Data Sheet for BellHawk Online
Real-Time Operations Tracking System (RT-OPS)

The BellHawk Online Real-Time Operations Tracking System (RT-OPS) is a comprehensive real-time operations tracking and management system that is especially suitable for small to mid-sized industrial organizations.

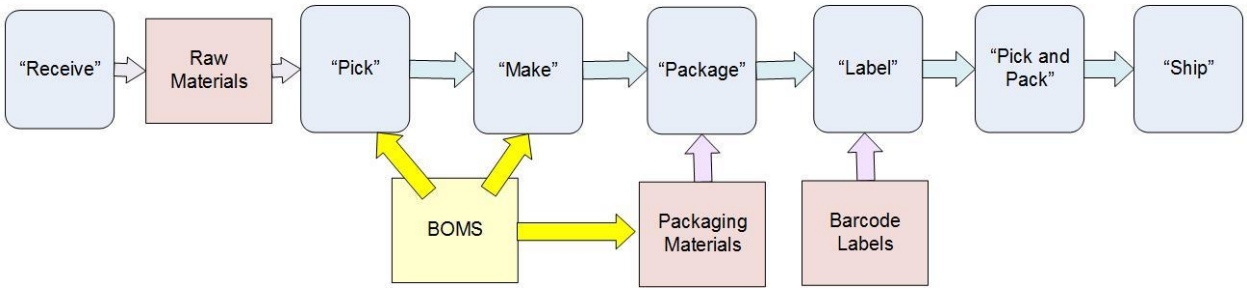
RT-OPS is used by manufacturers, food and pharmaceutical processors, engineering, defense, test, and repair organizations, as well as construction and other industrial organizations.

RT-OPS tracks the receipt and put-away of raw materials, their transformation through a sequence of production operations into intermediate and then finished products, and then their packing and shipping, in real-time.

BellHawk RT-OPS:

1. Provides managers, supervisors, and other staff members with a real-time view of work orders and materials, including the status of work-in-process and customer orders.
2. Collects actual cost data in terms of labor and materials consumed to make products and compares this with projected costs.
3. Prevents mistakes, such as using the wrong materials for making a product, by comparing materials scanned-in with stored bills of materials for making products.
4. Tracks materials by lot-numbers, serial-numbers, and expiration dates and builds a traceability history of which materials were used to make which product.
5. Captures performance data, such as how long each operation takes in making a product, how many parts were scrapped and the reasons, and how long materials were waiting at a location before being used or worked on.

In addition, RT-OPS integrates extensive "License-Plate" materials tracking capabilities, making it suitable for tracking raw, intermediate, work-in-process, and finished goods at multiple geographic locations. RT-OPS can also be used to track tools and other assets, as well as materials in vehicles.



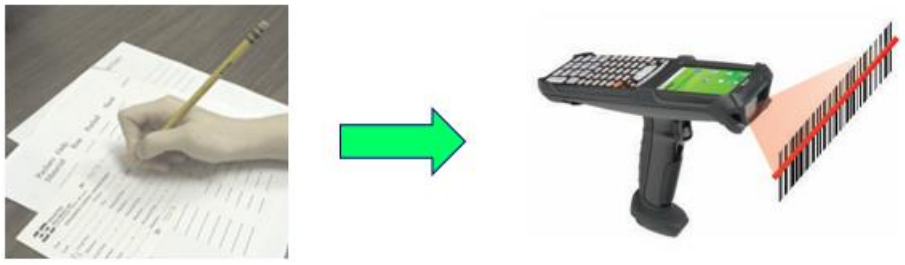
RT-OPS is designed to capture all aspects of transforming raw materials into finished products.

For those organizations needing less capability at a lower price, two subsets are available:

1. Simple Production Tracking System (SPTS) which tracks work order status for each operation and the labor consumed.
2. License Plate Materials Tracking System (LP-MTS) which provides comprehensive materials tracking capabilities without the need to create or track work orders.

These can be an effective starting point for organizations, with the ability to upgrade later to the full capabilities of RT-OPS. Please see the separate data sheets for these systems.

There are also 14 optional modules and 4 IIOT appliances which can be used to extend the capabilities of RT-OPS for specialized applications such as printing barcode labels, performing warehouse management or meeting FDA regulations for food and pharmaceutical supply chain tracking applications. Please see the separate data sheets for these modules and appliances.



One of the primary applications of RT-OPS is to transition an organization from using paper forms and manual keyboard data entry to doing real-time data capture using technologies such as barcode scanning and mobile computers. This not only gives managers a real-time view of the status of their operations but enables the system to warn material handlers and machine operators when they are about to make an operational or data collection mistake.

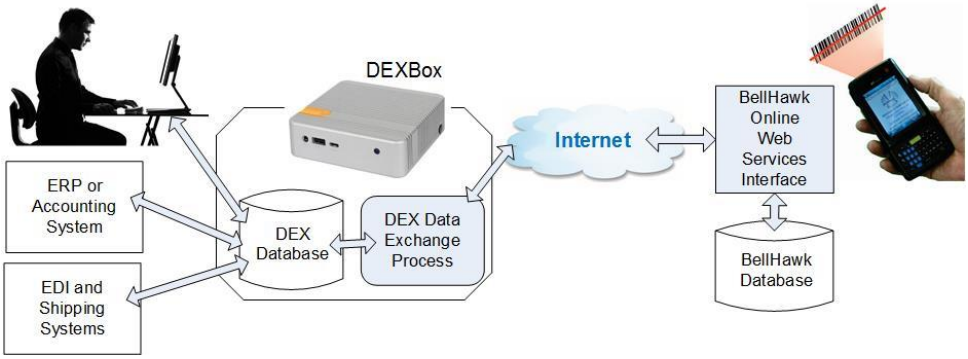
RT-OPS is simple to use. All users need do is to use a PC, Mac, or Android based device and point the web-browser on the device to the URL of the organization's private website. There is no special software to load. Data can be collected with any device with an external or internal barcode scanner that runs a modern web-browser.

Best of all, operational data can be viewed in real-time anywhere, and at any time, users have an Internet connection, including using smart phones and iPhones over the mobile phone data network. This enable organizations to track their materials and operations at multiple geographic locations including field and construction sites and on support and delivery vehicles.

One of the things that makes RT-OPS easy to implement is its ability to perform the tracking of materials using low-cost rolls of pre-printed tracking barcodes and the ability to print out documents such as barcoded travelers on office printers. This can avoid the need to invest in expensive barcode label printers unless they are specifically required.

However, when capabilities such as printing serialized barcodes to go on pharmaceutical products or printing GS1 standard serialized shipping container barcode labels then the BellHawk Barcode Label Printing Appliance (BLPA) can be used as an on-site IIOT (Industrial Internet of Things) device in each plant to print out custom format labels, based on stored rules, on a wide variety of different barcode label printers, for different applications.

All communication between data collection and viewing devices and each client's website is encrypted for security. Also each organization gets their own private database and website. This enables each system to be configured, and if need be customized, to meet the specific needs of each client organization.



RT-OPS can be run stand alone or can exchange data with other systems through its web services interface or through an optional DEXBox. This IIOT device enables users to send data, such as work orders, to RT-OPS by simply writing the data to local tables on a solid state disk within DEXBox. DEXBox also downloads labor and materials history data from RT-OPS into local database tables, from which it can be accessed for data exchange with Accounting and ERP systems, as well as for use by supply chain systems, such as EDI.

Within RT-OPS all real-time materials tracking is performed using "license-plate" tracking methods in which nested containers of materials and serialized items are tracked based on license plate tracking barcodes attached to each container or serialized item. This is the method used by FedEx and UPS and is the basis of the GS1 (Global Supply Chain One) standard for tracking and tracing materials in the global supply chain. This is the same method selected by Government agencies such as the Food and Drug Administration and Department of Defense.

With the optional BellHawk Quality Control and Materials Traceability modules, RT-OPS is CFR 21 Part 11 compliant and so can be used in applications that need FDA or equivalent Canadian or EU agency validation.

For more information please see www.BellhawkOnline.com, call (774)-708-9607 (USA), or Email Sales@BellHawkOnline.com.

