This module provides support for sales order configuration during the sales order entry process when the BOM Module is not present. When the BOM Module is present, this module is not required as the configurations are automatically integrated with the use of modular and variable bills.

Configuration allows the features and options of a product to be chosen during the order entry process.

Configuring a Product

ALERE supports sales order configuration in a unique way by making use of the "Modular" choices and "Variable" quantities that make up a product.

Engineering uses BOMs or bills of material, to establish a formal list of the raw materials and components that are used to manufacture a product. This means there has to be a unique BOM for every permutation of a product.

To reduce the huge number of BOMs required for a product with even a modest level of configuration, ALERE uses Modular bills, which have a list of choices instead of components, and Variable bills, which allow a quantity to be input.

Using this approach, products with hundreds or even thousands of permutations and requiring an equal number of bills can be defined with only one bill.

The result is a significant reduction of engineering resources and increased bill accuracy. Simply stated, it takes less time to engineer, products have better quality, and inventory is reduced.

Another advantage is the bill structure becomes the basis for sales order configuration. Engineer the bill and get configuration for free.

Establishing a Configuration

In the Configuration Module an *Item Configuration* screen is used to simulate a BOM with its modular choices and variable quantities when the BOM Module is not present.

The configurations for items are created and maintained using Treevision. Here, all the features and options and how they are related can be viewed at a glance.

Item Configuration
Item - MBBA01 Rev: 001

Header		Config

MBBA01	FG	MBFG01	Status	Complete
MBFG01				
MBFG02	FGcfg Men's 21 Speed White Mtn Bike (Serial Numbered)			

Item	Choice	Description
MBRE01	1.00	How Many Reflectors?- Red Stick On
MBYB01	MBBR02	Brake Assy-Regular
MBYD01	MBDA05	Derailleur, 21 Speed Std Shift (Serial Numbered)
MBYF01	MBYFM1	What Color Men's Frame ?
.MBYFM1	MBFR19	Men's Frame White
MBYL01	MBZLT1	Include NO Light
MBYS01	MBSA01	Saddle ATB Gel (All Terrain Bike)
MBYT01	MBTR01	Tire Knobby (Lot Numbered)

Exit Save F9 Del Bwd Get F8 Fwd Add F7 Load Clear

An on-screen right-click menu makes it easy to add, edit, and delete choices and inventory items.

Modular choices within modular choices permit the construction of decision trees with dependency rules. For example: an order for a bike may have two top level choices - Men's or Women's. The choice of a Men's bike provides the second level choices - Mountain or Street. And so on.

In addition to allowing choices to be made, variable information can be entered using a pop up numeric keypad. A practical example of the use for variable information is specifying how many reflectors to put on each bicycle wheel or the number of inches of steel tubing required.

Similar configurations from previous or current sales orders can be located, copied into an order and edited. This saves a significant amount of time on orders with many features and options.

Predefining Configurations

Product configurations that are built for stock or are a commonly sold item can be predefined and assigned finished good part numbers.

This has a number of advantages:

- Entering a finished goods part number allows the sales order configuration process to be skipped because it is already pre-defined.
- The process of configuring a complex product can be simplified by modifying a similar finished goods part number.
- A "default" configuration template can be used to configure the remaining items.
- Standard pricing can be established for finished good part numbers.
- The finished goods parts can be stocked and tracked in inventory.

Using the Sales Order Configurator

Entering an item number on an order that is used for a BOM with modular or variable components automatically displays the SOC screen. On the screen is a list of choices to be made and quantities to be entered.

Sales Order Configurator - Sales Order 70062, Line 2

Configuration	Notes

Item	Description
MBBA01	Bike Assy (to be configured)

Cost (USD)	Price (USD)	Method	Format
0.00000	30.00000	SOC	None

Item	Choice	Description
MBRE01	2	How Many Reflectors?- Red Stick On
MBYB01	MBBR02	Brake Assy-Regular
MBYD01		What Derailleur (Shifter) ?
MBYF01	MBYFM1	What Color Men's Frame ?
.MBYFM1	MBFR19	Men's Frame White
MBYL01	MBZLT1	Include NO Light
MBYS01	MBSA01	Saddle ATB Gel (All Terrain Bike)
MBYT01		What Type of Tires ?

Exit   Save F9   Load   Restore   Blank   Continue

Selecting a line with choices displays a list of choices that can be selected.

Should a selection have a dependent choice, then that choice is added to the list and must be made.

When the item is fully configured and saved, the configuration is compared against any pre-defined configurations. If there is a match the part number of the match is automatically substituted for the one entered on the order.

The configurator will recalculate the price and cost based on the features and options chosen each time it is saved except in the case of a matching finished good part number. In that instance, the price and cost of the item is taken from inventory and entered on the order.

When the BOM Module is present a wide variety of costing and pricing rules can be established and used when a new configuration is entered.

Kitting and Configuration

The Configuration Module has built in support for kitting, making it native to the accounting system.

Kitting in ALERE far exceeds what is commonly thought of as standard kitting capabilities. Just as an order can be configured with features and options, the same applies to a kit. This even includes building a kit on-the-fly by choosing the components from a list and entering the quantity required for each.

Orders for kits that do not require features and options to be selected are taken without ever seeing the configuration screen.

When the order for a kit is saved, components are allocated in inventory. At the same time, the kit is placed "on order" in inventory.

The kits and their components are included in the material requirements planning (MRP) process when that capability is present.

Orders for kits generate picking tickets for either the complete kits if they are in stock, or for the components that make up the kits. Kits and their components are automatically issued from inventory when the order is shipped. Over shipping missing kit components is optional.

Data Mining and Reports

The Configuration Module reports support data mining.

Information on how many times a particular option was chosen, by whom and for what product is readily available.

Reports provide information on the status of pending or unshipped orders.

The demand for certain features or options which have been placed on orders can be included on the reports.

The ALERE Configuration Module can increase both the speed and accuracy of your sales order desk. Contact us for a demonstration.