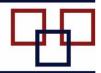
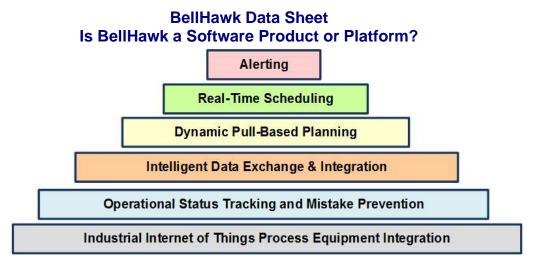


## Real-Time Materials Tracking and Traceability Software



www.BellHawk.com



The BellHawk software can be used "out-of-the-box" as a standard materials-tracking-and-traceability, as well as an operations tracking, software product which can be used on a subscription basis in the Cloud or installed at a client's own data center.

Because it is rules-based, the standard BellHawk product can be configured to meet a wide-array of client applications without needing to customize the BellHawk software. It also comes with a number of standard interfaces that enable external systems to exchange data with BellHawk without customizing the BellHawk software.

But, for those organizations that need to customize BellHawk and modify its capabilities then BellHawk can be used as software platform that can be customized and integrated within each client's IT infrastructure.

BellHawk has been deliberately developed as an open architecture software platform that is designed to provide or dynamically generate at least 90% of the needed code for even the most challenging materials and operations tracking applications.

In this mode, BellHawk, in conjunction with the MilramX automated data exchange software, can be thought of as a six-layer stack, as shown above. These layers are:

- 1. Integration with process line equipment, such as weighing scales and PLCs. This is typically done using IIOT devices.
- 2. Operations and Equipment Tracking using technologies such as barcode and RFID scanning, and mobile computing. This layer also integrates user warnings to prevent operational mistakes as well as rules-based barcode label printing.
- 3. Intelligent data exchange and integration so avoid duplicate data entry and to ensure that information entered in systems used by one department is automatically relayed to systems used by another department.
- 4. Dynamic pull-based materials requirements planning. This is usually customized for the needs of each specific organization and product line.

- 5. Real-Time scheduling to ensure resources are devoted to the most critical tasks at any one time. This is usually customized for the needs of each specific organization.
- 6. Alerting. Here the data in the tracking systems, as well as from other systems, is periodically examined to determine whether there is an upcoming event or impending failure that a manager needs to pay attention to. In which case an Email or text alert is sent to the appropriate manager(s) and their staffs. This is always customized for the needs of each specific organization.

BellHawk is a real-time Artificial Intelligence (AI) based software platform that has a rules-based engine at its core. It is designed so that every component can be replaced, customized, or supplemented except the Tau-Adaptor core rules-based engine.

Some customizations performed by clients or resellers of the BellHawk software include:

- 1. Development of custom reports and Excel exports. Also development of custom Excel imports, such as from CAD systems.
- 2. Integration with a wide range of other legacy and Cloud-based systems, such as accounting and ERP systems.
- 3. Replacement of third-party software, such as BarTender, with alternate software already in use by the client.
- 4. Integration with process line equipment, including in-line barcode labeling systems.
- 5. Development of custom user interfaces to supplement or replace the barcode and RFID data collection interfaces provided as standard with BellHawk.

Often the operations and materials tracking layer can be used without customization (as it is highly configurable) but increasing levels of customization are typically required as we progress up the application stack shown at the beginning of this document.

Most components within the BellHawk platform are designed to be customized or replaced without needing access to the source code of BellHawk. But, where appropriate, access to the source code of BellHawk can be licensed, except for the core rules-based engine, which contains the licensing code.

BellHawk is designed so that clients can start out using BellHawk as a product and then progress to using BellHawk's platform features as they need to integrate it with other systems and customize BellHawk to meet their specific needs.

Please bear in mind that the BellHawk product has the common set of features and capabilities that are readily applicable to a wide range of end-user applications but, as such, BellHawk may not be optimum for any one application, especially in the way the user interface works.

This may be acceptable, as a way of keeping implementation costs low, for some organizations but not for others, which is where the BellHawk platform comes in.

As the BellHawk platform provides over 90% of the needed code for most applications, it enables each organization to rapidly deploy a custom operations and materials tracking system without spending the multiple person-years and hundreds of thousands of dollars needed to develop a custom application "from scratch" to replace the capabilities of BellHawk.