



Guide to the Cuthbert C. Hurd Papers

Creator: Cuthbert C. Hurd

Dates: 1947-1995

Extent: 4.84 linear feet, 3 record cartons and 1 oversize box

Collection number: X2772.2004

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Finding aid prepared by: Bo Doub, Kim Hayden, and Sara Chabino Lott, 2015

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Abstract

The Cuthbert C. Hurd papers consist of materials related to the International Business Machines Corporation (IBM), primarily from 1949 through 1962, and Hurd's role in steering the company to develop its first electronic stored program computers during that time. The collection includes IBM reports and memoranda, personal correspondence, research on computing history, articles from publications, and testimony transcripts and legal documents from the IBM anti-trust case: *United States v. International Business Machines Corp.* (1979).

Administrative Information

Access Restrictions

The collection is open for research.

Publication Rights

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Languages

Collection materials entirely in English.

Preferred Citation

[Identification of Item], [Date], Cuthbert C. Hurd Papers, Lot X2772.2004, Box [#], Folder [#], Catalog [#], Computer History Museum.

Immediate Source of Acquisition

Gift of Elizabeth R. Nowicki and William Nowicki, 2004.

Repository

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Biographical/Historical Note

Cuthbert C. Hurd was born April 5, 1911, in Estherville, Iowa. He received his BA in mathematics from Drake University in 1932, his MS in mathematics from Iowa State College in 1934, and his PhD in mathematics from the University of Illinois in 1936.

After receiving his Ph.D, Hurd joined the faculty of Michigan State University from 1936 to 1942 as a mathematics instructor and assistant professor. For the duration of World War II, Hurd taught at the US Coast Guard Academy, and in 1945 he joined Allegheny College as the dean. Between 1947 and 1949, Hurd was the technical research Head for Union Carbide at the United States Atomic Energy Commission facility in Oak Ridge, Tennessee. Hurd remained a consultant for Union Carbide from 1949 to 1959 even after joining IBM in 1949. Hurd stayed with IBM until 1962.

While at IBM, Hurd held many positions including director of applied science, director of electronic data processing machines, director of automation research, director of control systems, and finally special assistant to the vice president of research. Hurd encouraged IBM's upper management to enter the nascent computer field, convincing them in the early 1950s that

a market for scientific computers existed. While the move away from traditional punched card accounting machines was difficult for IBM, it proved successful. Hurd sold 10 IBM 701 computers, IBM's first commercial electronic stored program scientific computer. Soon after, Hurd became manager of the IBM team that invented and developed the FORTRAN programming language under team leader John Backus. Hurd remained a consultant for IBM until 1966 and served as an expert witness for IBM in antitrust cases.

From 1962 to 1974, Hurd was chairman of the board for Computer Usage Corporation. Between 1978 and 1986, Hurd served as chairman for Picodyne Incorporated, which he co-founded. In 1983, Hurd co-founded Quintus Computer Systems and was president and chairman until Quintus was sold in 1989. Throughout his career, Hurd served as a consultant and lecturer to higher education and industry. Hurd died on May 22, 1996, in Portola Valley, California.

Scope and Content of the Collection

The Cuthbert C. Hurd papers consist of materials related to International Business Machines Corporation (IBM) and its development of electronic data processing machines during Hurd's time at the company from 1949 to 1962. Included in the collection are reports, articles, manuals, and other research and industry-related documents from 1947 to 1991; Hurd's professional and personal correspondence and papers from 1948 to 1995; and legal documents from the antitrust trial *United States v. International Business Machines Corp.* (1979). Of note in this collection are technical reports, specifications, and sales data relating to iconic IBM computers of this era; correspondence between Hurd and IBM president Thomas Watson, Jr.; photographs of IBM machines; and transcripts of Hurd's month-long testimony at the antitrust trial, which provides a history of the computer industry with particular regard to IBM's role in it.

Arrangement

The collection is arranged into 3 series:

Series 1, Printed, 1947-1991, bulk 1948-1962

Series 2, Correspondence and personal papers, 1949-1995

Series 3, *United States v. International Business Machines Corp.* (1979) records, 1979

Indexing Terms

Antitrust law

Computer Industry

Hurd, Cuthbert Corwin, 1911-1996

IBM 650 (Computer)

IBM 701 (Computer)

IBM 7030 (Computer)

International Business Machines Corporation

Los Alamos National Laboratory

Monte Carlo method Computer programs

Von Neumann, John, 1903-1957

Watson, Thomas J., 1914-1993

Related Collections at CHM

Computer development at IBM. Lecture by Cuthbert C. Hurd at the Los Alamos History of Computing Conference, Lot X3863.2007, Catalog number 102695526

Computer development at IBM. Lecture by Cuthbert C. Hurd at the Los Alamos History of Computing Conference, Lot X5953.2011, Catalog number 102695402

J. Pres Eckert papers, Lot X3115.2005, Catalog number 102660306

Fortran: 25th Anniversary, Lot X2843.2005, Catalog number 102651569

Harwood G. Kolsky papers, Lot X3021.2005, Catalog numbers 102679715, 102679765, and 102679763

Cuthbert C. Hurd, ed., IBM 701 - Thirtieth Anniversary 1953 – 1983, Annals of the History of Computing – Special Issue, volume 5, Number 2, April 1983, Lot X3682.2007, Catalog number 102628191

See How They Ran: Sixty Years of Computers on Film, From the Computer Museum Collection, Catalog number 102651589

Related Collections at Other Repositories

Computer Oral History Collection, Archives Center, National Museum of American History

Computer Science at Stanford: The Impact of the First Ten Years (V0045). Department of Special Collections and University Archives, Stanford University Libraries, Stanford, Calif.

Cuthbert C. Hurd Papers (CBI 95), Charles Babbage Institute, University of Minnesota, Minneapolis

Hurd, Cuthbert Corwin, 1911-. (1981). Oral history interview with Cuthbert Corwin Hurd. Charles Babbage Institute. University of Minnesota Digital Conservancy, <http://purl.umn.edu/107368>

Hurd, Cuthbert Corwin, 1911-. (1994). Oral history interview with Cuthbert Corwin Hurd. Charles Babbage Institute. University of Minnesota Digital Conservancy, <http://purl.umn.edu/107370>

Hurd, Cuthbert Corwin, 1911-. (1995). Oral history interview with Cuthbert Corwin Hurd. Charles Babbage Institute. University of Minnesota Digital Conservancy, <http://purl.umn.edu/107371>

John Von Neumann Papers, Manuscript Division, Library of Congress, Washington, D.C.

Collection Contents

Series 1, Printed, 1947-1991, bulk 1948-1962

This series contains materials that document the rise of electronic computing and the development of IBM's electronic data processing machines while Hurd worked there from 1949 to 1962. A large portion of the collection consists of newspaper clippings, photocopies of articles, conference proceedings, and reports that cover the advances being made in computing at the time, with a focus on the development and release of some of IBM's most notable early computers, including the 701, 650, and 1620. Other materials include histories, specifications, manuals, customer sales sheets, promotional materials, transcriptions, and conference presentations. There is also material about John von Neumann, the celebrated mathematician and a friend of Hurd's, consisting mostly of newspaper clippings and publications written after his death. A small portion of material documents the IBM antitrust trial for which Hurd was a witness in 1979. This series is arranged alphabetically by folder title.

Series 2, Correspondence and personal papers, 1949-1995

This series contains letters, memoranda, research, personal photographs, and notebooks collected and/or authored by Hurd. The correspondence in this series covers a wide variety of topics, from personal thank you notes and congratulations to discussions on artificial intelligence and John von Neumann's legacy. Most of the correspondence is interfiled with Hurd's research on computing history, particularly IBM's history, since these research materials were often enclosed within letters from past colleagues or friends. These enclosed research materials could include copies of old IBM memoranda on new data processing machines, lists of people involved with certain initiatives, or summaries of past collaborations with Hurd. Relevant articles from publications were also enclosed in many of Hurd's correspondence. This series also includes a collection of Hurd's personal photographs. Of particular interest is a photograph of Hurd with John von Neumann, and another photograph of Hurd demonstrating the IBM 610 Auto-Point Computer at Expo 58 (Brussels World's Fair, 1958). Also of interest in this series is a collection of letters between Hurd and Thomas Watson, Jr. This series is arranged chronologically.

Series 3, United States v. International Business Machines Corp. (1979) records, 1979

This series contains transcriptions and exhibit documents from *United States v. International Business Machines Corp.* (1979), for which Hurd was an expert witness. The majority of the series consists of transcriptions of Hurd's testimony, which took place from January 3 to February 1, 1979. Also included are plaintiff's exhibits comprising photocopies of IBM-related reports, memos, correspondence, and meeting transcripts. Hurd's testimony and the exhibit documents provide a history of IBM's computer development and the early computer industry. This series is arranged chronologically.

<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
Folder List		
Printed		
Box 1		
102733981	Annals of the Computation Laboratory of Harvard University	1948
102733985	Articles about computing	1951-1988
102733986	Articles about or by John von Neumann	1949-1991; bulk 1957
102733987	Articles about Thomas Watson	1955-1986
102733988	Articles by W. J. Eckert	1947-1963
102733991	Bibliography on Electronic Computing, additions to the third edition	1953-07
102733989	Communications of the ACM	1972-07
102733997	Conference proceedings of the Association for Computing Machinery	1952
102733998	Conference proceedings of the Electronic Computer Symposium	1952
102733999	Conference proceedings of the Joint AIEE-IRE Computer Conference, Review of Electronic Digital Computers	1951
102734000	Conference proceedings of the Western Computer Conference and the Institute of Radio Engineers	1953-1955
102734001	Hurd presentations	1961-1966
102733990	IBM 1620 (CADET) reports and specifications	1958-1959
102734002	IBM Applied Science Division Technical Newsletter	1956
102734003	IBM Data Processing Machines customer documents	1952-1962
102734004	IBM industrial process automation study	ca. 1957
102734006	IBM industrial process control program reports	1960
102734005	IBM news publications	1950-1982
102734007	IBM Personal Automatic Computing (PAC) report	1955-01-28
102734008	IBM press releases and letters	1952-1961; bulk 1953-1955
102734022	International Research Conference on the History of Computing records	1976-06
102734009	John von Neumann biographies and remembrances	1958-1987
102734010	John von Neumann symposia papers	1987-1988
102734011	Journal of the Royal Society of Arts	1951-12-14
102734012	Mathematical Tables and Other Aids to Computing	1948-1954

<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
102734013	Promotional materials	1961-1962
Printed		
102734014	SHARE documents	1958-1972
102734015	Survey of Automatic Digital Computers, Office of Naval Research, 1954	1954
102734016	Technical reports and specifications	1948-1974
Box 2		
102733995	Annals of the history of computing	1982-1997
102733982	Computation seminar : proceedings	1949-12
102733984	Computation seminar : proceedings	1951-08
102734023	IBM data processing machine photographs	1949-1955
102733993	IBM manuals	1953-1960
102733983	Industrial computation seminar : proceedings	1950-09
Box 3		
102733978	Articles about or by Hurd	1953-1981
102733979	IBM appendices	1961
Box 4		
102734017	Articles about IBM	1949-1991; bulk 1953
Correspondence and personal papers		
Box 2		
102733973	Seminars, education, and training at IBM and MIT	1949-1978
102733974	Monte Carlo method correspondence and research	1949-1984
102733976	Personal photographs	circa 1950-1980
102733980	IBM 7030 ("Stretch") computer project and Los Alamos National Laboratory correspondence and research	1951-1962
102733992	Cuthbert C. Hurd correspondence with Thomas J. Watson, Jr.	1955-1992
102733994	Correspondence and research regarding John von Neumann	1957-1993
102734024	1960 calendar	1959
102734025	Research and Engineering Planning Conference	1961
102734027	"Push-Down, Push-Up Accumulators" correspondence and research	1961-12-07-1962-02-27
102734026	Travel correspondence	1961-1962

<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
102734028	Computer Usage Company (CUC) and International Business Machines (IBM) World Trade Corporation correspondence and research	1961-1967
102734029	Telex Corporation v. International Business Machines Corporation trial and computer history projects	1971-1978
102734030	Oral histories	1972-1995
102734031	Research regarding International Business Machines Corporation (IBM) history and personal correspondence	1982-1989
102734032	Stanford University's Department of Electrical Engineering and history of computing correspondence and research	1991-1995
102734033	Memoirs	1992-1995

United States v. International Business Machines Corp. (1979) records

Box 3

102733977	Plaintiff's exhibit documents	1979
102733975	Hurd testimony transcripts	1979-01-03-1979-02-01