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Memorandum M-2620

Page 1 of 3

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

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SUBJECT: Group 62 Section Leaders Meeting -- January 11, 1954

To: Division 6 Group Leaders, Group 62 Staff Members

From: P. J. Gray

Abstract: It is very likely that the MTC computer will be moved to Lexington in May or June of this year. Installation of the drum and memory for MTC is expected to start the week of January 18. A preliminary description of the procedure for obtaining Lincoln approval on equipment design is included.

1. MTC

Taylor indicated that the chances are about ten to one that MTC will be moved to Lexington, and that it appears desirable that this move should take place sometime in May or June. This will allow the current heavy testing program scheduled for MTC to be completed, and yet allow the move to Lexington before warm weather creates an air conditioning problem.

It is hoped that the installation of the new high-speed memory and the magnetic drum can get underway the week of January 18. Delivery of pulse transformers for the memory may delay this job for an additional week.

2. Memory

The new memory for MTC is currently under test and now has 18 good planes. One faulty plane was discovered due to an error in the sense winding. The memory will be available to MTC in the near future as soon as additional wanted tests are made.

3. Display

Corderman gave a brief summary of his recent trip to Convair, and indicated that he was well pleased with the progress being made there. Convair is in the process of increasing their staff with additional experienced people. They now have a new 10,000 square foot plant, of which about three-quarters is devoted to electronic work and production. The Charactron people seem to be well pleased with the use of electrostatic compensation in the Charactron tube.

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4. Procedure for Lincoln Sign-Off on Equipment Design

Jacobs gave a run-down of the proposed procedure that has been under study for the last few weeks for obtaining Lincoln sign-off and release for construction of equipment by IBM. This procedure is awaiting final agreement between Lincoln and IBM which should be obtained within a week or two.

The procedure is generally as follows:

Final releases from Lincoln will be obtained at two different times:

- A. The release of specifications of elements\* of the computer for design.
- B. Release for construction by frame.

For Item "A" a document will be prepared as a joint MIT-IBM effort and will probably be published as an MIT M-Note or IBM H-Note. This document will, in general, be specifications for development of equipment by IBM. However, in certain cases it might cover development by a subcontractor, in which case the definition will probably be more formalized. The report should contain:

1. A block outline of the various registers in the element and the interconnection paths between them.
2. Rough timing diagrams showing both the internal timing and the timing with respect to other elements of the system.
3. Memory and information handling capacities.
4. A rough physical arrangement showing in general how many frames will be involved in the element.

Throughout the report, brief statements of the reasons for choosing the particular specifications should be included.

For the release for construction (Item "B"), an IBM report will be prepared which will be a prediction of the nature of the frame at the time of actual release. It is hoped that this document can be prepared one to one and one-half months prior to actual IBM release for construction. This should probably occur after the major electrical design is completed and mechanical layout is beginning.

\* See MRD Book definition of "element".

RESTRICTED

Memorandum M-2620

Page 3 of 3

Procedure for Lincoln Sign-Off on Equipment Design (Continued)

The report should contain:

1. Block schematics, although not necessarily in final form.
2. Timing diagrams.
3. Reference to standard principles of design used (i.e., modular, pluggable-unit, card and back panel wiring practices) and basic and standard circuits, which are separately written up and approved.
4. Circuits and design techniques which vary from standard practices.

The above documents will become part of a brief prepared as a joint effort by the IBM Engineering Design Office and the MIT Systems Office. This brief will be circulated for comments to the people at IBM and MIT interested in that particular frame. Upon return of these comments to the EDO-SO, they will prepare recommendations concerning the comments. This will be sent to J. W. Forrester with a letter explaining the disposition of the various comments. At this point, Forrester will write a letter to IBM which will constitute the Lincoln release.

VonBuelow will assist Jacobs in the Systems Office in the administration of this system. Any questions regarding the procedure can be directed to vonBuelow.

As was previously mentioned, this procedure is still tentative and is included here for the guidance of engineers until the final procedure can be published.

Signed:

  
P. W. Gray

Approved:

  
A. P. Kromer

PJG/mmt

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

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