

LONDON BOROUGH'S' MANAGEMENT SERVICES UNIT

Computer Division

YOUR COMPUTER

An English-Electric-Leo-Marconi computer, a LEO 360 model, has now been installed at Southgate Road, Hackney. It will provide computer services for the London Boroughs' of Hackney, Haringey and Tower Hamlets and the process of operating, writing programs and setting up computer records has been undertaken by the Computer Division of the London Boroughs' Management Services Unit. This document sets out briefly the manner in which the service will operate.

Programs.

A computer program is a standard set of instructions to the machine which enables it to carry out one particular set of operations e.g. payroll calculations, rates calculations. These instructions each effect only a very simple step such as an addition or multiplication and one program normally consists of a large number of separate instructions, for instance the complete set of payroll programs contains over 30,000 steps.

A set of programs written by the Unit has been tested and proved and is in day to day use by the London Boroughs' of Southwark, Bexley, Greenwich and Lewisham. All of these Boroughs' use the same programs and these will be used on the North London Machine.

Files.

For each program for each Borough a computer file is set up by the Unit's Implementation Section. The file is held in a coded form on reels of magnetic tape. A row of magnetic 'dots' across the tape represents one character or symbol. The machine can read characters in this form from the tape at a rate of 28,000 per second. A file consists of individual records which vary according to the nature of the program to be used. For instance on a payroll file there will be a record for each employee containing his name, national insurance number, tax code and all other details necessary to the correct costing and calculation of his pay. Certain fundamental pieces of information such as national insurance stamp rates and tax tables are held elsewhere on the file as permanent features and are known as common data.

The programs are so organised that information from one program is 'fed' into the next program. Thus an issue of fuel to a vehicle is first read by the transport program which calculates the miles per gallon

for that vehicle; it is passed on to the stores program which calculates the cost of the issue and adjusts the stock balance; the cost is passed on to the job-costing program which accumulates the cost of all fuel issued to this vehicle; then the cost is sent to the accountancy program which allocates the charge to a particular Committee.

Data

Each time that the program is run, fresh information, termed 'data' is 'fed' into it. Data is of two types - amendments which are changes to the basic information held on the file and current data which is information required for that current run only e.g. time sheets, stores issue notes, rates payments.

Data is entered on specially designed forms in "boxes" set out between heavy vertical lines. To each box is allocated a specific piece of information. Box 1 for instance might contain a rates reference number and box 2 a rateable value. In some boxes, only figures must appear while in others any character on a standard typewriter keyboard may be entered.

The completed forms are fastened together in batches and sent to the computer centre so that the information can be transferred to a computer usable medium i.e. paper tape. Here everything between the vertical lines is typed out on a key board in this process, known as perforating, which causes a length of punched paper tape to be produced. Each row of holes across the tape represents one symbol or character. All data is punched twice and the two tapes compared electronically to reveal errors. The correct tape is then read into the computer.

Printed results.

Each program produces a selection of printed results on a special printer which prints at up to 1000 lines a minute. These results, together with the original data forms are then returned to the Borough.

Documentation

Senior officers are supplied with a specification of the programs which they are using. For other staff there is a handbook which explains how to complete data submission forms and how to interpret

printed results.

General

The task of getting information to the computer centre at agreed times and the distribution of results is the responsibility of the Boroughs' Computer Liaison Officer, who will also channel all enquires about computer programs to the Management Services Unit and procure additional copies of publications on request.

Your liaison officer is