U N I V E R S I T Y   O F   E A S T   A N G L I A

COMPUTING CENTRE

Users Handbook.   Issue 1

This document is the first hastily produced version of a handbook which will be issued to inform users and any other interested members of the university about the services offered by the Computing Centre.

1.   LOCATION

The Computing Centre is situated to the south of the walkway in front of the Chemistry building. The main entrance for users will be by a flight of steps from the walkway to the first floor of the Computing Centre but at the moment users should enter on the ground floor and go upstairs to the job reception area, the output racks and the users punch room.

The computer installed is an ICL 1905E computer with a 32K store, card and paper tape input and output, a line printer, 4 magnetic tape decks, 2 exchangeable disc stores and 6 on-line teletypewriters. A more detailed description will be found at the back of these notes. The computer may be observed through the windows provided on the ground floor corridor.

2.   COMPUTER USE

Computer time will be available to any member of Faculty and to any student. All users must register with the Computing Centre before they put work onto the computer. They will be given a nominal amount of time and must obtain authorisation from their School representative for a proportion of the time allocated to the user's School. A list of members of Faculty who can explain the allocation of machine time in each School is given at the end of these notes.

On registering each user will be issued with two envelopes with coloured labels showing his name and user identification. Every job entered into the system must be accompanied by an envelope which will contain the users' output. Users will be required to re-register during each September/October for the forthcoming academic year otherwise their user identification will be reissued to a new user.

Initially there should be no shortage of machine time but later as computer utilisation increases, users may be restricted to the time slice allocated to them. The reason for such restrictions is to give all users their allocation of machine time without a large turnaround time. If machine time is available jobs will be run even if a users' time allocation is exhausted.

3.   SYSTEMS IN USE

Initially while the system settles down, there will be changes to the operating system at quite short notice. We intend to operate the ICL GEORGE 2 Operating System as soon as software problems have been overcome. Practical information as to its use will be circulated as soon as we feel the system is ready to use. The same is true of the MINI MOP and JEAN systems which can be used from remote consoles.

At the moment we are offering a simple system for running FORTRAN and PLAN jobs. A short description of the use of FORTRAN appears at the end of this document.

4. JOB RECEPTION AND DISPATCH

The computer will be run on a completely closed shop basis and no user will be allowed into the machine room to enquire about or to run his job.

All jobs should be deposited at Job Reception which is on the first floor. Each job will be checked in and, if possible, any queries will be answered. Each job must be accompanied by an envelope provided by the Computing Centre as this is a check that a users' job has been processed.

Simple jobs such as small FORTRAN or PLAN jobs will be entered on a list but more complicated jobs must be accompanied by a formal job request form.

All output will be put in the racks in the foyer of the first floor to be collected by the user. Initially we will be collecting input about 9.30 a.m. and 2.0 p.m., but for the present work can only be done in an ad hoc way as the computer has not been formally handed over to the university; so no turnaround times are guaranteed.

5. PUNCHING SERVICE

The users' punch room on the first floor is for general Do-it-yourself use while the other is reserved for use by the Computer Assistants employed by the Computing Centre. At the moment there is a severe shortage of equipment but the position will improve with time.

A punching service is provided for faculty and graduate students but this is necessarily limited and Schools which possess their own equipment are asked to make maximum use of it

All punching together with clear instructions should be deposited with Job Reception, where a data preparation request slip should be completed.

Other ancilliary equipment i.e. card reproducer, is on order but has not been delivered yet. In the meanwhile users requiring to reproduce cards should contact Job Reception for details.

6. USER IDENTIFICATION

Before a user can have access to the computer, the Computing Centre will issue him with a unique user identification. This code is a users' sole identification in the system and is the only means whereby packs of cards, reels of tape, computer output etc. can be identified. Users MUST make sure that a user identifier appears on all input and output.

The user identifier consists of 4 characters which have the following significance:-

1st Character - General School Classification

A	Computing Centre	H	Mathematics and Physics
B	Biology	J	Social Studies
C	Chemistry	K	Registry
D	English and American St.	L	Library
E	Environmental Sciences	Y	Teaching (Computing Centre)
F	European Studies	Z	Special Work
G	Fine Arts and Music		

2nd and 3rd Characters - User Number

This is the users' number within a School. The first three characters will be sufficient to identify an individual.

4th Character -

Initially this will be zero but can be used by a School to group individuals within that School.

7. MAGNETIC TAPE AND DISC USE

Magnetic Tapes

We are setting up a University standard system for labelling magnetic tapes. All tapes which are used within the university will be given special tape serial numbers (T.S.N.).

It is possible for any individual to use scratch tapes for the duration of any job but it will also be possible for a user to borrow, hire or buy tapes for his own use. If it becomes apparent that a borrowed tape is not in use, the Computing Centre will inform the School concerned that it intends to charge a rental. Tapes which are withdrawn from the system for long periods, for example for the permanent (or semi-permanent!) storage of data must be rented or purchased, so that a replacement can be provided for other users.

Tapes from other installations in non standard form will be accepted if they are compatible with our magnetic tape decks.

Discs

Rules for the use of discs have not yet been evolved because we do not have working experience of the system. It would seem that

i) Scratch tracks on a disc can be made available for temporary use during the running of a program.

ii) Tracks required for retention for a period must be booked with the Tape Librarian well before running the program.

iii) Private discs must be purchased as they are expensive and the Centre has only six for all purposes.

All potential users of magnetic tape and disc for long term storage use or if any user receives a tape from an external source for use on the computer should contact the Tape Librarian.

8.   ATLAS USERS

ATLAS users must realise that the 1905E is not like ATLAS. Its operating speed is at least 5 times slower than ATLAS. The 1905E core store is 32,768 24-bit words. Of these only about half will be available for a users' program. A floating point number on the 1905E is stored in two words and not one as in ATLAS, thus effectively halving the available data space. Further details of the differences between ATLAS and 1905E have been distributed to ATLAS users in the document "Notes on Variations between ATLAS FORTRAN and 1900 FORTRAN". Further copies can be obtained from Job Reception if required.

The service to ATLAS will continue but users can no longer expect the University to be allocated time as freely as in the past. The system for dispatch will continue but work should be brought to Job Reception clearly marked as destined for ATLAS.

9.   MANUALS

The number of free copies of a manual supplied by the manufacturer is two. One of these is retained by the Computing Centre, the other if of interest is sent to the Chemistry Library. Any copies required for users must be paid for and a written order must be supplied so that the Centre can distribute any amendments received at a later date. Amendments to FORTRAN and ALGOL manuals will be sent to the users' School representative.

GENERAL

We intend to provide full information to users where ever possible for running standard and non-standard jobs. If you have queries, ask first at Job Reception and you will be directed to somebody who can help you.

A programming adviser has been appointed to provide an advisory service to all users. His job is to help users to obtain maximum benefit from the computer.

He can provide aid in such areas as segmentation, magnetic tape and disc use, specialised packages, etc. but he will not write programs for users.

Over the first few months of operations, we expect teething troubles of many kinds and our methods of working may be rapidly modified but we hope to stabilise on a system which will suit the majority of the people most of the time.

JPGR/MSW
11th November, 1968.