# *PEDYN*

P2000 Operational Flow Overview

The P2000 Operations program will manage all engineering and manufacturing operations, from the point of sale to shipment of products. The program allows you to define and manage all company part numbers, products, and materials. The program also includes engineering management, and document control tools for configuration control. Even though each module is integrated with the next, it is not mandatory to use all of the features of the program. In other words you may choose to use specific modules as stand-alone tools. The way that you fit these program tools into your business is totally up to you. The purpose of this document is to briefly summarize the intended operational flow of the program. For complete and specific details please refer to the P2000-Help documentation.

Define Your Materials and Products (Components and Assemblies):

The core of the program is the **Item Master**. Here all parts, materials, assemblies, drawings, labor and services are assigned a company part number. Details of each item in the program are completely and globally defined in the Item Master. Once an item has been added to the Item Master it becomes available for use throughout the program. You can also define all qualified sources for every item purchased in the item master detail form. The "**Primary"** Vendor and MFR Part number will appear on several program reports and will be auto-inserted when creating purchase orders. If a part is tagged as a "**Product**" then it will appear on the product list and will be available for selection on the sales order form. The search features in the Item Master make finding parts easy and straightforward.

After defining your items to the component level you can define your company products by using the **BOM Processor** to construct **bill of materials** (part lists) for each assembly that you design or manufacture. The program allows you to construct complex multi-level BOM's. The standard program will produce indented bill of material reports out to 7 levels deep. This can be expanded if necessary. The program also allows you to display multi-level products in a flat-level summary report and will group parts by supplier. Then **ECN** module (Engineering Change Notice) is used to control and document all changes to products, components and assemblies. The ECN history allows you to quickly view all changes made to any given item. The program also includes several **engineering management** tools.
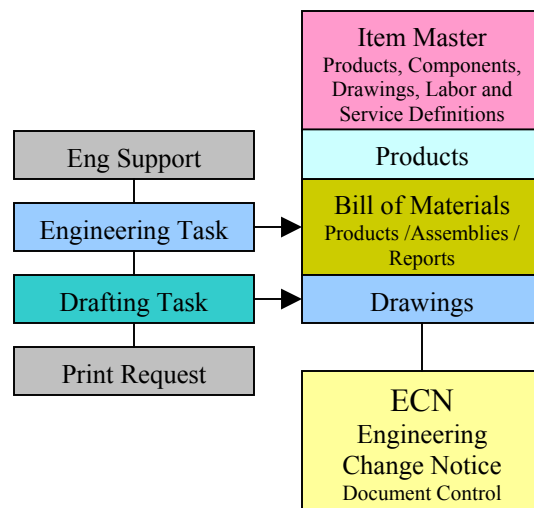
Operational Flow:

Business flow typically starts with an order. You record your orders in the program **Sales Order** form. Here you select your customer, order details, and list all items that make up each order. The Sales Order feature can be used for **Quoting, Order Acknowledgement, Invoicing, and Packing List**. The sales order tool is capturing bookings, income, and shipment data.

Next you will need to determine the products that you plan to build. Sales orders may or may not be driving your manufacturing schedule. Once you have determined your manufacturing requirements you will need to create work orders. The program **Work Order** tool is used to define all assemblies that you are planning to build over a defined period of time. These work orders, once opened, will begin to drive your material needs. Our enhanced **P2000-MT** package also includes a **pick list**, **work order report**, **excel download** of material requirements. This package calculates the exact cost of each work order based on actual material and labor used (FIFO). It also has a **Work Order Variance** form that is used to record scrap and or labor variances.
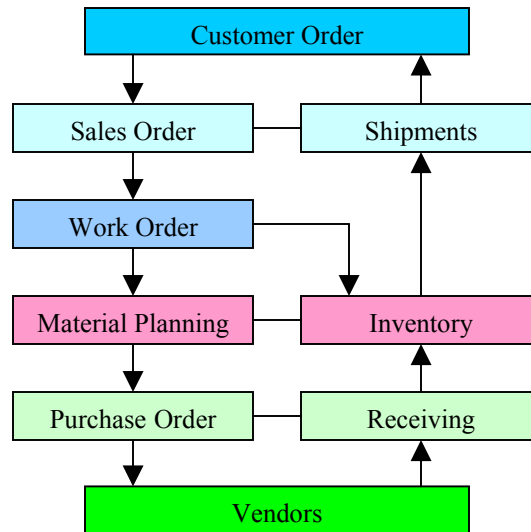
From the work order form you have instant visibility of all material requirements and shortages for any given work order. But what you really need is a complete list of all of your material requirements based on all open work orders. This information can be accessed from the **Reports** located at the top of the **Inventory** form.

The P2000 **Inventory** form has two basic types of MRP reports for planning and purchasing. The **Product Material Reports** allow you to specify a quantity for a single product and then provides you with shortage and purchase requirement information. The **Material Allocation** and **Shortage** reports provide you with critical shortage and purchase requirement information, based on open work orders and sales-orders of all the products and sub-assemblies in the manufacturing queue. Both report types consider allocation requirements, current stock position, and parts on order.

*Note: The **Material Allocation Reports** and **Material Shortage Reports** are driven by **all open work orders**. These reports compare your material needs to your actual inventory and open purchase orders to determine your real time shortages and purchasing requirements. (The enhanced P2000-MT Package has additional reports.)*

*Note: The **Product Material Reports** are specific to a single product and they do not consider current work order or sales order requirements. For planning purposes it is often helpful to create a temporary project BOM that consists of multiple products or assemblies. This allows you to run the product material reports on a project (multiple assemblies) rather then a single assembly.*

Based on the information from these material reports you may then create **Purchase Orders** to meet your complete real time material requirements as defined by your work orders. Note that an automated **PO Generator** feature is available as an add-on module. From the **Purchase Order Log** of our enhanced P2000-MT package you can access **Parts-On-Order Reports** and view all open and over due items. You can quickly sort and search for specific orders. **Receiving** is done through the actual PO Form. As parts arrive you enter the quantity received on the PO, and the items will be automatically received into your inventory. The Purchase Order form is capturing all material expenses (Materials-In and Dollars-Out).

Now back to the **Work Order**. As parts arrive, you may "**Release**" work orders and begin building products and assemblies. When parts are picked for a work order they move into "**WIP**" and become unavailable for other work orders. When assemblies are "**Built**" they are automatically added to finished goods. And finally when you "**Close**" a work order the used parts are automatically back-flushed (removed) from your inventory. So the work orders drive your material requirements and then automatically adjust your inventory at each stage along the way. *(The WIP feature is only available on the P2000-MT Package)*

Finally back to the **Sales Order** where you record shipments of products and services to your clients. (Materials-Out and Dollars-In) Thus completely closing your operations loop.

P2000 Operational Flow Chart