Guide to the Arthur W. Astrin papers X7948.2017

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Title: Arthur W. Astrin papers
Identifier/Call Number: X7948.2017
Contributing Institution: Computer History Museum
Language of Material: English
Physical Description: 72.84 Linear feet44 record cartons, 2 manuscript boxes, 5 newspaper boxes, and 15 other containers
Date (inclusive): 1965-2002
creator: Astrin, Arthur W.
Processing Information
Collection surveyed by Sydney Gulbronson Olson, July 2018.
Access Restrictions
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Preferred Citation
[Identification of item], [Date], Arthur W. Astrin papers, X7948.2017, Box [#], Folder [#], Computer History Museum.
Immediate Source of Acquisition
Biographical/Historical Note
Artur Ichnowski, known professionally as Arthur W. Astrin, was an engineer best known for his pioneering work in digital signal processing, fast Fourier transform (FFT), and most notably, the Wi-Fi industry. Born in 1945 in Poland, Astrin immigrated to the United States in 1964 and settled in Los Angeles. He enrolled at Cal State University Northridge, where he studied math and physics. Astrin graduated from Northridge in 1967 with a degree in mathematics and subsequently started a master’s program in Mathematics at UC San Diego. While pursuing his graduate degree, he worked at several jobs, including one at Northridge Engineering where he worked on fast Fourier transform (FFT) algorithms for radar applications. Astrin earned his master’s degree in 1968 and moved to Los Angeles, where he began a PhD program in Communications Engineering while also working at Unicomp. In July 1968, he married his wife, Jeanne.
Astrin moved to Cupertino in 1977 to work for Memorex, where he worked on the development of the Memorex 1270. He left the company in 1981 and worked for several startups, including Intersil and Read Rite. Astrin also completed his PhD in 1984. Around 1994, he began working at Rolm Corporation, which purchased first by International Business Machines (IBM) and then Siemens. While at Rolm, Astrin spent several years in marketing and joined the Executive Marketing group. In this role, Astrin was an executive client contact for over forty companies and hosted executive presentations and briefings meant to recruit clients to Rolm and IBM.
In the mid-1990s, Steve Jobs recruited Astrin to develop Wi-Fi connected computing in the Apple product line. While working at Apple, Astrin was instrumental in the design and manufacturing of the Airport wireless router, which was released in 1999 and was the first consumer oriented wireless solution for PCs. Astrin left Apple in 2003 after being diagnosed with melanoma. Despite leaving the company, Astrin remained active in network standardization efforts. Beginning 2005, he led the standardization of Body Area Networks (BAN). Astrin passed away on March 24, 2016 at the age of 70.
Astrin holds seven patents as a result of his professional work. He was also a professor, teaching communication and computer engineering at San Jose State University and UC Berkeley. Over the course of his career, Astrin was very involved in IEEE, and in 2011 he earned the IEEE Hans Karlsson Award for the leadership and diplomatic skills he applied in developing network standards.
Scope and Content of the Collection
The Arthur W. Astrin papers, ranging in date from 1965 to 2002, contain materials related to Astrin’s career as an engineer and executive at Unicomp, Intersil, Rolm Corporation, Memorex, and Apple. The collection includes technical reports, presentation materials, design drawings, memos, manuals, program listings, posters, and software.
About a third of the collection is made up of records from Astrin’s early career at Northridge Engineering and Unicomp, ranging in date from 1965 to 1973. Much of the material pertains to fast Fourier transform (FFT) and digital signal
processing technologies. Types of materials include manuals, design drawings, schematics, price lists, and program listings for Unicomp programs like Unicap. In this section of the collection, there are also program libraries for various computer systems, such as the DEC PDP-8, as well as materials related to navigation, such as manuals for navigation systems by Litton and Magnavox. This series also contains six boxes of subject files collected during his time with Northridge and Unicomp. While some of the materials directly pertain to Astrin’s work at Unicomp, it appears that he collected information and data about the wider field, not just his own professional work.

The papers also hold materials from Lexar, MRI Systems Corporation, and Memorex from between 1974 and 1977 related to consulting with Citibank on a backend system. This section of the collection includes design drawings, handwritten notes, specifications, progress reports, and manuals. There is additional Memorex material, including memos, design drawings, manuals, and reports, from 1977 to 1981. This section also includes some subject files from the late 1970s to the early 1980s. Topics include patent applications, local area networks, secure data and encryption, and airline communication systems. There are also two boxes of materials from Intersil, most of which date from the early 1980s and pertain to the Versatile Cluster Control (VCC) technologies being developed by the company.

Another significant portion of the collection consists of Rolm Corporation documentation from between 1984 and 1994, during which Rolm was purchased by IBM and then Siemens. Prominent topics in this series include local area networks, connectivity, communication systems and vendors, voice messaging, the ROLM 9751, and company direction and strategy. There are manuals, marketing materials, newspaper and magazine clippings, product development documentation, work plans and project timelines, engineering specifications, evaluation reports, presentation materials, course materials, and memos. This section of the collection holds extensive materials related to Astrin’s role in the executive marketing group, with records and handwritten notes from the executive briefings that he facilitated.

The collection holds about four linear feet of Apple materials, ranging in date from 1995 to 2002. Much of the material pertains to Bluetooth, wireless, and WaveLAN technologies. Types of materials include project proposals, presentation materials, concept reviews, meeting minutes, specifications, technical reports, human resources information, price lists, market reviews and forecasts, and lab notebooks. There are also subject files on various technologies being used at the time at Apple and elsewhere, most of which contain technical data and reports. This section also has materials related to the original equipment manufacturers of various Apple products during that time period, such as Lucent.

Scattered throughout the collection are promotional materials, data sheets, and manuals from other companies from the 1970s and 1980s. For example, there is documentation from Shugart Associates, Priam, Seagate, HP, Quotron Systems Inc, General Automation Inc., Burroughs, Interdata, Tymshare, Systems Engineering Laboratories, Electrac, Varisystems Corporation, and Data General. There are also manuals for DEC machines like the DEC PDP-11, PDP-10, and PDP-8, Unicomp systems like the Unicomp 1100 series, and general computer languages and standards. In addition, there are business plans from the 1980s for companies such as Read-Rite, Paraphrase, Inc., Cybernex Corporation, LanComm Systems Inc., and Digitrax Digital Storage and Recall System for motion picture editing. There is a small amount of conference materials for events such as Communication Networks and Hot Chips.

Finally, the collection contains about 12 linear feet of software. There are about seven linear feet of punch cards and four linear feet of paper tape, both of which are related to Astrin’s work at Unicomp. There are also approximately 230 3.5 inch floppy disks, 150 5.25 inch floppy disks, and 50 CDs. Most of the 3.5 inch floppy disks are published software from companies such as Microsoft, Rolm, OrCad, Netscape, and Cardinal Technologies Inc. Approximately half of the 5.25 floppy disks are hand labeled, while the other half are published. Most of the CDs are published marketing CDs or reference guides from companies like IBM, Siemens, Intel, XILINX, and many more.

Related Collections at CHM
To view catalog records for the following collections, please search CHM’s online catalog at https://www.computerhistory.org/collections/search/
X7613.2016 oral history of Arthur “Art” Astrin 102737981
X7634.2016 digital donation
X7959.2017 hardware
X6968.2014 text
X6467.2012 hardware
X5706.2010 text
X8508.2018 text and software
X8436.2018 text, software and media
X8563.2018 text

Subjects and Indexing Terms
Apple Computer, Inc.
Astrin, Arthur W. (1945-2016)
Bluetooth technologies
Fast Fourier Transform (FFT)
International Business Machines Corporation. ROLM Systems Division
Intersil, Inc.
Memorex Corporation
ROLM Corporation
Signal processing—Digital techniques
Unicomp
Wireless LANs