Guide to the Keith G. Calkins collection on Sigma systems

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Title: Keith G. Calkins collection on Sigma systems
Identifier/Call Number: X4287.2008
Contributing Institution: Computer History Museum
Language of Material: English
Physical Description: 10.75 Linear feet, 8 record cartons and 1 small box
Date (bulk): Bulk, 1972-1984
Date (inclusive): 1969-1987
Abstract: The Keith G. Calkins collection on Sigma systems consists of material documenting the Sigma computers developed and released by Scientific Data Systems (SDS), Xerox, Honeywell, Inc., and Telefile Computer Products. The collection holds records from all of these companies as well as the user groups focused on Sigma machines and their operating systems and software. Included in the collection are program descriptions of software designed for Sigma systems, manuals, maintenance and testing reports, conference proceedings, and records relating to Telefile Computer Products and its user group TeleXchange. Sigma machines were released and operated primarily from 1966 through 1993 and the material in this collection spans 1969 through 1987.
creator: Calkins, Keith G., (Keith Gordon), 1958-
Access Restrictions
The collection is open for research.
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Preferred Citation
[Identification of Item], [Date], Keith G. Calkins collection on Sigma systems, Lot X4287.2008, Box [#], Folder [#], Catalog [#], Computer History Museum.
Immediate Source of Acquisition
Biographical/Historical Note
Keith G. Calkins was born in Cadillac, Michigan on February 1, 1958. Most of his education was spent at Andrews University in Berrien Springs, Michigan, where he received a BS in mathematics in 1981, an MS in computer information science in 1982, another BS in physics in 1988, a second MS in interdisciplinary studies (math and physics) in 1996, and a Master of Arts in Teaching (MAT) in 2002. Calkins also attended the University of Notre Dame, receiving an MS in physics in 1996 and a PhD in 2005, also in physics. Calkins' work experience includes consulting for Artware, Telefile, and NASA and working in various teaching roles including at Andrews University as an Associate Professor of Math & Science and at Ferris State University as an Adjunct Instructor in the Department of Physical Sciences.
Calkins first worked with Sigma computers during his early years at Andrews University as a Systems Programmer & Hardware Engineer. From 1978 through 1983, Calkins held this job and provided maintenance for Xerox Sigma 6, 7, and 9 computers and performed systems programming using one of the Sigma series' major operating systems, CP-V. From 1984 to 1989, Calkins worked as a software development consultant for Telefile, a company that made computer systems that were compatible with Sigma systems. Since then, Calkins has been involved in documenting and preserving the history and legacy of the Sigma series.
The Sigma systems were a series of computers first introduced by Scientific Data Systems (SDS) in 1966. The first machines in the series were the Sigma 2 and Sigma 7, which, at the time of their release, were competitors to the IBM System/360 family of computers. When SDS was purchased by Xerox in 1969, the firm was re-named Xerox Data Systems (XDS). During the years of XDS, Xerox 500 computers were developed and released as compatible upgrades to the Sigma series. Then, in 1975, Xerox sold its computer business to Honeywell Information Systems, Inc. Honeywell continued support of the Sigma series for a short time, but then discontinued production of Sigma hardware. However, other companies, including Telefile, created clone systems. In 1979, Telefile released the Telefile T-85, an upgraded machine compatible with Sigma systems.
Throughout the Xerox, Honeywell, and Telefile years, users and enthusiasts developed groups around the Sigma series and related computing machines. When Sigma machines were released by Xerox and Honeywell, user groups under the names of EXCHANGE and the Honeywell Large Systems Users Association (HLSUA) operated, holding international meetings and
running the Sigma Exchange Users' Group Library (also called XDS Users' Group Program Library). After Honeywell
discontinued production of Sigma hardware and other companies started making compatible machines, TeleXchange was
created as the Telefile computer user group. Calkins, as a Sigma user and collector, was involved in all of these groups.
Since 2012, aside from his teaching and other work, Calkins has led the transportation, preservation, and operation of the

Scope and Content of the Collection
The Keith G. Calkins collection on Sigma systems is made up of materials Calkins collected related to the Sigma system of
computers and its iterations by SDS, Xerox, Honeywell Inc., and Telefile Computer Products. Materials include program
descriptions, manuals, reports, periodicals, TeleXchange administrative records, and EXCHANGE, TeleXchange, and
Honeywell Large Systems Users Association (HLSUA) conference proceedings dating from 1969 to 1987, with the bulk of
materials from 1972 to 1984.

Arrangement
The collection is arranged into 5 series:
Series 1, Program descriptions, 1969-1978
Series 2, Manuals, 1969-1979
Series 3, Reports and periodicals, 1971-1981
Series 4, Conference proceedings, 1973-1984
Series 5, Telefile, 1976-1987

Subjects and Indexing Terms
Computer software--Development
Calkins, Keith G. (Keith Gordon), 1958-
EXCHANGE
Honeywell Inc.
Scientific Data Systems
Sigma series
Telefile Computer Products
TeleXchange
Xerox Corporation

Program descriptions, Series 1, 1969-1978

Series Scope and Content
This series, the largest in the collection, contains program descriptions of software
developed for various combinations of Sigma and Xerox computers. Each program
description has its own software submittal forms from when the programs were initially
submitted within the corporate structures of SDS, Xerox Data Systems (XDS), or Honeywell.
Most of the program descriptions in this series also include summaries formatted to the
standards of the Sigma Exchange Users' Group Library — also called XDS Users' Group
Program Library or EXCHANGE. The submission forms and program library summaries
describe each program's date of submittal, catalog number, applicable CPUs (the records are
organized by this element), program title, author, source language, and abstracts. These
programs were created for a wide variety of functions and contexts, including: payroll
systems, file converters, debuggers, compilers, timesharing simulators, ledger systems,
games, mathematical functions, and creating automated medical histories. Programming
languages used to create these programs include FORTRAN IV, SYMBOL, META-SYMBOL,
COBOL, LISP 1.5, BASIC, and APL. The computers these programs were designed for span the
whole Sigma series from the earlier Sigma 2 to the later Sigma 9 models and also the
compatible Xerox 500 series computers. Lastly, this series includes correspondence and
manuals about the Sigma Exchange Users' Group Program Library, including manuals on
how to describe programs and submit program descriptions to the library.

Arrangement
This series is arranged alphabetically by folder title.
Program descriptions, Series 1, 1969-1978

Guide to the Keith G. Calkins collection on Sigma systems

102734290 SDS Sigma series and Xerox computer programs 1974-1978
102734273 Sigma 2 1969-1973
102734269 Sigma 2/3 1970-1976
102734274 Sigma 3 1973-1976
102734285 Sigma 5/6/7 1970-1977
102734282 Sigma 5/7 1969-1976
102734281 Sigma 5/7/9 1973-1975
102734295 Sigma 5/9 1971-1977
102734275 Sigma 6 1976
102734288 Sigma 6/7/9 1973-1975
102734278 Sigma 6/9 1974-1976
102734277 Sigma 7 1971-1975
102734292 Sigma Exchange Users' Group Program Library ca. 1976

Manuals, Series 2, 1969-1979

Series Scope and Content

This series contains Sigma manuals, the majority of which were produced by Xerox, with a few published by Honeywell or universities, from 1969 to 1979. The Honeywell manuals are noted as being reprints of Xerox manuals. Most of the manuals in this series are related to programming languages, such as FORTAN, SL-1, Xerox TEXT, BASIC, COBOL, C, Pascal, APL, and Meta-Symbol. Also included are a large number of manuals specific to the CP-V operating system, which followed the Universal Timesharing System (UTS) operating system and supported the Sigma 6, 7, and 9, and the Xerox 560. There are also a small number of manuals related to various functions of Sigma systems and the engineering support and service of machines.

Arrangement

This series is arranged alphabetically by folder title.

102734284 CP-V operating system manuals 1973-1978
102734286 Maintenance manuals 1974-1976
102734283 Programming manuals 1973-1979
102734287 Systems manuals 1969-1976

Reports and periodicals, Series 3, 1971-1981

Series Scope and Content

This series consists of a large number of reports, the majority of which are Xerox and Honeywell monthly software maintenance reports from 1973 to 1981. Through 1975, these reports are in paper form; from 1976 and on, the reports are on microfiche. There are also a large number of test reports, some from various releases of the CP-V operating system. These tests are labeled RAD, ASR/KSR, PREP, SUPERSWAP, CARD, and 9INT. Also included is a Xerox and Honeywell program availability binder that has been separated into folders and includes both paper reports and microfiche. There are also several issues of Xerox's marketing magazine Interface from 1973 to 1975.

Arrangement

This series is arranged alphabetically by folder title.

102734294 Monthly software maintenance reports 1973-1981
102734291 Interface magazine 1973-1975
102734289 Program availability list 1975-1978
102734293 Test reports 1971-1980
Conference proceedings, Series 4, 1973-1984

Series Scope and Content
This series consists of conference proceedings and related materials from 1973 to 1984. All but one folder contains material related to the International Meeting of EXCHANGE, the Xerox Computer Users’ Group, with proceedings from 1973 to 1982. Some sessions include programs and post-conference summaries along with the proceedings. One folder consists of proceedings from the Honeywell Large Systems Users Association (HLSUA) Forum 39 Exchange Sessions from 1984. Also in this folder is a Honeywell exchange library catalog from circa 1982.

Arrangement
This series is arranged alphabetically by folder title.

102734296 20th International Meeting of EXCHANGE 1973
102734297 21st International Meeting of EXCHANGE 1973
102734298 28th International Meeting of EXCHANGE 1977
102734299 29th International Meeting of EXCHANGE 1978
102734300 30th and 31st International Meeting of EXCHANGE 1979
102734301 32nd International Meeting of EXCHANGE 1980
102734302 33rd International Meeting of EXCHANGE 1981
102734303 34th International Meeting of EXCHANGE 1981
102734304 35th and 37th International Meeting of EXCHANGE 1982-1983

Telefile, Series 5, 1976-1987

Series Scope and Content
This series contains conference materials, manuals, marketing materials, memos, newsletters, member directories, and program library catalogs related to Telefile Computer Products and TeleXchange, a Telefile computer user group. About half of this series is made up of materials from International TeleXchange Meetings from 1982 through 1987, including papers presented at the conferences, programs and agendas, lists of attendees, registration forms, meeting minutes, and correspondence. Another large portion of this series is made up of Telefile manuals, specifications, and product overviews published by Telefile, Xerox, and Honeywell from 1976 to 1987. A smaller number of items include Telefile marketing materials, memos, newsletters, and software support reports. There are also a small number of TeleXchange Program Library catalogs from 1983 to 1986, TeleXchange member directories and bylaws from 1983 to 1986, and materials related to the TeleXchange TCP-V general interest group, including meeting minutes and membership listings.

Arrangement
This series is arranged alphabetically by folder title.

102734260 1st and 2nd International TeleXchange Meeting papers and records 1982
102734259 3rd International TeleXchange Meeting papers and records 1983
102734261 4th International TeleXchange Meeting papers and records 1984
102734262 5th International TeleXchange Meeting papers and records 1984
102734263 6th International TeleXchange Meeting papers and records 1984
102734265 7th International TeleXchange Meeting papers and records 1985
102734267 8th International TeleXchange Meeting papers and records 1986
102734266 9th International TeleXchange Meeting papers and records 1986
102672674 10th International TeleXchange Meeting papers and records 1986
102734272 Manuals, product descriptions, and specifications 1976-1987
102672840 Marketing materials 1981-1985
102734271 Memoranda 1983-1985
102734279 Newsletters 1975-1984
102734276 Software support reports 1984-1986
102734257 TeleXchange member directories and bylaws 1983-1986
102734258 TeleXchange Program Library catalogs 1983-1986
102734268 TeleXchange TCP-V general interest group (GIG) 1986-1987