



Orders and Transactions in BellHawk V7.8

Introduction

BellHawk uses the concept of Orders, which are issued by operations managers, and Transactions, which are recorded against those Orders by material handlers and shop-floor workers using mobile and fixed station devices. This document explains how these are inter-related and how Orders relate to BellHawk licensing options.

Orders

The types of order that are available in BellHawk are:

1. Purchase Orders – issued to suppliers to purchase materials for the organization.
2. Advanced Shipment Orders – similar to purchase orders but issued to suppliers for customer owned materials.
3. Work Orders – on which work is performed. They may or may not have a route of operation. These come in four variants:
 - a. Service Orders – used by transactions that record the start and end of work on operations, including labor consumed.
 - b. Processing Orders – does the same as service orders plus is used by transactions that record the consumption and production of materials on an operation as well as optionally recording equipment used and for how long. Also used to record the return of unused materials to stock.
 - c. Assembly Orders – does the same as service orders plus is used by transactions that record the assembly of an item or set of items with tracking barcodes.
 - d. Test/Repair Order – does the same as service orders plus is used by transactions that record the test/repair of an item or set of items with tracking barcodes.
4. Pick/Move Material Orders – these orders are used to request the movement of materials from one place to another using barcoded pick sheets. This includes Pick Orders for picking materials for a work order operation or for a sales/ship order.
5. Ship Orders – these are orders to ship materials to a customer in response to a customer order. Multiple shipments may be made against one sales order and there can be multiple sales orders for one customer order.

Please note:

1. We recognize customer orders may come in multiple forms, such as:
 - a. Purchase orders, issued by the customer, against which to ship specific products.

- b. Blanket purchase orders, covering future shipments in to-be-determined tranches. These will typically call for multiple shipments at specified intervals.
 - c. Contracts with the Federal Government and other organizations for the delivery of products and services that may not directly map to the products actually shipped or the payment terms.
2. In BellHawk V7, all these forms of customer order get entered as a Ship Order, which is the internal company order to ship products to the customer. This internal ship order carries along the customer and their purchase order number for reference. The ship order line items refer to internal part numbers but equivalent customer part numbers can also be tracked, when needed, for sales order acknowledgements.
3. In BellHawk V7 there may be multiple shipments against a ship order. In this case, successive Pick Orders are created for the balance of the items to be shipped. These items can then be recorded as having been shipped, using a Ship Picked transaction or the BellHawk Loading Dock Option.
4. BellHawk V4 did have a separate Customer Contract/Blanket Order level, against which ship orders could be released. This was, however, found to be too cumbersome for most of our client base and so was not implemented in V5, V6, or V7. The mechanism is still available in the BellHawk database and can be reactivated as a customization when needed.
5. In BellHawk V7 we have eliminated the concept of jobs because, for some clients, jobs are synonymous with work orders, for some they are synonymous with sales orders, and for others they are synonymous with a set of work orders related to a single ship order. In BellHawk V1 through V6 work orders were called jobs and this nomenclature is still perpetuated in the BellHawk database.

Transactions

BellHawk supports the following transactions against orders:

- Receive materials against purchase order or advanced shipment order.
- Record movement of materials against a pick/move order.
- Record start and end of work on a work order operation
- Record materials consumed and produced by a work order operation
- Record equipment time consumed on a work order operation
- Record shipment of materials against a ship order

BellHawk also supports the following transactions, which are not recorded against orders:

- Entry of materials into inventory
- Simple receive of materials from suppliers without purchase order or advanced shipment order.
- Movement of materials without a pick/move order

- Packing of materials (a variant of a Move transaction)
- Quality control approval/failure of materials
- Withdraw or adjust inventory quantities at a location or in a tracked container.
- Shipment of materials not against a ship order

Transactions have an immediate impact on recording the status of materials, people, and equipment. Details of the results of transactions are also saved in history tables where they can be used for subsequent reporting.

Notes on Licensing Options

1. The BellHawk Barcode Inventory Tracking System (BH-BITS) edition supports all the material transactions that do not require orders, as listed above except for the quality control transactions.
2. The BellHawk Work-in-Process Tracking System (BH-WIPS) edition supports Batch and Service Work Orders but not other types of work orders or transactions on materials
3. The BellHawk Job and Materials Tracking System (BH-JMTS) edition supports all the features of BH-BITS plus BH-WIPS plus adds Processing, Assembly and Test/Repair Work Orders.
4. The Purchase Order Option (BH-PO) adds Purchase Orders and Advanced Shipment Orders to the BH-BITS or BH-JMTS editions.
5. The Sales Order Option (BH-SO) adds Ship Orders to BH-BITS or BH-JMTS.
6. The Pick Option (BH-PICK) adds Pick/Move Orders to BH-BITS or BH-JMTS.
7. The Quality Control (BH-QC) option adds quality control transactions to BH-BITS or BH-JMTS.

Commentary

The concept of orders is to add an operations management control level to the simple tracking of materials or jobs. For make-to-order manufacturers, it enables work orders, purchase orders, and the status of materials received, processed, picked, packed, and shipped to be related to a sales order so that a report can be generated giving the overall real-time status of each sales order.

For some simple materials tracking operations, such as in a stock room, the basic BH-BITS edition, which does not support orders, may be sufficient. Also for some simple production tracking applications, the BH-WIPS edition, which just supports batch/service work orders, may be sufficient

For warehouse management, the BH-PO, BH-SO, and BH-PICK options makes an excellent combination and are sold as the BellHawk BH-WMS add-on bundle to BH-BITS. For manufacturers and other industrial organizations BH-JMTS is an excellent way to track their operations in real-time and, possibly together with the WMS bundle, is the recommended choice.