Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
1	NPR program on occasion of Draper Prize (about 5 min)	1	Tape cassette
2	Photos from Draper Prize ceremony	1	Names on back of some photos
3	*Think* magazine article, 8/79	1	Great photos by Erich Hartmann
4	Blackboard notes, ’70 & ’71	1	Polaroid photos of work on coloring families of sets
5	Presentation at D. Univ. award, Univ. of York, England	1	2 pages
6	Old IBM memos ’53-‘82	1	Mostly about Fortran & customers
7	Interview done by Saphire of me, 12/15/67	1	Transcripts of 2 tapes, 32 + 22 pages
8	Retirement dinner – photos	1	1991 dinner in San Jose
9	*Computer System Design and ANS Control Techniques* Oct 1955 paper, IBM Confidential.	1	Look-ahead decoder. Machine design.
10	*FORTRAN* by JW Backus and WP Heising	1	Aug 1964 paper, IEEE Trans on computers
11	*Software: will engineering replace witchcraft?* By Eric J Lerner	1	May ’80 article about functional programming
12	*Computers: emphasis on software* by Robert Bernhard	1	Jan ’80, on software problems
13	Photos of Nat’l Medal of Science award ceremony	1	Pres Ford
14	Remarks at 40th anniversary dinner	1	Sept? 1990 – 40 years at IBM
15	IRI Achievement Award Address 11/83	1	Industrial Research Inst. (IRI) The talk was about tolerating many failures in doing research.
16	“Draper Prize Lecture” Boston Museum of Science + photos	1	5/10/94.
17	Lecture notes for History of Programming Languages Conf + slides	1	HOPL (1) L.A. 6/78
18	*The History of FORTRAN I, II, and III*	1	Paper I gave at HOPL (1) (see #17)
19	Annals of the History of Computing 1/84 special Fortran 25th anniversary	1	Anecdotes, papers, photos
20	*The IBM history of language processor technology* by F E Allen	1	10/80 survey paper, 87 refs
21	1977 ACM Turing Award lecture: *Can programming be liberated from the von Neumann style? A functional style and it algebra of programs*	1	ACM preprint 1978. This is the paper I finally produced. It is very different from the actual Turing Lecture I gave in 1977 (see item # 67)
22	*Automatic programming: properties and performance of Fortran systems I and II* Nov ’58 paper at Teddington, England symposium	1	Report on experience with Fortran at this crazy ‘mechanizing thought’ symposium. See item # 65
23	Old IBM correspondence and memos 1962-1972 roughly	1	Not in chronological order
24	*The Four Color Problem* date of this draft paper unknown	1	Probably precedes the following paper (25)
25	*Coloring and Structure of Families of Sets* Oct 27, 1967	1	54 pages of definitions & theorems (of dubious utility, I’m afraid)

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
26	Correspondence & petition re Soviet dissidents, 1978-1984	1	
27	Slides for talk at WG 2.2, *Data Types in FL / an alternative to strong typing?*, Backus, Williams, Wimmers. Antibes, 6/4/87	1	WG 2.2 = Working Group on programming lang-uages of Int'l Fed of Info Processing Societies
28	Slides for talk at Year Of Programming Conf., Univ of Texas, 8/28/87 *Higher Order Functions and I/O in Strict Functional Languages* – John Hughes, John Williams, Ed Wimmers, John Backus	1	
29	Class notes for Functional Programming course EECS 292 given at Berkeley, Spring 1980	1	
30	*On the Development of the Algebra of Functional Programs* – John Williams. Paper in ACM Transactions on Programming Languages and Systems, Oct., 1982, pp733-757	1	
31	Slides for talk at Univ of Illinois 9/18/84: *Specifying, Transforming & Optimizing Function Level Programs*	1	
32	Statement of a group of computer scientists opposing the Strategic Defense Initiative outlined – the impossibility of creating the reliable software required – see item #43	1	
33	Slides for a talk at IBM Research (Yorktown Hts) 3/83 *Do Function Level Languages Offer a Prospect for Much Cheaper Programming?*	1	
34	Article in Electronic Design, 5/3/84 p 208	1	
35	Proposal for an IBM Center for Programming Research 5/84 & other notes	1	
36	Text & Slides for talk in "Future Computing Series" at IBM Yorktown, 7/26/85 *The Programming Problem*	1	One of my best talks about functional programming vs conventional programming
37	Text & Slides for talk in Nancy, France 12/14/89	1	Virtually identical to item 36, except slides are prettier
38	Correspondence with Dana May Latch re semantics of FFP languages, 1984. Several of her papers	1	
39	*On Extending the concept of "program"* class notes for UC Berkeley class: Functional Programming, 292Z, May 1 1980 – lecture slides	1	
40	*The coming revolution in computing* talk at MIT 5/5/83	1	35 pages, slides missing (2 or 3?)
41	Notes & slides for (probably) 2 talks, one at the IBM San Jose Lab 2/20/81, the other at some conf in NH in Oct '81, *Function Level Programs as Mathematical Objects*	1	Don't know what the conf in NH was
42	*Is Computer Science based on the wrong concept of "program"? An extended*	1	

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
	concept Talk given in Amsterdam 10/81, notes + slides see #45		
43	Press kit, notes & clippings re anti-Star Wars press conference, Senate Office Bldg, June 19, 1986	1	
44	Talk given at the Industrial Research Institute on receiving the "IRI Achievement Award" for 1983: *On Failing as part of research*	1	
45	*Is Computer Science based on the wrong concept of "program"? An extended concept* paper in *Algorithmic Languages* de Bakker & van Vliet, eds, IFIP, North Holland 1981 pp 133-165 see item # 42	1	
46	*An optimizing compiler based on program transformation* – John H Willimas & Edward L Wimmers 12/3/90	1	
47	*Static type inference in a dynamically typed language* – Alexander Aiken & Brian R Murphy undated (about 1990)	1	
48	*Sacrificing simplicity for convenience: Where do you draw the line?* – Williams & Wimmers undated (about 1987-88)	1	
49	*What IBM needs for software & application development* Copy of slides for talk – date unknown	1	
50	Business & Professional correspondence, about '83 to '91 Vol 1	1	Not completely ordered by date
51	Business & Professional correspondence, about '83 to '91 Vol 2		Not completely ordered by date
52	*Proceedings of the 1981 Conference on Functional Programming Languages and Computer Architecture* Oct 18-22, 1981, ACM	1	
53	*The algebra of functional programs: function level reasoning, linear equations, and extended definitions* paper for International Colloquium, Peniscola, Spain, April 1981	1	In "Lecture Notes in Computer Science" #107 Springer-Verlag
54	*On extending the concept of "program" and solving linear functional equations* draft report, 8/10/79	1	Paper distributed at Summer Workshop on Programming Methodology, Univ of Calif., Santa Cruz
55	*The Fortran automatic coding system* by J W Backus, R J Beeber, S Best, R Goldberg, L M Heaibt, H L Herrick, R A Nelson, D Sayre, P B Sheridan, H Stern, I Ziller, R A Hughes, R Nutt	1	In Proc of Western Joint Computer Conf, Los Angeles, CA, Feb, 1957
56	*Programming language semantics and closed applicative languages* July 5, 1973 IBM Research report RJ 1245	1	
57	*Twenty-five years of FORTRAN* by J A N Lee, Pioneer Day Chmn, Natl Computer Conf, 1982	1	

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
58	*The IBM exhibit commemorating the 25th anniversary of FORTRAN* by Daniel N Leeson	1	What is this??
59	*IBM electronic data processing machine, Type 704, preliminary manual of information* 1954	1	
60	*Ordinateur IBM 704 – FORTRAN II – Extension et amelioration de FORTRAN* IBM France, 12/59	1	Describes a French extension of Fortran
61	*Manuel du Programmeur – Fortran – Programmation Automatique de l'Ordinateur 704 IBM*	1	A translation into French of the original Fortran manual (with various Fortran words changed to their French equivalents)
62	*Programmer's Reference Manual—Fortran—Automatic Coding System For The IBM 704*	1	The original manual written by David Sayre
63	*Preliminary Report—Specifications for the IBM Mathematical FORmula TRANslating System, FORTRAN* November 10, 1954	1	
64	A retyped version of item 64 sent to me by Steve Hobbs + his letter	1	Has an example at the end
65	*Mechanization of thought processes, Vol 1* Proceedings of a Symposium at the National Physical Lab, Teddington, England, 11/58	1	Some good work here but loads of drivel (eg, see pages 419 & 457) and lots of laughs
66	*Formal representations for recursively defined functional programs* by John H Williams, IBM Research Report 2/19/81	2	
67	Turing Lecture: *Obstacles to high level programming: variables, control statements and the von Neumann bottleneck* Notes for lecture given in Seattle, 1977 + the slides that were used	2	This talk, the actual lecture, is very different from the paper that appeared in 1978 as the Turing Lecture. See item # 21
68	*From function level semantics to program transformation and optimization* IBM research report 1/8/85	2	
69	*Function level programs as mathematical objects* ACM paper	2	See item # 41
70	*The syntax and semantics of the proposed international algebraic language of the Zurich ACM-GAMM conference* paper presented at a Paris conference (I was so late completing it I had to lug all the copies with me on the plane The meeting was June 15-20, 1959. UNESCO.	2	This is the paper in which I proposed a crude version of what became known as "BNF"
71	Flowchart for a problem run on the IBM SSEC circa 1951-2 ("Problem 29")	2	This was some classified problem from Army Aberdeen Proving Grounds
72	*A program for translation of mathematical equations for Whirlwind I* by J H Laning and N Zierler, January 1954, Instrumentation Laboratory, MIT	2	
73	*ONR Symposium Report: Symposium on advanced programming methods for*	2	Shows how primitive programming was then

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
	digital computers 6/28-29/56 Washington, DC		
74	*Is Computer Science based on the wrong concept of "program"? An extended concept* Talk given in Amsterdam 10/81		The paper that appeared in *Algorithmic Languages*, North-Holland, 1981, see item #42
75	*FL Language Manual (Preliminary Version)* IBM Research Report, 11/7/86	2	On re-reading this, it looks like we lost our way & got pretty complicated trying to provide "conveniences".
76	*Proposed specifications for FORTRAN II for the 704* 9/25/57	2	IBM Programming Research Dept report
77	*Proposal for a programming language* this is the committee description of ALGOL 58 that prompted me to come up with Item # 70	2	I believe this is the product of the "*Zurich ACM-GAMM conference"* see Item # 70
78	*Programming in America in the 1950s—Some personal impressions* from *A History of Computing in the Twentieth Century*	2	The proceedings of The International Research Conf on the History of Computing, Los Alamos, June 10-15, 1976
79	Assorted notes on machine design, circa 1953-58	2	Very incomplete notes
80	*Principles of operation, Type 701* IBM manual for 701, copyright 1953	2	
81	*Reduction languages and variable-free programming* IBM Research Report, April 7, 1972	2	
82	*Report on the algorithmic language ALGOL 60* Peter Naur, editor	2	The committee report defining the language
83	*The system design of the IBM Type 704* by G M Amdahl & J W Backus	2	Paper at ACM meeting, 9/14//55, Philadelphia
84	"Historical Report" Outline of my activities 9/50 to 3/52 working on the SSEC. (For "problem 29" see item # 71)	2	Notes describe the horrendous difficulties of programming for this machine
85	*Representative sets and an orthogonality relation for certain families of sets* IBM Research Report 6/2/61	2	
86	*Computer system design and ANS control techniques* 8/26/55 this describes the thinking that went into my contribution to the design philosophy for a look-ahead decoder for a proposed computer that IBM presented to Livermore Labs in the summer(?) of 1955. This computer was not built. Livermore instead contracted for one from Sperry-Rand. The ideas for the look-ahead decoder were later incorporated in the seriously botched committee design of the IBM Stretch computer.	2	IBM didn't want to invest a lot of manpower in designing & building a machine for Livermore with the currently available devices, so it priced the machine out of the market. It was a bad deal for Sperry-Rand. The look-ahead decoder in Stretch was made ineffective by trying to make Stretch satisfy too many conflicting demands, & by many fatal design errors.
87	Spectrum Magazine, IEEE, August 1982, see *Function Level Computing,* p22	2	
88	*Completeness of rewrite rules and rewrite strategy for FP* IBM Research	2	

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
	Report by Joseph Y Halpern, John H Williams, Edward L Wimmers. Autographed by the authors, June 11, 1986		
89	*A general method to expand functional programs* by Peixiong Tang & Nobuo Yoneda, no date (1985 or later)	2	Dept of Information Science, Univ. of Tokyo
90	*Software research and development in IBM* Memo to Director of Research (Gomory) and IBM VP (Armstrong) re the total inadequacy of IBM's efforts in software, its third-rate position in the industry. 1/17/87	2	A blast at Research lack of skills in "software research", an area vital to its business. Recommends establishing a "Software Research Center" staffed with the best researchers, which Research presently totally lacks.
91	*A note on the existence of continuous functionals* by J Lawrence Carter & Ronald Fagin (IBM Research Report, 10/23/80)	2	
92	*A Church-Rosser property of closed applicative languages* by Paul McJones (IBM Research Report, 5/23/75)	2	
93	Program of the International Symposium on Algorithmic Languages, October 26-29, 1981, Amsterdam	2	
94	Menu, Parkrestaurant Rosarium, Amsterdam. Aad van Wijngaarden's retirement dinner, 10/27/81	2	
95	*Function Level Computing* in Japanese. Nikkei Electronics 1983 3. 28	2	
96	*A history of Algol* by R W Bemer, 2/67?	2	
97	Materials re "Pioneer Day", June 9, 1982, Nat'l Computer Conf., Houston		See also items # 57, 58
98	Program of the International Research Conference on the History of Computing, June 10-16, 1976, Los Alamos	2	
99	Fortran item in the Encyclopedia of Computer Science. Vol 8	2	Has an extensive bibliography by Frank Engel
100	*Programmer's Primer for FORTRAN*	2	This was written Libby (Grace) Mitchell, although she gets no credit in this IBM manual
101	*The arithmetic translator-complier of the IBM Fortran automatic coding system* by Peter B Sheridan, Comm of the ACM, no date	2	Probably about early 1958
102	*Preliminary Operator's Manual, the Fortran automatic coding system for the IBM 704 EDPM*, April 8, 1957		
103	*Report to the Association of Computing Machinery: First Glossary of Programming Terminology* June 1954	2	
104	*Symposium on Automatic Programming for Digital Computers* May 13-14, 1954, Office of Naval Research	2	See page 106 for article on Speedcoding by Harlan Herrick and me. At the end we discuss

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
			many of the objectives for Fortran (as discussed in item # 18).
105	*Automatic coding for digital computers* by Grace Murray Hopper, no date	2	
106	Roy Nutt's Correspondence (in and out) 5/58 to 4/55	2	Lots of stuff about debugging Fortran, back and forth between Roy and Fortran group
107	Roy Nutt's trips to NY to work with Fortran group + more correspondence with us	2	
108	Notes & Manual for Speedcoding 1 & 2	2	
109	*Description of source language additions to the Fortran II system* this describes what became known as Fortran III. It is the work of Irv Ziller.	2	Fortran III allowed users to insert symbolic 704 instructions into a Fortran source program
110	Letter from me to Franz Ross, Applied Science Publications Group announcing a version of Fortran I for machines with a larger core storage unit (8192 words or more). The 1st version would run with 4096 words	2	May 7, 1957. This letter also announces a Fortran editing program, FNEDT1
111	*Preliminary report: Proposed specifications for Fortran II for the 704* 6/28/57 see item # 76	2	
112	Note from David Sayre re the origin of the "function statement" in Fortran I	2	
113	Letter from me to John Greenstadt (responsible for distributing programs to SHARE) announcing the availability of FN1 (1st version of Fortran) on binary cards + an addenda to the manual + preliminary operator's manual. February 8, 1957	2	It soon turned out to be impossible to punch the binary cards, so this distribution did not take place. See item # 114
114	Letter from me to John Greenstadt announcing the availability of Fortran 4-1-4-1 (requiring at least 4096 words of core storage) to be distributed on tapes.	2	
115	Programming Research Dept memos: (a) Tel extensions 3/19/57, (b) Job classifications 3/20/57, (c) ditto 8/15/58	2	
116	"Pro Res" 1957 – Dept newsletter produced by secretary Rosemarie Wright with contributions from dept members – 4 issues: Jan, Feb, Mar, Apr	2	This looks embarrassingly silly today
117	Letter from C L (Chuck) Baker at Rand Corp to William Heising, 4/22/58 about "fatal error stops" in Fortran & how to override them	2	
118	*Proposed additions and modifications in the specifications for the Fortran system* 2/10/55 this note was retrieved by Jean Sammet from her files, probably around 6/78 for HOPL, see item # 17	2	
119	Letter from John McCarthy enclosing a listing for a machine language program FUNC, and chapters 1 & 2 describing a new compiler OMNITRAN	2	Includes the listing and the 2 chapters

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Item No.	Name of item	Box #/	Description/Comments
	1/9/58		
120	Excerpt from Sperry-Rand A-2 compiler manual circa 1955	2	
121	*The 704 Fortran II Automatic Coding System* by Grace E Mitchell, IBM Research Report 9/4/59	2	This report indicates that Programming Research had moved by 9/59 from NYC to IBM's Yorktown research lab
122	*The evolution of programming systems* by William Orchard-Hayes, in Proc of the IRE, January 1961	2	A good survey paper for 1960
123	Correspondence re preparation of 6/78 HOPL talk "The history of Fortran I, II and III" see item # 17 & 18	2	A load of interesting material here from many different people
124	Menu, Fortran 25th Anniversary Reunion, Courtlandts Restaurant, Houston, 6/8/82 see photos in item # 130	2	
125	*Register allocation in the Fortran I compiler* by Richard Goldberg. Written for "Pioneer Day" 6/9/82, this describes how Dick and Dave Sayre deciphered and debugged Sheldon Best's code for section 5	2	This also describes Best's remarkable register allocation scheme.
126	Notes for my talk at "Pioneer Day" 6/9/82	2	
127	Pioneer Day dinner menu & program, with my notes for remarks	2	
128	*Fortran comes to Westinghouse-Bettis, 1957* Herb Bright's entertaining account of how they ran Fortran for the first time from an unlabelled deck of binary cards. In *Computers and Automation*, Nov, 1971	2	
129	*The early development of programming languages* by Donald E Knuth & Luis Trabb Pardo, August, 1976	2	See p60 ff for their description of "Fortran 0" and p86 ff for Fortran I
130	Photos of reunion dinner 6/8/82 plus photos of "Pioneer Day" exhibit, Houston, see items # 124, 127	2	
131	An IBM flyer for the IBM exhibit at the 25th Nat'l Computer Conf, June 1982, featuring Fortran's 25th anniversary	2	
132	*Computing at LASL in the 1940s and 1950s* by Roger B Lazarus, Edward A Voorhees, Mark B Wells, W Jack Worlton, May 1978, Los Alamos	2	
133	*Who invented the general purpose electronic computer?* By Arthur W Burks	2	
134	*History of high level language—technical contributions by IBM* by Jean Sammet. April 21, 1980. Draft #2 with my corrections and comments		
135	IBM Fellow: annual reports 3/64 to 1/88	2	
136	Transcript of Henry Tropp's tapes of a "SHARE Meeting for Pioneers" held in the Hilton Hotel, San Francisco, March 8, 1972. 152 pages	2	It quickly becomes clear that all the participants in this discussion have been drinking, especially

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
			Frank Wagner.
135	*History of IBM's Technical Contributions to High Level Programming Languages* By Jean Sammet, 7/30/88, final draft of item # 134	2	Has quite a few references, unlike item # 134
136	Letter from Walter Ramshaw to J A N Lee, 4/21/81, discussing United Aircraft's investment in the Fortran project by providing Roy Nutt	2	
137	Official photos of ceremony awarding "Docteur Honoris Causa" degrees to a group of oddly-dressed old guys (+ one woman), Université de Nancy I, 12/89. See item # 37	2	Some of these pictures are really funny. How can these people appear in public *dres*sed like this?
138	Slides for TAPSOFT conf, invited lecture: *From function level semantics to program transformation & optimization,* March 1985	2	Don't recall where this was or what TAPSOFT is
139	Project Progress Review Slides, 10/11/89	2	Shows our progress in producing a compiler for the FL language, 4 new group members
140	Major review for Lab? Research? Director (McGroddy): *The Software Problem* 9/26/89	2	Gives clear outline of our goals and progress at a higher level than item # 139
141	Presentation to Irv Traiger (Mgr Software Research, Almaden)	2	
142	FL Presentation for Lab visitors 1/87 – 7/87 by Backus, Williams, Wimmers	2	
143	Foils for review of FL. Reviewers: Fran Allen, John Guttag. 3/17/88	2	59-page review of progress and problems
144	Reviewers' report: "Overview of project" Allen & Guttag, see item #143	2	Slides for review with recommendations146
145	*FL Project, History* Project review, 10/10/89	3	Status of FL compiler, project (4 new people)
146	Correspondence & referee's report re *Reduction languages and variable-free programming* (and *Programming language semantics and closed applicative languages)* 1972-73. see item # 81 & 56	3	
147	*Programming languages* -- review slides for Matisoo (lab director) 4/26/89 and Armstrong (research director) 5/5/89	3	
148	*The software problem* – slides for presentation to Lab director Mayadas, late 1988	3	
149	*What IBM needs for software & application development* – slides, undated, probably mid to late 1989	3	
150	*Expected trial testimony of J W Backus* IBM lawyers' outline of my proposed testimony in the IBM anti-trust case. 11/17/75	3	I never testified
151	2nd Interview done by Saphire of me, 6/11/68. see item # 7	3	22 pages of unclear discussion about Fortran and compilers
152	*Ultracomplex systems* Memo to Lewis Branscomb 2/26/74 about my fears for	3	2 pages. After wasting over a billion dollars on

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Item No.	Name of item	Box #/	Description/Comments
	the "FS" system planning. The huge design bureaucracy felt it could include EVERYTHING in one or two machines.		designing this humungous system, it was finally recognized as a huge flop and dropped.
153	*The presidential prize caper* --article in *Science* (p938) about March 74 concerning the proposed "Presidential Prizes for Innovation" which Nixon was going to give out (at $50,000 ea) but was dropped after seven winners had been picked. I was one of these and had been secretly planning to use the occasion to denounce Nixon and the Vietnam war.	3	I guess now my plan was not a gentlemanly scheme, but anyway I was relieved when the plan fell through.
154	Contentious correspondence with Elliot Organick and Robert Barton about their failure to properly reference my work on FP. 1979-1981	3	I was really angry at these folks for pretending they invented FP—all without *any* documents to back it up, just Organick's fuzzy recollections & Barton's haughty claim he had nothing to do with the pretense, even though his name was on the paper that did the pretending.
155	Correspondence with Edsger Dijkstra. 1979	3	This guy's arrogance takes your breath away.
156	*The coming revolution in computing* Gillies Lecture & slides, 9/17/84, Univ of Illinois, Urbans-Champaign	3	
157	Harlan Mills' memo to top IBM executives discussing the risks of the elephantine FS architecture 3/12/74	3	See item # 152. Mills is in essential agreement with my earlier memo, but more discreet.
158	Slides arguing to free John Williams from Jean-Marie Cadiou's lousy management. 12/12/79. I don't remember who this talk was aimed at. But it worked. After this, JW reported to me.	3	Cadiou was making Williams' life miserable with conflicting demands and lack of knowledge about my project, which JW was working on
159	Correspondence, etc. re John Williams + the course we taught at Berkeley (CS 292, Spring 1980) + Dijkstra's bitchy EWD676 in which he actually praises John's lecture at Marktoberdorf, August 1978	3	Includes an amusing poem John used in introducing my talk at Cornell, 12/1/77
160	Memo to Herb Schorr re IBM's strategy for designing/supporting the design of parallel computers. 5/29/83. 9 pages.	3	Concludes the Research group assigned to pick promising designs to follow is incompetent because they picked 3 designs that are all very similar and neglected other more interesting ones.
161	Correspondence, 1983	3	Magò, Scientific American, David Gries, Brooks
162	IBM Correspondence 1977-1983	3	
163	*Annotated listings of RED systems* Listings of programs by Phil Summers that interpret RED languages. Yorktown, 8/29/72	3	With a covering letter from Phil
164	Clippings, magazine articles, etc -- first batch	3	A fairly large collection

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
165	Clippings, magazine articles, etc -- second batch	3	
166	35mm slides of Fortran exhibit, Nat'l Computer Conf, Houston, 6/8/82	3	Color slides in a box
167	*Annals of the History of Computing* Vol 1, No 1, 7/79	3	First issue. Contains "The History of Fortran I, II and III"
168	Letter from R D Richtmeyer (AEC Computing Facility, NYU) to Nick Metropolis (Los Alamos) 1/11/56, with letter of transmittal from J A N Lee, 2/24/89	3	Describes Richtmeyer's "Neanderthal" approach to computing.. Lee wanted to publish it after reassuring R that it would not be "ridiculed"
169	Plastic balloon "FORTRAN 25 YEARS" from Houston celebration	3	
170	*An introduction to the FL programming language* by John Backus, John H Williams, Edward L Wimmers, 2/11/90	3	This is a confusing item. How does it differ from the 1987 manual? I don't believe the promised new manual was ever completed.
171	*Static type inference in a dynamically typed language* by Alex Aiken and Brian Murphy, 11/6/90	3	Presents a type inference system for FL
172	*Program transformation in the presence of errors* by Alexander Aiken, John H Williams, Edward L Wimmers, no date, probably '89 or '90	3	Defines the notion of "safe" rewrite rules that preserve error information
173	Printouts of optimization examples for FL programs, etc	3	
174	*Good rewrite strategies for FP* by Joseph Y Halpern, John H Williams, Edward L Wimmers, no date	3	
175	Photos from SHARE meeting, San Francisco, 3/8/72. see item #136	3	I've identified some of the people
176	Photos from Paris meeting of Algol committee 1959?	3	Some participants identified on back of photos
177	Letter of transmittal for item # 25	4	
178	Article written for the NY Times, 6/9/67	4	The NYT editors saw fit to head this with a ridiculous headline.
179	NY times ½ page ad featuring yours truly 2/5/68	4	
180	*Programming language technology, working paper 26B – Draft (3/15/67) of FORTRAN* by Jean Sammet 4/18/67 54 pages	4	
181	*Presentation of the 1967 W Wallace McDowell Award to John W Backus* Atlantic City, 4/19/67 – program brochure (with photo of me)	4	
182	Research Order: Foundations of Programming, San Jose 1/1/71	4	
183	Correspondence with Dan McCracken on how to refuse the "Presidential Prize for Innovation" and denounce Nixon's Vietnam policy, Drafts of proposed letters. News articles. Late 1972	4	
184	Letters, news releases, etc re opposition to the Anti-Ballistic Missile system,	4	These arguments against ABM systems are as

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
	"Computer Professionals Against ABM"		valid, and the ABM proponents as stupid and resource-hungry, today as they were then.
185	Notes for unsent letter to Pres Ford upon his pardon of Nixon	4	
186	Theorems and notes on coloring families of sets 1961-1972	4	
187	Polaroid photos of blackboard notes, 1961-1964	4	Coloring families of sets
188	*Fl project status* 4/8/91	4	Last review, for McGroddy. I was very saddened and disgusted by IBM's failure to support this really exciting project that was doing great, had wonderful people, great prospects
189	*Programming a language* by Alexander Aiken, John H Williams, Edward L Wimmers 1991	4	
190	*An optimizing compiler based on program transformation* – John H Willimas & Edward L Wimmers Final version 3/12/91 see item # 46	4	
191	*Annual fellow report for 1990 – the functional programming project* 12/21/90	4	
192	*FL Project Review* 11/7/90, Aiken, Backus, Linden, Lucas, Tucker, Williams, Wimmers.	4	
193	FL Project internal papers, 1991	4	
194	*FL Reference Manual* by John Backus, Peter Lucas, John H Williams, Edward L Wimmers. 11/23/88	4	See item #75
195	*FL Language Manual, Parts 1 and 2* by John Backus, John H Williams, Edward L Wimmers, Peter Lucas, Alexander Aiken. 10/6/89	4	IBM Research Report RJ 7100
196	*The solution of linear recursive equations in the algebra of functional programs* undated	4	
197	*Review of IBM's position with respect to Parallel Machine Architecture* 5/29/83.	4	
198	*Some basic FL laws by Ed Wimmers 9/23/88*	4	Shows the richness of the algebra of the higher order functions of FL
199	*Notes for project review for Frank Mayadas* 1/21/86	4	
200	*The function level style of functional programming* 3/16/85	4	
201	*The new simplification algorithm* by John H Williams & Edward L Wimmers. 2/8/90. Illustrates the additional difficulty of dealing with I/O and a state as in FL. Also illustrate that the project was deep into optimization and had made good progress	4	I include this item to show the difficulties in accurately transforming FL programs, even though it would require a lot of study of the FL manual and many other papers to understand this.

Items for the Library of Congress

Item No.	Name of item	Box #/	Description/Comments
202	*Overview of rewriting subsystems* by Paul Tucker, 10/3/89. Text plus Lisp programs & comments	4	This gives some idea of what's going on in the rewriting system of the optimizer.
203	*Environments and completeness* by ? (probably Aiken) 4/18/89	4	
204	*The semantics of FL* by Edward L Wimmers 6/3/87	4	Describes a lot of notation that appears in other stuff
205	*Solving type constraints* by Aiken & Wimmers. 10/2/90	4	
206	*A filter-based approach to types* by Wimmers. 3/18/86	4	
207	*Matrix multiply optimization* by Wimmers 8/21/90	4	Illustrates how 3 different, inefficient MMPY programs are turned into the same efficient one
208	*Proposed changes in the FL language* 2/27/87	4	
209	*A type language for FL* by Aiken, 7/10/90	4	
210	*Testing type inclusion* by Aiken 7/10/90	4	
211	*Your memories are not false, a reply to the False Memory Syndrome Foundation* by JWB and Barbara Una Stannard, Ph.D. 1994. discusses many aspects of sexual abuse of children and its widespread denial	4	This 14 page article refutes the claim of the FMSF that memories of sexual abuse are implanted by therapists and are therefore false.