



# Jon L. White collection on Common Lisp

**Creator:** Jon L. White

**Dates:** 1963-2012, bulk 1978-1995

**Extent:** 8.75 linear feet, 7 record cartons

**Collection number:** X6823.2013

**Catalog number:** 102733968

**Collection processed by:** Bo Doub and Kim Hayden, 2017

**Finding aid prepared by:** Bo Doub, Kim Hayden, and Sara Chabino Lott, 2017

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## **Abstract**

The Jon L. White collection on Common Lisp contains material relating to the development and standardization of the programming language Common Lisp and, more generally, the Lisp family of programming languages. Records date from 1963 to 2012, with the bulk of the material ranging from 1978 to 1995, when White was working at MIT's Artificial Intelligence Laboratory, Xerox PARC (Palo Alto Research Center), Lucid, and Harlequin Group. Throughout many of these positions, White was serving on the X3J13 Committee to formalize a Common Lisp standard, which aimed to combine and standardize many previous dialects of Lisp. This collection consists of conference proceedings, manuals, X3J13 Committee correspondence and meeting minutes, notebooks, technical papers, and periodicals documenting White's work in all of these roles. Other dialects of Lisp--especially MAClisp--are also major focuses of the collection. White also collected significant amounts of material on object-oriented programming, artificial intelligence, garbage collection memory management, and floating-point arithmetic in his various computer programming roles.

## Administrative Information

### Access Restrictions

The collection is open for research.

### Publication Rights

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### Languages

The collection is predominantly in English, with some French and Japanese.

### Preferred Citation

[Identification of Item], [Date], Jon L. White collection on Common Lisp, Lot X6823.2013, Box [#], Folder [#], Catalog [#], Computer History Museum.

### Immediate Source of Acquisition

Gift of Jon L. White, 2012.

### Repository

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## Biographical/Historical Note

Jon L. White was involved in the development of the programming language Common Lisp, a standardized and enhanced version of MIT's MAClisp, both of which are dialects of Lisp. He also chaired Lisp conferences, edited Lisp periodicals, and sat on the board of the Association of Lisp Users. In addition to his contributions to Lisp development, White was also involved with compilers, garbage collection, and higher-level memory management. He earned a bachelor's degree in mathematics from Carnegie-Mellon University and a master's degree in applied mathematics from Harvard University.

Lisp was first implemented in 1958 at MIT and was frequently used for artificial intelligence research purposes. In the late 1960s, MIT's Project MAC developed the Lisp dialect MAClisp. White joined MIT's Artificial Intelligence Laboratory in 1969, where he began developing Lisp systems and compilers. He led the later development of MAClisp, wrote and maintained the MAClisp compiler, and led the creation of NIL, an implementation of Lisp that ran on stock hardware as opposed to Lisp-specific machines. In 1977, White took a one-year leave of absence from MIT to work on Lisp/370 at IBM's Watson Research Center.

By 1980, there were many discrete dialects of Lisp, and a committee was convened to develop one standardized successor dialect. White was on this committee, and the group ultimately developed Common Lisp. White was also involved with X3J13, the technical committee formed in 1986 to standardize Common Lisp under the American National Standards Institute (ANSI). He was the chair of the X3J13 Iteration Subcommittee, which standardized Common Lisp's Loop and Iterate macros.

White left MIT in the early 1980s to work on product development for another Lisp dialect, Interlisp, at Xerox PARC. In 1985, he joined Lucid to develop Common Lisp systems, and then worked on Lisp projects at Harlequin. After Harlequin, White worked briefly for NASA Ames Research Center, and then at CommerceOne.

### **Scope and Content of the Collection**

The Jon L. White collection on Common Lisp contains material collected and created by White during his work with the programming language, Lisp, and one of its most widely used dialects, Common Lisp. The records span 1963 through 2012 with the bulk of the collection ranging from 1978 to 1995. One focus of the collection is the X3J13 Committee's work in standardizing Common Lisp under ANSI. This collection holds X3J13's meeting minutes, correspondence between members, presentation material, drafts of papers, and voting ballots on committee issues -- with a specific focus on the Iteration Subcommittee. Books, manuals, and technical reports documenting Common Lisp and the Common Lisp Object System (CLOS) supplement the material relating to X3J13. Other records in this collection relate to the Lisp family of programming languages more generally, with conference proceedings, academic technical papers, and other publications documenting the development and use of Lisp and its dialects (other than Common Lisp). Much of this part of the collection came out of MIT's Project MAC and the MIT Artificial Intelligence Laboratory. Material of interest in the MIT material relate to MAClisp, Lisp programming for the PDP-6, SCHEME, and LAMBDA. The last part of this collection covers other topics relating to programming, such as object-oriented programming, garbage collection memory management, artificial intelligence, floating-point arithmetic, standardization, and compilers. Object-oriented programming is an especially prevalent topic, with significant amounts of material from ACM's OOPSLA (Object-Oriented Programming, Systems, Languages & Applications) Conference and the periodical *OOPS Messenger* published by ACM's SIGPLAN.

### **Arrangement**

The collection is arranged into 3 series:

Series 1, Common Lisp records, 1980-2012, bulk 1985-1995

Series 2, Lisp records, 1963-2001, bulk 1978-1994

Series 3, Object-oriented programming, artificial intelligence, and other records, 1972-2001

### **Indexing Terms**

COMMON LISP (Computer program language)

Computer programming

Garbage collection (Computer science)

LISP (Computer program language)

Object-oriented programming (Computer science)

White, Jon L.

### **Related Collections at CHM**

Herbert Stoyan collection on LISP programming, Lot X5687.2010.

## Collection Contents

### **Series 1, Common Lisp records, 1980-2012, bulk 1985-1995**

This series consists of material collected and/or created by White relating to the development and use of the programming language, Common Lisp. Types of records in this series include manuals, correspondence, notebooks, meeting minutes, technical reports, and conference proceedings. One significant focus of this series is the X3J13 Committee, which formed in 1986 to develop and formalize the ANSI Common Lisp standard. This series holds X3J13's meeting minutes, correspondence between members, presentation material, drafts of papers, and voting ballots--and discussions of their results--on committee issues. White served as chair of X3J13's Iteration Subcommittee, which standardized Common Lisp's Loop and Iterate macros. This series contains correspondence, presentation slides, and technical papers from the Iteration Subcommittee on the development of Loop and Iterate. Many of the manuals in this series were published by Lucid, Inc. and Harlequin Group and provide instruction for using instances of Common Lisp compatible with systems from Sun Microsystems, Hewlett-Packard, and Apple Computer. The Common Lisp Object System (CLOS), Common Lisp's facility for object-oriented programming, is also well-documented in this series. One other highlight of this series is material relating to the funding of one of White's projects by the Defense Advanced Research Projects Agency (DARPA). The proposal for this project was titled "An Integrated Lisp-C/C++ Environment" and aimed to co-develop a C++ (and/or C) compiler and debugger along with extending Common Lisp's Foreign Language Interface. This series is arranged chronologically.

### **Series 2, Lisp records, 1963-2001, bulk 1978-1994**

This series contains records related to the programming language Lisp. Material dates from 1963 to 2001, with the bulk from 1978 to 1994, and includes conference proceedings, technical papers and reports from several universities, manuals, standards, books, and periodicals. There is quite a bit of material on the development of Lisp and MAClisp at MIT's Project MAC laboratories, including papers written by White, and numerous *AI Memos* from the MIT Artificial Intelligence Laboratory. Specific Project MAC topics include Lisp storage and garbage collection, programming for the PDP-6, Lisp for the PDP-6, Lisp matrix inversion, LAMBDA, SCHEME and its compiler Rabbit, NIL, LetS loop notation, and MAClisp. This series also has a large number of issues of two periodicals: *Lisp Pointers*, which White contributed to as technical articles editor and, later, as editor of the entire publication, and *Lisp and Symbolic Computation* (including issues under its later title *Higher-Order and Symbolic Computation*). Conferences with material in this series include the ACM Conference on Lisp and Functional Programming, International Workshop on the Cooperative Extension and Refinement of Lisp (ICERL), Dynamic Objects Workshop and Association of Lisp Users Meeting, MACSYMA Users' Conference, and Lisp Users and Vendors (LUV). Some of the technical reports outline Lisp implementation on specific computers, including the IBM System/360, IBM System/370, and Burroughs B1700/1800. Finally, this series includes a workbook from a Stanford University Lisp programming course, reports on Carnegie-Mellon University's Spice Lisp instruction set project, the IEEE standard for the Lisp dialect Scheme, and a paper by White titled "Historical Perspective on Numerics in Lisp or, Numbers Are Symbols, too." This series is arranged alphabetically by folder title.

### **Series 3, Object-oriented programming, garbage collection, and other records, 1972-2001**

This series is made up of material related to object oriented programming, garbage collection, artificial intelligence, floating-point arithmetic, and other programming topics. Material dates from 1972 to 2001. Records related to object-oriented programming make up about half of this series' records. A large portion of those records are proceedings, working papers, and attendee lists of

the ACM's OOPSLA (Object-Oriented Programming, Systems, Languages & Applications) Conference. The rest of the object-oriented programming material consists of technical papers and reports, books, manuals, presentations, and newsletters, including the ACM SIGPLAN *OOPS Messenger*. A smaller but still significant portion of this series contains technical papers and reports, newsletters, and conference proceedings on garbage collection and memory management from a number of sources, including MIT, Digital Equipment Corporation's Western Research Laboratory, Xerox PARC, INRIA, and University of Illinois at Chicago. The rest of this series contains technical papers and reports, manuals, standards, conference proceedings, and periodicals on artificial intelligence, floating-point arithmetic, standardization, compilers, and other programming topics. Much of the material on artificial intelligence was published by MIT's Artificial Intelligence Laboratory. White authored some of the papers in this series on floating-point arithmetic and garbage collection. This series is arranged alphabetically by folder title.

	<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
		<u>Folder List</u>	
	<b>Common Lisp records</b>		
<b>Box 1</b>	102773988	X3J13 Committee correspondence, presentation slides, and technical papers on Loop and Iterate macros	1980; 1987-1988
<b>Box 1</b>	102773989	Common Lisp Object System (CLOS) workshop material	1983; 1988-1991; 2012
<b>Box 1</b>	102773990	Guy Steele corrections and clarifications for Common Lisp : the Language	1985
<b>Box 1</b>	102773991	Richard C. Waters writings on Loops and Common Lisp	1985-1989
<b>Box 1</b>	102773993	X3J13 Committee task groups and Cleanup Committee meeting minutes	1986-1989
<b>Box 1</b>	102773992	X3J13 Committee reference documents and correspondence	1986-1994
<b>Box 1</b>	102773994	A programmer's guide to Common Lisp	1987
<b>Box 1</b>	102773995	Sun Common Lisp version 2.1 manual and release notes	1987-08
<b>Box 1</b>	102774006	Tao reference manual	1987-08
<b>Box 2</b>	102773996	X3J13 Committee drafts of papers and presentations on Common Lisp Object System (CLOS)	1987-1990
<b>Box 2</b>	102773997	Implementing primitive datatypes for higher-level languages	1988
<b>Box 2</b>	102773999	Common Lisp	1989
<b>Box 2</b>	102773571	Golden Common Lisp : a hands-on approach	1989
<b>Box 2</b>	102773998	SunTechnology : the journal for Sun users	1989
<b>Box 2</b>	102774001	Programming in CLOS and Lucid Common Lisp course material	1989-1990
<b>Box 2</b>	102774002	HP Common Lisp advanced user's guide	1990

	<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
	<b>Common Lisp records</b>		
<b>Box 2</b>	102774003	Lucid Common Lisp/HP guides	1990
<b>Box 2</b>	102774004	Visualization and graphical layout in object-oriented systems	1990
<b>Box 2</b>	102774005	The Common Lisp Object System (CLOS) and Delivery Tool Kit (DTK)	1990-09
<b>Box 2</b>	102774007	Lucid Common Lisp/Sun versions 3.0 and 4.0 guides	1990-1991
<b>Box 2</b>	102774008	Understanding CLOS : the Common Lisp Object System	1991
<b>Box 2</b>	102774009	An overview of YY and YYonX : a CLOS based window tool kit and its implementation	1991-02-25
<b>Box 2</b>	102774010	X3J13 Committee notebook	1991-1992
<b>Box 3</b>	102774012	Macintosh Common Lisp (MCL) 2.0 manual and release notes	1992
<b>Box 3</b>	102774013	Straight talk about Lisp : a special report for the technical community	1992
<b>Box 3</b>	102774014	DARPA funding for BAA 92-13 project	1992-1993
<b>Box 3</b>	102774011	Lucid Common Lisp applications guides	1992-1993
<b>Box 3</b>	102774000	Object-oriented programming : the CLOS perspective	1993
<b>Box 3</b>	102774015	Persistent CLOS : user guide/reference manual version 1.20	1993-12
<b>Box 3</b>	102774016	Lucid Common Lisp advanced user's guide	ca. 1993
<b>Box 3</b>	102774017	LispWorks edition 3.2 manuals	1994
<b>Box 3</b>	102774018	Lucid accounts receivable portfolio and Creditor's Committee correspondence	1994-1995
<b>Box 3</b>	102774019	Lucid Common Lisp/SPARC Solaris manual	1995-04

	<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
	<b>Common Lisp records</b>		
<b>Box 3</b>	102774020	Liquid Common Lisp : release and installation notes version 5.0	1997-06
<b>Box 3; 4</b>	102774021	LispWorks version 4.1 manuals	1998
<b>Box 4</b>	102774022	Harlequin Common Lisp ORB : developing component software with CORBA	1999-01
<b>Box 4</b>	102774023	Franz Developer Symposium proceedings	2001-03



	<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
<b>Lisp records</b>			
<b>Box 4</b>	102773610	ACM Conference on Lisp and Functional Programming proceedings	1994
<b>Box 4</b>	102773621	Carnegie-Mellon University Spice project	1983
<b>Box 4</b>	102773592	Dynamic Objects Workshop and Association of Lisp Users Meeting proceedings	1996
<b>Box 4</b>	102773612	ICERL '91 proceedings	1991
<b>Box 4</b>	102773622	IEEE Scheme standard	1991-1992
<b>Box 4</b>	102773611	Langages Lisp, Les	1994
<b>Box 4</b>	102773618	Lisp 1.5 and its implementation on the IBM System/360 at RPI	1970
<b>Box 4</b>	102773613	Lisp and symbolic computation : an international journal	1988-1991; 1994; 1999-2001
<b>Box 4; 5</b>	102773614	Lisp pointers	1987-1995
<b>Box 5</b>	102773615	Lisp Users and Vendors (LUV) '92 conference material	1992
<b>Box 5</b>	102773617	MACSYMA Users' Conference proceedings	1977; 1979
<b>Box 5</b>	102773619	Portable Standard Lisp (PSL) manual and newsletter	1982; 1984
<b>Box 5</b>	102773616	Project MAC Lisp and MAClisp development	1963-1984
<b>Box 5</b>	102773620	Schemer's Guide, The	1990
<b>Box 5</b>	102773623	Stanford University Lisp programming course material	1984
<b>Box 5</b>	102773626	Technical reports and articles	1978-1998
<b>Box 5</b>	102773627	UtiLisp manual	1988-01

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	<b>Object-oriented programming, artificial intelligence, and other records</b>		
<b>Box 5</b>	102773591	ACM SIGPLAN notices	1996
<b>Box 5</b>	102773576	Annotated C++ reference manual, The	1990
<b>Box 6</b>	102773581	Apropos newsletter	1989-1990
<b>Box 6</b>	102773575	C traps and pitfalls	1988
<b>Box 6</b>	102773582	DEC Western Research Laboratory papers on garbage collection	1988-02; 1989-10
<b>Box 6</b>	102773594	Dylan programming : an object-oriented and dynamic language	1997
<b>Box 6</b>	102773593	Ecrits d'ICSLA	1994-1995
<b>Box 6</b>	102773578	Floating-point arithmetic	1972-1991
<b>Box 6</b>	102773595	Franz Inc. presentations	1999
<b>Box 6</b>	102773574	Image Understanding Workshop	1993
<b>Box 6</b>	102773583	INRIA papers on garbage collection	1987; 1990
<b>Box 6</b>	102773584	ISMM 2000 proceedings	2000
<b>Box 6</b>	102773570	MIT Artificial Intelligence Laboratory manuals and reports	1980-1984
<b>Box 6</b>	102773585	MIT papers on garbage collection	1977-1988
<b>Box 6</b>	102773598	Object-oriented concepts, databases, and applications	1989
<b>Box 6</b>	102773597	Object-oriented modeling and design	1991
<b>Box 6</b>	102773596	Object-oriented software construction	1988
<b>Box 6</b>	102773600	Objectworks\Smalltalk	1990
<b>Box 6</b>	102773601	OOPS messenger	1990-1995

	<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
<b>Object-oriented programming, artificial intelligence, and other records</b>			
<b>Box 6</b>	102773586	OOPSLA '90 Workshop on Garbage Collection in Object-Oriented Systems	1990
<b>Box 7</b>	102773603	OOPSLA '92 proceedings and tutorial notes	1992
<b>Box 7</b>	102773599	OOPSLA '93 proceedings	1993-10
<b>Box 7</b>	102773587	OOPSLA '93 Workshop on Memory Management and Garbage Collection	1993
<b>Box 7</b>	102773604	OOPSLA '94 proceedings	1994-10
<b>Box 7</b>	102773605	OOPSLA '95 proceedings with addendum	1995-10
<b>Box 7</b>	102773606	OOPSLA '96 proceedings	1996-10
<b>Box 7</b>	102773602	OOPSLA attendee lists	1986-1992
<b>Box 7</b>	102773573	Organization for programs in fluid domains	1981
<b>Box 7</b>	102773588	Other companies papers on garbage collection	1984; 1987
<b>Box 7</b>	102773580	Other universities papers on garbage collection	1985-1991
<b>Box 7</b>	102773572	PC AI	1994-03
<b>Box 7</b>	102773608	Programs as Data Objects (PADO) proceedings	2001
<b>Box 7</b>	102773577	Reports on compilers	1979-1991
<b>Box 7</b>	102773607	Reports on inheritance	1984; 1989
<b>Box 7</b>	102773609	Reports on object-oriented programming	1991-1993
<b>Box 7</b>	102773569	Seventh IEEE Conference on Artificial Intelligence Applications	1991

	<u>Catalog Number</u>	<u>Title</u>	<u>Date</u>
	<b>Object-oriented programming, artificial intelligence, and other records</b>		
<b>Box 7</b>	102773579	StandardView : the ACM journal on standardization	1993-09
<b>Box 7</b>	102773589	University of Illinois at Chicago papers on garbage collection	1989-1991
<b>Box 7</b>	102773590	Xerox PARC papers on garbage collection	1976-1985