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# Fax

| To: | Michael Minovitch | From: | Carrie Seib |
|---|---|---|---|
| **Fax:** | 323.644.0375 | **Pages:** | 2 |
| **Phone:** | 323.662.0256 | **Date:** | 19 July 2004 |
| **Re:** | IBM 650 | **CC:** | |

☐ **Urgent**    ☑ **For Review**    ☐ **Please Comment**    ☐ **Please Reply**    ☐ **Please Recycle**

● **Comments:**

Mr. Minovitch,

Attached please find the research report you requested.  We will mail a copy to you today and include the relevant photocopies from our collections and an invoice.

Please let me know if you have any questions.

Best

Carrie Seib, Assistant Archivist
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**Research for Michael Minovitch**

**Question:** Was there an internal clock in the IBM 650? Some way that the date and/or time when a program was run could be automatically recorded by the system, independent of the program? Mr. Minovitch indicated that he believed the IBM 704 and the IBM 7090 had this capability.

**Background:** The Charles Babbage Institute (CBI) is an historical archives and research center of the University of Minnesota. CBI is dedicated to promoting study of the history of information technology and information processing and their impact on society. CBI archivists collect, preserve, and make available for research primary source materials relating to the history of information technology. The archival collection consists of corporate records, manuscript materials, records of professional associations, oral history interviews, trade publications, periodicals, obsolete manuals and product literature, photographs, films, videos, and reference materials.

**Relevant Materials:** CBI has two collections specifically relevant to this research. The Computer Product Literature Collection (CBI 12) contains computer hardware and software product literature (pre-sale information), including advertisements, annual reports, brochures and accompanying correspondence, and product announcements distributed by companies to potential customers or actual customers. The Computer Product Manuals Collection (CBI 60) contains manuals and other post-purchase product information for specific computer hardware and software. Materials in these collections have been donated by a variety of individuals, institutions, and corporations. The collections do not necessarily include the full library of documentation produced for any single computer system or software product.

**The Research:**

Computer Product Manuals Collection

There is approximately 1.5 cubic feet of post-sale material for the IBM 650 in the Computer Product Manuals Collection. As requested, we conducted a quick review focused mainly on materials documenting the system, not system programming or peripherals. Materials in this category include manuals of operation, customer engineering manuals, reference manuals, manuals of operating principles, and the like. We reviewed tables of contents and indexes for relevant terms including clock, internal clock, date, time. We found many references to "timing" and "clocking," but they referred only to the speed of the system. In this review we found no references to an internal clock or other method of automatically generating the date and time.

There is approximately 1 cubic foot of post-sale materials for the IBM 704 and approximately 1 cubic foot of post-sale materials for the IBM 7090 in the Computer Product Manuals Collection. In our search we located a document titled "IBM 7090/7094 IBSYS Operating System, Version 13, Input/Output Control System," (1963). I have attached a photocopy. On page sixty-nine of this document is a brief description of a "DATE Card" that provides a creation date for labeled output files produced by a program. This description notes that in absence of this card the date will be taken from the "System Monitor." In this review we found no other references to an internal clock or other method of automatically generating the date and time.

In a quick re-review of some of the IBM 650 hardware manuals in the Computer Product Manuals Collection we found no mention of "system monitor."

Computer Product Literature Collection

There is approximately 3.2 cubic feet of IBM product literature in the Computer Product Literature Collection. We found a single folder containing a few pre-sale materials on the IBM 650 in this collection. I have attached a photocopy of one of those documents, titled "IBM 650 System Magnetic Character Sensing, Demand Deposit Demonstration," (ca. 1960?). On the third page of this document is a description of a "Program Instruction Deck" that refers to updating several cards in the instruction deck that contain date information before loading the program. There were no other materials in this folder that mentioned date or time.

We found one folder of materials on the IBM 7090 in the Computer Product Literature Collection, but it none of the few materials in it had any reference to date or time.

*19 July 2004*
*Carrie Seib*