



Smithsonian
National Museum of American History
Kenneth E. Behring Center

Guide to the Smithsonian Speech Synthesis History Project

NMAH.AC.0417

Wendy Shay

2007

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Collection Overview

Repository:	Archives Center, National Museum of American History
Title:	Smithsonian Speech Synthesis History Project
Identifier:	NMAH.AC.0417
Date:	1939-1999
Extent:	8 cubic feet
Creator:	Maxey, H. David Smithsonian Institution National Museum of American History
Language:	English Some materials are in French and Japanese.
Summary:	The Smithsonian Speech Synthesis History Project, conducted by H. David Maxey from 1986 through 2002, created a collection of archival materials documenting the history and development of speech synthesis technology. Maxey collaborated with Dr. Bernard Finn, Elliot Sivowitch and Harold Wallace of the National Museum of American History's Division of Information, Technology, and Society.

Administrative Information

Acquisition Information

The collection was created for the Smithsonian Institution from 1986-2002 by Dave Maxey in collaboration with Dr. Bernard Finn of the National Museum of American History's Division of Information, Technology, and Society, assisted by Elliot Sivowitch and Harold Wallace of the same division.

Related Materials

Artifacts related to this collection are in the Division of Work & Industry, Electricity Collections.

Processing Information

Processed by Wendy Shay, audiovisual archivist, July, 2007.

Preferred Citation

Smithsonian Speech Synthesis History Project Collection, Archives Center, National Museum of American History, Smithsonian Institution.

Restrictions

Collection is open for research. Only reference copies of audiovisual materials may be used.

Conditions Governing Use

Collection items available for reproduction, but the Archives Center makes no guarantees concerning copyright restrictions. Other intellectual property rights may apply. Archives Center cost-recovery and use fees may apply when requesting reproductions.

Biographical / Historical

The Smithsonian Speech Synthesis History Project, conducted by H. David Maxey from 1986 through 2002, created a collection of archival materials including sound recordings documenting the history and development of speech synthesis technology. Maxey collaborated with Dr. Bernard Finn of the National Museum of American History's Division of Information, Technology, and Society. Elliot Sivowitch and Harold Wallace of the same division served as Smithsonian liaisons with the project.

"Speech synthesis technology" refers to the results of a long, evolutionary process in which researchers learned to create artificial sounds that people would interpret as speech. As early as the eighteenth century scientists were inventing mechanical machines to create sounds similar to human speech. Later electronics led to additional developments, The Voder was one of the earliest examples which was demonstrated to wide acclaim at the 1939 New York World's Fair. However, it was the widespread use of computers that led to the greatest progress in the field of speech synthesis.

Speech synthesis is the process by which a computer speaks. By contrast, speech recognition is when a computer can interpret spoken language. The application of both of these capabilities has been important for creating assistive computer technology for the visually impaired (speech recognition) and for individuals unable to speak (speech synthesis).

Among the leading researchers and organizations involved with the development of speech synthesis technologies are the American Telephone and Telegraph Company (AT&T), Bell Telephone Laboratories, International Business Machines Corporation (IBM), the Massachusetts Institute of Technology (MIT), Dennis H. Klatt, and Ray Kurzweil.

Today speech synthesis is a common feature of daily life from the cultured voice on the GPS saying exactly which road to take to making a train reservation on the telephone. However, many speech synthesis developers continue to explore and design methods to make the speech sound less mechanical, with the ultimate challenge being natural sounding speech that shows emotion.

Dave Maxey's dedication to the project, with support from members of the staff of the National Museum of American History, has ensured the preservation of materials documenting the early history of electronic and computer engineered synthetic speech.

Smithsonian Speech Synthesis History Project Original Website

[Smithsonian Speech Synthesis History Project website](#)

This website was created by Dave Maxey in 2002 to document the history of the project and to provide extensive information about the collection materials.

Scope and Contents

The collection documents a project done by H. David Maxey in collaboration with the Smithsonian Institution. The collection consists of administrative files containing correspondence, project reports, and other information about the Smithsonian Speech Synthesis History Project. The project files, arranged geographically and alphabetically contains information about specific speech synthesis projects and inventions. The reprints series consists of reprints of articles which Maxey collected and organized separately. This series is organized both numerically and alphabetically. The audiovisual materials contain the recordings of talks, meetings, and samples of speech synthesis described in the projects outlined in the project files.

Arrangement

The original SSSHP numbers assigned by Dave Maxey are included in portions of the Container List. They are the basis for the organization of Maxey's original index to and description of the collection. Maxey assigned the numbers sequentially in the order he received each numbered item.

The collection is arranged into four series.

Series 1, Administrative Files, 1986-2002

Series 2, Project Files, 1939-1999

Series 3, Reprints, 1939-1999

Series 4: Audiovisual Materials, 1939-1999

Subseries 1, 1/4" Open Reel Audiotape

Subseries 2, Audiocassettes

Subseries 3, Miscellaneous

Subseries 4, Reference and Protection Audiotapes and CDs

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

- Assistive computer technology
- Computer sound processing
- Computers
- Speech
- Speech synthesis
- Voder

Types of Materials:

Dictograph
Diskettes
Sound recordings

Names:

American Telephone and Telegraph Company
Bell Telephone Laboratories
International Business Machines Corporation
Klatt, Dennis
Kurzweil, Ray
Massachusetts Institute of Technology

Container Listing

Series 1: Administrative Files, 1985 - 1991

Box 1	Log of items received for the SSSHP
Box 1	Correspondence between H.D. Maxey and Smithsonian, 1985 June 13-1987 July 21
Box 1	Correspondence between H.D. Maxey and Smithsonian
Box 1	Advisory committee correspondence
Box 1	Smithsonian seminar, (tape SSSHP 73), 1989 May 26
Box 1	Correspondence: H.D. Maxey and Science Museum, London (R. Bridgeman) , 1991 October
Box 1	Transcription of tape recordings for the SSSHP (MASTER)
Box 1	Interim Report: Tape recordings of Speech Synthesis Development from 1969 to 1990 with outlines of speech research, 1991 August
Box 2	Logs and transcripts

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Series 2: Project Files, 1939-1999

Box 3	All Early Laboratories
Box 3	Japan: Electro Technical Laboratory (ETL)
Box 3	Japan: Electro Technical Laboratory (ETL)
Box 3	Japan: Kyushu Institute of Design
Box 3	Japan: Hitachi
Box 3	Japan: Kobayasi Institute of Physical Research
Box 4	Japan: Meiji University
Box 4	Japan: Nippon Electric Corporation (NEC)
Box 4	Japan: Nippon Telegraph and Telephone Corporation (NTT)
Box 4	Japan: Radio Research Laboratories (RRL)
Box 4	Japan: Tohoku University
Box 4	Japan: University of Tokyo
Box 4	Korea
Box 4	Poland: Polish Academy of Sciences
Box 4	Spain
Box 4	Sweden: Royal Institute of Technology
Box 4	United Kingdom: Edinburgh University
Box 4	United Kingdom: Joint Speech Research Unit
Box 4	United Kingdom: Signals Research and Development Establishment
Box 4	United Kingdom: University of Cambridge
Box 4	United Kingdom: University College
Box 4	United Kingdom: University of Keele
Box 4	United States: Airforce Cambridge Research Laboratories (Hanscom Field)
Box 5	United States: Bell Telephone Laboratories
Box 5	United States: Bolt Beranek and Newman, Inc.

Box 5 United States: Computalker Consultants

Box 5 United States: Cornell University

Box 5 United States: Digital Equipment Corporation (DEC)

Box 5 United States: Eloquent Technology, Inc.

Box 6 United States: Haskins Laboratories

Box 6 United States: Indiana University

Box 6 United States: International Business Machines Corporation (IBM)

Box 6 IBM TASS-III ORIGINAL CIRCUIT DIAGRAMS

Box 6 IBM TASS-II PHOTOGRAPHS

Box 6 IBM TASS-II ELECTRONIC CHARACTERIZATION, Photocopies of selected circuits and charts for use as reproduction masters

Box 6 IBM TASS-III ELECTRONIC CHARACTERIZATION, Photocopies of selected circuits and charts for use as reproduction masters

Box 6 IBM TASS-III DIPHONE LIBRARY 5B - printed

Box 6 IBM TASS-II FUNCTION GENERATOR PATTERN PHOTOCOPIES

Box 7 IBM TASS-II SPEECH SYNTHESIS SYSTEM CIRCUIT DIAGRAMS. Original circuit diagrams and design notes for TASS-II

Box 7 IBM TASS-II VOICING SPECTRUM, Calculations and measurements of TASS-II frequency response and spectrum

Box 7 IBM SPEECH SYNTHESIS DIPHONE SEGMENT DATA, Development data for Diphone Libraries 1 to 5, 1962 October 30 1962 to 1970 January 8.

Box 7 United States: Kurzweil Computer Products

Box 8 United States: Massachusetts Institute of Technology (MIT)

Box 8 United States: Melpar, Inc.

Box 8 United States: National Security Agency (NSA)

Box 8 United States: Naval Research Laboratory (NRL)

Box 8 United States: Speech Communication Research Laboratory, Inc.

Box 9 United States: Telesensory Systems, Inc. (Speech Plus, Inc.)

Box 9	United States: Texas Instruments, Inc. (TI)
Box 9	United States: University of Michigan
Box 9	United States: University of California, Los Angeles (UCLA)
Box 9	United States: Votrax Division, Federal Screw Works
Box 9	USSR

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Series 3: Reprints, 1939-1999

Box 11	Index to Reprints and Reports
Box 11	1-42
Box 12	43-77
Box 13	78-121
Box 14	122-150
Box 15	151-194
Box 16	195-210
Box 17	211-225
Box 18	226-258
Box 19	259-260
Box 19	Miscellaneous Reprints and Reports - unorganized
Box 20	A-C
Box 20	D-J
Box 20	K-Mc
Box 21	N-Q
Box 21	U-Z

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Series 4: Audiovisual, 1939-1999

File 4.1: Open Reel Audio Tape

- Box 22 "Speech Synthesis, W.A. Ainsworth, University of Keele, 17/8/88" (SSSHP 9)
- Box 22 "NTT-1, NTT Human Interface Laboratories, Sadaoki Furui, Jan 13, 1989" (SSSHP 29)
- Box 22 "NTT-2, NTT Human Interface Laboratories, Hirokazu Sato and Sadaoki Furui, Dec 27, 1988" (SSSHP 30)
- Box 22 "NTT-3, Sadaoki Furui (NTT), Feb. 15, 1989," Itakura and Saito's demonstration tape for 6th ICA in Tokyo, maximum likelihood method, 1968 (SSSHP 44)
- Box 22 "NTT-4, Sadaoki Furui (NTT), Apr. 12, 1989," Text-to-speech conversion, LSP/CV synthesis (SSSHP 61)
- Box 22 "Genesis of Speech Synthesis in Japan, Radio Research Laboratories, MPT (Communications Res. Lab.), 1959-1960, Edited by Jouji Suzuki, CRL, 2-Mar-1989" (SSSHP 47)
- Box 22 "Sleeping Beauty, synthesized by rule, Electro- technical Laboratory, Tokyo, August, 1968" (SSSHP 38)
- Box 22 "TSI Demo, Jared Bernstein, Nov. 11, 1980" (SSSHP 31)
- Box 22 "Smithsonian Speech Synthesis Project, #808, Haskins Laboratories, Dr. Patrick W. Nye, recorded April, 1989" (SSSHP 66)
- Box 22 "JSRU DEMO SYNTHESIS 1965. Synthesis demonstration from JSRU, England, prepared by John Holmes, 1965 plus other brief excerpts of unknown origin. Copy by K. Stevens 7/30/90." Copy of Massachusetts Institute of Technology's copy, Copyright by British Post Office (SSSHP 77)
- Box 22 "SCP Master #942," Human speech source tape for testing various speech processing techniques, Results on SSSHP 81, Prepared by Caldwell Smith, AFCRL, L.G. Hanscom Field, Bedford, Massachusetts, 1967 May (SSSHP 80)
- Box 23 "Speech Analysis/Synthesis Demonstration, Copy No. 2-9," Results of processing tape SSSHP 80, demonstration at 1967 Conference on Speech Communication and Processing, Massachusetts Institute of Technology, 1967 November 6 - 1967 November 8, Prepared by Caldwell Smith, AFCRL, L.G. Hanscom Field, Bedford, Massachusetts (SSSHP 81)
- Box 23 "TUm - Synthesis from Neuromoter command, Research Institute of Electrical Communication, Tohoku University" (SSSHP 86)
- Box 23 "TUc - Synthesis of Chinese tone, Research Institute of Electrical Communication, Tohoku University" (SSSHP 87)

- Box 23 "TUp - Synthesis of pathological voices, Research Institute of Electrical Communication, Tohoku University" (SSSHP 88)
- Box 23 "MIT Machines That Talk" (SSSHP 90)
- Box 23 "MIT Demo Tape 1" (SSSHP 91)
- Box 23 "MIT Demo Tape 2" (SSSHP 92)
- Box 23 "MIT Demo Tape 3" (SSSHP 93)
- Box 23 "Meet the Expert, 30 Jan 58, Dr. H.M. Truby," Recording of BBC broadcast interview with Dr. Truby on subject of speech phonetics and synthetic speech (SSSHP 106)
- Box 23 BBN Phonetic Vocoder (SSSHP 116)
- Box 23 "Lawrence - PAT / U of M, 12-15-61" (SSSHP 119)
- Box 23 "Univ. of Michigan - Examples" (SSSHP 120)
- Box 24 "Dr. Delattre's talk on cues, 11/17/61," Parts 1 and 2 (SSSHP 121)
- Box 24 "Dr. Delattre's talk on cues, 11/17/61," Parts 3 and 4 (SSSHP 122)
- Box 24 "BTL Demo Record/Hamlet, Daisy," Tape made from 33 1/3 rpm audio disc labeled "Synthesized Speech", Bell Telephone Laboratories, 1961 (SSSHP 123)
- Box 24 "Prof. Delattre's Pattern Playback Examples, 8/4/61," Recorded for IBM at Pierre Delattre's laboratory, University of Colorado, Boulder (SSSHP 124)
- Box 24 "SCS - 1962/Stockholm Vocoder Demo Tape Sept. 1962," Produced by the Speech Transmission Laboratory, Royal Institute of Technology, Stockholm, Sweden, distributed at the Stockholm Speech Communication Seminar (SSSHP 125)
- Box 24 "Stockholm Vocoder Demo. Tape, STL/RIT, Sept. 1962" Copy of SSSHP 125 (SSSHP 126)
- Box 24 "Machines That Talk, MIT, 2/62," Recorded at Research Laboratory of Electronics, Massachusetts Institute of Technology (SSSHP 127)
- Box 24 "Univ. of Mich. and MIT Demo Tapes, 1961" (SSSHP 128)
- Box 24 "P.A.T. Demo 1962," E.T. Uldall, 1962 May (SSSHP 129)
- Box 24 "P.G.E.C. Demonstration," International Business Machines (SSSHP 123)
- Box 24 "We wish you a merry Xmas," International Business Machines (SSSHP 131)

- Box 24 "Archival Tape - H.D. Maxey, 3/65," International Business Machines backup copy of other laboratories' tapes (SSSHP 132)
- Box 24 "Speech Synthesis by Rule - JSRU England, 3/65,"(Demo for "Speech Synthesis by Rule," Language and Speech, 1964) Copy of International Business Machine's copy (SSSP 133)
- Box 24 "Diphone Synthesis Demo, 4/66," International Business Machines (SSSHP 134)
- Box 24 "Diphone Demo MASTER III, Oct '67," International Business Machines (SSSHP 135)
- Box 25 "PAT - synthesized intonations. B: 'He'll be here on Friday'." Fourteen tape loops, circa 1962 (SSSHP 84)
- Box 25 "Speech Analysis/Synthesis Survey Tape", 1967, Backup copy of SSSHP 81. (SSSHP 136)
- Box 25 "Sleeping Beauty," 1968 August (SSSHP 137)
- Box 25 "Synthesis Samples, Japanese," International Business Machines (3 Japanese phrases, 2 English phrases) (SSSHP 138)
- Box 25 "Boone Demo, ASA of NC, Boone, NC," International Business Machines, H.D. Maxey, 1969 October 3 (SSSHP 139)
- Box 25 "IBM 7770, 1969" (SSSHP 140)
- Box 25 "Klatt Syn-by-Rule, Oct 1971, MIT," SSSHP 91.5 is a better copy (SSSHP 147)
- Box 31 "Meet the Expert, 30 Jan 58, Dr. H.M. Truby", 2nd generation copy of SSSHP 106

Subseries 4.2: Audio cassettes

- Box 26 "Telephone Interviews," H.D. Maxey's interviews with informants for History Project. (SSSHP 15)
- Box 26 Votrax Synthesizers from R.T. Gagnon (SSSHP 8)
- Box 26 "TSI Speech Reading System Announcement (VC 003T), 12/12/77" (SSSHP 17)
- Box 26 "Telesensory System and Speech Plus Compilation of 1979-86 Tapes", made 9/11/88" (SSSHP 18)
- Box 26 Xerox/Kurzweil Personal Reader Demonstration Tape (SSSHP 21)
- Box 26 "KRM Series 400 Demonstration," 1984 (SSSHP 22)

- Box 26 "Text-to-Speech History, D. Klatt, ASA Demo, Copy 2, 2/87," Demonstration to accompany "Review of Text-to-speech conversion for English," D.H. Klatt, JASA 82.3, September 1987, made directly from Klatt's computer via D/A conversion (SSSHP 32)
- Box 26 "MITalk, TSI Comparisons (Pisoni Tests) 1980," Copy of tape dated 1980 September 26 from Dr. N. R. Dixon, International Business Machines (SSSHP 33)
- Box 26 "Speech Synthesis by Rule: ETL (1969)" (SSSHP 39)
- Box 26 "A SPEECH SYNTHESIS SYSTEM BY RULE IN JAPANESE," Sample of the synthesized speech, by R. Teranishi sample output of the SSSHP 40 system (SSSHP 42)
- Box 26 "Text-to-Speech in Japanese (standard reading)", Kyushu Institute of Design speech synthesis system (SSSHP 45)
- Box 26 "Text-to-Speech Synthesis Using Dyads", M.Y. Liberman and J.P. Olive, 1988 December (SSSHP 48)
- Box 26 "Digital Speech Coding, R. V. Cox, 4/29/88, various coding methods from 64 kb/s to 2.4 kb/s, AT&T Bell Laboratories" (SSSHP 49)
- Box 26 "J.L. Flanagan and K.I. Ishizaka, Vocal Cord- Vocal Tract Synthesizer, ASA Meeting, Austin, TX, 4/10/75, from Coker text-to-speech articulatory model, AT&T/Bell (SSSHP 50) Laboratories."
- Box 26 "AT&T/Bell Labs VODER from World's Fair Exhibits (New York, San Francisco) 1939-1940 era" (SSSHP 51)
- Box 26 "Text-to-Speech Synthesis from an Articulatory Model, C.H. Coker, 1-28-80" (SSSHP 52)
- Box 26 "Speech synthesis by rule supplementarily using natural speech segments," Nippon Electric Corporation, copied by Yukio Mitome, 1989 January 31 (SSSHP 62)
- Box 27 "A terminal analog speech synthesizer in a small computer (TV commercial)," Nippon Electric Corporation, copied by Yukio Mitome, 1989 January (SSSHP 63)
- Box 27 "Japanese speech synthesis system in a book reader for the blind", NEC Corp., copied by Yukio Mitome, Jan. 31, 1989. (SSSHP 64)
- Box 27 "Side A - Speech Synthesis by Rule" and "Side B - Efficient Speech Coding," Hitachi, Ltd., compiled by A. Ichikawa and S. Takeda, June 1989, tape and outline are considered proprietary by Hitachi (SSSHP 65)
- Box 27 "Tape 1, Synthesized speech reported in the 1966 ETL News #197," Hiroshi Ohmura, Electro Technical Laboratory, copied 1989 June 27 (SSSHP 67)

- Box 27 "Tape 2, Dr. Matsui's demo in 1968," Hiroshi Ohmura, Electro Technical Laboratory, copied 1989 June 27 (SSSHP 68)
- Box 27 "Tape 3, Speech sounds of the ETL acoustic model in 1965," Hiroshi Ohmura, Electro Technical Laboratory, copied 1989 June 27 (SSSHP 68)
- Box 27 "Tape 4, 'Sleeping Beauty' copied from the original tape," Hiroshi Ohmura, Electro Technical Laboratory, copied 1989 June 27 (SSSHP 70)
- Box 27 "Tape 5, Japanese 'tongue twisters' copied from the original tape," Hiroshi Ohmura, Electro Technical Laboratory, copied 1989 June 27 (SSSHP 71)
- Box 27 "Smithsonian Seminar, H.D. Maxey 6/87," demonstration tape for seminar on this history project at the Smithsonian. (SSSHP 72)
- Box 27 "Maxey Smithsonian Seminar 5/26/89," demonstration tape for seminar on this history project at the Smithsonian. (SSSHP 73)
- Box 27 "The Human Voice and the Computer, IEEE Soundings," No. 70-S-04, Edited by Dr. Walter R. Beam, 1971 August 1 (SSSHP 82)
- Box 27 "Some Reminiscences on Speech Research, Franklin S. Cooper, 4/25/72, '72 SCP" (SSSHP 83)
- Box 27 "K.N. Stevens' Review of History Outlines," discussion of history outlines, Professor K.N. Stevens and H.D. Maxey at Massachusetts Institute of Technology, 1990 October 23 1990 (SSSHP 89)
- Box 27 "PAT - Synthesized Intonations, circa 1962," cassette copy of SSSHP 84, fourteen tape loops of University of Edinburgh PAT synthesizer, copied by H.D. Maxey, 1991 January (SSSHP 84)
- Box 27 "Synthetic Voices for Computers, BTL, 1970," Copy of audio disc SSSHP59, demonstration recording to accompany Flanagan, J.L., C.H. Coker, L.R. Rabiner, R.W. Schafer, and N. Umeda, "Synthetic voices for computers," IEEE Spectrum, 7, 22-45 (1970). Copied by H.D. Maxey, 1991 June 21 (SSSHP 99)
- Box 28 "MITalk 79 speech from development, 1978-1979," Analog copy of DAT of synthetic speech sample. (SSSHP 114)
- Box 28 "IBM Diphone Speech Synthesis, WALRUS System, circa 1984" (SSSHP 117)
- Box 28 "Voice Output from Computers, Course 430, Integrated Computers Systems, 1980," survey tape for commercial course (SSSHP 118)
- Box 28 "Votrax VS4, VS6, VS6G2 Synthesizers, various synthesizers from R.T. Gagnon, 7/3/88" (SSSHP 141)
- Box 28 "The Sounds of Computalker, 1976," Computalker Consultants, SSSHP has permission to use (SSSHP 142)

- Box 28 "TSI Speech/Reading System Announcement, 12/12/77," appears to be same as SSSHP 17 (SSSHP 144)
- Box 28 "TSI Demo, J. Bernstein, 11/11/80. J. Bernstein, Telesensory Systems, Inc." copy of SSSHP 31 (SSSHP 148)
- Box 28 "IBM Diphone Speech Synthesis (1961-1970), H.D.Maxey, May 2001" (SSSHP 150)
- Box 28 "Eloquent Technology, Inc. speech synthesis samples," Susan R. Hertz (SSSHP 172)
- Box 28 "Cornell University speech synthesis samples," Susan R. Hertz (SSSHP 171)
- Box 28 "Dialogue Homme/Machine (Reconnaissance automatique et synthese par diphones), Recherches/Acoustique, Vol. IV, 1977" (SSSHP 143)

Subseries 4.3: Miscellaneous

- Box 29 "An original text-to-speech system in Japanese, GK-SS4/5 (1988,10) Series No. 03," text-to- speech system GK-SS4/5 (SSSHP 40)
1 floppy disc (5 inch for Nippon Electric Corporation PC-9800 machine (or equivalent))
- Box 29 "GK-SS4/5 Sample Data," (SSSHP 41)
1 floppy disc (5 inch)
- Box 29 "A text-to-speech system in Japanese (revised), GK-SS5 (1991,03) Series No. 10," text-to- speech system GK-SS5 Computer Data: "GK-SS5 (1991,03) Series No. 10," (SSSHP 101)
1 floppy disc (5.25 inch 2HD computer diskette for Nippon Electric Corporation PC-9801 machine)
- Box 29 "GK-SS5 System" (SSSHP 103)
1 computer disc: 3.5" (IBM PC-AT)
- Box 29 "Speech Coding," demonstration recording to accompany paper of the same name, IEEE Trans. on Comm., Vol. COM-27, No. 4, April 1979, pp. 710-737, 33 1/3 rpm) (relates to USA: Bell Telephone Laboratories)(SSSHP 58)
1 sound disc
- Box 29 "MITalk '79," Part of senior thesis work in Professor Jonathan Allen's group at Massachusetts Institute of Technology by Alex Waibel. (SSSHP 115)
1 video recording
- Box 29 "Synthetic Voices for Computers," demonstration recording to accompany paper of the same name, IEEE Spectrum, Vol. 7, No. 10, October 1970, pp. 22-45, 33 1/3 rpm, two copies. (relates to USA: Bell Telephone Laboratories) (SSSHP 59)
1 sound disc

- Box 29 "Speech Synthesis by Rule", Electro Technical Laboratory, 1969, 33 1/3 rpm, 3 copies (Relates to Japan: Electro Technical Laboratory) (SSSHP 26)
1 sound disc
- Box 29 Synthesis From Printed Text
1 sound disc
- Box 29 IBM TASS-III DIPHONE DATA (SSSHP 160)
1 floppy disc
- Box 25 "Stephen Hawking: The Universe Within," tape of physicist Stephen Hawking using a speech synthesizer to recount his career. MIT Professor Dennis Klatt identified the synthesizer as a PROSE 2000 from Telesensory Systems, Inc. (This tape is proprietary to Carolina Biological Supply Company and copies must be obtained from them) (SSSHP 95)
1 videocassette (u-matic)
- Box 25 "Eye on Research: The Six Parameters of PAT" (SSSHP 166)
1 videocassette (vhs) (PAL)

File 4.4: Reference and Protection Tapes and CDs

- Box 31 Reference CD and cassettes
- Box 30 Open reel protection masters
- Box 30 Index to Backup Analogue Tape Recordings
1 sound disc (cd)
- Box 30 Digitized Audio Recordings
3 sound discs (cd)

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