BellHawk[®] Real-Time Materials Tracking and Traceability Software

www.BellHawk.com



BellHawk is an open-architecture software platform. It can be used as ready-to-use packaged software or, for those organizations installing BellHawk in their own data center, it can be used as a powerful software development platform, which can be customized and integrated into their own IT infrastructure to support complex requirements.

The BellHawk software consists of a specialized website and a SQL Server database that run on a Windows Server computer. All user interaction is performed using web-browser based devices.

The BellHawk software can be installed "in the Cloud" at a remote data center or installed on a Windows Server within the facility within which it will be used.

For data collection these can consist of devices such as PCs or Android tablets that have external corded or cordless barcode scanners which are used for data capture. These devices can also include ruggedized PDAs with integral barcode scanners as well gun-style units equipped with long-range scanners, which are suitable for scanning from the seat of a fork-lift truck. Data viewing can be done using these same devices as well as using smart phones and tablets.

This data collection and viewing can take place over a local area network, over an Internet connection, or over a mobile phone data network, anywhere there is an Internet connection to the server computer.

Installing BellHawk in a secure data center has many advantages, such as enabling users at many locations to capture and share tracking information over the Internet and ensuring a high-uptime by having the software under the control of an experienced IT staff at a data center with backup power and automated backup and restore capabilities.

But having BellHawk running remotely from the plants and warehouses in which it is used, also has disadvantages, in that the BellHawk database is in a remote location and is therefore not available for interfacing to other systems.

To solve these problems, BellHawk has a set of remote interfaces which can be run on Windows Workstation computers in remote manufacturing plants are warehouses, to provide local data exchange interfaces to BellHawk running at a remote data center.

The available remote interfaces are:

- 1. The TAG barcode labeling software. This enables label printing requests to be made from mobile and other devices through the web-server interface and printed out on a selected barcode label printer in the local plant or warehouse.
- 2. The DEX interface which essentially provides a "mirror" of the BellHawk database on a locally accessible SQL Server database. Users can send data, such as for Purchase Orders and Work Orders, to BellHawk by writing data into tables within this DEX database. Also data captured by BellHawk, such as for Purchase Order receipts and resources (materials, labor and machines time) consumed by Work Order Operations, are relayed back from BellHawk into local tables in the DEX database, where they can be used for custom reporting and for data exchange with ERP and accounting systems.
- 3. The weighing-scale interface, which reads stable weights from RS232 or similar interfaces to weighing scales and relays these to BellHawk every time the weight changes. These weights can then be used within BellHawk data capture transactions to avoid data capture errors.
- 4. An RFID interface, which interfaces to local RFID data-capture devices to automatically record the movement of containers of material.

Please see separate data sheets for each of these interfaces.

If BellHawk is installed on a locally installed Windows Server computer, accessible over the plant LAN, then this interface software can be installed on the same server as BellHawk. But normally they are installed on a remote Windows Workstation at each location, where local data exchange is required.

In most cases, we recommend the use of industrial computers, such as those based on the use of the Windows IIOT software, which can automatically restart the transfers in the event of a power outage.