

Extended Distribution Tape for Version 3 of SNOBOL4

Note: This document is a revision of a document originally prepared in 1971. No substantive changes have been made since that date. Although the the information given here is dated, it nonetheless should be functional.

Version 3.0

The extended distribution tape for Version 3 of SNOBOL4 is a 9-track, 1600 bpi standard labeled tape with **VOL=SER=S4V3**. The tape has the following structure:

file	DSNAME	RECFM	LRECL	BLKSIZE	number of logical records	description
1	LKED	FB	80	3200	2458	link edit input
2	TEST	FB	80	3200	119	SNOBOL4 test decks
3	MAIN1	FB	80	3200	6500	main program source
4	MAIN2	FB	80	3200	20786	main program source
5	SUBR	FB	80	3200	2163	subroutine source
6	SNOMAC	F	80	80	1924	SNOBOL4 macros
7	FORT	F	80	80	1457	FORTRAN I/O source
8	FORMAC	F	80	80	4026	FORTRAN macros

Files 1 and 2 are the same as on the basic distribution tape and can be used to install and test the SNOBOL4 system (see S4N4f for details).

Files 3 through 8 can be used to generate the SNOBOL4 system from scratch. This procedure is complicated and time consuming, and we recommend it only for installations that have to make modifications to SNOBOL4 because of nonstandard operating systems. An outline of the procedure follows.

MAIN1 and **MAIN2** are two versions of the source for the main program. **MAIN1** is in pure macro form, while **MAIN2** is macro-free. **MAIN2** was obtained from **MAIN1** by macro expansion, followed by processing to improve the quality of the resulting code. **MAIN2** results in a faster and smaller system than using **MAIN1**, and is the source used to generate **LKED** (file 1).

MAIN2 does not require any macro library for assembly. *Note:* source on **MAIN2** is not in the standard columns. An appropriate **ICTL** is provided. Unusually large allocations should be made for **SYSUT2** and **SYSUT3**.

To assemble **MAIN1**, a private macro library and the installation system macro library (**SYS1.MACLIB**) are required. **SNOMAC** (file 6) consists of input for **IEBUPDTE** (including necessary control cards). Typical JCL to generate the private library **SNO.MACLIB** follows:

```
// EXEC PGM=IEBUPDTE , PARM= 'NEW'
//SYSPRINT DD SYSOUT=A
//SYSUT2 DD DSN=SNO.MACLIB , VOL=SER=XXXXXX , UNIT=DISK , DISP=( , KEEP ) ,
// SPACE=( TRK , ( 30 , 3 , 19 ) ) , DCB=( RECFM=FB , LRECL=80 , BLKSIZE=3200 )
//SYSIN DD DSN=SNOMAC , UNIT=TAPE , DISP=( OLD , PASS ) , LABEL=( 6 , SL )
// VOL=SER=S4V3
```

In assembling **MAIN1**, **SYS1.MACLIB** must be concatenated *after* **SNO.MACLIB**. An unusually large

allocation should be made for **SYSUT3**.

Next assemble **SUBR** using only **SYS1.MACLIB**.

FORT contains source for specially tailored FORTRAN I/O modules. The source is in form of input to **IEBUPDTE**. JCL similar to that for **SNOMAC** can be used to form a partitioned data set, **FOR.SOURCE**, consisting of source modules with member names **IHCCOMH**, **IHCFCVTH**, **IHCFIOSH**, **IHCTRCH**, **IHCUATBL**, and **IHCLOPT**. Next form the macro library **FOR.MACLIB** from **FORMAC** in the same way that **SNO.MACLIB** is formed. Finally assemble the six members of **FOR.SOURCE** using **SYS1.MACLIB** and **FOR.MACLIB**.

The SNOBOL4 system may now be formed by link editing the object modules from **MAIN**, **SUBR**, and **FOR.SOURCE**, specifying **ENTRY S4**. Alternatively, the link edit can be performed omitting the object modules from **FOR.SOURCE**, but including the installation **SYS1.FORTLIB**. The resulting system will be considerably larger and will not properly terminate in the event of an error intercepted by FORTRAN I/O. This latter option should be used only if a nonstandard system is used, or if trouble is experienced in using the tailored FORTRAN modules.

Update to Version 3.5

SUPERZAP control cards to update Version 3.0 to 3.5 are included on a separate tape. See S4N4f for details. **MAIN1**, updated to Version 3.12, is available on request.