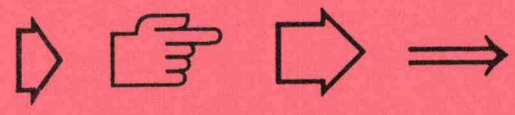
LISP Pointers



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Dear Colleague,

Yes, I agree, you have waited a long time and I am very sorry. We were running just a little late already when I ended up in the hospital for a surprise operation. Recovery turned out to be much slower than I expected. It's funny but when I ran that workshop for newsletter editors on "howto", it never occured to me to wonder what happened when the main editor disappeared. Oh, well.

You'll find this issue labeled December-January, February-March. The last issue of this volume will be April-May-June. This will put us on a new quarterly, rather than bimonthly, schedule. The reason for the decrease in issues per year directly stems from the low numbers of submissions. One theory I've heard expounded is that people in our discipline prefer coding to writing. The important thing from the point of view of your editorial board is to make sure we're giving you the highest quality we can find. For the time being, we believe that quarterly issues will allow us to maintain that quality. If our submissions drastically increase, we'll rexamine our production schedule.

Our thanks to Digital Equipment Corporation and I.N.R.I.A. for sponsoring this issue. MITRE will be sponsoring our next issue. There is a call for sponsors for future issues (starting with July-August) on page 24. I.N.R.I.A. has been kind enough to sponsor all non-US mailings. This means that we only need sponsorship for the US mailings.

Due to Dan Weintraub's busy schedule, he's been forced to drop his book section. We'd certainly like to thank Dan for his help during our first year. This issue contains ordering information for the Lisp and Functional Programming Conference proceedings. We could really use a volunteer to resuscitate the book department. Pavel Curtis will be joining us in the next issue with an Algorithms Department. He'll be looking for submissions of very well annotated code, among other things. Thanks to Alan Lewis for coming through with a cartoon. Any other artists out there?

A number of the subscription request letters are asking for information on public domain Lisp code. Does anyone out there want to write a public letter answering these people? I'm also fascinated by the wide range of places our subscribers work. You seem to have chosen to work in Lisp on some very interesting applications. Many of our new subscription requests are from medical doctors. We'd be interested in articles describing your user experiences with Lisp.

My thanks for your patience.

Sincerely,

Mary S. Van Deusen

Mary S. Van Deusen, Editor

What happens when a mapcar is mapcared? Here is a little puzzle that explores the idea. The problem is to find the value of the following expression, which is also shown without the read macros. (For the answer, just type it into a Common Lisp's top level.)

```
(mapcar #'mapcar
        `(,#'mapcar)
        `((,#'list ,#'atom ,#'null))
        '(((mapcar list nil) (atom 'atom) (null nil))))

(mapcar (function mapcar)
        (list (function mapcar))
        (list (list (function list) (function atom) (function null)))
        (quote (((mapcar list nil) (atom (quote atom)) (null nil)))))
```

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IBM VNET: TANAKAT at TRLVM1

1988 ACM Conference on
LISP AND FUNCTIONAL PROGRAMMING
Snowbird, Utah, July 25-27, 1988

The 1988 ACM Conference on LISP and Functional Programming is the fifth in a series of biennial conferences devoted to the theory, design, and implementation of programming languages and systems that support symbolic computation. The conference is jointly sponsored by ACM SIGPLAN, SIGACT, and SIGART.

The major topics that have been addressed at previous conferences include:

1) programming language concepts and facilities

2) implementation methods

3) machine architectures

4) semantic foundations

5) programming logics

6) program development environments

7) applications of symbolic computation

The conference site at Snowbird, Utah is a resort located in the rugged Wasatch mountain range approximately 35 miles from Salt Lake City. Summer activities include hiking, climbing, swimming, tennis, and wildflower photography.

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Lisp Pointers is a non-profit publication created by the Lisp community for the Lisp community. Currently, Lisp Pointers is not affilated with any organization. For this reason, it is dependent upon the sponsorship of companies interested in Lisp for its publication.

The following companies have in the past, or are currently, sponsoring Lisp Pointers:

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Lisp Pointers is a newsletter, that is, it contains technical articles which are not refereed and which, therefore, may be republished in other technically refereed journals later. Lisp Pointers is a forum for preliminary papers, as well as for the fast interchange of ideas. As well as technical articles, Lisp Pointers contains columns and departments, such as the following:

Query IO - The Scheme of Things - International News - Programming Environments
Book Reviews - Lisp Implementations - ((lambda (discussions) (report on X3J13)))

Sponsors are permanently listed on the back cover of Lisp Pointers. We do this to thank those companies who have joined us in producing a publication which we think is both needed and wanted by this important research and production community.

Because no organization is involved, the board running Lisp Pointers tends to be very conservative both legally and financially. A disclaimer for a sponsor company appears on the inside front cover. The disclaimer for the first issue reads as follows:

> This issue of the Lisp Pointers newsletter has been funded by the IBM Corporation. The IBM Corporation has not directed or controlled its publication. The opinions expressed herein are solely those of the authors, editors, publisher and other contributors and do not necessarily reflect the opinions of the sponsoring company, the IBM Corporation, or the opinions of companies affiliated with individuals involved with this effort.

Sponsorship involves the commitment to cover cost and work involved in the printing and distribution of a single issue of Lisp Pointers. The editor creates a camera-ready copy which is sent to the sponsoring company. The sponsor arranges for the duplication and mailing of the issue. Cost to the sponsoring company is dependent upon the size of the mailing list, which will increase over time, the access to inhouse duplication facilities, the size of the issue, and the cost of mailing to subscribers within the US. **INRIA has accepted permanent sponsorship of all non-US subscribers.** The number of US subscribers has grown from 500 to approximately 1000 over five issues and it can be assumed that that growth will continue for at least the next year. In addition to the number printed and mailed, the sponsor is asked to print an additional 150-200 copies which are used to satisfy requests for backorders. Previous issues have run between 40 and 60 pages. Your mailroom should be able to estimate the cost of mailing out each issue.

At the time this letter is being sent to you, we are looking for sponsors for issues 7 and beyond. Lisp Pointers is published four times per year on a regular schedule.

COMING IN APRIL 1988!

LISP AND SYMBOLIC COMPUTATION: An International Journal

Coming soon, the new LISP AND SYMBOLIC COMPUTATION: An International Journal will present a forum for current and evolving symbolic computing, focusing on Lisp and object-oriented programming. The scope includes:

- Programming language notations for symbolic computing (e.g., data abstraction, parallelism, lazy evaluation, infinite data objects, self-reference, message-passing, generic functions, inheritance, encapsulation, protection, metaobjects).
- Implementations and techniques (e.g., specialized architectures, compiler design, combinatory models, garbage collection, storage management, performance analysis, smalltalks, flavors, common loops, etc.).
- Programming logics (e.g., semantics and reasoning about programs, types and type inference).
- Programming environments and tools (e.g., knowledge-based programming tools, program transformations, specifications, debugging tools).
- Applications and experience with symbolic computing (e.g., real-time programming, artificial intelligence tools, experience with LISP, object-oriented programming, window systems, user interfaces, operating systems, parallel/distributed computing).

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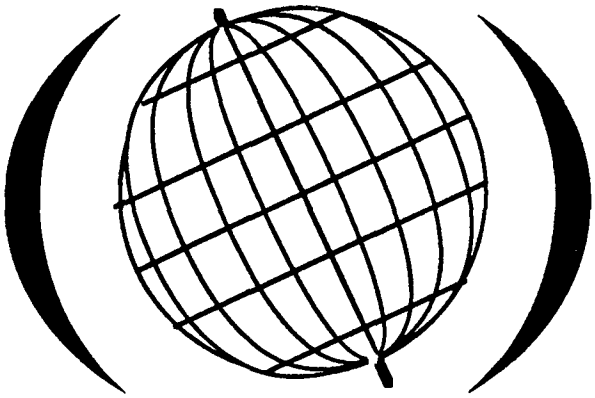

Int'l News

Collected by Christian Queinnec, LITP, Paris FRANCE

ISO Efforts

ISO decided to form a Working Group on Lisp. Its real name is ISO/IEC JTC1/SC22 WG16 which means that it depends on both the International Standardization Organization (via TC97 (Technical Committee on Information Processing Systems) and SC22 (SubCommittee specialized on Languages)) and also the International Electrotechnical Commission via their Joint Technical Committee (Number 1). Some nominations were made for a convenor who acts as chairman of the group and two project editors which are responsible for the writing of the standard. These are Richard Gabriel and William Clinger and I will serve as convenor.

The first meeting of WG 16 will be held in Paris (France) on February 24 and 25. Many questions have to be answered such as the name of the particular dialect which will be frozen into the standard, the calendar of standardization efforts, the formalization to be used ... A great deal of work to undertake with probably two international meetings a year.

1st IWoLES

To take advantage of the ISO meeting in Paris, Jérôme Chailloux and I are organizing an International Workshop on Lisp Evolution and Standardization in Paris the two days before. IWoLES will be sponsored by AFCET (Association Française de Cybernétique, Economique et Technique), AFNOR (Association Française de NORmalisation), INRIA (Institut National de Recherche en Informatique et Automatique) and LITP (Laboratoire d'Informatique Théorique et de Programmation). The current tentative agenda is the following:

1988 February, 22

10.00 am	F. Genuys AFNOR/CG97/CN22 Chairman	Introduction to the Workshop
10.15 am	R. Mathis, C. Queinnec ANSI, Université Paris VI- LITP	State and Interest of Lisp Standardization
10.45 am	Break	
11.00 am	J. McCarthy Stanford University	Future of Lisp
11.45 am	NYI RFU	Standardization Peculiarities
12.15 am	Lunch	

Today Lisp

2.00 pm	L. Masinter Xerox Palo Alto	Common Lisp Cleanup and Improvements
3.00 pm	D. Bobrow, P. Cointe Xerox Palo Alto, Rank Xerox France	Objects
4.00 pm	Break	
4.15 pm	W. Clinger, J. Padget Tektronix, Bath University	UnCommon Lisps
5.15 pm	Debate	Why a standardization, which standardization ?

1988 February, 23

Today Use

9.00 am	K. Pitman Symbolics	Interactions
10.00 am	JM. Hullot, M. Devin NeXT, ILOG	Environments
11.00 am	Break	
11.15 am	R. Gabriel, G. Kahn LUCID, INRIA	Performances and Apertures
12.15 am	Lunch	

Hardware

2.00 pm	P. Dussud, J.P. Sansonnet Texas Instruments, CGE/LdM	Lisp Hardware
3.30 pm	P. Greussay Université Paris VIII-LITP	Future Hardware
4.30 pm	Debate	Future of Lisp in industrial World.

Miscellaneous

Standardization groups still continue their work. AFNOR will meet on November, 30 in Paris (France) and Eu_Lisp group on November, 25 and 26 in Brussels (Belgium).