

## Fulfilment Batching

2 mins 51 seconds

*Narrated by Tom Killeen, COO THG Ingenuity*

### INTRODUCTION: OUR APPROACH TO SYSTEM OPTIMISATION

- 0:05 At THG Fulfil, we take a unique approach to system optimisation, pushing beyond standard automation capabilities to maximise efficiency and performance.
- 0:14 While many automation providers operate within fixed system specifications, our goal is to exceed these limitations through advanced optimisation techniques.
- 0:23 Rather than simply investing in new technology, we ensure that every system and process is fully optimised to deliver peak efficiency before further investment is considered.
- 0:32 Every system change at THG Fulfil undergoes rigorous real world and software-based modeling.
- 0:38 Our data scientists collaborate closely with operational excellence teams to simulate and test modifications in real time, ensuring measurable benefits before implementation.

### OPTIMISING INBOUND AND ORDER BATCHING

- 0:48 Our batch picking strategy begins before products even arrive at the warehouse.
- 0:52 We analyse key SKU characteristics and use this data to guide inbound operations, maximising outbound efficiencies, by understanding product commonality, bin composition required, product dispersion ratios, bin fill rates, whether to bring a bin to port to refill or create a new location, augment client specific requirements such as FIFO, batch, Expiry, returns first policy, and even more.
- 1:17 When customer orders are received, they are processed through our proprietary batching algorithms.
- 1:22 Our data science teams employ advanced methodologies incorporating graph theory, mathematical modeling, proprietary THG intelligence, and our own THG Fulfil magic to determine the most efficient storage locations and logic.

- 1:35 Orders are grouped into batches of 42 shipments, again designed to maximise commonality, reduce bin presentations to fulfil each batch while meeting key operations KPIs that enhance service for end customers.
- 1:47 This 42-shipment batch is then transferred into the warehouse control system as a super batch, treated as a single shipment order.
- 1:54 From the WCS perspective, this enables efficient grouping at a single operational port, streamlining the picking process.
- 2:03 Orders are assigned to a batch trolley and then picked until the batch is complete.

#### RE-BINNING, PACKING AND SCALING

- 2:07 A complete batch is then transferred to re-bin walls guided by pick-to-light technology, where 42 shipments are sorted into individual orders.
- 2:15 Finally, the shipments are pushed to pack stations for processing, which are tailored to client's packaging requirements.
- 2:21 This batching process allows THG Fulfil to scale operations at the flip of a switch, more than doubling standard site output.
- 2:28 THG Fulfil software can enable batch picking at any moment to any port without interrupting the flow of alternative clients and end consumer promises, enabling the ability to flex to demand when an unexpected influx of sales are received.
- 2:41 To ensure we provide the best possible service to the only people that matter, the end consumer.
- 2:46 And we're not stopping there. More enhancements are coming this year.