

```
root@IBM5410:~/temp# tar -xvpzf s3m10.tgz
```

```
5410-ssh/  
5410-ssh/gcc  
5410-ssh/go  
5410-ssh/5410.cnf  
5410-ssh/disks/  
5410-ssh/disks/m10scp.dsk  
5410-ssh/disks/f2f2f2.dsk  
5410-ssh/disks/f1f1f1.dsk  
5410-ssh/disks/r2r2r2.dsk  
5410-ssh/doc/  
5410-ssh/doc/ocl.txt  
5410-ssh/doc/readme.3741.txt  
5410-ssh/doc/simh_docs.txt  
5410-ssh/doc/system3.txt  
5410-ssh/5203.lst  
5410-ssh/empty.dkt  
5410-ssh/scpgen.ocl  
5410-ssh/source/  
5410-ssh/source/aws2dsk.c  
5410-ssh/source/s3_3741.c  
5410-ssh/source/s3_cd.c  
5410-ssh/source/s3_cpu.c  
5410-ssh/source/s3_disk.c  
5410-ssh/source/s3_lda.c  
5410-ssh/source/s3_lpt.c  
5410-ssh/source/s3_mfcu.c  
5410-ssh/source/s3_pkb.c  
5410-ssh/source/s3_sys.c  
5410-ssh/source/s3_tape.c  
5410-ssh/source/scp.c  
5410-ssh/source/scp_tty.c  
5410-ssh/source/tap2dsk.c  
5410-ssh/source/s3_defs.h  
5410-ssh/source/sim_defs.h  
5410-ssh/source/makefile  
5410-ssh/source/obj5410/
```

```
root@IBM5410:~/temp# cd 5410-ssh/
```

```
root@IBM5410:~/temp/5410-ssh# ls -al
```

```
total 40  
drwxr-xr-x  5 root  root    4096 Mar 17 12:15 ./  
drwxr-xr-x  3 root  root    4096 Mar 17 12:23 ../  
-rw-r--r--  1 root  root      0 Mar 17 11:57 5203.lst  
-rw-r--r--  1 root  root    286 Mar 17 12:00 5410.cnf  
drwxr-xr-x  2 root  root    4096 Mar 17 11:56 disks/  
drwxr-xr-x  2 root  root    4096 Mar 17 12:01 doc/  
-rw-r--r--  1 root  root   1024 Mar 17 11:57 empty.dkt  
-rwxr-x---  1 root  root    127 Mar 17 12:05 gcc*  
-rwxr-x---  1 root  root     35 Mar 17 11:38 go*  
-rw-r--r--  1 root  root   1927 Mar 17 12:14 scpgen.ocl  
drwxr-xr-x  3 root  root    4096 Mar 17 11:41 source/
```

```
root@IBM5410:~/temp/5410-ssh# ./gcc
```

```
Entering /source...
```

```
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/scp.o -c scp.c
```

```
scp.c: In function `disable_cmd':
```

```
scp.c:619: warning: control reaches end of non-void function
```

```
scp.c: In function `run_cmd':
```

```
scp.c:1177: warning: suggest parentheses around assignment used as truth value
```

```
scp.c: In function `exdep_cmd':
```

```
scp.c:1297: warning: suggest parentheses around assignment used as truth value
```

```
scp.c: In function `get_aval':
```

```
scp.c:1554: warning: `reason' might be used uninitialized in this function
```

```
scp.c: In function `get_search':
```

```
scp.c:1941: warning: suggest parentheses around assignment used as truth value
```

```
scp.c:1942: warning: suggest parentheses around assignment used as truth value
```

```
scp.c:1947: warning: suggest parentheses around assignment used as truth value
```

```
scp.c:1936: warning: `logval' might be used uninitialized in this function
```

```
scp.c:1936: warning: `cmpval' might be used uninitialized in this function
```

```
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/scp_tty.o -c scp_tty.c
```

```
scp_tty.c: In function `sim_poll_kbd':
```

```
scp_tty.c:472: warning: implicit declaration of function `read'
scp_tty.c: In function `sim_putchar':
scp_tty.c:482: warning: implicit declaration of function `write'
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_sys.o -c s3_sys.c
s3_sys.c:121: warning: missing braces around initializer
s3_sys.c:121: warning: (near initialization for `opcode[0]')
s3_sys.c: In function `fprint_sym':
s3_sys.c:257: warning: implicit declaration of function `printf_sym'
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_cpu.o -c s3_cpu.c
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_pkb.o -c s3_pkb.c
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_disk.o -c s3_disk.c
s3_disk.c: In function `dsk1':
s3_disk.c:174: warning: implicit declaration of function `dsk'
s3_disk.c: In function `dsk':
s3_disk.c:200: warning: implicit declaration of function `GetMem'
s3_disk.c:287: warning: implicit declaration of function `read_sector'
s3_disk.c:293: warning: implicit declaration of function `PutMem'
s3_disk.c:386: warning: implicit declaration of function `write_sector'
s3_disk.c:195: warning: `uptr' might be used uninitialized in this function
s3_disk.c:612: warning: control reaches end of non-void function
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_lpt.o -c s3_lpt.c
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_lda.o -c s3_lda.c
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_mfcu.o -c s3_mfcu.c
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_3741.o -c s3_3741.c
cc -O3 -g -Wall -fPIC -DVERSION=1.00 -DMODEL=10 -DLDA -o obj5410/s3_tape.o -c s3_tape.c
cc -o s3 obj5410/scp.o obj5410/scp_tty.o obj5410/s3_sys.o obj5410/s3_cpu.o obj5410/s3_pkb.o obj5410/s3_disk.o obj5410/s3_lpt.o obj5410/s3_lda.o
Leaving /source...
```

```
root@IBM5410:~/temp/5410-ssh# ./go
```

```
System/3 simulator V2.7
Invalid argument
LPT: creating new file
sim> b rl
```

```
// READER MFCU1
// DATE 160313
// NOHALT
*
*** DELETE $WORK AND MACOUT FILES IF PRESENT ON F1
*
*// LOAD $DELET,R1
*// RUN
*// REMOVE PACK-F1F1F1,UNIT-F1,LABEL-$WORK
*// REMOVE PACK-F1F1F1,UNIT-F1,LABEL-MACOUT
*// END
*
*** INITIALIZE THE F1 DRIVE AS F1F1F1 PACK.
*
// CALL $SGINT,R1
XX LOAD $INIT,R1
XX RUN
// RUN
// UIN UNIT-F1,TYPE-CLEAR
// VOL PACK-F1F1F1
// END
INITIALIZATION ON F1 COMPLETE

*
*** STEP 1 - SPECIFY OPTIONS/FEATURES FOR NEW SYSTEM PACK.
*
// CALL $SGEN,R1
XX LOAD $SGEN,R1
*
*** THE FOLLOWING STATEMENTS AFTER THE // RUN AND BEFORE THE // END
*** STATEMENTS ARE THE SYSTEM CONFIGURATION STATMENTS.
*
XX FILE NAME-MACOUT,UNIT-F1,PACK-F1F1F1,RETAIN-T,TRACKS-20
XX RUN
// RUN
$DCOR CORE-64K
$DDPF DPF-NO
$DISK DISKS-'R1,F1,R2,F2'
$DDSK D5445-NO
$DD48 D5448-NO
$DTUN TAPES-T1
$DTDN DUALDN-NO
```

```
$DTRK TRACK7-NO
$DATE DATE-DMY
$DPRN PRINT-1403
$DWID WIDTH-132
$DUAL DUAL-NO
$DLIN LINE-96
$DCRD CARD-MFCU
$DDKT DSKET-3741
$DOUT DEV-MFCU2
$DKBD KEYBD-5471
$DAUX AUX-NO
$DCON CON-NO
$DINQ INQURY-YES
$DBSC LINE-DA
$DMLP MLMP-YES
$DRJE RJE-NO
$DMCR MICR-NO
$DCPR CKRS-YES
$DLKE OVLNK-YES
$DSAM SIAM-YES
$DSPV ADD-0
// END
```

```
*
*** STEP 2 OF THE SYSTEM GENERATION.
*
```

```
// CALL $SGEN1,R1
XX LOAD $SGEN1,R1
```

```
*
*** BUILD THE NEW CONFIGURATION RECORD.
*
```

```
XX FILE NAME-MACOUT,UNIT-F1,PACK-F1F1F1,RETAIN-S,TRACKS-20
XX FILE NAME-$WORK,UNIT-F1,PACK-F1F1F1,RETAIN-T,TRACKS-10
XX RUN
// RUN
```

```
*
*** PRINT $WORK FILE.
*
// LOAD $COPY,R1
// FILE NAME-COPYIN,UNIT-F1,PACK-F1F1F1,LABEL-$WORK
// RUN
// COPYFILE OUTPUT-PRINT
// END
```

```
*
*** LINK EDIT THE NEW SUPERVISOR.
*
```

```
// CALL $SGLNK,R1
XX LOAD $LINKB,R1
XX FILE NAME-$WORK,UNIT-F1,PACK-F1F1F1,RETAIN-S,TRACKS-10
XX RUN
// RUN
SUPERVISOR SIZE - 4608 BYTES
TOTAL NUMBER OF LIBRARY SECTORS REQUIRED 20
```

```
*
*** ALLOCATE LIBRARIES ON AN IBM 5444 PACK.
*
```

```
// LOAD $MAINT,R1
// RUN
// ALLOCATE TO-F1,OBJECT-150,SOURCE-50,SYSTEM-YES,DIRSIZE-3
// END
```

```
*
*** COPY ALL COMMON FILES TO NEW SYSTEM PACK.
*
```

```
// CALL $SGCOM,R1
XX LOAD $MAINT,R1
XX RUN
// RUN
// COPY FROM-R1,LIBRARY-O,NAME-SYSTEM,TO-F1
// COPY FROM-R1,TO-F1,LIBRARY-O,NAME-$GNSUP,RETAIN-R,NEWNAME-$$SPVR
```

```
// DELETE FROM-R1,RETAIN-P,LIBRARY-O,NAME-$GNSUP
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$AL.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$BU.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$CO.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-R,NAME-$CO.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$DE.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$IN.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$LA.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$LI.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$MA.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$KCOPY
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-R,NAME-SUBR15
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-R,NAME-$$ .ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-P,NAME-$SGCPY
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-P,NAME-$SGINR
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$SGIVP
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-P,NAME-$SGIVP
// COPY FROM-R1,TO-F1,LIBRARY-O,RETAIN-P,NAME-$SGMNT
// END
```

```
*
*** COPY ALL OPTIONAL FILES TO NEW SYSTEM PACK.
```

```
*
// CALL $SGOPT,R1
XX CALL $SGP01,R1
XX LOAD $MAINT,R1
XX RUN
// RUN
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-R,NAME-$3.ALL,NEWNAME-$$
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$3.ALL,NEWNAME-$$
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$TINI.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$TVES
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$DCOP.ALL
// DELETE FROM-F1,RETAIN-P,LIBRARY-O,NAME-$$CLER
// DELETE FROM-F1,RETAIN-P,LIBRARY-O,NAME-$$DLGQ
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$7.ALL,NEWNAME-$$
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-R,NAME-$7.ALL,NEWNAME-$$
// COPY FROM-R1,TO-F1,LIBRARY-R,RETAIN-P,NAME-$@CODM,NEWNAME-$$CODM
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$@STR.ALL,NEWNAME-$$STR
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$@MCRI,NEWNAME-$$MCRI
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$@BS.ALL,NEWNAME-$$BS
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-R,NAME-$@BS.ALL,NEWNAME-$$BS
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$@DLGT,NEWNAME-$$DLGT
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$@BC.ALL,NEWNAME-$$BS
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-R,NAME-$@BC.ALL,NEWNAME-$$BS
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-O,NAME-$@DLQ.ALL,NEWNAME-$$DLQ
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$BCPL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$DFOB
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$CANB
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$DTFB
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$GETB
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$POLB
// END
```

```
XX CALL $SGP02,R1
XX LOAD $MAINT,R1
XX RUN
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$PUTB
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$RFT
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$CHGB
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$BCSW
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$SWIB
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$RFTL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-S,NAME-$LOGB
// COPY FROM-R1,TO-F1,LIBRARY-O,RETAIN-P,NAME-$@STK.ALL,NEWNAME-$$STK
// COPY FROM-R1,TO-F1,LIBRARY-O,RETAIN-P,NAME-$@RSTR,NEWNAME-$$RSTR
// COPY FROM-R1,TO-F1,LIBRARY-O,RETAIN-P,NAME-$OL.ALL
// COPY FROM-R1,TO-F1,RETAIN-P,LIBRARY-R,NAME-$@SC.ALL,NEWNAME-$$SC
// COPY FROM-R1,TO-F1,RETAIN-R,LIBRARY-O,NAME-$@IN.ALL,NEWNAME-$$IN
// COPY FROM-R1,TO-F1,RETAIN-R,LIBRARY-R,NAME-$@BB.ALL,NEWNAME-$$BS
// COPY FROM-F1,TO-PRINT,LIBRARY-SYSTEM,NAME-DIR
// END
```

```
*
*** INSTALL THE MACRO PROCESSOR.
```

```
*  
// CALL $SGMAC,R1  
XX CALL $SGM01,R1  
XX LOAD $MAINT,R1
```

```
*  
***          MACRO PROCESSOR AND I/O MACROS  
*
```

```
XX RUN  
// RUN  
// COPY FROM-R1,TO-F1,LIBRARY-O,RETAIN-P,NAME-$MPX.ALL  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$ALOC  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$CLOS  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$DTFD  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$DTFK  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$EOJ  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$FTCH  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$FIND  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$GETD  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$GETK  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$IOBD  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$IOED  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$LOAD  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$OPEN  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$PRNT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$PUTD  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$PUTK  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$DTFT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$DTOT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$WTT  
// COPY FROM-R1,TO-F1,LIBRARY-O,RETAIN-P,NAME-$@BMCK,NEWNAME-$@BMCK  
// END
```

```
XX CALL $SGM02,R1  
XX LOAD $MAINT,R1
```

```
*  
***          MACRO PROCESSOR AND I/O MACROS  
*
```

```
XX RUN  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$RDD  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$DTOU  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$DTOD  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$DTFU  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$SVC  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$WAIT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$WRTD  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$XCTL  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$GPU  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$PKBU  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$COMN  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$GETT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$PUTT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$RDT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$WRTT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$CTLT  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$CHK  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$CKL  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$SNAP  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$TRAN  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$TRL  
// COPY FROM-R1,TO-F1,LIBRARY-S,RETAIN-P,NAME-$TRTB  
// COPY FROM-R1,TO-F1,LIBRARY-R,RETAIN-P,NAME-$@COAM,NEWNAME-$@COAM  
// COPY FROM-R1,TO-F1,LIBRARY-R,RETAIN-P,NAME-$@BM.ALL,NEWNAME-$@BM  
// END
```

```
*  
*** LIST LIBRARY CONTENTS OF NEW SYSTEM PACK.  
*
```

```
// LOAD $MAINT,R1  
// RUN  
// COPY FROM-F1,LIBRARY-P,NAME-DIR,TO-PRINT  
// COPY FROM-F1,LIBRARY-S,NAME-DIR,TO-PRINT  
// COPY FROM-F1,LIBRARY-R,NAME-DIR,TO-PRINT  
// COPY FROM-F1,LIBRARY-O,NAME-DIR,TO-PRINT  
// END
```

```
*
```

```
*** THAT'S ALL FOLK'S.
```

```
*
```

```
// PAUSE
```

```
!_! !_!
```

```
!_! !_!
```

```
HALT, IAR: 01C8 (TBN 0239,04)
```

```
sim> q
```

```
Goodbye
```

```
root@IBM5410:~/temp/5410-ssh# ./go
```

```
System/3 simulator V2.7
```

```
Invalid argument
```

```
LPT: creating new file
```

```
sim> b f1
```

```
// DATE 123456
```

```
// PAUSE
```

```
!_! !_!
```

```
!_! !_!
```

```
HALT, IAR: 01C8 (TBN 0239,04)
```

```
sim> q
```

```
Goodbye
```

```
root@IBM5410:~/temp/5410-ssh#
```