# RADIATION MONITORING SYSTEM AT KEK (SOFTWARE)

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The radiation monitoring system is controlled with a computer network system constituted with one minicomputer (NOVA 4/X) and five microcomputers (MP1φφ) (Radiation Network System). NOVA 4/X and MP1φφ have a different type graphic display, namely, Tektronix 4052 and APPLE II, respectively. The relation between these computers is shown in Fig. 1.

The multi-task programme of MP1φφ is written in FORTRAN and Assenbler language and have following functions.

(1) read camac scallers at each priset time and check power failure
(2) converte counts to dose rate and compare with the alarm level
(3) if power failure or alarm occured, send information to NOVA
(4) send data to APPLE II to draw a graphic display
(5) accept interrupt from NOVA and send requested data to NOVA or receive datum must be changed from NOVA

The programme of NOVA 4/X is also multi-task and written in FORTRAN language. Functions of this programme is as follows.

(1) check each MP1φφ once an hour
(2) request sending one day data to MP1φφ at midnight and store the received data in MT and disk file
(3) send the received data to 4052 for drawing graphs
(4) rearrange the stored disk file data at the first day of each month and print out in line printer
(5) accept the console interrupt to request sending data to MP1φφ in the appointed form, to change the conversion factor or the alarm level and to stop programme
(6) accept the interrupt from MP1φφ and receive the alarm or power failure information

The flowchart of this programme is shown in Fig. 2.

Fig. 1 Communication between Computer

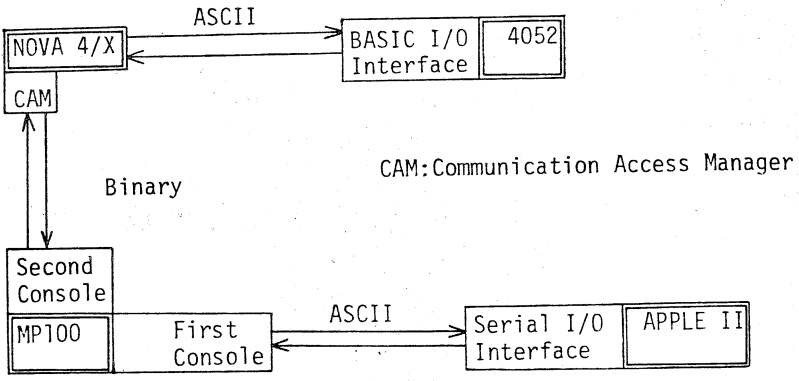

Fig. 2 Flow Chart of NOVA Programme