

In a business that prides itself on its traditional skills, the application of computers requires more consideration and sensitivity than usual. Nonetheless, any business that wants to survive in the modern commercial world must take full advantage of modern technology. An instructive example of how to use computers to enhance business efficiency without diminishing standards of workmanship or personal service is provided by Plumbs (Mail Order) of Preston.

Plumbs is in the business of made-to-measure household textiles, principally curtains and stretch covers. The company lies in the heart of the Lancashire textile country, and places great emphasis on the traditional virtues of personal service and value for money. It sells on quality rather than price — the average order value is between £60 and £100, and some customers place orders worth more than £1000. All its products are manufactured on site — the basic fabric is bought in dyed or printed form, and is then cut to shape according to the customer's instructions.



Picture shows Steve Jones — financial director, Plumbs (Mail Order) in the curtain manufacturing area at Brook House Mill. All the products are manufactured on site — the basic fabric is bought in dyed or printed forms, and is then cut to shape according to the customer's instructions.

'Friendly' Computer System to

Administratively, the business needs some form of automated data processing. Plumbs receives an average of 300 plus orders per day through the post from mail order customers, and 150 plus orders per day from full time agents, together with a much larger number of enquiries. With both orders and enquiries, time is of the essence. The orders are prepaid, so it is essential that no time should be lost in supplying the goods. With the enquiries, a delay of even a few days can mean that the customer loses interest, or goes to another company.

The man responsible for computers at Plumbs since 1979 is financial director, Steve Jones. He is one of the new breed of accountants for whom computers are a fact of life rather than a troublesome intrusion. While recognising fully the problems involved in using computers in a business like Plumbs — "it is important to get the blend of technology and traditional skills right" — he has succeeded in developing a highly imaginative and effective approach to computer usage. The system now plays a vital part in Plumbs' operations — "it is crucial to the business, and if it fails, the business fails".

Computer usage at Plumbs initially started in a modest way with the acquisition of a Rediffusion Computers' Seecheck key-to-disk system for data entry of accounting information. Once a week the input was batched to tape and taken to a local bureau for processing. This

toe-in-the-water approach has had significant long-term consequences. Jones quickly appreciated that there were advantages to the company, notably in terms of timeliness, in having its own in-house system, but instead of going for the conventional solution of a turnkey minicomputer, Plumbs stayed with Rediffusion and ordered an R800 system.

"it is important to get the blend of technology and traditional skills right"

The R800 is marketed by Rediffusion Computers as a data entry system, and most customers use it solely for that purpose. It is, however, built round a fully-fledged minicomputer, and it does come with a powerful set of software development tools. Jones says, "As an accountant, I find it a very good machine. It's so user-friendly that I feel confident in making programming changes myself. Generating a new report is easy and can be done for virtually nil cost".

Plumbs uses the system, which is built round twin R800/70 processors and has twin 150 megabyte disks, as a hard working data processing engine. The applications are mainly file-handling and printing — the system has no less than five printers. There are 18 data entry terminals, of which 14 are organised in a conventional punch room and the remaining four distributed around the site.

Marketing naturally is a most important activity in a mail order company, and the computer plays its full part here. Plumbs obtains its business from responses to advertisements in newspapers and magazines. These contain coupons inviting readers to apply for a mail order catalogue. When the morning post arrives at the Preston offices all the coupons are extracted and the details keyed into the R800 system.

These details include not just the name and address of the enquirer, but also the name and issue of the magazine the advertisement was placed in. This allows tracking of the effectiveness of every advertisement individually, and also of the value of each different publication.

The immediate result from the coupon data entry is the production of a personalised order form, which is sent with a catalogue and a set of sample cards to the customer. The customer's data is then posted to a "follow-up" file, which is used periodically to send reminder letters.

Plumbs also maintains a "mailing file", which consists of all customers who have placed an order within the past three years plus all enquirers who have sent in a coupon within the past 12 months. This is used some three or four times a year for mailshots. It consists, incidentally, of a staggering 950,000 names, which represents around 5% of all households in the UK.

Plumbs takes great care to ensure that these mailing lists are as accurate as possible. It runs a sophisticated 'de-duplication' system, which looks

for possible duplicate entries in a variety of ways, and prints out a list for checking. This is designed to prevent customers from being irritated by receiving multiple copies of mailings, and also to minimise costs.

Any orders received are entered into an orders file, and the details checked for completeness, pricing accuracy, and so on. If any error is discovered, a personal letter describing the problem is automatically generated and sent to the customer immediately. As Jones says, it is essential that this is done as quickly as possible, as Plumbs is holding the customer's money. It is the policy at Plumbs to process all orders, and also all enquiries, within 24 hours of receipt.

Once the order has been accepted as correct, the system generates a multi-part document set which accompanies the order on its progress through the factory, and the necessary despatch labels. The customer's original order form also goes through the factory with the goods, so that Plumbs' staff are always working from the customer's own instructions.

Is Plumbs where to Advertise.

The order details are then recorded against the customer's name. This not only allows the company to distinguish between respondents who have and who have not taken the further step of placing an order — necessary for the effectiveness of its mailshot activities — but also allows it to obtain more information about the success of its advertising campaign.

Advertisements are monitored to check not only how many responses they produce, but to identify the proportion that eventually yield an order, and the value of the total orders gained. As a result, the company is in the unusual position of being able to quantify precisely how effective its selling operation is, in terms of the profit obtained on each advertisement placed.

This information provides valuable intelligence about the suitability of various publications as a selling medium for Plumbs' products, and about the best times of year to advertise and so on. It also provides market research data about the changing pattern of customer demand. Steve Jones regards it as the most valuable function performed by the Rediffusion system.

It also has a useful by-product benefit. From experience of selling campaigns over a period of years, Plumbs can accurately predict the result of a sales campaign, in terms of orders, as soon as the initial responses come in. This information is used by the factory management for resource planning.

Important though the marketing system is, it is only one of the applications run on the Rediffusion system. There are the usual file processing, ledger and accounting jobs, and there is also an interesting pattern storage system.

To make fabrics to customer order, the factory staff need the appropriate patterns to cut from. Each of these costs several pounds to make, so it is worthwhile saving them and using them again. The computer helps with this process by storing the details of every pattern used.

When an order is received, the basic dimensions are keyed in to see if there is a match. The system has only been running for a short time, but already there is a library of several thousand patterns and the hit rate is now up to around 50%. The application is a nice one — it not only saves money but increases customer satisfaction by reducing the time taken to fulfil an order.

It is worth noting that this is a 'distributed' application; the terminal used to enter the dimension data is located in the factory itself. This is part

data to the purchase/ nominal ledger accounting system, and another one in the sales office. Other distributed terminals will be added to the system as new applications are developed.

As a tailpiece to this interesting and unusual computing case history, it is worth noting that all of this computing activity has been achieved with minimal outlay. The dp staff consists only of a dp manager who is an analyst/programmer. For large scale software developments, an external systems house, Northern Computing Services at Leyland, has been used. This small staffing level has been possible, Jones says, because of the software supplied with the system, which is particularly user-friendly.

Jones adds, "I feel the need to understand the system fully — how it works, how the files are structured and so on. Then I can talk about it to the staff, which gives them confidence and stops them being frightened of the machine.

"With the original accounting package, I was instrumental in

of a policy to put the system under the users' own control as much as possible. There are also two terminals in the accounts office for the entry of

installing it and was fully involved in the testing process and in training the staff. Now they just get on with it without any intervention from me."



Fourteen VDUs are installed in the busy punch room at Plumbs (Mail Order) where the operators key in orders, enquiries and coupon details. The data is then processed on twin Rediffusion R800 processors.

Pictured (right) is Sue Davison who is deaf. She has been with the company since leaving school and averages a keying speed of 16,000 key depressions per hour.