

- (b) Attendance at the Bureau installation and entry into the system via the local input/output devices. This allows the user to bring card decks and control cards to the installation and have these decks placed in the input file. The user may examine printed output after completion of his job. Suitable office space is provided for programmers who wish to be in attendance at the installation.
- (c) Use of the Bureau pick-up and delivery service. This service collects material for processing from the user and transports it to the installation, where it can be fed into the system for processing. Printed results and other output will be delivered to the user after processing.

Jobs arriving in the system from both local input devices and remote stations are stored on the input file prior to processing. Each job must be accompanied by job control information supplied by the user. This information is fed into an automatic scheduling system, which extracts suitable jobs from the input file for processing. The scheduling system is designed to ensure optimum utilization of the processing resources available at the installation and to provide the most efficient processing of user programs.

In the initial operations at the Bureau installation, a scheduling algorithm will be employed which tends to favour short jobs over long ones and yet promotes longer jobs as a function of their waiting time. The scheduler also performs such functions as asking for mounting of tape or disk files prior to selecting a job for processing. It will not allow a job to be executed until these set-up requirements have been met.

It should be emphasized that this installation will not be operating in a time-sharing mode. The service provided might better be described as multi-user job processing with remote job input. Because of the fast turn-around on short jobs, it offers a programmer a unique opportunity for program development. It is the biggest step we feel we can take at the present time towards true time sharing systems which are still, in our opinion, in the research stage.

We consider that acceptance of the system will depend on the following factors:

- (a) maintenance of quick access to the facilities and fast turn-around for customers' jobs;
- (b) provision of an efficient service, such that the customer retains control of his work; and
- (c) maintenance of strict privacy with regard to customers' operations and data.