

## PeopleSoft and Parts vs. Items vs. Products

### Parts:

There are no parts in PeopleSoft. There are only items, products, and product kits.

The highest level of difference between items and products/product kits is:

Products/Product Kits are used in Order Management functions while Items are used in Operations functions.

### Items:

Items are inventoried. We acquire items by manufacturing them or purchasing them. Everything that is done in the PeopleSoft Inventory, Manufacturing (PIDs – Production Ids), and Engineering (BOMs and ECOs) modules is done with items.

### Products:

Products are sold. They are not inventoried, they are not purchased, and they are not manufactured. Products can be 1-for-1 products or product kits. Everything that is done in Order Management is done with products. Products have a defined relationship with Items.

#### 1-for-1 products:

These are product ids that have a 1 to 1 correspondence with an Item. The definition of the product includes the item id.

#### Product kits:

These are product ids that are made up of multiple 1-for-1 products. The definition of the product includes the product kit components (1-for-1 products). The product kit components have effective and obsolete dates. Therefore over time, the product kit makeup can change. Also, because a product kit is made up of multiple 1-for-1 products, they have a correspondence with multiple items.

PeopleSoft does not allow a product kit within a product kit. It is similar to a single level bill of materials.

## Implementing Items, Products, and Product Kits

At the very beginning, there is a communication between Marketing and Engineering where they decide what they are going to offer customers. Here the divergence begins. Engineering deals in items. They generate a design that is made up of items. The item is then defined for inventory control, manufacturing, and purchasing. In order to manufacture something, there is a Bill of Materials that is made up of items. These can be assembled into higher-level assemblies until you get to the 'final assembly'. Any changes to the assembly is managed through ECO processing and release to Operations.

But how does it get on a sales order? At this point, Marketing becomes re-involved and creates an association between the final assemblies and product ids. They also create product kits. At Cognex, we can sell the final assemblies as a 1-for-1 product for replacement "parts". We also sell the final assemblies with other items. Our products are printed circuit boards or sensors that we sell with cameras, lens, lights, cables, and documentation. Marketing decides the combination of items they want in a product kit.

Why does Marketing want to use product kits instead of product ids? Well they can bundle and price in a wide variety of ways. They can create customer specific product kits. All this can be done without affecting the stock rooms or material planning functions.

At Cognex, we have a couple of conventions that help to make this easier as long as you aren't in IT. The first is around making products out of items: If the item is going to be sold as part of a product kit, we create a 1-for-1 product id of the same name as the inventory item id. In this way, everyone knows that it is a product kit component. They still refer to it as a "part" but at least we can all agree that it is a component of the product kit. If the item is going to be sold by itself for a replacement, it will have a Marketing assigned product id. From an IT perspective, you need to be careful about making assumptions on how to join tables based on the data you are seeing. Example: If you use 123 as your inventory item id and you use 123 as the product id. You would then show product id 123 associated with inventory item id 123. You would want to do a table join from the master item table to identify inventory vs. non-inventory by joining on the inventory item id. However, if you look at the data, you might think you could join inventory item id to product id. This would be incorrect.

The second convention is around making items of products and kits. We do this to control when products and kits are being released or changed. We use revision control to track them just as we would any other level item. We go through an ECO process called a PCO, Product Change Order, process to ensure that all necessary parties have signed off on being able to release this product for shipping. It would include signatures from Purchasing to ensure the purchasing strategy has been put in place or adjusted, Shipping to ensure that they have the necessary packaging and inventory, etc. Again from an IT perspective, you need to be careful that you are doing things like joining product id to item id to get the latest revision of a specific product.

Beyond the use of the item, product, and kit, we have the PeopleSoft system itself. Until recent years, the use of product kits was minimal because it was, for lack of a politically correct word, buggy. In recent years and versions, PeopleSoft has added function around product kits to make them much easier to use, minimize the large number of customizations, and improve the quality. The ability to use product kits within PeopleSoft is something that no other software package had but will be part of the function within the Fusion offering.

Bottom Line for me, an IT person is that it is all about Context. Who are you talking to and what are they saying. After years of PeopleSoft use, items, products, and kits are still being used interchangeably but if you think Context and ask questions based on the Context it can be understood.