BellHawk User Defined Parameters Data Sheet

The User Defined Parameter (UDP) capability of BellHawk can be used to avoid the need to customize BellHawk in order to capture data that is specific to a particular application of BellHawk. With UDP, clients can use Excel imports to configure rules in the BellHawk knowledge-base about data to be captured under specified conditions on selected data entry screens.

This user defined data can then be used for custom reports, exports to other systems, as well as inclusion in other data exchanged with other systems With the TAG rules-based barcode labeling module, these user defined parameters can also appear on client-defined barcode labels.

UDP enables the tracking of item configuration data such as:

- The length, width and thickness of materials with a common part number, such as rolls of material, sheets of steel and wood, lengths of steel tube. This includes tracking the dimensions of off-cuts, butt rolls and other material returned from a production operation.

- Options, such as color, size and finish for items with a common part number. This feature is especially beneficial for make-to-order manufacturers who manufacture products with a wide-range of options.

- Characteristics such as "harvester", "where harvested" and "when harvested", as well as size and grade, for ingredients to food manufacturing processes.

The specified UDP fields, as well as item configuration options and choices, appear on receiving sheets, order acknowledgements, production travelers, order picking sheets, packing slips, and bills of lading (if the shipping dock option is in use).

A major feature of UDP is the use of inheritance methods, to reduce data entry labor. When sales order lines are entered into BellHawk, their user defined item parameter values, such as color and size, are inherited from those on the item master records. These parameter values can be modified, if needed, and are then inherited by make-to-order jobs created from the sales order lines, as well as by the pick order lines for the sales order. The parameter values are also inherited by the containers of material produced from the work orders. These UDP parameter values are then checked at picking time to ensure that the user defined parameters, such as color and size, for the items being picked match those on the sales order lines.

With this option, parameters such as length, width and color can also be specified on purchase orders and advanced shipment notices. They also appear on the receiving transaction screens, so that the people doing the receiving can check and modify (if need be) these parameters.

The big benefits of separately tracking the length and, optionally, width and thickness of materials are:

1. Can use one part number for all lengths and widths of a specific material.

2. Avoids using a separate part number for each length and width.

3. Ensures accurate real-time visibility, location, and costing of inventory, including off-cuts.

4. Can accurately compute the actual cost of materials used on jobs, including off-cuts from prior jobs, rather than using the cost of whole sheets or lengths of raw materials.

5. Can accurately export changes in per unit length or area inventory for each item to ERP or accounting system.

The big benefits of tracking the configuration of products rather than using a separate product number for each configuration are:

1. Much smaller set of items and routes to manufacture those products to setup and maintain in tracking system. In one case, a client reduced over 2,000 SKUs to 14 item master records, one for each product line, and then used UDP parameters to specify the wide range of options available with their semi-custom products.

2. Do not have to create or track SKUs for each new product. Makes it much easier for production and sales people to remember these numbers.

3. Can add new options and choices to product line as needed and remove old ones. Sales people get to see and select current options and choices for each product.

4. Options and choices get carried to production jobs and shipment picking-sheets to avoid mistakes in production or shipping.

5. Great for custom make-to-order products as customers can select from a wide variety of options and special features can be added as needed.

6. It is easier to export changes to product line inventory, customer orders and shipments to an ERP or accounting system than to maintain account sets for thousands of SKUs in ERP or accounting system.

The UDP parameter values are stored in industry-standard JSON format, such as that shown here: {"COLOR":"Blue","Length":"100","LUOM":"ft","Width":"12","WUOM":"ins"}

This data is stored in a special UDP column, added to most tables in BellHawk. Only those parameters specified to be captured for each data object are stored in the UDP columns, making for a small, efficient tracking database. This is much better than adding custom columns to each client's database or adding multiple columns for custom data that may or may not be used.

As part of this option, BellHawk provides a special extension to SQL Server that enables the UDP parameter values to be retrieved as if they were column data for use in custom reports and data exchange with other systems.