INDUSTRIAL DATA PROCESSING APPLICATIONS REPORT

Applications   Stock Control

Type of Industry   Men's Tailors & Outfitters

Name of User   Moss Bros Ltd
                            London, England

Equipment Used   Burroughs B363 Computer

                            I. C. T. Unit Record Equipment

Synopsis

A Burroughs B363 computer system is currently being used by Moss Bros in London to keep track of stock at its branches throughout Britain. The system, in addition to maintaining stock records, compiles sales statistics, prepares financial reports, updates mailing lists and is scheduled to undertake the preparation of payroll.

The stock control system is based on information from three sources: hand-written bills, transfer documents and delivery lists. Three separate reports are produced by the system each month. These include reports on overall and individual branch sales totals by value; total sales by unit and unit sales by branches.

Moss Bros of Covent Garden installed a Burroughs B-363 computer system to handle a stock control problem that had grown unwieldy. This was due partly because its system -- designed when the business was smaller than it is at present - was proving totally inadequate, and partly because existing routines produced too little of the kind of information that is essential to increase profit in a retail business.

The company sells ready-made clothes, most of which are manufactured in its own factories. Clothing is ordered in small batches -- 100 suits or overcoats of one pattern at a time for example -- which enables Moss Bros to offer its customers a far wider range of styles and patterns than would otherwise be available. This diversity causes some internal problems. No shop can stock any one line in quantity. If a customer picks a suit that is not available immediately, the manager of the store can obtain it for him through a "garment location service." Operated from the head office, this service involves searching the records to find out in which branch the wanted items can be found. It is then transferred to the appropriate location.

In the stock record system previously used, details were entered manually in an index that contained, at any one time, some 35,000 to 40,000 small cards, each representing an individual garment. Each garment was numbered but this number was merely a serial and had no significance other than including the pattern number and providing a unique identification of that garment. Other details on the stock record card included a brief description, the size, cost price and retail price.

After a period of time, it was clear that the system could not handle the increased load. Instead of mechanizing the system through the use of an intermediate punched card system, the company decided to acquire a computer.

There were a number of reasons for this approach. Detailed stock records, as kept for outerwear, were not maintained for the company's other lines and control was strictly financial. Therefore, no figures on stock units of individual items could be obtained. The company had always assessed the profit to be expected on each quarter's sales at each branch. However, in the past, these figures were inaccurate and became available so late that they were mainly of historic interest. In addition, branch managers could not be supplied with comparisons of sales for one quarter opposed to sales for the same quarter in the previous year. It was evident that payroll functions could also be transferred to the computer.

The computer configuration at Moss Bros consists of a central processor with 19,200 characters of memory, two card readers which can read at the rate of 800 and 200 cards a minute, a 100 card a minute punch and a line printer capable of printing at the rate of 700 lines a minute. In addition, the system uses I.C.T. unit record equipment.

One problem for the system was to devise an efficient coding system. Not only did the serial numbering system for outerwear have to be replaced by a more informative coding but a breakdown that allowed for complete classification of all other items had to be devised.

THE SYSTEM

The stock control system is based on information from three sources: handwritten bills, transfer documents and delivery lists. The handwritten bills record sales in the main retail store and branches. The transfer documents record all movements of an existing stock, whether from a warehouse to a retail store, from the main store to a branch or vice-versa, or between one branch and another. The principal use of these documents is in compiling the garment location reports. Finally, the delivery lists contain details of all deliveries to the warehouse, or to the main store, of goods either from Moss Bros' own factories or from outside suppliers.

Documents from these three sources are sent daily to the computer center. To aid identification in file, the 80-column cards into which details are punched are color-coded -- blue for sales, yellowish red for transfers and red for deliveries.

NEW SALES

SUITS	624	180	2,407	754-
OVERCOATS	192	99	411	97-
SPORTSWEAR	309	30	2,222	105
TROPICAL	65	38-	1,670	228-
MORNING WEAR	15	21-	50	108-
EVENING WEAR	42	11	394	39
MILITARY	48	32	234	103-
RIDING-MENS	99	87	403	96
RIDING-LADIES	37	10-	432	98
RAINWEAR	202	140	861	298
SKI	18	2	42	31-
ACTIVE SPORTS		26-	135	321-
GUNS		12-		82-
BOOTS-SHORT	46		578	110
BOOTS-LONG	7-	23-	46	19
LEATHER	92	89	222	
SADDLERY & GLASS		19-	586	

STERLING SALES ANALYSIS

The first stage of processing, which is carried out each working day, involves a separate computer run for data derived from each of the three sources. Output at this stage is, in every case, a proof listing which acts as a reconciliation when compared with the source documents. In the case of sales, this proof list is analyzed by branch, an off-line card sort having previously been carried out for this purpose.

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	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	SUM
GROUP 01 CODE JA																												
SIZE 35S PATTERN 5202	1																											1
SIZE 36XL PATTERN 4465	1																											1
SIZE 36L PATTERN 5218														1														1
5219													1															1
5240	1																											1
SIZE 36L TOTAL	1												1	1														3
SIZE 36LYM PATTERN 5192					1																							1
SIZE 36R PATTERN 1394	1																											1
4999																												1
5079			1																									1
5083				1																								1
5194	1																							1				2
5199															1		1								1			2
5228				1									1		1		1		1									3
SIZE 36R TOTAL	1	1	1	2									1	1	1		1		1					1	1			11
SIZE 36RYM PATTERN 5191				1																								1
SIZE 37XL PATTERN HM38	1																											1
HM42	1																											1
7835	1																											1
SIZE 37XL TOTAL	3																											3
SIZE 37XS PATTERN 5087				1																								1
SIZE 37L PATTERN 5079																						1						1
5083									1											1								2
5117				1																1								
5177																								1				
5178															1													

GARMENT LOCATION REPORT. THE NUMBERS 01-27 ACROSS THE TOP INDICATE BRANCHES. GROUP 01 INDICATES A MAIN CATEGORY OF MERCHANDISE; E. G. SPORTS JACKETS. JA INDICATES A CERTAIN TYPE OF SPORT JACKET.

When the sales proof report is completed, the cards are again sorted into three groups: Location, Non-location and Other, the last of these three relating to sales of second-hand goods and rental transactions. The next step is to produce summary cards of two types: "A" cards, on which daily sales information on location items is condensed, up to four items relating to any one code being punched into each card; and "S4" cards which are used for a monetary check on sales for each branch. The S4 cards are accumulated in a file for one week after which they are used to produce an analyzed weekly sales summary.

The sales summary cards are used, in conjunction with summary cards from the transfer and delivery groups produced by routines similar to those outlined above, to produce a twice-weekly garment location report. To create this report, all the summary cards are put in one reader, the location master file in the other. The computer, by comparing the new detail on the summary cards with existing information on the master file, compiles the garment location report. The master file, however, is updated only once a month from accumulated summary cards plus the old master file. This procedure eliminates the expensive and time consuming procedure of creating a new master file during every processing cycle.

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4 WKS TO  24 FEB 1967              UNIT SALES ANALYSIS

                          01   JA       118
                               JAP       20
                               JB         4
                               JBP        7
                               JC        66
                               JK        38
                               MA        60
                               MAE        4
                               MAP       13
                               MB         4
                               MBP        2
                               MC        95
                               MCA        8
                               MCB        5
                               ME         5
                               MF        61
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UNIT SALES ANALYSIS

Each month, the computer produces three different sales reports - overall and individual branch totals by value; total sales by unit (code group); and unit sales by branches. No monthly report is produced on transfers since the main purpose of recording these transactions is to produce the garment location report. Monthly reports on deliveries are broken down by deliveries of goods from Moss Bros' own factories and others, to the warehouse and to the main retail store, and by total cost price and selling price together with profit potential percentage.

Another report produced each month totals and analyzes the value of stock held throughout the company. This is compiled by comparing cards containing details of unit sales in each code group with a file of "price" cards which lists the total units in each code group held throughout the company plus the cost and selling price.

The buildup of a file of "comparison cards" listing past unit sales will also allow the production of a monthly report to branch managers, which will for the first time, provide them and the company management with figures that show how each month's unit sales compared with those made during the same period the previous year.

RESULTS AND FUTURE PLANS

In addition to obtaining benefits derived from the new management reports and receiving all statistics far more quickly than before, Moss Bros is now able to provide customers better service at reduced cost in regard to garment location. By consulting the latest report it is possible to know immediately whether a wanted garment is available and where.

In addition, the computer maintains a 120,000-name mailing list. This list, amended daily, is used in various permutations according to the interests and buying records of the customers involved. Labels for mailing purposes are printed out by the computer and attached to envelopes by a Cheshire machine.

The next job to be transferred to the computer will be payroll. This, involving a total of 1,500 employes, is already centralized and is at present carried out on keyboard accounting machines.

In the future, if the system has to be expanded, the use of magnetic tapes or other peripheral equipment may be added.