

*Case Study*

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# Harper Entertainment.

Order fulfilment system delivers flexibility and accuracy.





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The home entertainment market for books, DVD, video games and music is a highly competitive, high volume and extremely service driven industry.

‘Retailer or brand loyalty’ does not apply to the home entertainment consumer who wants the product NOW, and will shop around until they find it.

Harper Entertainment Distribution Services (HEDS) provides comprehensive warehousing and distribution services for this highly demanding market and with a new order fulfilment system supplied by Dexion Integrated Systems, is keen to position itself as the leading service supplier to the market.

In 2003 the decision was taken to form Harper Entertainment Distribution Services (HEDS) as a separate entity to Harper Collins publishing, to focus solely on the distribution of home entertainment products. Harper Collins was already managing book & DVD distribution from its facility in Moss Vale when HEDS Managing Director, Ray Mulligan began assessing the volume capacity for

the growth of the DVD market and this quickly identified the need for a new facility.

“We had the usual criteria when researching the property market, we wanted to be close to major road infrastructure, with accessibility to an excellent labour pool and we wanted a modern facility,” said Mulligan. “A property was identified in Sydney’s western suburbs, which whilst partially developed still required considerable investment”

HEDS then contracted ‘The Logistics Bureau’ to assess the plans for the facility and it was evident that the existing design would require significant modification.

“Dexion Integrated Systems had already installed the original system, but it was apparent that this would not cope with the growth we were projecting,” said Mulligan, “and they worked right alongside us to ensure we achieved the ideal order fulfilment system.”

The growth of the business has been quite phenomenal with over 30 million units



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shipped across both the DVD and book distribution businesses.

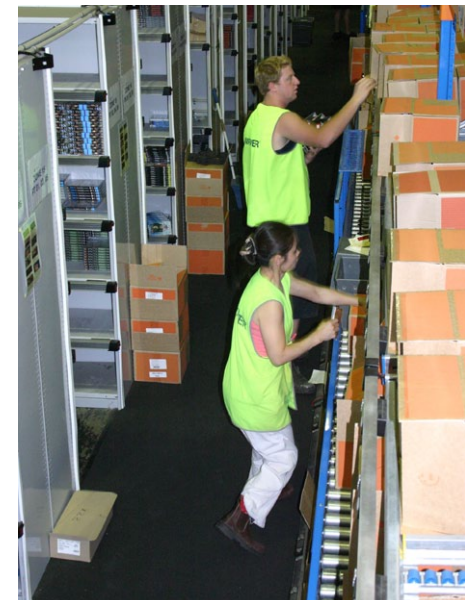
“To manage these levels of growth it was obvious that we had to invest in a high level of automation and the right people,” said Mulligan, “I wanted experts in their fields and have recruited from right around the globe to get them,” he said. A key appointment was that of Richard Whetton, Supply Chain Development Manager.

“I had been managing warehouses and supply chain in various industries throughout Europe when Ray invited me to join the team at HEDS and it didn't take long to understand just how highly demanding and competitive the home entertainment business environment is,” said Whetton. “If you want to be the market leader, and that's our aim, you have to make sure you have the right systems in place, systems that are accurate and flexible enough to cope with the ever changing demands of the market, and that's why we are so happy with the system provided by Dexion,” he said.

The Dexion Integrated Systems order fulfilment system includes a split case module with an automated induct station and re-circulating conveyor backbone. The conveyor includes 2 'new release' spurs, 1 spur servicing 3 picking zones of carton live storage and 3 picking zones of pallet live storage with the second spur servicing 5 picking zones of pallet live storage. The conveyor also includes a 'backlist' spur servicing 4 picking zones of carton live storage and binning.

Dexion Integrated Systems also installed its new pick to light system. All split case picking utilises the latest release pick to light system, which is RF driven. The same RF devices are used to perform full case picking from the bulk store, which features 4000 pallet positions of Dexion Keylock pallet racking.

Orders received from the major retailers via EDI are processed the same day and HEDS have invested in an ERP system and IT platform to ensure trading 'The EANway' will be a seamless transition.



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Customer orders are downloaded from the HEDS host computer to the order fulfilment system where they are queued in the work pool according to order priority. This ensures that “special” conditions are managed appropriately without the need for constant monitoring and/or intervention by operators. For example, urgent orders can be automatically slotted in at the top of the queue whilst orders to support an upcoming promotion may take their position at the tail end of the queue. Orders can be manually released from the work pool for picking, enabling any order or group of orders to be selected and released regardless of their position in the work pool queue.

Most importantly, the operator is in complete control of how orders are released for picking at any given time.

The split case components of orders are picked into shippers, each containing a pre-printed unique barcode label automatically applied at the time of shipper induction.

Shippers are then routed only to those zones where picking is required. Each picking zone in the split case module is manned by a picker with a handheld RF device that includes an integrated scanner. There is a pick indicator light for each location, incorporating a 3 digit display to relay the pick quantity and any special instruction codes.

Shippers are inducted for picking by scanning the carton barcode label. This triggers the lights to illuminate for those products that are to be picked. Displayed quantities of the required products are picked and acknowledged. Once all picks for the zone are completed, the shipper is placed on the takeaway conveyor and routed to the next zone where picking is required. The shipper progresses through the pick module in this manner until it is complete.

Invoice printing has been incorporated into the pick module where multiple printers are spread across several zones. Invoice print triggers are uploaded to the HEDS



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host system when a shipper is scanned in one of the designated invoice picking zones. Invoices are then immediately printed and ‘picked and acknowledged by the operator manning that zone. This not only eliminates the usual post picking bottleneck commonly experienced at despatch but also the possibility of attaching an invoice to the wrong shipper.

Shippers are check weighed inline and dispersed through 2 carton sealing stations. Shippers that are not within the tolerance are rejected and diverted for manual checking at a QC station. Batched orders (picked to tote) bypass the carton sealing stations and are routed to the repack station.

The full case components of each order are picked via RF with each full case having a pre-printed, unique despatch label, manually applied at the time of picking.

So, following an investment of over \$4 million Harper Entertainment Distribution Services is beginning to extract additional capacity from the system.

“Over the last twelve months we have more than doubled the number of SKU’s managed in this facility,” said Whetton, “which illustrates the way the industry is headed. Special promotions, customised DVD’s, new releases, security tags for some customers and poster offers and even point of sale promotional material are all handled here, so the key functionality relates to flexibility and accuracy,” he said. Distribution Manager, Michael Wilcox, is also impressed with the functionality of the system. “This is a very seasonal and event driven business,” he said “with over 50% of our business achieved in the last 16 weeks of the year and with new releases pretty much every week, the system has to cope with massive spikes in activity,” he said.

HEDS operate 2 shifts from 6am to 10 pm 5 days a week and have approximately 30 permanent staff operating in the warehouse. “Our permanent staffing is very comfortable with the system, but we obviously rely on casual labour for the peak times,” said Michael, “so it’s important that they are up to speed with the system really quickly,

we normally find that casual staff are comfortable with the system within a few hours,” he said.

According to Mulligan, Dexion Integrated Systems and Harper Entertainment Distribution Services have formed an excellent working relationship as a result of this project.

“Inevitably there are challenges with this type of project and this level of automation, but throughout we have found the team at Dexion Integrated Systems to be very constructive and receptive to our demands,” said Mulligan. “They view the system as organic, a living entity that can be modified and fine tuned to extract further productivity and accuracy gains,” he said. “We constantly reexamine the way we do things and challenge Dexion Integrated Systems with new ideas,” he said “they’re always available and prepared to listen and, more often than not, will respond with suggestions that take our concepts even further than we had envisaged, they are an excellent business partner,” he said.

