

Case Study



Blackwoods

Greystanes, NSW

Blackwoods enhances automation to sharpen its service

Blackwoods, part of Wesfarmers Industrial and Safety, is Australia's leading supplier of tools, safety gear, workwear and other industrial supplies to businesses of all sizes across Australia.

With a product range of over 300,000 SKUs, Blackwoods supplies safety equipment, fasteners, welding, gas and abrasives, lifting and rigging, apparel and embroidery, footwear, signage, manufacturing and inventory solutions.

In March 2019, following the successful delivery of Blackwoods' Scoresby automation project, ThreeSixty was re-engaged to partner with Blackwoods to provide additional professional services at its NSW distribution centre (DC) in Greystanes. Specifically, ThreeSixty would:

- Project manage the installation of new Dematic pack automation equipment
- Project manage the integration of the Enterprise Reporting Platform (ERP), Warehouse Management System (WMS), Warehouse Control System (WCS), Freight Management System (FMS) and Dell Boomi middleware
- Assist with design, build, test and deploying the systems integrations and WMS/WCS software enhancements
- Provide change management and overall project governance

The Challenge

Blackwoods was seeking improved efficiency of its operations and service levels by removing the manual order carton packing process.

The Greystanes DC was an existing operation utilising Dematic's Goods-to-Person (GTP) picking system, Multishuttle Automated Storage/Retrieval System (AS/RS), and voice pick zone routing solution. These automated systems were combined with manual packing, labelling and despatch processes, with consolidation of manual and bulk picks carried out by Blackwoods' existing WMS.

“ The multiple integrations and staged implementation of this project offered both challenges and opportunities within a live facility, which the Blackwoods team embraced side-by-side with ThreeSixty in a true partnership, and that delivered the benefits of improved customer service, speed and capacity. ”

David Weaver, Head of Strategic Projects, Blackwoods

The challenge presented by this complex, live environment was to implement Dematic's pack automation and sortation solution, with minimal disruption to warehouse operations and customer service levels.

Our Solution

To ensure a seamless introduction of new automation equipment and software, intensive, critical planning workshops with Blackwoods' operations team and vendors were conducted. This collaborative approach set the expectations of all stakeholders and prepared the team for the high level of difficulty in executing the implementation in a live environment.

Following the workshops, complex interface solution specifications were designed for Blackwoods' Focus ERP, SEQOS's WMS, Dematic's IQ system, and MyFreight's FMS.

Equipment included dual carton label applicators for carton contents and transport labels, an auto-carton tape sealer, void fill machine, invoice and quality assurance divert lanes, along with voice/application enhancements.

Software enhancements included real-time lowest cost carrier selection with consignment label printing and customer invoice consolidation.

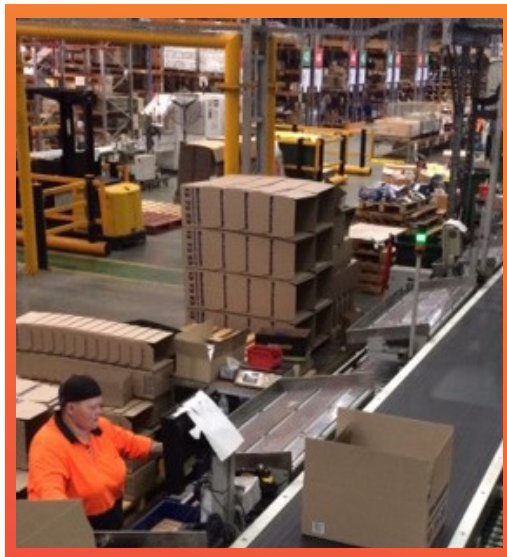
Given the real-time integration required with centrally hosted servers, cloud-based solutions, and onsite WCS, all phases of testing were vital to the success of the project. Strict testing plans, dedicated resources and regimes were put in place to support systems integration and user acceptance testing, and after-hours, onsite live testing.

Finally, the deployment was split into three distinct phases – mechanical, software and sortation – across three weekends over a five-week period, to reduce Blackwoods' operational risk and exposure. In conjunction with go/no-go steering committees, this approach provided strong project governance and allowed Blackwoods to make informed and critical decisions at key moments during the deployment phase.



Result

The project was successfully completed in July 2019, after the third deployment phase was finished and the business case KPIs were achieved. The project was delivered to Blackwoods on time and within budget, with minimal disruption to its customer service levels.



Benefits to Blackwoods included:

- Improved customer service through significantly reduced despatch lead time
- Increased capacity by streamlining and shortening the packing and labelling process
- Improved productivity through reduced stoppages and downtime, and by maintaining and balancing the workload across twelve conveyor zones
- Flattening of peaks in demand without impacting lead times
- Increased efficiency resulting in reduced cost to serve
- Improved customer satisfaction measured through improved Delivery In Full On Time (DIFOT) performance