SNOBOL4 Information Bulletin

S4B24

SIL Implementation

There is still considerable activity related to the original SIL (macro) implementation of SNOBOL4, including new efforts for the VAX−11/780 and the Prime−650.

As mentioned in the last Bulletin, some copies of the SIL source for Version 3.11 contain a clerical error. If you maintain a SIL implementation of the version obtained prior to June 1980, ask for the correction sheet (S4N24).

Two relatively minor errors have been noted recently in the SIL implementation.

(1) An operator symbol in column 73 of a source−program statement may cause a system error during compilation.

(2) Extra commas in the list of formal arguments in the DEFINE statement are not ignored as indicated in the language manual, but rather cause subsequent formal arguments to be ignored.

There are no corrections to the Version 3.11 source for these errors. (In fact, we no longer have the capability to reassemble the SIL system locally. If anyone wants to volunteer, we will try to produce trial corrections.)

SNOBOL4 Project Documents

Since 1967 much of the work done on SNOBOL4 has been documented in a series of SNOBOL4 Project Documents (S4Ds). Although there have not been many new documents in the last few years, and many older ones are obsolete, we get requests for copies from time to time.

We still have a limited number of S4Ds on hand. A form listing those that are available is attached to the end of this Bulletin. We will fill requests free of charge on a first−come, first−served basis. Some documents are in short supply, so if you see something of interest to you, don't delay.

SNOBOL4 and Icon

The Icon programming language was mainly motivated by the desire to integrate high−level string processing facilities and conventional programming language facilities. In particular, it provided a way to avoid the ''linguistic schism'' that exists in SNOBOL4 where pattern matching constitutes a separate sublanguage (see ''An Alternative to the Use of Pattern in String Processing'', *TOPLAS*, April 1980).

Many readers of this Bulletin also receive the Icon Newsletter and may be aware of some of the issues raised by string scanning, the Icon counterpart of pattern matching in SNOBOL4.

Recently we have been attempting to get a better understanding of the value of patterns and a more precise description of their characteristics. This has been done by developing the concept of patterns in Icon and demonstrating their use by implementing SNOBOL4 pattern matching as a set of source−language procedures in Icon. The results not only provide a model for pattern matching, but provide a precise description of much of the pattern−matching mechanism of SNOBOL4. A technical report (TR 80−25, ''Pattern Matching in Icon'') is available on request.

SNOBOL4 Bibliography and Archives

We are currently updating the bibliography of documents related to SNOBOL4. (The current version, TR 79−18a, ''Bibliography of Documents Related to the SNOBOL Programming Languages'' is available on request.) This bibliography lists all known publications relating to SNOBOL4 and its

application. We also maintain a reference collection of this material for research use.

Much of the material we have has been contributed by readers of this Bulletin. We again solicit contributions. Research reports, theses, and dissertations are particularly welcome, especially those related to application of SNOBOL, since these otherwise might never come to our attention.

Ralph E. Griswold
December 31, 1980

Request for SNOBOL4 Project Documents

Please send the SNOBOL4 Project Documents checked below to:

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☐   S4D8f   A Guide to the Macro Implementation of SNOBOL4

☐   S4D11c   A User Manual for BLOCKS (Version 1.4)

☐   S4D16d   SNOBOL4 Address List

☐   S4D19a   IBM 360 Subroutines for Version 3 of SNOBOL4

☐   S4D20a   IBM 360 Macro Definitions for Version 3 of SNOBOL4

☐   S4D24   The Theory and Implementation of Pattern Matching in SNOBOL4 and other Programming Languages

☐   S4D26b   Source and Cross–Reference Listings for the SIL Implementation of SNOBOL4; Version 3.11

☐   S4D34   The Design of ELFBOL — A Full SNOBOL4 for the PDP–11

☐   S4D36   An Extended Function Definition Facility for SNOBOL4

☐   S4D37c   Additions to SNOBOL4 to Facilitate Programming Language Research

☐   S4D43c   Bibliography of Numbered SNOBOL4 Documents, May 1967 through October 1980

☐   S4D44a   The Measurement of SNOBOL4 Programs

☐   S4D45   The Design of SIXBOL, A Fast Implementation of SNOBOL4 for the CDC 6000 Series Computers

☐   S4D46   SNOBOL4 Internal Structures, A Source Book for the Macro Implementation

☐   S4D47b   Corrections and Additions to SNOBOL4 Project Documents

☐   S4D48   A Generalized Facility for the Analysis and Synthesis of Strings, and a Procedure–Based Model of an Implementation

☐   S4D53   An External Function Facility for SITBOL

☐   S4D54b   Transporting the Macro Implementation of SNOBOL4; An Overview

☐   S4D55   Highlights of Two Implementations of SNOBOL4

☐   S4D56   Measuring the Performance of Storage Management in SITBOL

Return this form to:

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