

## Job Costing

### Keeping control of costs.

Cost control, a vital element in the manufacturing process, is an integral part of Pegasus Operations II. When an assembly is being defined, the costs are calculated based on its Bill of Materials and its routing through the shop floor. Once manufacture is initiated then actual costs will be accumulated to the job so that this can be compared to the calculated standard cost.

When purchase orders are raised against a job, these are shown as committed costs against the job. As materials are issued to the job these costs are accumulated, together with any material that has been scrapped. Timesheets, costs from works orders and miscellaneous costs can all be posted to the job.

### Immediate analysis of profit.

When the job is complete and all of the costs have been entered, you can see the total of the costs, compare this with the value on the sales order and immediately see the level of profit, or loss. Work-In-Progress costs can also be viewed and reviewed.

### Managing every element of the job.

You can use cost centres within the Job Costing system to break the analysis down into logical groups and to get totals against those cost centres. Budgets can be posted to these cost centres and a variance to these budgets shown. Milestone dates can also be entered and outstanding milestones tracked.

- Integrated with other modules so costs are automatically accumulated
- Cost changes of materials automatically re-value the material costs to the job
- Miscellaneous costs and timesheets can be posted to a job
- Committed costs are taken from purchase orders raised specifically for the job
- Materials issued to works orders or scrapped, can be reported
- Materials can be posted directly from the Stock Control module to a job
- Cost information on materials used in a job includes batch traceability information
- Cost centre budgets and milestone dates can be entered and reported on

## Stock Control

### Immediate access to all your stock records.

The stock control system is a central source of information on all of your stock records. It is fully comprehensive and includes manufacturing, sales, purchasing and stock levels, and is integrated with all other modules within the Pegasus Operations II system.

### BOM controlled and updated.

Bill of Materials is so much more than just a list of components. Linked into the Materials Requirement Planning module it controls the stock levels by taking into account the components' lead times and scrap values. Linked to the routing of a product, it is also used to calculate the manufacture costs of an assembly, which you can compare with the stock costs and update accordingly.

### Continually improving your build quality.

Specifying what operation is to be performed, its sequence, resource and duration are all used to generate the shop floor documentation. You can also identify the tooling requirements and where and how inspections should be performed. Pegasus Operations II links quality with the manufacturing process, so you can monitor and continually improve the way you build your products.

### Easier control of changes.

Changes are inevitable, but having a simple procedure to administer them gives you much greater control. For example, if the item is already in Work-In-Progress you can control the modification of the Bill of Materials by generating change control documentation.

- Product group and ABC classifications
- Batch control of stock movements with full traceability
- Comprehensive interrogation of any element at any time
- Full price change history with why and when
- Own product code and prices for any number of preferred suppliers
- Stock record links part code, drawing/issue numbers, quality plans, images
- EU commodity codes, country of origin, weights
- Alternative part codes, superseded parts with on-what-date

## Sales Order Processing

### Improve the way you handle your customers.

A real benefit of Pegasus Operations II Sales Order Processing is that it links all the elements together to give an instant snapshot of what's going on at any given time. What needs to be delivered to whom and when, when to manufacture, which components to use and what has been delivered; it's all there, at your fingertips. Customer enquiries are easy to handle and, by integrating Pegasus Operations II into the Pegasus Opera II accounts system, credit terms and status are checked as the sales order is entered or delivery notes and invoices are raised.

### Documents that suit you and your customers.

Improved traceability is all part of the system. You'll know what has been picked and where it has been sent. Instant access to such information is invaluable if warranty claims come into play. Deliveries can be made against schedules and the order and stock automatically updated. Under- and over-deliveries can be accommodated. Different customers can have different delivery note layouts or certificates of conformity. Pegasus Operations II will handle the permutations you or your customers dictate.

### Keeping an eye on profitability.

Again, flexibility helps the system do what you want it to. Invoices can be raised as part of the delivery note routine or printed once the delivery has been confirmed. They can be transferred to accounts packages and, if you are using Pegasus Opera II, the ledger is immediately updated. Invoices and credit notes can be in multi-currency, including the Euro. Sales History and profitability reports allow you to track trends and keep an eye on the profitability of product sales.

- Prints acknowledgements, pro-forma, delivery notes, certificates of conformity and invoices
- Fast-track production of manufacturing data directly from a sales order
- Trial kit of what can be manufactured from component-free stock
- Unlimited free text held against both sales order header and on the lines
- Prevent processing of a sales order by marking it as being 'On Hold'
- Settlement discount, overall discount and line discounts
- Part kits referenced by single code appear as multiple parts on delivery note

## Purchase Order Processing

### Automatic purchase ordering.

You can identify preferred suppliers so that when components are required, purchase orders can be automatically created with the supplier's own code and pack size. Purchasing from non-approved suppliers can trigger a different inspection regime, so upholding your quality standards. If you integrate Pegasus Operations II with the Pegasus Opera II accounting system, credit terms and status will be checked as the purchase order is entered.

### Knowing when to chase.

Purchase orders can have multiple scheduled delivery dates. Where deliveries are time-critical, a supplier contact log will identify when next to chase outstanding orders. Analysis reports help you identify what needs to be purchased, what is outstanding and what is scheduled to be received. This includes bought-out orders and sub-contract work. As goods are received an approved supplier list is updated in line with the quality of deliveries received.

### Quality and quantity constantly monitored.

Deliveries at goods inward can be booked into stock against a quality inspection plan, which you can pre-determine depending on the supplier and the product. You can continually assess suppliers. Failures create a rejection note and the supplier performance is updated. Such stock can be returned to the supplier or placed into a quarantine warehouse. You can trace all receipts back to the delivery, purchase order and supplier. With under-deliveries, parts can be placed on back order or marked as complete.

- Prints purchase orders, goods inward inspection cards, goods received notes and rejection notes
- Free issue receipts and customer returns are receipted into stock via the goods inward routine
- Purchase orders can be raised manually or automatically from sales order demand
- Job-specific purchase orders have receipts automatically allocated to that job
- Multi-currency purchase orders with supplier part pricing
- Unlimited free text held against a purchase order
- Supplier approval, performance analysis and vendor rating

## Production Control

### Take full control of your manufacturing.

Production Control is the defining element in the Pegasus Operations II manufacturing system. It gives you the ability to control and manage the whole process. This goes beyond simply producing shop floor documentation and looking at Work-In-Progress. You will know exactly what is being made and be able to monitor its progress. This finger-on-the-pulse control also gives you time to react should circumstances change and you need to re-plan.

### WIP and shop floor status always known.

When it comes to work in progress and shop floor documentation, it is not so much what the system does – which is a great deal – but that it gives you the management information you need whenever you want it. All those familiar elements such as specific assembly instructions, works orders or route cards, quality control information, tooling requirements, material pick lists, job tracking and so on, are all part of the system. It's the control and management capabilities of Pegasus Operations II that make the difference.

### Full management of sub-contracting.

Within Pegasus Operations II it is easy to identify which operations are sub-contracted, to which sub-contractor and at what cost. You can also raise purchase orders for these sub-contract operations and the system will monitor the receipts, so you know exactly what is outstanding at each sub-contractor.

- Prints all your shop floor documentation
- Prints material requisition/pick lists
- Automatic purchase order generation for stock shortages on a job
- WIP costing
- Records actual times, with variance analysis against the standard times
- Resource loading analysis
- Works order inspection records
- Records material usage together with scrap analysis
- Amend Bill of Materials and routing for base assembly or individual job
- Analysis report of the production and delivery schedules

## Material Requirements Planning

### Knowing what your buying commitments are.

The MPS – Master Production Schedule – will look at sales and forecast orders to identify what needs to be delivered, and when. The MRP – Material Requirements Planning – will then explode this demand through the Bill of Materials to predict what needs to be manufactured, purchased, when and from whom. This can automatically raise both works orders and purchase orders. Works orders can be consolidated, so that one order can cover the demand from many jobs. Alternatively, each job can have its own set of works orders generated. Purchase orders are automatically consolidated. Analysis reports show you what is to be bought and when, and the committed costs such a purchase plan will impose on your business. The system is aware of existing and planned orders and late deliveries.

### Timely ordering makes cost savings.

Pegasus Operations II removes time-consuming calculation and guesswork from your manufacturing process. Works orders can be automatically raised on the date calculated to satisfy its demand. The MRP system will ensure that raw materials are available at the time when the manufacturing of assemblies should commence. Stock levels can be reduced by buying and making in accordance with the production plan, as opposed to being based on re-order levels.

### Changes are automatically re-scheduled.

When the schedule dates for sales demand changes, this can have a knock-on effect against related purchase and works orders. A re-schedule report shows when receipts will arrive but where the source demand has either been moved into future periods, or has been cancelled. You can also see demand that is overdue for release. If there are part codes that have very long lead times, then it is possible for those to be excluded from the MRP calculation.

- Orders, receipts and safety stock levels are compared to determine future stock shortages
- Orders for Release report identifies orders that are overdue for release
- Considers both firm and planned purchase orders and works orders
- Suppliers can be substituted when purchase orders are being automatically created
- Automatic order generation will be in multiples of the purchasing pack size
- Works orders can be automatically generated
- Altered Bill of Materials for a specific job will be considered by the MRP system

## Purchase Invoice Register

### **Invoices checked and compared.**

You can log a purchase invoice on to the system and approve the invoice at a later stage. An invoice can be matched against the purchase order to verify that the pricing is correct, and matched against the deliveries to ensure that the goods arrived. If price discrepancies are accepted, then both the Stock and Job Costing modules will be updated. Link into Pegasus Opera II and your invoices can be directly posted to the supplier accounts and analysed into the Nominal Ledger: one of the advantages of integrating your manufacturing and your accounting systems.

- Purchase Invoices can be placed on hold awaiting authorisation
- Entry of both Purchase Invoices and Credit Notes
- Discrepancies in pricing, quantities and unexpected charges highlighted
- Range of analysis reports
- Automatic cost price updating in both Stock and Job Costing modules
- List of un-invoiced goods received
- Stock write-off of un-invoiced receipts
- True Stock Valuation report

## Price Matrix and History

### System identifies customer-specific pricing.

You can set up price lists to suit the way you work with your individual customers. As a sales order or quote is entered, the system will refer to the price list and retrieve the correct price for the item being ordered. You can define these price lists with quantity break pricing or as special prices for each item within the list. Price lists can be in either foreign currency or base currency. Price lists can be produced for individual customers or as a 'sample' for use by your sales team.

### Use of historical data saves you time and money.

Speed and efficiency is built into every part of Pegasus Operations II. You can enter quotes received from suppliers and search for the best price from these quotes. The sales and purchase history allows you to see what was sold, to whom and at what price; and what has been purchased and at what cost.

### Increasing functionality.

These features are automatically included as part of the Sales Order Processing module.

- Unlimited number of price lists can be defined
- Modelling of new price lists based on existing price list, range of part codes or product types
- Foreign currency price lists
- Global price updates
- Printing of customer price lists
- Supplier quotes recorded, with searching for best price
- Sales history reporting
- Purchase history reporting

## Quotations

### Seamless Path From Quotations To Sales Orders.

Effective management of your quotations to your customers is the key to winning new business. Operations II allows you to enter quotations, print quotations and proforma invoices and convert these into sales orders. A quotation contains typical information such as quantities, pricing and delivery schedules but it goes a bit further: it makes it possible to build up lists of the materials required as well as the processes that need to be performed. Knowing what is required and how long it will take allows you to estimate the costs you will incur to make this product.

### Improve The Way You Manage Your Quotations.

Quotations can be converted into any number of interim states before they are used to generate sales orders. This allows you to track exactly where you are in within the quotation process. For example – an initial enquiry may have moved into the drawing office for a more detailed analysis of the requirements, this may then have changed to a formal exchange of contracts and finally it might have the full manufacturing process defined prior to being converted into a sales order. Each of these stages can be recorded as a change of status on the quotation, notes added and a fully history maintained. The system allows you to analyse the change in these states so that you can see the ratio of new enquiries to sales orders taken – useful as an early indicator of future workloads.

- Produce quotations and proforma invoices which can include notes or customer contract information
- Analyse the conversion rates of quotations to sales orders, and the numbers that have been lost over the past 12 months
- Entry of supplier quotations for components that are not normally stocked, but might be required for this particular customer quotation
- Build up the material lists and the times involved to get an estimate of the costs of making a product
- Chase quotations based on a Follow Up Date

## Traceability

### Where did it go?

Tracing stock can be as simple as knowing in which warehouse and bin location a batch of stock has been stored. In more demanding environments it can mean tracing a receipt from a supplier, into work in progress and incorporation into assemblies, through to delivery to the customer. In any case, the Operations II Traceability module will tell you where that stock is, or where that stock went to.

Traceability can be down to serial number level. A full breakdown of the components used in the assembly allows all components to be traced back to their source receipt into stock, either from a supplier or as an in-house manufactured assembly. There is a 'Recall List' function that shows all customers who received assemblies containing components from a faulty inward batch. Finding out who supplied a faulty batch of product and where that batch was used is quick and easy.

### Is It The Right Batch?

It's one thing to know where the stock is, it's a different proposition to know if a batch of stock has the right attributes for the job. The Traceability module allows you to record Batch Analysis information against movements into stock from a supplier or from internal manufacture. If you take delivery of goods covered by a material analysis certificate then you can record that information against that receipt. If you perform a chemical analysis against a batch of stock you have made or have received from a supplier then these results can also be recorded. The system will allow you to define how that analysis is to be performed and then lets you record the results. You can therefore print batch analysis certificates to cover deliveries of this stock to your customers.

- Full batch traceability down to serial number level
- Traceability of components used in various assemblies together with 'Recall List' showing which customers received assemblies containing components from a faulty batch
- Full breakdown of components used to manufacture a batch of items
- Comprehensive searching functions including delivery notes, purchase orders, jobs and batch numbers
- Input and maintenance of batch analysis data
- Printing of batch analysis certificates

## Instrument Calibration

### Is the instrument available and in tolerance?

An inventory of your instruments, tools and gauges can be linked into a calibration diary to hold details of when and how a gauge is to be inspected. Those instruments that pass the calibration tests are available for issue to jobs or employees, while those marked as 'Rejected' will need to be re-calibrated. An instrument check card can be produced that details exactly what is required when the instrument is to be checked, giving the 'go'/'no go' tolerances. The actual results can then be recorded back into the system so that a full inspection history is maintained for each instrument.

### When and where to use an instrument.

Within the Production module it is possible to print out a works order pack that details how a product is to be manufactured. This works order pack can also include a list of the instruments required and where they will need to be used. This requisition list can be used to issue instruments to a job, allowing you to maintain an issue history so that, should an instrument subsequently fail its calibration tests, you will know which jobs the instrument was used on. Issuing instruments to a job will also allow you to specify who issued the instrument, where it is located and when it is expected to be returned. Only those Instruments that are currently marked as 'Accepted' can be issued out to jobs or employees.

- Calibration inspections allow you to define the tests required together with the allowable tolerances
- Diary system for letting you know when calibration checks will be required
- Full breakdown of components used to manufacture a batch of items
- Printing of the calibration check cards, either date or usage based
- Maintains the results of all calibration checks performed on an instrument
- Instruments can be issued to jobs or employees and a full issue history is maintained
- Prevents 'Rejected' instruments from being issued out

## Capacity Planning Link

### Resources To Match Your Manufacturing Plan

Each job sent to the shop floor may require the use of a range of resources. These resources will probably have an operational calendar showing their shift patterns and will also have a current loading plan. The Capacity Planning Link module allows you to transfer resource loading requirements from Operations II into third party capacity planning systems, so that the scheduling system can provide 'planning board' facilities, automatic scheduling, 'work to' lists, machine loading, shift pattern management etc.

Using finite capacity planning it is possible to load jobs onto the resources that are available and calculate when a particular job will be finished. Of course, many operations from many jobs might require to be loaded onto the same resources. The Capacity Planning Link module enables you to resolve these conflicts by specifying the sequence in which the jobs are loaded onto the resources, so that each job will have its own finish date calculated.

### What Data To Schedule?

You can transfer the loading requirements of all sales orders that are due to be delivered in a specified date range as an 'All Orders' download. The resource requirements from all of these sales orders can be scheduled and the finish dates calculated. Alternatively, you can transfer the loading requirements from open works orders, outstanding work on existing works orders and loading from the MRP system. A 'What If' manager allows you to generate a range of 'What If' scenarios that can also be transferred to the capacity planning system. By loading these scenarios into a copy of the current manufacturing plan, this allows you to experiment with possible demand and see what can be finished, and by when.

- **Transfer of Operations II production information to drive the finite scheduling systems, providing 'planning board' facilities, automatic scheduling, 'Work To' lists etc**
- **Multiple transfer options are defined to transfer different data sets for different types of processing within the capacity planning system**
- **Pre-defined transfer routines for the posting of sales orders, open works orders, outstanding work from existing works orders, MRP records and 'What If' scenarios into the Preactor scheduling software systems**
- **Timed event handler so that the transfer routine can be automatically invoked**

# OPERA II AND OPERATIONS II

## Specifications

### Architecture

- Microsoft Visual Studio • Windows 2003/2000 Server
- Citrix Metaframe XP (Standard Edition) • Novell Netware
- Windows XP/2000 Server • Modular

### Financial Management (Opera II)

- Multi-Currency • Multi-Company • Definable Chart of Accounts • Payroll/HR
- Nominal Dimensions – Cost Centres, Departments and Projects
- Definable Accounting Periods • Comprehensive Drilldown
- Optional link to Pegasus Operations II manufacturing solution

### Manufacturing Management (Operations II)

- Multi-Currency • Multi-Company • Multi-Level Bill of Materials
- Shop Floor Routing • Material Requirements Planning
- Comprehensive Drilldown • Rapid Searching
- Optional link to the Pegasus Opera II accounting solution

### Information Management (Opera II and Operations II)

- Definable Management Reports • Opera II XRL • Pegasus Instant Messenger
- Security controlled by Opera II Security Manager

### Tailoring and integration with other systems

- E-mail and Internet enabled • OLE – Object Linking and Embedding facilities
- Output to MS Excel and MS Word • Toolkit for customisation requirements