

POUGHKEEPSIE

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Dept. 749, Bldg. 702  
July 22, 1957

MEMO TO: Mr. D. W. Pendery

SUBJECT: Project 7000 - Inquiry Stations (Low speed units)

The goal of the Stretch system is not merely to be a bigger and faster 70X but also to be a system capable of new applications. High in importance in these new applications are "real-time" and "in-line" tasks. This has been recognized by Stretch planners and the Exchange has provisions for servicing a number of low-speed units. In fact, Direct Access Disks are receiving planning and engineering activity with the expectation that their primary use will be in conjunction with inquiry stations. In spite of this, little is being done to assure existence of the low speed units themselves.

Much can be done. Different applications call for different types of inquiry stations— one type for reservations, another for banks, others for production recording, etc. Some level of standardization must exist, however, among these different types — a level worth finding. One would hope that all inquiry stations could "look alike" to any computer system and that this "look" could be well defined so that computer design can be out of phase (in time schedules) with inquiry station design. Activities like this are not peculiar to any computer system.

Certain types of inquiry stations are needed before others. These can be determined and both Product Planning and Engineering Planning activity can be initiated on them.

Project 7000 initially needs a general purpose inquiry station. This station will be used both in the computer room and at remote locations; i. e., it will in some cases be within a few feet of the computer and in others will be thousands of miles away. It should not be special to any one application but should be usable in a large number and variety of applications. Its function here is experimental and it would be used on a given application as an exploratory device to determine by experience what features a special purpose station (if any) should have for that application. An immediate application exists for this station in the computer room as an extra console. Using multiprogramming techniques and a suitable interpretive program-test routine, one or more people can do console type "debugging" of their programs simultaneously. A console of this type also is needed by input-output unit attendants when they communicate with the supervisory program. The machine room supervisor in Project 7000 is an expeditor and will use one of these stations to observe and control

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the progress of the (several) programs currently in the system. (The conventional console will be used by the customer engineers and for exceptional operational circumstances but not as a primary manual control unit.) Basically this station is the one described in W. M. Wittenberg's memo of 2-21-57 to W. Buchholz on the subject, "Proposal #2 -Phone Line Operation of a Remote Inquiry Station...".

In view of these considerations it is proposed---

1. That Product Planning Poughkeepsie increase its tempo and possibly its manpower in the inquiry station field.
2. That steps be taken to put a Poughkeepsie project on the "Planned Program" --- a project that will provide at least a general purpose station for Project 7000 and for other computers.

*Jack C. Gibson*

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JCG:jv  
cc:

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