

INFORMATION TECHNOLOGY

VOLVO

Profitability

Production data analysis is a very profitable investment. Savings can be made by even a small increase in productivity and results can show that a 25-30% increase in production flow is often obtainable. The immediate profit through productivity increases can easily be calculated on basis of the cost of one machine hour.

Profit factors and considerations include reductions in wastage and rejects, less stock-keeping costs for raw materials, fewer tight deadlines and greater receipts from sales of more items per machine hour. Production data analysis can also help achieve capital efficiency. Considerable value is tied-up in machinery and factory premises. More effective production can lead to possible sales of redundant machines and prevent unnecessary investments in new machinery.

Reliability

Principally a subcontractor has to face ever-increasing demands to meet tight deadlines and fast deliveries. To a great extent, delivery reliability depends on the question of efficient production flow. A basis for decisions about improvement measures can be made by identifying production bottlenecks. By

reducing the number of production stoppages, a more regular workflow is achieved, which has a positive effect on product quality. Work quality improves, less wastage and rejects occur and work satisfaction amongst operators improves.

Other information can also be transferred to/from the terminal, such as number pulses, running signals, or automatic causes of stoppages.

Facts about Volvo IT.

Volvo Information Technology AB is a wholly-owned subsidiary of AB Volvo. Volvo IT has annual sales of around SEK 5.9 billion and employs some 4,500 people worldwide.

Volvo IT provides solutions for all areas of the industrial process, and offers unique skills and expertise in Product Lifecycle Management, SAP solutions, and IT operations among other areas. Clients include Volvo Trucks, Renault Trucks, Mack Trucks, Nobel Biocare, ASSA ABLOY, Gambro, Kongsberg Automotive, Segerström Automotive, SchlumbergerSema, and the Ford-owned Volvo Car Corporation.

VOLVO

Volvo Information Technology AB

www.volvoit.com

Volvo Information Technology provides the Volvo Group, Volvo Car Corporation and selected customers with specialised skill and cost-effective solutions for all areas of industrial IT, including superior data centre operations and infrastructure.

PRODUCTION CONTROL SYSTEM

PCS.PANDA – MACHINERY & PRODUCTION DATA ANALYSIS

An effective production control tool.

Today the boundaries of industrial administrative and production systems are becoming more and more indistinguishable. Steering equipment and PLC systems can be networked to enable PC access to most co-workers. The technological expertise of IT in industrial use exists, but many enterprises still lack comprehensive information about their production processes.

However, information is a condition for efficiency and streamlining. With the correct information you can analyse, evaluate and rapidly get a basis to make precise management decisions.

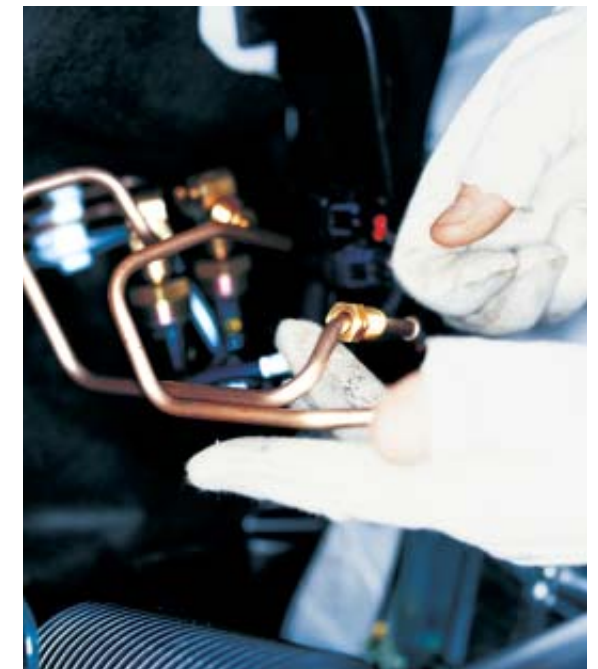
Volvo Information Technology has developed a software system known as pcs.PANDA, which provides all the data required to help production capabilities become more efficient and cost-effective. Simply by analysing what has, may, or will happen can save both time and money, making production control more rationalized.

pcs.PANDA provides a method for following up the efficiency of a production installation. A customized system consisting of operation terminals close to the machinery; a simple network for communication and a program for storage and analysis, in PC-based Windows NT environment (client/server). All program components can be run on a single PC, or be distributed via a network for larger installations.

Usability

The system is very easy to connect and utilize. There are standard reports in pcs.PANDA to show accessibility and stoppage statistics as well as machine order, item and line reports. System

information is stored in a standard ODBC-database. Furthermore, a notable option in pcs.PANDA is the host computer communication that handles the information exchange with business systems.





Intelligence about stoppages, their frequency, downtime and operation time of machines, provides the basis for calculating service intervals and arranging preventive care.

Efficiency

New possibilities open up for marketing companies and sales organizations when information from production systems is distributed, e.g. on an intranet. Orders can be tracked through production and the current order status given to customers, if required.

It is important for production planning to get immediate feedback on production problems on any line. In which case, production can be moved to another line or re-assigned with other orders. pcs.PANDA's computer-based data analysis provides

pcs.PANDA manages status information including:

- Name of the machine
- Orders being processed
- Number of manufactured items
- Number of rejected items
- Number of adjusted items
- Number of ordered items
- Main activity in progress and sub activity
- Choice of machine, shown on the terminal
- Starting up and closing an order. At start-up the order can be selected from a menu system
- Choice of main activity (Setting, production or standstill)
- Choice of cause for standstill. The cause can be chosen from a menu system
- Definition of cause for stop. The cause can be chosen from a menu system
- Manual adjustment to the number of manufactured items
- Manual adjustment to the number of rejected items including cause (The cause can be chosen from a menu system)
- Manual adjustment to the number of adjusted items
- Start and finish of overtime

objective information, so there is no need to question machine breakdown. Therefore, valuable time can be used to problem solve rather than having unnecessary discussions.

Automaticity

At some enterprises, production reports are always written manually. The operator fills in a shift report, which is then transferred into a spreadsheet application. However, with manual reporting, a large amount of the profit margin can be lost. It's up to the operator to estimate stoppage times, production time etc, and this isn't always easy later on. The small stoppages that perhaps may in total constitute a considerable part of the stoppage time are easily neglected.