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PCS ERP System Description

This system is designed for process industry such as PCB industry. It covers most of the aspects of daily operations of different functional areas and departments, collect real time sales and production data and share them throughout the company. Since the design of PCS ERP follows the modern management concepts, by applying this system, company can shape and standardise their operations, improve efficiency, eliminate any management overlook, hence increase the profitability of the company as a whole.

To further facilitate management decision making, our system provides many smart tailored reports. It focuses on 3 main management areas, namely, Output Performance Analysis, Quality Analysis and Material Analysis. With the help of those analysis reports, management can make much more quick response to customer every changing requirements. The decision making is much more easier and much more accurate.

The following graph is the System Architecture (Figure 1) of PCS ERP, the detailed description of each module will be stated in the following paragraph.

PCS ERP Module Description

A). Sales Management System

Sales function is the frontline of any business. Precise management of sales function leads company to the right direction, enable management make the right decision to maximize revenue and provide excellent customer services. PCS-S/ERP - Sales Order Processing System integrate all key sales activities from quotation to invoicing. Empowered by thoughtful designed order analysis reports, you can analysis and trace orders from various point of view, provide most useful information for you and your customers.

Core Function:

Quotation

- Provide hit rates analysis
- Sales Offices performance tracking
- Sales Representatives performance tracking

Customers

- Customer Address
 - Multiple ship to and bill to locations
- Customer Information contains first-hand information from various departments
 - Assign sales forces to follow up individual customer
 - Categorize customer by region
 - Customize often used information for other department

Sales Force

- Salesperson maintenance
- Sales Office maintenance
- Sales Representative maintenance
- Sales commission by part number

Board Specification

- Product specifications
- Quotation cost Vs Quotation price

Part Number Maintenance

- Many to one relationship between PR to PN
- Identify end customer
- Account cost for specific part number
- Scrap rate for specific part number
- Commission rate for specific part number
- Up to 7 price history for specific part number

Sales Order

- Direct sales order entry
- Sales order confirmation
- Sales order Cancellation
- Modify confirmed or to be confirmed sales order quantities, dates and part numbers
- Edit sales orders after release to production, with unique Service Type concept to emphasize traceability.
 - Add a new release
 - Reschedule
 - Split, cancel
 - Put on hold/release from hold
 - Quick and precise response to customer change requests
- Trace every action taken against order detail

Sales History

- Comprehensive historical information includes;
 - Pricing
 - Invoicing
 - Shipping
 - Multi-currency exchange Rate
 - O/C, Invoice amendment detail and history

Shipment Allocation

- Shipment allocate by part number
- Can make multiple shipment out of single order
- Can allocate form single or multi-schedules
- Enable partial shipment allocation

Shipment Advice

- Daily Shipment advice tracking
- Include single or multi-invoices in single Shipment Advice

Invoicing

- Invoice preview before confirmation
- Confirmation for single or multi-shipments allocation in single invoice
- Tracing for each invoice amendment details
- Automatic generation of interface file for Sun-System

Inventory for Public Godown

- Trace daily transaction between Warehouse and Public Godown
- Update store record for Warehouse and Public Godown
- Special transaction record for abnormal transactions

Reporting

Smart-made reports can reflect real time data or for any time period.

- Order Analysis Report
- Order Delivery Status Report
- Order Status Report
- Loading Analysis Report
- Sales / Customer Analysis Report
- Absolute Contribution Report
- Forecast Absolute Contribution Report
- Daily / Monthly Shipment Report
- Order Amendment History Report
- Order Detail History Report
- Invoice Amendment History Report
- Packing List
- Shipment Advice

Core Function:

Transaction Control
Generally transaction records have a validation checking, which only allow the document author to amend the document, which can assist in minimizing the human errors involved in data amendment, thus improve the security of the system.

Integrate with Purchase Requisition System
Warehouse control based on the Material Classification set in Purchase Requisition System
Allow user to control the access right of individual in assisting Warehouse or each single function
With preset validation checking, only allow document author to amend the document

Stock In

Allow user to know the remaining balance of Purchase Requisition while receiving
Integrate with Purchase Order System to obtain the actual price information of the receiving Material
Maintenance Stock In Record

Stock Out

Allow user to know the balance quantity of the required Material
Maintenance Stock Out Record
Allow Material to be allocated to each Process

Stock Return

Allow Handling Material return, i.e. in case of Expired Material, In Excess Material, etc
Allow keep tracking of Return Department Information
Maintenance Stock Return Record

B). Material Inventory Control System

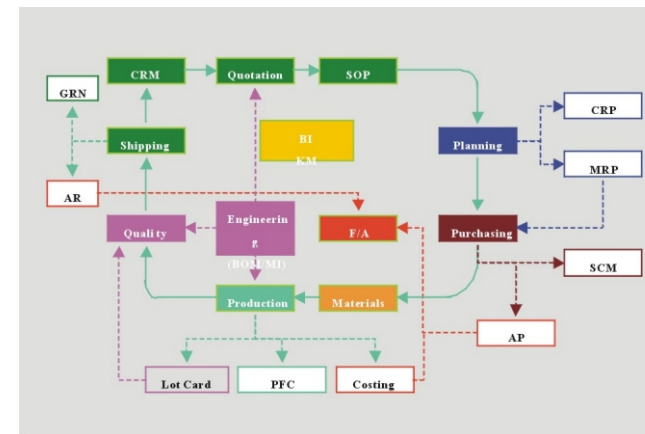
Material Inventory Control (MIC) system is to serve as a base for all the Material Requirement Planning Program. A well-developed program can provide both Financial & Material Planning Department with comprehensive analysis reports to evaluate on the inventory situation, thus establish good policies to control the inventory level. After investigating on the needs of both departments, our system has included a full list of report for both departments to support their decision making process.

Daily Posting

Provide posting function for user to confirm the accuracy of the daily data inputted
With Unposting function to correct the posted records according to each entry

Monthly Closing

Allow financial department to confirm the monthly data accuracy before posting the information to next period
Allow user to use Unposting function to amend any errors found after posting



(Figure I)

Reporting

System generates a list of specified report for both financial department & material planning department to review the Inventory status. It also provides with reports to record all kinds of transaction to facilitate user in data checking process.

- Stock In Report
- Stock Out Report
- Stock Return Report
- Inventory Summary Report
- Inventory Detailed Report
- Material Return Report
- Material Transaction Report Stock In
- Material Transaction Report Stock Out
- Material Transaction Report Stock Return
- Material Transaction Report Balance
- Department Consumption Detailed Report
- Department Consumption Summary Report
- Aging Report

C). Production Flow Control System

Core Functions

Production Flow Control is an all-in-one production specific module. It provides key functions needed by production units, and strict quality control, which enhances the overall production quality and goods traceability.

WIP Traceability

- Multi-unit transaction (Panels/ Units)
- Full function on Transact, Reject and Adjust
- Strict lot control

Lot Control

Fully capable lot card control, with functions of Transaction, Reject, Adjustment, Creation, Supplement, and Material Replenishment

User-friendly bar-coding lot card transaction, highly improves the level of production automation
Traceable lot card status, with clear and easy-maintained database

Able to handle ad hoc scenarios happens in production line, such as Reissue lot card, Material Replenishment allocation

Interlink between board cut and lot card creation. User can easily choose which layer to board cut in a user-friendly interface

Lot Card data will be stored in Lotus Notes, a knowledgeable database system developed by IBM, can provide online browsing and centralize knowledge database.

Lot Card information is highly associated with Manufacture Instruction, where engineering information can have instant effect on production, such as revision change

Scrap Control

Online browsing of panel and unit scrap data, allows real-time scrap data input

With our expertise in scrap control, allows us to develop a powerful and user-need specific scrap analysis report, providing scrap analysis in different angles

Allows traceable responsibility of scrap unit, enhance the overall quality control

Add On Functions

Revision Change.

Stock Take

Production Units (Process) Internal WIP

On Hold/ Release

Reporting

We provide numerous operation and management reports, which is tailor-suited for manufacturing industry, especially PCB manufacturing:

Board Cut Report
Scrap Analysis Report
Material Requirement Planning Report
Adjustment Report
Order Amendment Report
WIP Report
Process Output Report
Transaction Report
FQC Scrap Report
FQC Rework Report
Substitute PR Report
Special Process Report
Issue Report
Limited Schedule Report
Lot Card Status Report
Lot Card Creation Report
Lot Card Transaction Report
Material Usage Report
Outstanding Shipment Report
PR Hold/ Release Report
Stock Take Report



D). Material Requirements Planning (MRP) System

The Purpose of MRP system is to assist user in getting the right materials to the right place at the right time. It is used for planning and scheduling materials requirements for dependent demand. It also determines parts requirements in each period in planning horizon. With the effective MRP system, firm can minimize its inventory investments, maximize its production operating efficiencies, and thus improve its customer service and increase the competitiveness in market.

Core Function:

Bills of Material

System provides with a user-friendly environment for user to tailor the BOM Material according to their specified need.

- Define BOM Material Category
- Define BOM Material Part Number
- Define BOM Material Relationship with Production Order
- Define BOM Material Production Lead Time

System Integration

System has strong collaborative function in accepting the data from other systems.

- Integrate with Sales Order Processing (SOP) Data to get the latest order information
- Integrate with Work in Process (WIP) Data to get the latest work flow information

Generate Material Requirement Planning (MRP) Report

Based on comprehensive analysis in the current situation of all order and the fixed lead-time principle, system use the backward planning methods to generate several reports in facilitating the Material Planning Function.

- Available to have Daily Report Generation to reflect the latest material requirement information
- Allow to have Detailed report showing the relation of each Production Order with BOM material
- Allow to have Summary report showing the total BOM Material Requirement

Handling Sub-Contract Task

Apart from the general operating system in company, system is able to serve the special needs for large firm in handling the sub-contract task. Material Requirement will be deducted from the MRP report to achieve a MRP report with high level of accuracy.

- Define Sub-Contract Type
- Maintain Sub-Contract Data
- Integrate Sub-contract Data in MRP Report

Global Change

System facilitates user to handle the sudden change of material requirement from customer by providing a global change function.

- Allow user to have a completed change in Material Requirement for particular customer
- Provide Report for the Global Changed Customer Order



Reporting

System generates a list of specified report to serve the need in Material Planning.

Report for BOM Material & its Corresponding Production Order, which assist user in checking the affected Production Order in case of Material Shortage

Report for Missing BOM Information Item, which remind user for the latest information checking
 Report for Sub-Contract Data, which allow user to have the latest information of the sub-contract order

E). Manufacturing Instruction Definition System

Customers' specifications are the vital instructions and guidelines within PCB manufacturing and operation. The goal of **Manufacturing Instruction?** is to provide an easy-to-use system with fully integrated engineer features for PCB industry. Working with **Manufacturing Instruction**, specification analysis and distribution will never been a time consuming and low efficient task anymore.

Core Function:

Master Customer Instruction

Easy to maintain instructions specify by each customer

Able to generate customers' specific requirements into the manufacturing instruction

Enterprise Instruction

Able to pre-define the instructions, capacities and rules of the enterprise

Easy to maintain

Able the rules to govern the manufacturing instruction preparation

Manufacturing Instruction

Able to define the instructions and parameters for each version

Reminded and control by the Master Customer Instruction and Enterprise Instruction

Powerful version control

Print or access through Lotus Notes

Time saving in Manufacturing instruction circulation

Largely decrease in the level of mistakes and time of checking

Lay-up Engineering

Easy to use lay-up configuration

Superior graphical user interface

Intelligent construction thickness calculations

Panel Optimization

Provide superior graphical user interface

Able to calculate the utility of panel optimization

Assist users to find the highest utility of panel optimization

Auto generate the graphic of panel optimization

Able to attach graphic

Lot Card Template

Auto generated from Manufacturing Instruction with minimal time

Able to create electronic inner layer and outer layer lot card template by process configuration

Provide detailed configured processes and significant manufacturing instruction and parameters

Print or access through Lotus Notes

Easy to access the information within the enterprise

F). Purchase Requisition System

Purchase Requisition is the first step in purchasing. With a good Purchase Requisition System, the efficiency of the whole purchasing system can be enhanced. Our System provides with an automatic solution for issuing Purchase Requisition Form, maintaining the Purchase Requisition record and allowing user to check the status of the Purchase Requisition. This can greatly assist user in reducing the redundant job in searching for data from different source and thus enhance the operating efficiency.

Core Function:

Vendor Maintenance

System allows user to maintenance the vendor information for the formation of Complete Material Part Number.

Maintenance Vendor Information

Share Vendor information for all store

Report for Vendor List

Material Part Number Maintenance

System allows user to define the Material Part Number with several Sub-levels according to user requirement.

Define Material By Store

Define Material Structure

Define Material Category

Define Material Part Code

Define Material Part Number, i.e. Part Code + Vendor

Maintenance Updated Pricing Information of Each Material Part Number

Access right for Material Adding can be limited to person, i.e. User can restrict only a small portion of people to add Material coding to minimize the chance of Code duplication

Report for Category Searching

Report for Material Part Code Searching

Purchase Requisition Issuance
System provides with a user-friendly environment for user to generate purchase requisition record

- Restrict User access right to Material to store level
- Allow Currency selection for purchasing
- Allow Remarks adding on Purchase Requisition Form
- Restrict the access right of Purchase Requisition Form changing to author only
- Automatic Purchase Requisition Generation

Reporting

System integrates with Material Inventory Control System to generate Report on Material Status. In order to suit the individual user need, difference kinds of report format is offered to user.

- List Report - show all information appeared on the PR form
- Detailed Report - show the detailed situation of each Material Code to the level of individual PR
- Summary Report - show the summary information of the status for each Material Code

G). Customs System

Almost for all manufacturing firms in China, they will need to handle the customs declaration process for both incoming material and exporting finished goods. The declaration is a complicated process, including Contract Application, Declaration Document Submission for every import and export process, Monthly Declaration Amount closing, and Periodically Contract Clearance. Should firms accidentally excess the import or export quota, China Government will impose penalty on the firms and also not allow further import or export until the problem have been solved. With customs system, the complicated declaration tasks can be simplified and the accidental situation can be prevented.

Core Function:

Contract Application

System provides with user-friendly UI for the contract related data maintenance and directly generates application reports based on the China Customs Specification

- Maintenance Contract Information
- Maintenance Import Material Information
- Maintenance Export Material Information
- Define Consumption Relation of Import Material & Export Material
- Generate Report for Contract Application based on the report format required by China Customs Department, including Import Material Application Detailed Listing , Export Material Application Detailed Listing , and Import & Corresponding Export Material Consumption Ratio Detailed Listing

Daily Import Handling

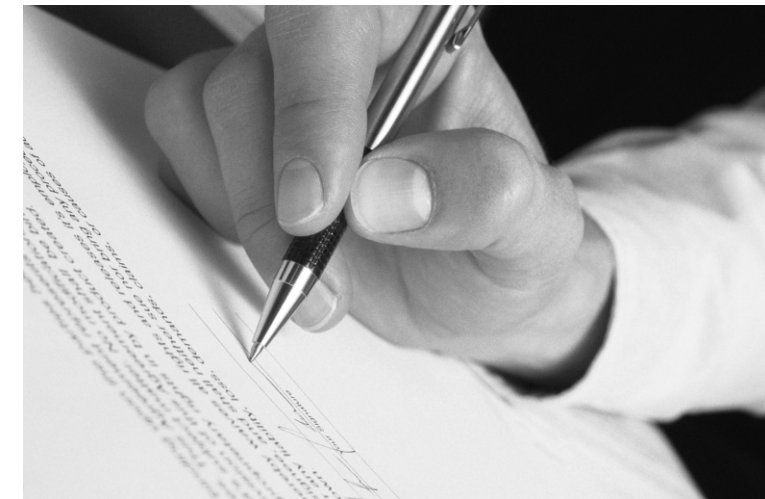
Apart from User-friendly features, system allows flexible alarm level setting and direct declaration document generation.

- Maintenance Import Quota Information
- Maintenance daily Import Information
- Allow User to define Alarm feature
- With alarm function to warn User in case of importing amount exist Alarm level set
- With validation checking in posting the daily import information, should import amount excess quota, posting will be prohibited
- Able to compute the figure for declaration document
- Able to generate the declaration document automatically

Daily Export Handling

Add on the advantages mentioned in Daily Import Handling function, systems integrate information from Engineering Database to get the material specification. System allows direct matching of the internal Production Order with the Export Material grouping in Customs Department.

- Maintenance Export Quota Information
- Define Export Material Relation with Specific Features in Engineering Aspects (For example, in PCB industry, System will use the layer information to determine the Export Material Type)
- Integrate with Engineering Database, e.g. Manufacturing Instruction Database
- Allow user to input Daily Output Information using Production Order directly into system
- Maintenance Daily Export Information
- Allow User to define Alarm feature
- With alarm function to warn User in case of exporting amount exist Alarm level set
- With validation checking in posting the daily export information, should export amount excess quota, posting will be prohibited
- Able to compute the figure for declaration document
- Able to generate the declaration document automatically



Reporting

System generates a list of specified report for the monitoring the import and export status

- Detailed Report for Importing
- Detailed Report for Exporting
- Summary Report for Importing
- Summary Report for Exporting
- Daily Output Report