

SNOBOL4 Information Bulletin

The information included in these Bulletins depends on the questions that persons ask and on the material that we receive. Most of this relates to implementation and documentation. The frequency with which these Bulletins are published also depends on the amount of material available, although we make it a rule to publish at least one Bulletin each year.

We will be happy to include other kinds of information and to publish more frequently — if we get the material.

1. Implementation News

We get many requests for information about the availability of SNOBOL4 on various computers operating under various operating systems. The latest information we have is contained in the report S4D57c, which is available free on request; use the form at the end of this Bulletin to request this report.

1.1. MACROSPITBOL

Most SNOBOL4 systems that are available for small to mid-range computers are implementations of the portable MACROSPITBOL system [1].

MACROSPITBOL for the PDP-11 and VAX 11 is available from

Dewar Information Systems Corporation (DISC)
221 West Lake Street
Oak Park, Illinois 60302
(312) 524-1644

A list of operating systems supported, cost, and other information is given on their data sheet, which is reproduced as page 4 of this Bulletin. *Important Note:* MACRO SPITBOL for the VAX 11 operating under Berkeley UNIX[†] 4.1 is now available from DISC in addition to the implementations listed on their data sheet. Pricing is the same as for the VMS system.

The Interdata 7/32 implementation of MACROSPITBOL is now available from

Mr. John Howell
New Jersey Institute of Technology
CIS Department
323 High Street
Newark, New Jersey 07102

[†]UNIX is a trademark of Bell Laboratories.

There is a MACRO SPITBOL implementation for the Honeywell L88/DP68 series operating under CP-6. The latest address we have is

Computing Services
Carleton University
Ottawa, Ontario
Canada K1S 5B6

We understand, however, that this system is no longer available from Carleton University. We would appreciate more information about the availability of this system.

There is also a rumor of a 68000 implementation, but we have no firm leads on this one.

Among new implementations underway is one for the IBM Personal Computer. This implementation may be available as early as spring 1983. We have no information on pricing or the means by which it will be distributed.

Persons who are interested in implementing MACRO SPITBOL on other computers should contact

Dr. Robert B. K. Dewar
SPITBOL Project
CIMS — 251 Mercer Street
New York, New York 10012

(212) 460-7497

1.2. SPITBOL 360 and SPITBOL 370

SPITBOL 360 is an implementation of the SPITBOL dialect of SNOBOL4 for the IBM 360 and is not based on MACRO SPITBOL. The status of this system, as well as a new one that is in progress for the IBM 370, is summarized in the following paragraph provided by DISC:

SPITBOL for the IBM 360 machine is available for \$2000. It runs on both the 360 and the IBM 370 machines. A version specifically designed for the 370 is currently being developed, and distribution should begin in spring 1983. The cost is scheduled to be \$3000. It will have many enhancements over the 360 version. For those users of IBM 360 SPITBOL who have 370 machines, the 370 version, when available, will be offered for a one time update charge of \$1000. Of course, the user will be required to surrender the 360 version at that time. SPITBOL 360 licensees will be notified when SPITBOL 370 is available. Others should write to DISC if they wish to be advised of the availability of SPITBOL 370.

SPITBOL is provided on magnetic tape. One manual is included in the price. Additional manuals cost \$9.95 each.

1.3. SIL Implementations

The original portable SIL implementation of SNOBOL4 done at Bell Laboratories is still in wide use and there are several new implementations in progress, including ones for the PRIME, 68000, and for the VAX 11 operating under UNIX.

Peter Farley has been working on the SIL source code and now has a version that corresponds to the notation used in the SIL implementation book [2]. He also has improved the efficiency of the IBM 360 implementation.

Thomas McCain at Boise State University has corrected an error in the storage management of the IBM 360 implementation operating under DOS. We will be happy to provide a copy of this correction to anyone using the DOS system.

2. Self-Reproducing Programs

The shortest known self-reproducing SNOBOL4 program was given in S4B25. Jim Gimpel suggests the following shorter version:

```
S = ' PUNCH = " S = 0" S "0"; PUNCH = REPLACE(S,+N,"0");END'  
PUNCH = " S = ' " S "'"; PUNCH = REPLACE(S,+N,"'");END
```

Here +N is used in place of the former + " " and works properly, since the initial value of N is the null string.

3. Publications

3.1. Back Issues of the SNOBOL4 Information Bulletin

We have a limited stock of some previous issues of this Bulletin. Copies are available free on request while supplies last; use the form at the end of this Bulletin.

3.2. The String and List Processing Book

The book *String and List Processing in SNOBOL4; Techniques and Applications*, by Ralph E. Griswold, was published by Prentice-Hall in 1975. This book is designed for the intermediate to advanced SNOBOL4 programmer and includes chapters on pattern matching, functions, and structures as well as applications in mathematics, cryptography, and document preparation. The book is hardbound and consists of about 300 pages.

This book is now out of print, but the Department of Computer Science has purchased the remaining stock for use in its courses. Copies are available to individuals and institutions while the supply lasts. The price is \$8.00 per copy, postpaid, and includes corrigenda. Copies may be ordered using the form at the end of this Bulletin. Orders must be accompanied by payment, either in the form of a prepaid purchase order or check payable to "The University of Arizona".

Acknowledgements

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References

1. Dewar, Robert B. K. and McCann, Anthony P. "MACROSPITBOL—A SNOBOL4 Compiler", *Software—Practice and Experience*, Vol. 7 (1977), pp. 95-113.
2. Griswold, Ralph E. *The Macro Implementation of SNOBOL4; A Case Study of Machine-Independent Software Development*. W. H. Freeman and Company, San Francisco, California. 1972.

Ralph E. Griswold

Document Request Form

Please send the documents checked below to:

- S4D57c Implementations of SNOBOL4
- S4B22 SNOBOL4 Information Bulletin (December 27, 1979)
- S4B23 SNOBOL4 Information Bulletin (June 9, 1980)
- S4B24 SNOBOL4 Information Bulletin (December 31, 1980)
- S4B25 SNOBOL4 Information Bulletin (December 18, 1981)

Please send me ____ copies of *String and List Processing in SNOBOL4; Techniques and Applications* at \$8.00 per copy. Payment is enclosed.

Return this form to:

Ralph E. Griswold
Department of Computer Science
The University of Arizona
Tucson, Arizona 85721
USA

Make checks payable to "The University of Arizona".