Items for the Library of Congress

By John Backus, circa 2003; LoC Box # added 4 September 2026 by Paul McJones

Item No.	Name of item	LoC 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*	2	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	2	Report on experience with Fortran at this crazy ‘mechanizing thought’ symposium. See item # 65
23	Old IBM correspondence and memos 1962-1972 roughly	2	Not in chronological order
24	*The Four Color Problem* date of this draft paper unknown	2	Probably precedes the following paper (25)
25	*Coloring and Structure of Families of Sets* Oct 27, 1967	2	54 pages of definitions & theorems (of dubious

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Item No.	Name of item	LoC Box #	Description/Comments
			utility, I'm afraid)
26	Correspondence & petition re Soviet dissidents, 1978-1984	2	
27	Slides for talk at WG 2.2, *Data Types in FL / an alternative to strong typing?*, Backus, Williams, Wimmers. Antibes, 6/4/87	2	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	2	
29	Class notes for Functional Programming course EECS 292 given at Berkeley, Spring 1980	2	
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	2	
31	Slides for talk at Univ of Illinois 9/18/84: *Specifying, Transforming & Optimizing Function Level Programs*	2	
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	2	
33	Slides for a talk at IBM Research (Yorktown Hts) 3/83 *Do Function Level Languages Offer a Prospect for Much Cheaper Programming?*	2	
34	Article in Electronic Design, 5/3/84 p 208	3	
35	Proposal for an IBM Center for Programming Research 5/84 & other notes	3	
36	Text & Slides for talk in "Future Computing Series" at IBM Yorktown, 7/26/85 *The Programming Problem*	3	One of my best talks about functional programming vs conventional programming
37	Text & Slides for talk in Nancy, France 12/14/89	3	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	3	
39	*On Extending the concept of "program"* class notes for UC Berkeley class: Functional Programming, 292Z, May 1 1980 – lecture slides	3	
40	*The coming revolution in computing* talk at MIT 5/5/83	3	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*	3	Don't know what the conf in NH was

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Item No.	Name of item	LoC Box #	Description/Comments
	Mathematical Objects		
42	*Is Computer Science based on the wrong concept of "program"? An extended concept* Talk given in Amsterdam 10/81, notes + slides see #45	3	
43	Press kit, notes & clippings re anti-Star Wars press conference, Senate Office Bldg, June 19, 1986	3	
44	Talk given at the Industrial Research Institute on receiving the "IRI Achievement Award" for 1983: *On Failing as part of research*	3	
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	3	
46	*An optimizing compiler based on program transformation* – John H Willimas & Edward L Wimmers 12/3/90	3	
47	*Static type inference in a dynamically typed language* – Alexander Aiken & Brian R Murphy undated (about 1990)	3	
48	*Sacrificing simplicity for convenience: Where do you draw the line?* – Williams & Wimmers undated (about 1987-88)	3	
49	*What IBM needs for software & application development* Copy of slides for talk – date unknown	3	
50	Business & Professional correspondence, about '83 to '91 Vol 1	3	Not completely ordered by date
51	Business & Professional correspondence, about '83 to '91 Vol 2	4	Not completely ordered by date
52	*Proceedings of the 1981 Conference on Functional Programming Languages and Computer Architecture* Oct 18-22, 1981, ACM	4	
53	*The algebra of functional programs: function level reasoning, linear equations, and extended definitions* paper for International Colloquium, Peniscola, Spain, April 1981	4	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	4	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	4	In Proc of Western Joint Computer Conf, Los Angeles, CA, Feb, 1957
56	*Programming language semantics and closed applicative languages* July 5,	4	

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Item No.	Name of item	LoC Box #	Description/Comments
	1973 IBM Research report RJ 1245		
57	*Twenty-five years of FORTRAN* by J A N Lee, Pioneer Day Chmn, Natl Computer Conf, 1982	4	
58	*The IBM exhibit commemorating the 25th anniversary of FORTRAN* by Daniel N Leeson	4	What is this??
59	*IBM electronic data processing machine, Type 704, preliminary manual of information* 1954	4	
60	*Ordinateur IBM 704 – FORTRAN II – Extension et amelioration de FORTRAN* IBM France, 12/59	4	Describes a French extension of Fortran
61	*Manuel du Programmeur – Fortran – Programmation Automatique de l'Ordinateur 704 IBM*	4	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*	4	The original manual written by David Sayre
63	*Preliminary Report—Specifications for the IBM Mathematical FORmula TRANslating System, FORTRAN* November 10, 1954	4	
64	A retyped version of item 64 sent to me by Steve Hobbs + his letter	4	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	4	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	5	
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	5	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	5	
69	*Function level programs as mathematical objects* ACM paper	5	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.	5	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")	OV 1	This was some classified problem from Army

Items for the Library of Congress

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Item No.	Name of item	LoC Box #	Description/Comments
			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	5	
73	*ONR Symposium Report: Symposium on advanced programming methods for digital computers* 6/28-29/56 Washington, DC	5	Shows how primitive programming was then
74	*Is Computer Science based on the wrong concept of "program"? An extended concept* Talk given in Amsterdam 10/81	5	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	5	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	5	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	5	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*	5	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	5	Very incomplete notes
80	*Principles of operation, Type 701* IBM manual for 701, copyright 1953	5	
81	*Reduction languages and variable-free programming* IBM Research Report, April 7, 1972	5	
82	*Report on the algorithmic language ALGOL 60* Peter Naur, editor	5	The committee report defining the language
83	*The system design of the IBM Type 704* by G M Amdahl & J W Backus	5	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)	5	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	5	
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	5	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

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	botched committee design of the IBM Stretch computer.		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	5	
88	*Completeness of rewrite rules and rewrite strategy for FP* IBM Research Report by Joseph Y Halpern, John H Williams, Edward L Wimmers. Autographed by the authors, June 11, 1986	5	
89	*A general method to expand functional programs* by Peixiong Tang & Nobuo Yoneda, no date (1985 or later)	5	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	5	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)	5	
92	*A Church-Rosser property of closed applicative languages* by Paul McJones (IBM Research Report, 5/23/75)	6	
93	Program of the International Symposium on Algorithmic Languages, October 26-29, 1981, Amsterdam	6	
94	Menu, Parkrestaurant Rosarium, Amsterdam. Aad van Wijngaarden's retirement dinner, 10/27/81	6	
95	*Function Level Computing* in Japanese. Nikkei Electronics 1983 3. 28	6	
96	*A history of Algol* by R W Bemer, 2/67?	6	
97	Materials re "Pioneer Day", June 9, 1982, Nat'l Computer Conf., Houston	6	See also items # 57, 58
98	Program of the International Research Conference on the History of Computing, June 10-16, 1976, Los Alamos	6	
99	Fortran item in the Encyclopedia of Computer Science. Vol 8	6	Has an extensive bibliography by Frank Engel
100	*Programmer's Primer for FORTRAN*	6	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	6	Probably about early 1958

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Item No.	Name of item	LoC Box #	Description/Comments
102	*Preliminary Operator's Manual, the Fortran automatic coding system for the IBM 704 EDPM,* April 8, 1957	6	
103	*Report to the Association of Computing Machinery: First Glossary of Programming Terminology* June 1954	6	
104	*Symposium on Automatic Programming for Digital Computers* May 13-14, 1954, Office of Naval Research	6	See page 106 for article on Speedcoding by Harlan Herrick and me. At the end we discuss many of the objectives for Fortran (as discussed in item # 18).
105	*Automatic coding for digital computers* by Grace Murray Hopper, no date	6	
106	Roy Nutt's Correspondence (in and out) 5/58 to 4/55	6	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	6	
108	Notes & Manual for Speedcoding 1 & 2	6	
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.	6	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	6	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	6	
112	Note from David Sayre re the origin of the "function statement" in Fortran I	6	
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	6	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.	6	
115	Programming Research Dept memos: (a) Tel extensions 3/19/57, (b) Job classifications 3/20/57, (c) ditto 8/15/58	6	
116	"Pro Res" 1957 – Dept newsletter produced by secretary Rosemarie Wright with contributions from dept members – 4 issues: Jan, Feb, Mar, Apr	6	This looks embarrassingly silly today

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Item No.	Name of item	LoC Box #	Description/Comments
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	6	
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	6	
119	Letter from John McCarthy enclosing a listing for a machine language program FUNC, and chapters 1 & 2 describing a new compiler OMNITRAN 1/9/58	7	Includes the listing and the 2 chapters
120	Excerpt from Sperry-Rand A-2 compiler manual circa 1955	7	
121	*The 704 Fortran II Automatic Coding System* by Grace E Mitchell, IBM Research Report 9/4/59	7	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	7	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	7	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	7	
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	7	This also describes Best's remarkable register allocation scheme.
126	Notes for my talk at "Pioneer Day" 6/9/82	7	
127	Pioneer Day dinner menu & program, with my notes for remarks	7	
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	7	
129	*The early development of programming languages* by Donald E Knuth & Luis Trabb Pardo, August, 1976	7	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	7	
131	An IBM flyer for the IBM exhibit at the 25th Nat'l Computer Conf, June 1982, featuring Fortran's 25th anniversary	7	

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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	7	
133	*Who invented the general purpose electronic computer?* By Arthur W Burks	7	
134	*History of high level language—technical contributions by IBM* by Jean Sammet. April 21, 1980. Draft #2 with my corrections and comments	7	
135	IBM Fellow: annual reports 3/64 to 1/88	8	
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	8	It quickly becomes clear that all the participants in this discussion have been drinking, especially 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	8	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	8	
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	8	Some of these pictures are really funny. How can these people appear in public *dress*ed like this?
138	Slides for TAPSOFT conf, invited lecture: *From function level semantics to program transformation & optimization,* March 1985	8	Don't recall where this was or what TAPSOFT is
139	Project Progress Review Slides, 10/11/89	8	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	8	Gives clear outline of our goals and progress at a higher level than item # 139
141	Presentation to Irv Traiger (Mgr Software Research, Almaden)	8	
142	FL Presentation for Lab visitors 1/87 – 7/87 by Backus, Williams, Wimmers	8	
143	Foils for review of FL. Reviewers: Fran Allen, John Guttag. 3/17/88	8	59-page review of progress and problems
144	Reviewers' report: "Overview of project" Allen & Guttag, see item #143	9	Slides for review with recommendations146
145	*FL Project, History* Project review, 10/10/89	9	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	9	
147	*Programming languages* -- review slides for Matisoo (lab director) 4/26/89 and Armstrong (research director) 5/5/89	9	

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148	*The software problem* – slides for presentation to Lab director Mayadas, late 1988	9	
149	*What IBM needs for software & application development* – slides, undated, probably mid to late 1989	9	
150	*Expected trial testimony of J W Backus* IBM lawyers' outline of my proposed testimony in the IBM anti-trust case. 11/17/75	9	I never testified
151	2nd Interview done by Saphire of me, 6/11/68. see item # 7	9	22 pages of unclear discussion about Fortran and compilers
152	*Ultracomplex systems* Memo to Lewis Branscomb 2/26/74 about my fears for the "FS" system planning. The huge design bureaucracy felt it could include EVERYTHING in one or two machines.	9	2 pages. After wasting over a billion dollars on 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.	9	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	9	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	9	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	9	
157	Harlan Mills' memo to top IBM executives discussing the risks of the elephantine FS architecture 3/12/74	9	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.	9	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	9	Includes an amusing poem John used in introducing my talk at Cornell, 12/1/77

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	John's lecture at Marktoberdorf, August 1978		
160	Memo to Herb Schorr re IBM's strategy for designing/supporting the design of parallel computers. 5/29/83. 9 pages.	9	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	9	Magò, Scientific American, David Gries, Brooks
162	IBM Correspondence 1977-1983	9	
163	*Annotated listings of RED systems* Listings of programs by Phil Summers that interpret RED languages. Yorktown, 8/29/72	9	With a covering letter from Phil
164	Clippings, magazine articles, etc -- first batch	OV 1	A fairly large collection
165	Clippings, magazine articles, etc -- second batch	10	
166	35mm slides of Fortran exhibit, Nat'l Computer Conf, Houston, 6/8/82	10	Color slides in a box
167	*Annals of the History of Computing* Vol 1, No 1, 7/79	10	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	10	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	OV 1	
170	*An introduction to the FL programming language* by John Backus, John H Williams, Edward L Wimmers, 2/11/90	10	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	10	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	10	Defines the notion of "safe" rewrite rules that preserve error information
173	Printouts of optimization examples for FL programs, etc	10	
174	*Good rewrite strategies for FP* by Joseph Y Halpern, John H Williams, Edward L Wimmers, no date	10	
175	Photos from SHARE meeting, San Francisco, 3/8/72. see item #136	10	I've identified some of the people
176	Photos from Paris meeting of Algol committee 1959?	10	Some participants identified on back of photos
177	Letter of transmittal for item # 25	10	

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Item No.	Name of item	LoC Box #	Description/Comments
178	Article written for the NY Times, 6/9/67	10	The NYT editors saw fit to head this with a ridiculous headline.
179	NY times ½ page ad featuring yours truly 2/5/68	10	
180	*Programming language technology, working paper 26B – Draft (3/15/67) of FORTRAN* by Jean Sammet 4/18/67 54 pages	10	
181	*Presentation of the 1967 W Wallace McDowell Award to John W Backus* Atlantic City, 4/19/67 – program brochure (with photo of me)	10	
182	Research Order: Foundations of Programming, San Jose 1/1/71	10	
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	10	
184	Letters, news releases, etc re opposition to the Anti-Ballistic Missile system, "Computer Professionals Against ABM"	10	These arguments against ABM systems are as 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	11	
186	Theorems and notes on coloring families of sets 1961-1972	11	
187	Polaroid photos of blackboard notes, 1961-1964	11	Coloring families of sets
188	*Fl project status* 4/8/91	11	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	11	
190	*An optimizing compiler based on program transformation* – John H Willimas & Edward L Wimmers Final version 3/12/91 see item # 46	11	
191	*Annual fellow report for 1990 – the functional programming project* 12/21/90	11	
192	*FL Project Review* 11/7/90, Aiken, Backus, Linden, Lucas, Tucker, Williams, Wimmers.	11	
193	FL Project internal papers, 1991	11	
194	*FL Reference Manual* by John Backus, Peter Lucas, John H Williams, Edward L Wimmers. 11/23/88	11	See item #75
195	*FL Language Manual, Parts 1 and 2* by John Backus, John H Williams,	12	IBM Research Report RJ 7100

Items for the Library of Congress

By John Backus, circa 2003; LoC Box # added 4 September 2026 by Paul McJones

Item No.	Name of item	LoC Box #	Description/Comments
	Edward L Wimmers, Peter Lucas, Alexander Aiken. 10/6/89		
196	*The solution of linear recursive equations in the algebra of functional programs* undated	12	
197	*Review of IBM's position with respect to Parallel Machine Architecture* 5/29/83.	12	
198	*Some basic FL laws by Ed Wimmers 9/23/88*	12	Shows the richness of the algebra of the higher order functions of FL
199	*Notes for project review for Frank Mayadas* 1/21/86	12	
200	*The function level style of functional programming* 3/16/85	12	
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	12	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.
202	*Overview of rewriting subsystems* by Paul Tucker, 10/3/89. Text plus Lisp programs & comments	12	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	12	
204	*The semantics of FL* by Edward L Wimmers 6/3/87	12	Describes a lot of notation that appears in other stuff
205	*Solving type constraints* by Aiken & Wimmers. 10/2/90	12	
206	*A filter-based approach to types* by Wimmers. 3/18/86	12	
207	*Matrix multiply optimization* by Wimmers 8/21/90	12	Illustrates how 3 different, inefficient MMPY programs are turned into the same efficient one
208	*Proposed changes in the FL language* 2/27/87	12	
209	*A type language for FL* by Aiken, 7/10/90	12	
210	*Testing type inclusion* by Aiken 7/10/90	12	
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	12	This 14 page article refutes the claim of the FMSF that memories of sexual abuse are implanted by therapists and are therefore false.