

credit approval, stock control balances, etc. In other words, the computer is designed as a multi-processor unit capable of transferring and of producing real time information. This is also known as provision of information by "direct access".

When computers were first introduced, they proved to be so rapid in comparison to any other equipment in use up to that point that they outstripped the associated input and output equipment. This had the effect of limiting severely the speed with which the computer could do its work since the whole system could operate only as fast as the slowest unit in the configuration. Various off-line procedures were introduced to speed up the processes, but the development of peripheral equipment has always been and continues to be behind the development of computers. We can expect to see continued effort on the part of the industry in improving the speed and capability of peripheral units.

Office Facilities - Let us assume that we have installed one of the large computers in a central location and have connected it on a direct line with an ultra-modern executive office of the future. What will this executive office look like and how will it be equipped and used? During the last few months, various articles have been written by experts well acquainted with current research and development.

The desks and other pieces of office furniture will, in all likelihood, take on the general appearance of the most modern modular units available to-day, but they will be designed to support or house the various types of peripheral units with which these control centres will be equipped. Some of these will be in auxiliary housings alongside the desks. There will probably be an array of buttons and switches that will look formidable, but will be quite simple and understandable to the highly trained administrative officer of the future. Some of the machines and instruments we may expect to find will be:

- Cathode-ray viewing screens
- Microphones and loud speakers
- Television screen for communication purposes
- Automatic typewriter
- Telephone
- Photocopy machine

These will all have become pieces of peripheral equipment capable of producing punched paper tape, magnetic tape, or some other language medium compatible with other office machines located elsewhere or connected directly with the computer itself. This output may be fed into a communications system and transferred by wire to the computer location to be received there in the same form in which it originated.