The Choice For A Lifetime

Like any other part of a modern corporation, the computer department is organised along hierarchical lines. At its head is the **Data Processing Manager**, who is responsible for all the many and varied tasks that fall under the main heading of information processing.

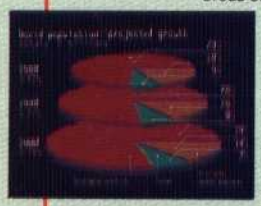
All computer professionals are firstly technicians, and acquire management skills as they progress up through the ranks. The three main areas of specialisation are computer operations, programming, and systems analysis, and there is an element of mobility between specialisations in the promotion path.

In common with the other professions, it is worth entering the field as well qualified as possible. While it may not appear to make too much difference at the beginning, a less qualified person will soon find the path barred. It's much more difficult to get a university degree while doing a full time job! Additionally, organisations like the British Computer Society now offer professionally-recognised qualifications, usually by examination, and for an aspiring programmer or analyst these are a good indicator of standing within the industry.

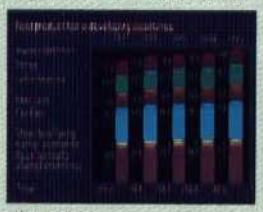
Analysts

Before starting on any job, it is as well to look closely at the objectives and the resources available. The **Systems Analyst** has the task of interviewing users, to determine their needs, to match these needs with resources, and suggest a method of solving the problem. In order to evolve a system of working for other people, the Analyst must be a logical thinker with good communications skills and a spark of creativity. He is often the DP department's salesperson, so must always make a favourable impression on his 'customers' — the computer users in the company.

Programmers



The **Programmer** takes the broad strategy worked out by the Analyst and converts it, first into a tactical plan breaking the job down into manageable segments, and then into code that the computer can recognise and interpret. **Applications Programmers** are concerned with writing programs to do specific jobs, while **Systems Programmers** are more involved with the overal performance of the data processing system. Applications Programmers tend to work in isolation, even though they may be part of a project team. For them, the ability to concentrate attention on the task in hand is really important. Systems Programmers need that too, but also a calm outlook. 'If you can keep your head when all about you are losing theirs . . .' then perhaps you have the makings of a Systems Programmer.



Operators

Physically, the most demanding of all jobs in the industry is operating a large multi- programming/multi-user computer.

But as well as walking miles in a shift with disk packs, tapes or boxes of paper the operator must be fully conversant with the computer's operating system, and with the relative importance of the jobs being run on the machine at any one time. A **Senior Operator** will be called on to make decisions affecting the work of many other parts of the company's business by allowing or denying access to the computer system.

Operators in smaller installations are often called on to help programmers and engineers diagnose faults, as well as simply running the job at hand. Most important, though, is a thorough knowledge of the program's operating method. 'User-friendly' software makes the operator's job easier, and a well prompted' program can be run by relatively inexperienced staff with little loss of efficiency.

KAI CHOI

Development Engineers

Though the time may come when computers themselves develop the new generation of machines, it's in the brain of the **Development Engineer** that this process of innovation takes place now. The development engineer is part scientist, part technician. It is his job to take advantage of new discoveries and theoretical developments to improve and enhance the performance of a given piece of equipment. Doctorates abound in this field where even the least well qualified is likely to have spent five or more years at university.

TONY SLEEP

Field Engineers

Often, the only chance an Operator has to relax is when the computer develops a fault, and a **Field Engineer** has to be called in to fix it. Given the modern computer's ability to diagnose its own failings, and the almost universal adoption of modular construction, the engineer's job has become somewhat simplified, but a field engineer must still be competent in digital electronics. He must also be a skilled mechanic, capable of working to finer tolerances than the average watchmaker. To enter the field, a degree level qualification is usually required.

Least demanding of all, intellectually, is the **Data Entry Operator's** job. The skills required here are much the same as those needed by a copy typist — speed and accuracy. At worst the task is boring and repetitious, but in many small installations this is offset by the opportunity to become involved in other aspects of the computer department's activities.