslog software worked in practice?

**Herr Groß:**

*"I have been buying software systems of one type or another here at GSK since 1986. Swisslog's WarehouseManager™ is the first software product that I have installed which has proven stable from the outset - without even any teething problems. It has worked seamlessly upwards to our ERP reporting software and downwards to the RF, pick-by-light and material flow systems."*

**Swisslog:**

How is quality controlled in your system?

**Herr Groß:**

*"WarehouseManager™ calculates an order's exact theoretical weight from its database of products. Just prior to the final packing station, the picked cartons are automatically checked weighed. If there is even the smallest discrepancy, the carton is diverted to a check station."*



## Customer Data



GlaxoSmithKline, Germany  
www.gsk.com

### Location

GlaxoSmithKline's headquarters are in Uxbridge, UK, and the group has an R&D budget of \$4 billion. GSK Germany is headquartered in Munich, with administration offices in Hamburg and consumer healthcare headquartered in Bühl. Vaccine production is based in Dresden, therapeutic product manufacturing in Bad Oldesloe and consumer healthcare production in Herrenberg.

### Brands

GSK has many world-leading pharmaceutical and healthcare brands including Panadol, Aquafresh, Lucozade,

Nicorette, Horlicks, Macleans, Zantac and Zovirax.

### People

GSK has over 100,000 employees worldwide. Of these, over 40,000 work in sales & marketing, 42,000 work at 99 manufacturing sites in 39 countries and over 16,000 are employed in R&D.

### Sales

In 2002, GSK had sales of almost \$32 billion, with pharmaceutical sales accounting for \$18 billion and new products representing 27% of total pharmaceutical sales.

## The Benefits

- \_Modern software and hardware platforms
- \_Ability to upgrade in spite of extensive customization
- \_Supervised, paperless and guided work flows
- \_Error reduction via bar-coded stock tracking
- \_Quality control through weight control
- \_Lot tracking for every lot item
- \_Pick and pack in one operation
- \_Queries and corrections at RF and workstations

### Outlook

The customized WarehouseManager™ software will accept future new products, such as the 1300 promotional articles that are being brought back in-house and will be picked by RF devices.

## Swisslog's Scope of Supply

- \_Software assessment analysis and concept evaluation
- \_Software system configuration & specification
- \_Software and hardware installation, testing and training
- \_Software system warranty, maintenance and remote support
- \_WarehouseManager™ software
- \_Material Flow Software
- \_Pick-by-light software and hardware