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Memorandum M-2682

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Auth: DD 254
By: R.R. Everett
Date: 2-15-60

Division 6 - Lincoln Laboratory
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

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SUBJECT: GROUP 62 SECTION LEADERS MEETING - 8 FEBRUARY 1954
To: Division 6 Group Leaders; Group 62 Staff Members
From: A. P. Kromer
Abstract: Consideration is being given to have MIT provide assistance to IBM with engineering development of specific items of the system. Decision on the switching system for drum circuits has been postponed. An engineering model of a mapper developed by IBM has been installed in WWI for test purposes.

1. Schedule for Development Engineering Work

To relieve the load on the Project High engineering manpower, consideration is being given to doing engineering design (logic and circuits) at MIT for certain portions of the system with preparation of full set of drawings for use in construction of equipment in IBM shop. The items under consideration are:

1. Output frame
2. Digital data transmission system (modulator & receiver)
3. Central display generation frame
4. Preparation of XD-1 building and site
5. Assistance on Memory design

Taylor will investigate the extent to which MIT can assign manpower to undertake the development engineering on first 3 items. Lincoln will take initiative on the installation site for XD-1 which will be the new building at Lexington, (Dodd, Wainwright, Ayer, etc. to work on this). Papien will review status of memory work with Project High group and provide assistance where possible (after 64 x 64 memory is operating satisfactorily in MTC).

Planning will continue on basis of delivery of XD-1 to Lexington on November 15, 1954. However, it is probable that a large amount of testing will be required after installation there. Group 62 is to prepare a test program and work up manpower requirements to carry out the program.

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2. MTC

The 64 x 64 memory was installed in MTC last week and limited operations to date indicate satisfactory performance.

3. Circuits

The final decision on selection of diode or magnetic switching techniques for drum circuit read-write switching has been postponed. While work at IBM has not progressed far enough to demonstrate magnetic switching, the equipment savings appear to be of sufficient magnitude to try and use this if at all possible. For the time being IBM will carry forward both plans in parallel up to point of engineering the back panel wiring. They will also maintain their subcontract with the vendor doing development work on the magnetic switch. (33 pole - 64 position)

Group 62 will complete design and building of the diode switching for the drum in MTC. This will then provide one possible design for use in XD-1 if desired at a later date.

4. Engineering Concurrence

During the past week EDO-SO concurrence was reached for the design specifications for the program element, drums, test memory (toggle switch storage), and marginal checking of central machine. Formal Lincoln release authorization for these will be issued shortly.

Review of initial proposals for the specifications for the output system black boxes is planned for Tuesday, February 16.

5. Display

Consideration in the past week included the proposed display selection scheme using cores (144 cores in series to be driven on 1 line) with decision scheduled for March 15, 1954.

Problems arising from erasing DID scopes if Typotrons are used were also considered.

Four Typotrons are to start life test at Barta Building on Monday, February 8.

6. Mapper

An engineering model mapper unit was delivered to WWI for trial. It will be installed in Room 228.

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7. Etched Cards

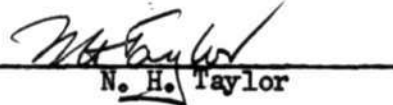
Investigation into material procurement and use of "epo glass" for etched wire cards has led to conclusion that the sole supplier of this material does not have sufficient control over the material to provide the desired uniformity and reliability. Paper base phenolic material will be used.

Further, investigation of plated hole techniques involving use of silver will not be used in order to avoid silver migration breakdown.

Signed:


A. P. Kromer

Approved:


N. H. Taylor

APK:hpm

cc: J. W. Forrester, R. R. Everett

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