



Products

iCube offers the following manufacturing systems for companies that require simple production or assembly operations to full scale factories. Each product consists of various functional modules that you can acquire to scale with your business needs.

iCube Discrete Manufacturing (DMF)

It is a discrete manufacturing system for small scale manufactures or companies that need simple production/assembly operations such as branch offices of manufactures, service centers and resellers of computer systems and consumer products.

The Bill-of-materials module defines the manufacturing workflow (a sequence of processes) to build the finished goods and break down the required components by process. It also stores supportive documents in the format of image, PDF, text, audio and video.

The work order module routes the production from the first process to the last. It tracks the components and quantities received in a process, transforms them to parent item (if applicable) and forward the items (components and/or parent items) to the next process. Each process allows you to receive short components and issue surplus or defects to a designated location. The quantities in and out of each item, along with the time stamp and operator stamp, the required fields, communication and notes are logged. The related accounting transactions are posted to ERP.

Operators may scan data such as item no, lot no, serial no etc. for speed and accuracy. The “wscan” allows scanning without wiring and computer.

The web-based interface allows all authorized internal and external users to view the yield, order status, performance and WIP status real-time.

iCube Manufacturing Execution System (MES)

It is a complete manufacturing executing system for factories that need planning, execution, control and management features; from engineering release to manufacturing quotes, master scheduling, material and production planning, shop floor control, wireless scan and quality control.

The system is flexible to fit your products and manufacturing requirements. You can define manufacturing processes that require specific machineries and labors to perform specific tasks; configure specific manufacturing workflow to link selective processes to manufacture specific products. The bill-of-materials consists of the workflow to build the product and the components usage are broken down by processes such that the system knows what components are to be consumed at what process and the related cost for materials, labor and overhead.



Overview of iCube Manufacturing System 2.0

The master scheduling comes up the production schedule from the requirements of sales forecast, sales orders and buffer stocks. Material planning derives what items and quantity needed per time bucket to fulfill the production schedule. You can create several “what-if” scenarios” for analysis and choose the best-fit version. Production planning is based on the material schedule and master production schedule to allocate materials, labors and machines and create the work orders to meet the master schedule.

The comprehensive shop floor control supports products with complex manufacturing workflows and processes. Each work order is created to build one or more BOM level of finished goods or semi-finished goods by tracking the components, flowing through from the first to last processes defined in workflow.

Each process starts from receiving materials from previous process by scanning the barcode label on the unit or container for small units. It validates whether they are from the right work order and at the right process and logs the receiving time, items and quantities. Users can further receive additional materials from warehouse for shortage or replenishment for defects. During the process, operators update the progress, status, issues, notes and communication. When a process is done, a bar-code label will be printed to identify the updated materials and status for the next process.

The work order status is updated real-time and is fed back to the production control for appropriate adjustment.

iCube Paper Converting (PCV)

It is a customized version of iCube Process Manufacturing System for producing products made from papers, film and foil. It comes with specialized processes for slitting, coreless slitting, sheeting, print converting, label converting, fan-fold converting, chart converting, rewinding, wrapping and packing.

Each process has custom fields to track the required parameters and associates with the required machineries and labors. You can define manufacturing workflows to link selective processes to manufacture specific products. The bill-of-materials consists of the workflow to build the product, the required materials and the formula for transformation; and the components usage broken down by processes.

The shop floor processing is by work orders that route the material (jumbo rolls or jumbo sheets) and components, through each manufacturing process; do any material transformation and component consumption; and produce the finished goods in the form that the workflow dictates (wrapped, unwrapped, packed or unpacked etc.)

Quantity of materials flowed in and out and the labor usage of each process is tracked, the required parameters are logged along with the time and user stamp, the yield and cost of materials, labors, overhead is tracked per process. All related accounting transactions are posted to ERP.