

## Clip:ap\_clip8: Alexandra Palace Computer Room

TM221/09

Peter Zorkoczy: In this programme we have chosen the computer installation here at Alexandra palace. This is a general purpose mini-computer which provides a service to students and staff of the Open University. First, the manual operation. Sean Doherty of the Student Computing Service is downstairs here with the computer and he will describe what the computer's operator needs to do to set it up for use.

Sean Doherty: I am in the computer room at the Student Computing Service London installation at Alexandra Palace. Most of the Open University computer terminals in the south of England link into here using the Post Office Datel equipment. On my right are some of the Post Office modems and their associated control equipment. Over on my left we have the various hardware components of our time-sharing computer systems, including two mini-computers. Let me first take you through the various components of this mini-computer system. At the top left is a standard magnetic tape unit which you are familiar with. Immediately below it is one of the Hewlett Packard mini-computers. This computer has 8k words of store each word consisting of sixteen bits, as is the case in many modern mini-computers. All the computer terminals are linked into this computer as an intermediate step before information is transferred to the main computer. Above it on the right is another Hewlett Packard mini-computer, but this one has a larger store of 32k words and is the main computer of the time sharing system. Both of these computers have display panels which rather like OPUS 1, are used to set the programme counter, display the contents of memory, and alter memory locations. What we want to do now is to follow the operator through as he prepares to make the computer system ready for terminal users after a shut-down. This involves first powering up the individual components of the computer system, and then loading the software to make the computer operational. So, first the power in both computers has to be switched on, first the main computer and then the front end, the next thing to be done is to prepare the disc unit by loading a disc pack. The disc provides the backing store for the main computer, transfer between the main store and disc being effected with the aid of direct memory access.

When the power is switched on, the disc begins to rotate and a set of brushes sweeps across the disc surfaces to remove any dust particles. The read/write heads then move rapidly out and in across the disc and the unit is ready for use. Next the system console terminal is switched on. This peripheral is the operator's means of communicating with the systems software.