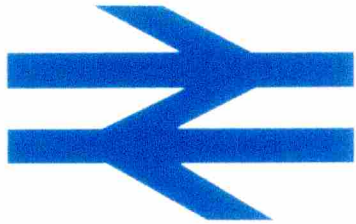# OCR APPLICATIONS

by Nicholas Enticknap

With the advent of systems such as ROCC Computers' R2860 mixed-media system, OCR has ceased to be a data entry technique which is only resorted to in extremis by companies with huge data entry volumes and large amounts of cash to play with. Today it is an attractive possibility for quite routine applications.

A system about to be implemented by **British Rail** is a good example. It is designed to input data about payments of invoices, which is about as routine an application as you can get. The volumes are small, occupying the reader for only half an hour a day. The volume of money involved however is large – in excess of £12 million a week in cheques and other negotiable instruments. The justification for the system is the speed with which the payments can be processed: a saving of even one day produces a substantial pay-off. Use of the R2860 system allows the British Rail treasurer to get all the cheques that arrive in the morning post to the bank by 11am.

The R2860 reads both payments slips (created using an OCR-B font by British Rail's laser printer and sent out with the invoice) and cheques in the same run. There is not necessarily a one-to-one correlation between the two: one payment slip can be matched with more than one cheque, and one cheque can settle more than one invoice. Numbers are stamped on all the documents by the system during the run so that related transactions are kept together and subsequent microfilming of the cheques ensures a complete audit trail.

To complicate matters further, some large BR customers don't use the payment form sent out with the invoice, but produce their own remittance advices. The data on these documents is keyed in on the same system using key-to-disk workstations. Software control allows these transactions to be kept as part of the same batch. The R2860 also produces all the required balancing and accounting information for the whole batch, including both read and keyed documents.

British Rail is a convinced OCR user and a convincing exponent of the value of the technique: ROCC Computers gives the corporation the credit for persuading the company to diversify from its traditional keying systems into OCR. British Rail originally started using OCR for wages payments and since then it has steadily widened the scope, and now has 96 applications running on nine different mixed-media systems, with a total investment of over £5 million on 26 systems.

Shell UK Ltd is a company new to OCR: it turned to the technique for the first time three years ago for an application which in data entry terms is very messy. It concerns the collection of data about fuel sold in service stations on the production of agency cards. From Shell's point of view, the problem is that the counter clerks generally do not stay long enough to justify the cost of training them to fill in documents in the optimum way, so that system has to place the minimum demands on them. To make matters worse, the input document received by Shell is a carbon copy (the middle one out of a set of three), so the print quality is by no means good.

A R550 system is connected to a Recognition Equipment Input 80 machine which has provided a satisfactory solution to this problem. The counter clerks handprint the vehicle registration number and the amount of fuel, and make a mark to indicate the type of fuel. Other details relating to the service station and so on are printed.

The documents are read by the R550 using a combination of character recognition, handprint reading and mark sense techniques. The amount of fuel is also entered using key-to-disk workstations for verification purposes. After reading, the documents are stamped with a number for tracking purposes, and then microfilmed, allowing the original documents to be thrown away.

This combination of mixed data entry input and outputs illustrates the versatility of the R550 and R2860 systems which has made them attractive even to traditional OCR users. An example is provided by the

North Western Electricity Board (Norweb), which has been an OCR user for 15 years.

Norweb has turned to mixed-media as a replacement for a freestanding OCR system. The jusification is not the traditional OCR benefits, which were achieved years ago, but its ability to cope with bad data as well as forms in good condition, by allowing off-line entry of rejected characters.

Norweb's volumes are huge: some 40,000 meter sheets a day, generated by its ICL 2900 system and completed by the meter readers using pencil handprinting. The input starts at 6pm on each working day, and the documents are read, validated and transmitted to the mainframe for processing by 10pm, which allows the accounts to be despatched first thing the following morning. This is a day earlier than was possible with the previous system, and that results in a cash pay-off estimated at £100,000 a year.

Norweb installed two R2860 systems in July 1982, and has just expanded with a third due to an increase in the volume of meter sheets submitted daily. This third system will also allow Norweb to consider large power meter-reading, an existing key-to-disk application, to be processed on the OCR equipment. Although the amount of data involved

is relatively small, but the application is extremely time-critical, as it has to be processed within a three-day period each month, causing a massive peak in the normal key-to-disk workload.

Each of the three systems is equipped with two key-to-disk workstations. Two have both a document reader and a page reader; and the third has just a document reader. The page readers are used for sales analysis and wages data, while the document readers are used for the meter-reading sheets and cash payment slips.

Another ROCC customer which replaced separate OCR and key-to-disk systems with one mixed-media system was the **NAAFI.**

NAAFI

The principal justification here was simply cost: the rental and maintenance of the complete R2860 system is less than the maintenance of the previous OCR system alone.

The system is used for reading stock order documents sent to a central location from 600 outlets. They contain reference information pre-printed in OCR-B, handprinted data relating to the ordering site, the stock item numbers and the quantity required, and optical mark data which defines an alphabetic stock item code. The site field is key-verified to ensure that it's correct and avert unpleasant possibilities like sending goods to Glasgow when they should be going to Plymouth.

A strength of the R2860 in this application is the system's ability to read handprinting in pen; the previous OCR system was unable to read biro printing.

The applications of the R2860 is very untypical of traditional OCR applications – but it enables 20,000 orders a day to be entered in a couple of hours thus reducing overall computer processing time and leaving spare capacity for other applications.

This neatly illustrates the point that OCR is no longer the province of the big battalions: it can produce significant cost savings and improvements in turnaround time on quite small volume applications, particularly when used in conjunction with other data entry techniques.

One hundred and fifty guests attended the official opening of ASLIB's (The Association for Information Management) new headquarters in Holborn, London, on Thursday, November 27 1984.

Lord Lucas, parliamentary undersecretary of State for Trade and Industry, was welcomed to ASLIB by director Dr Dennis Lewis and the association's president, Lord Swann.

In his address, Lord Lucas said that he felt more people should read the written word instead of spending many hours watching TV. However, he was delighted to officially open ASLIB's new offices in warm surroundings by simply pressing a button rather than cutting the ribbon outside the building with the possibility of inclement weather.

Lord Lucas then pressed a key on ROCC's Teleputer/3 corporate videotex workstation. He was then taken step by step through the opening procedure with the first frame showing the opening in progress; next frame displayed a graphic picture of Information House; the third frame showed a pair of yellow scissors snipping a blue ribbon, which resulted in spontaneous applause from the guests. To the fourth frame showing a glass of champagne bubbles and all

congratulating ASLIB on the official opening.

Dennis Lewis then invited guests to join the present and ASLIB directors in refreshments, at which point the Teleputer/3 displayed wine being poured into a glass.

During refreshments, ASLIB sponsors were continually scrolled on the Teleputer/3 together with congratulatory messages, some having been retrieved from Prestel.

ASLIB has been established for 60 years and is a British association involved in research and consultancy, training and publishing. It has more than 2000 members including industrial and commercial companies, academic and research institutions and international bodies in 70 countries.

LORD LUCAS AND THE TELEPUTER OPEN ASLIB

The association has, in the last four years, broadened its range of publications and services. It has extended its help to managers and researchers in all fields who want to organise their information effectively and take advantage of the benefits of information technology in the office.