IBM

Technical Newsletter

File Number

1410/7010-36

Re: Form No.

C28-0352-5

This Newsletter No.

N27-1270

Date

December 30, 1966

Previous Newsletter Nos.

None

IBM 1410/7010 SYSTEM GENERATION

This Technical Newsletter amends the publication IBM 1410/7010 Operating System; System Generation, Form C28-0352-5, to include new information concerning SOF, and to make other necessary changes and additions.

The attached replacement pages (15-16, 21-22, 61-62, 71-72) should be substituted for the corresponding pages now in the publication. Text changes are indicated by a vertical line to the left of the affected text.

Please file this cover letter at the back of the publication. It provides a method of determining if all changes have been received and incorporated into the publication.

with FORTRAN subprograms, the relocatable modules required to run with cobol and FORTRAN object programs must be in the same Relocatable Library.

- 9. Every system must have the Bootstrap, the Resident Monitor, and the Transitional Monitor (in that order) at the beginning of the tape.
- 10. The maximum number of items that may appear on an sor is 154. An item is defined as a program or a library. (Examples: COBOL is one item and IBMLIBR is one item.)
- 11. Table 1 indicates the ASGN cards that are required during System Generation.
- 12. The Generalized Tape Sorting Program requires a minimum of four tape units (including the sor).

These may be the same tape units as those used as work files by compilers. Additional tape units increase the program's efficiency. See the publication Generalized Tape Sorting Program.

- 13. The Generalized Disk Sorting Program requires two disk work areas, preferably on separate modules. Any tape units used must be in addition to the basic requirements for the system. See the publication Generalized Sorting Program Using IBM 1301/2302 Disk Storage.
- 14. Programs that require the Autocoder "No-Clear" option for DA statements must not be placed on the sor.
- 15. Programs on the sor cannot contain a phase intended to modify, through loading from the sor, a previous phase.

Table 1. Tape System Input/Output Requirements

							•——	· ·		
Physic	al Unit	1	2	3	4	5	6	7	8	. 9
Symbo	lic Unit	SOF	SIU	MW1	MW2	WM3	MJB	MGO	MR0	SPR
	Autocoder	1	1	Work File	Work File	Work File		Output		
in ation	SG1			Library Directory Work File	Linkage Loader Input File		Output	From Autocoder		
Program used in System Generation	SORT- DEFINE	ired	red		Linkage Loader Input File	:		Not Used		Optiona
	LINKLOAD	—- Required	— Required	Library Directory Work File	Linkage Loader Input File		Output	From Autocoder		
	SG2			Library Directory Work File	New SOF (Final Out- put File)		Input		Directory Work File	

^{*} For the minimum configuration, MW3 and MJB, and MGO and MR0 share the same physical units.

Basic Concepts — Disk-Oriented System

This section applies only to a disk-oriented system and need not be read by persons interested only in a tapeoriented system.

How the System is Built

Functions to be Performed

The Master file contains a bootstrap disk load program that loads the Master file on the disk in preparation for System Generation. The absolute portion that is loaded on the disk is capable of building an scr. The scr incorporates those options desired by the user. To build the scr, several programs from the operating section, which are in absolute format, are executed. These programs perform the following functions:

- 1. Accept input data that describes the environment within which the new system is to operate, and incorporate the optional items defined by each user.
 - 2. Build absolute programs that the user specifies.
 - 3. Place these absolute programs on the output file.
 - 4. Place the library elements on the output file.

Programs Required

To perform the above functions, the following four programs are executed:

AUTOCODER: The user describes the machine configuration and the various options available in the form of Autocoder source statements. Autocoder processes this input by means of macro routines and generates the nucleus of the new system.

SG1: This program performs one function. It prepares a tape which contains input *control* information for the Linkage Loader (LINKLOAD program).

LINKLOAD: This program performs its standard function of converting relocatable routines into absolute format. It reads control information from the work tape produced by sci and/or control cards from the siu. The relocatable input that it processes comes from:

- 1. The output of the Autocoder run (item 1 above); and
- 2. The Relocatable Library supplied on the Master file. (This library must have been loaded onto the disk.)

The output, in absolute form, is placed onto the Job file, MJB.

SG2: This program locates and copies the library elements that the user desires in the new system. Its output is a new tape that is capable of being loaded onto the disk. This tape contains all items generated.

Defining the System

The user must describe the Operating System that he desires through control cards. A detailed description of the control cards appears in "System Description Control Cards" and "System Generation Control Cards."

Briefly, the user supplies the following:

- 1. The number and types of input/output devices. A two-character assignment symbol is specified by the user to be used in all references to each device.
- 2. The variable and optional features desired within the Resident Monitor.
- 3. The number and types of symbolic unit entries required.
- 4. The variable and optional features desired within the Resident 10cs.

Preparing to Build an SGF

Before building an sor or sor, it is necessary for the user to load the Master file or the source sor onto disk storage. Instructions for performing this transfer to disk storage are given in "Disk Load Program."

After the Master file is loaded onto the disk, it is necessary to format the disk areas required for the files (MJB, MGO, MW1, MW2, and MW3) used during System Generation. This is accomplished by using the 1301 or 2302 Format/Address Generator utility programs. See the publication IBM 1410/7010 Operating System; Utility Programs, Form C28-0353, for instructions in the use of these programs.

Building an SGF

This operation is the first step in System Generation. This section describes the steps leading to this initial scr run.

General Maintenance Considerations

Maintenance of the Operating System covers many possible variations. Listed below are some of the important aspects:

Change to Monitor: Requires complete regeneration of the SCF, SOF, all Job files that have been saved, and all TP Library files.

Change to a Dependent Program in the Operating Section: Requires recompilation of affected modules, copying (INCLD) any unaffected programs, and regeneration of affected programs.

Change to Library (other than Monitor library elements): Requires updating of library, plus regeneration of any programs in the operating section which were affected. As in above item, any unaffected programs can be copied by use of the INCLD card. By careful planning, the user should be able to make changes to an existing relocatable library and also incorporate those changes into a new operating section as part of one job. For this type of operation, the reader should review the control card descriptions of the operation of the Go file during maintenance of the Relocatable Library. Refer to Class IV control cards INSER and REPLC, under "System Generation Control Cards."

Instead of the above method, the sc4 and sc5 programs can be used to update the libraries, as described in the section "System Maintenance." Each time the library modules are to be updated, IBM supplies a tape containing the changes to be made. This tape is used with the sc5 program to prepare an input tape for updating the libraries. The program has an option that permits it to be used with a minimum disk system having only one tape unit available to the Operating System program. If the user must make his own changes to IBM program modules, he can use the sG4 program for making the changes to the modules and for maintaining the modules.

A careful study of the control card descriptions is required to utilize the maintenance capabilities efficiently.

Check List for System Generation (Disk-Oriented)

- 1. The programs in System Generation use the last (highest) core-storage position as a starting point from which certain elements are built.
- 2. The Sort Definition program should be generated by the initial generation if sort or merge programs are to be created on an sor.
- 3. The user can modify the Macro Library and the Create Library, but cannot create additional libraries with records of the same format as these libraries. A

Relocatable Library can also be modified. The library must be loaded onto the LIB file when the system is loaded on the disk.

- 4. cobol and Autocoder use symbolic units MW1, MW2, and MW3 for work files during compilation; FOR-TRAN uses MW1 and MW2. MW1 and MW3 should be assigned to a different channel and/or module from MW2 for balanced and efficient usage of the 1301 disk.
- 5. The Create Library must be named CREATLIB, and the Macro Library must be named MACROLIB.
- 6. If the COBOL "ENTER" verb is used in conjunction with FORTRAN subprograms, the relocatable subprograms required to run with COBOL and FORTRAN object programs (refer to "Relocatable Library Contents") must be in the same relocatable library.
- 7. The order of elements on the disk is of little importance because of the random access nature of the device. However, the placement of some of the elements on the output tape, which contains the system, can be critical, and the following points should be observed:
 - a. The first program on the tape must be IBSCOL. This is the Disk Load program.
 - b. The second program must be ввоот. ввоот, for a disk-oriented system, comprises a bootstrap program (IBBOOT2D), the Resident Monitor, and the Transitional Monitor.
 - c. The remaining programs may be in any order if they have been included from an existing scr. If the system that is being built is to be capable of generating another system, IBSCDL must be included again.
 - d. If an entire system is being generated, IBSCDL must be generated as the first program. Also, if the entire system being generated is to be capable of generating another system, then the IBSCDL program must also be generated last.
- 8. Table 2 indicates the ASGN cards that are required during System Generation.
- 9. The Generalized Tape Sorting program requires a minimum of four tape units (including the sor). Additional tape units increase the program's efficiency. See the publication Generalized Tape Sorting Program.
- 10. Each initialization of a disk system requires that the BOOT1 card be first in the SIU. The contents of this card are typed on the console printer during system loading. The operator key punches the card and places it in the sru.
- 11. The Generalized Disk Sorting Program requires two disk work areas, preferably on separate modules. Any tape units used must be in addition to the basic

requirements for the system. See the publication Generalized Sorting Program Using IBM 1301/2302 Disk Storage.

12. Programs that require the Autocoder "No-Clear"

option for DA statements should *not* be placed on the sor.

13. Programs on the sor cannot contain a phase intended to modify, through loading from the sor, a previous phase.

Table 2. Disk System Input/Output Requirements

Physic	al Unit	1	2	3	4	5	6	7	8	9
Symbo	lic Unit	SOF	SIU	MW1	MW2	WM3	МЈВ	MGO	LIB	SPR
	Autocoder			Work File	Work File	Work File	-	Output		†
ı üsed in Generation	SG1				*Linkage Loader Input File			Not Used		
Program úsed System Genei	SORT- DEFINE	Required —	Required		*Linkage Loader Input File			Not Used		- Optional
P. S. ž.	LINKLOAD	8	Å	,	*Linkage Loader Input File		Output	From Autocoder	Input	
	SG2				*New SOF		Input	Possible Input	Input	

^{*} Must be a tape unit.

			AUTOCO	DER		****
			· · · · · · · · · · · · · · · · · · ·			·
Work Files and	Tape		X	. X		
Go Files on	Disk				X	X
Processor	Таре		X		X	
Resides on	Disk			X		X
Cre	ate Packet	Name	TAUTOCODE			DAUTOCODE
6	16	21				
001	PHASE	AUTOCODER	. X	×	×	X
	CALL	IBAU10COMM	X	×	X	X
	CALLN		×	×	l x	X
	CALL	IBAU10TPE1	X	X		
	CALL	IBAU10TPE2	X		1	
	CALL	IBAU10DSK1			l x	×
	CALL	IBAU10DSK2		×	^	x
	CALL	IBAU10DSK3		^	×	1 ^
					l ŝ	×
	CALL	IBAU1010TB 61	X	X		
	511165					
* 010	PHASE	3	×	×	×	×
		62				
** 015	PHASE	M			X	
020	PHASE		X	×	×	X
	CALLN		×	X	X) X
	CALL	IBAU20TPE1	X	X		
	CALL	IBAU20TPE2	X			
	CALL	IBAU20DSK1			X	X
	CALL	IBAU20DSK2		×		X
	CALL	IBAU20DSK3			×	
030	PHASE		X	X	X	X
***	CALLN	IBAU30ASGN	X	l x	×	×
	CALL	IBAU30SCAN	×	x x	l ŝ	ı x
	CALL	IBAU30TPE1	x	l	, ,	_ ^
	CALL	IBAU30DSK1	1 ^		×	×
		IBAU30SUBR	×	×	l ŝ	l ŝ
033	PHASE	IBAUSUSUBK	 	- x	x	x -
033		(DALISSELIDE				
	CALLN		X	X	×	×
	CALL	IBAU33TPE1	×	×		
	CALL	IBAU33DSK1			X	X
	CALLN	IBAU33RCUR	X	X	X	X
040	PHASE		X	×	X	X
	CALLN		X	X.,	X	X
	CALL	IBTOCGM	X	X		1
	CALL	IBDOCGM			×	X
	CALL	IBTPCGM	X	X		}
	CALL	IBDPCGM	1		×	x
	CALL	IBTCCGM	x	×		
	CALL	IBDCC GM			X	×
	CALL	IBTNCGM	×	×		
	CALL	IBDNCGM]	×	l x
	CALLN	IBAU40TPE1	x	×	``	^
	CALLN		_ ^	_ ^	×	l x
050	PHASE	IDAGOTODOKI	×	×	x	x
030	CALL	IBAU50TPE1	x	l ŝ	. ^	^
	CALL		^	^	_	
		IBAU50DSK1			X	X
	CALLN	IBAU50CREF	X	×	X	X

NOTE: The Macro Library cannot be placed on a Job file.

COBOL: Relocatable Library Modules for Object Programs

The following modules are required by COBOL object programs:

IBCOBOL IBCBLADOVR IBCBLDSPLY

IBCBLCMPAR IBCBLFLDMP IBCBLALTST **IBCBLSUBSC** IBCBLACCPT IBCBLEXPON **IBCBLRDINT IBCBLDVZER IBCBLCLEAR**

To insert Directory 3 To insert the Macro Library

FORTRAN: Relocatable Library Modules for Object Programs

Required Modules

The following modules are required to run with any FORTRAN object program:

IBINDX1 IBEXPII IFIX	IDINDAI IDEAFII IFIA	IBCOMMON IBLABEL IBFOERR IBINTRP IBINDX1	IBINDX2 IBINDX3 IBEXPFF IBEXPFI IBEXPII	IBBACKSP IBENDFILE IBREWIND FLOAT IFIX	EXP ALO
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Optional Modules

The following modules are not required by a FORTRAN program unless they are called by name in the source program. Inclusion of these modules is therefore an installation option, except (as noted) the selection of one optional module may require another.

<u> </u>	-
ABS	DIM
AINT	DVCHK
AMAX0	EXIT
AMAX1	IABS
AMIN0	IDIM
AMIN1	INT
AMOD (requires AINT)	ISIGN
ATAN	MAX0
COS (requires SIN)	MAX1
· -	

MIN0 MIN1	SIN SLITE (requires SLITET)
MOD	SLITET
OVERFL	SQRT
SIGN	

Floating-Point Arithmetic Modules

The four modules supporting floating-point arithmetic are on the Relocatable Library of the Master file in the following order:

	_	The state of the s
POSITION	NAME	REMARKS
• 1 .	IBINTRP	For <i>programmed interpretation</i> of floating-point instructions.
2	OVERFL)	For machine interpretation of
3	DVCHK }	floating-point instructions (on an
4 :	IBINTRP J	IBM 7010 with the Floating-Point Arithmetic feature).

To obtain the modules supporting the 7010 Floating-Point Arithmetic feature, the following card should be used:

6	16	21
IBINTRP	DELET	R

To obtain the modules that provide programmed interpretation for floating-point instructions, use this card:

6		16	21
OVER	KFL	DELET	R,IBINTRP

•		FORTRAN			
Work Files on	Таре	X	Х		
Work Files on	Disk			X	X
0 5:1	Tape	X		X	
Go File on	Disk		X	÷ .	X
Cred	ite Packet Name	TFORTRAN			DFORTRAN
	16 21				
	PHASE FORTRAN	X	X	X	X
	CALLN IBFTNCMN	X	X	X	X
	CALL IBFTN05TO	X	X		e.
	CALL IBFTN05DO			×	X
	CALLN IBFTN05	X	x	X	X
	PHASE	X	X	X	X
	BASE1 FCMN/	X	l x	×	X :
	CALL IBTPCGM	X	1	X	
	CALL IBDPCGM		x		×
	CALL IBTCCGM	×		X	
	CALL IBDCCGM	**	x		X
	CALL IBTNCGM	X		X	
	CALL IBDNCGM	1	1 x 1		X
	CALLN IBTOCGM	X		X	
	CALLN IBDOCGM		l x		l x
	CALL IBFTN10TO	X	X		
	CALL IBFTN10DO			X	l x
	CALL IBFTN10TI	X	x		
	CALL IBFTN10DI		'	×	l x
	CALLN IBFTN10	×	x .	x	l ŝ
	PHASE	X	X	X	X
	BASEL MOCG/	x	x	x	l x
	CALL IBFTN20TO	x	l x	~	, ,
	CALL IBFTN20DO	^	1 ^	Х	×
	CALL IBFTN20TI	x	x	^	^
	CALL IBFTN20DI	^ '	_ ^	X	X
	CALLN IBFTN20	X 1 2 4 4 4 4 4	x	x	l â
	PHASE	Î	x	$\hat{\mathbf{x}}$	X
	BASEL MOCG/	Î	î	x	x̂ :
	CALL IBFTN25TI	Î	x	^	^
	CALL IBFTN25DI	^ .	^	х	×
	CALLN IBFTN25	×	x	x	l â
	CALLIN IDETINAL			^	

The sc1 and sc2 diagnostic messages are listed in this section with an explanation of the message and suggested corrective action for: (1) tape-oriented systems, and (2) disk-oriented systems.

Tape-Oriented System

Diagnostic messages that may be produced on the console printer during execution of sci and sc2 are listed in sequence by message number in the following section. When one of these messages appears, processing halts and special end of program occurs unless the "Corrective Action" comment states that processing will continue or that no corrective action is to be taken. After the correction is made, the job must be rerun. Full instructions appear in the publication, Operator's Guide.

SG1 and SG2 Diagnostic Messages for a Tape-Oriented System

- 11501 XXXXXXXXX NOT ON TAPE

 Explanation: Request has been made for the named item but it cannot be located on the SOF or on the Relocatable or Create Library.

 Corrective Action: Check control deck for proper call and/or spelling, etc.
- 11502 SEQERR-XXXXX

 Explanation: A macro statement sequence number with low-order blank or an out-of-order sequence number has been encountered in the SIU.

 Corrective Action: Generation continues but the statement in question is omitted from the library and is printed on the SPR. Check the control deck.
- 11503 DIRECTORY X NOT AVAILABLE

 Explanation: X can be "1" or "3."

 Corrective Action: Check the control deck to make sure directory has been generated previous to this reference. If X is not 1 or 3, the PHASE card for the directory has been mispunched.
- 11504 XXXXXXXXX LIBRARY NOT AVAILABLE

 Explanation: Request has been made for the named library but that library cannot be located or does not exist.

 Corrective Action: Check the control deck to make sure that a library of the name XXXXXXXXXX has been copied, updated, or added by SG1.
- 11505 NEW SOF ON XXX

 Explanation: XXX is the x-control field for the unit on which the System Generation output file is located.

 Corrective Action: None.
- 11507 LIB TYP UNKNOWN

 Explanation: Request has been made for a library whose type is not M, R, or C.

 Corrective Action: Check control deck. The PHASE card for the library header may have been punched

- incorrectly. The M, R, or C must be in column 62 of the PHASE card.
- 11508 BACKSPACE FAILURE SOF Corrective Action: Restart.
- 11509 BACKSPACE FAILURE MJB Corrective Action: Restart.
- 11510 NEW LIBRARY ON XXX

 Explanation: XXX is the x-control field for the unit on which the new library is located.

 Corrective Action: None.
- 11511 UNKNOWN HDR TYP

 Explanation: Header record is not proper format.

 Corrective Action: Check control deck. Check that all the libraries processed by SG1 were done in one block and were processed before absolute programs. Also check that no conflict exists in input/output assignments.
- 11512 NO TYPC COUNTS

 Explanation: Specific cause has not been determined.

 Corrective Action: Check control deck for extraneous PHASE cards, order of cards, etc.
- 11513 EXTRANEOUS HEADER

 Explanation: Record descriptions contained on MW1
 (header records) do not agree with contents of Job file.

 Corrective Action: Ensure that all requests for SG1 to INSER, DELET, REPLC, and ADD library material were made prior to requests to process absolute format records. Also check that no conflict exists in input/out-put assignments.
- 11514 CHECK CONTROL DECK

 Explanation: A System Generation control card is placed where none is expected, or a control card is not where it should be (example: LOCATM followed by DELETR).

 Corrective Action: Correct control card deck.
- 11515 MODULE XXXXXXXXXX NOT ON GO TAPE

 Explanation: Occurs during library maintenance. The named subprogram was not immediately available on the SIU and was not found on the Go file.

 Corrective Action: Check control deck. Subprogram name may be mispunched.
- 11516 SOF RECORD TOO LARGE TO COPY

 Explanation: SG1, when working with largest possible records, cannot copy an SOF on a smaller machine than was used to generate the SOF.

 Corrective Action: The records on the SOF cannot be copied on the size machine being used, with SG1 based where it is. Regeneration of the SOF is necessary.
- 11517 NO ALTERNATE LIBRARY HEADER

 Explanation: SG1 has been directed to find an external library, but did not find an identifying header record on LIB.

 Corrective Action: Tape is probably wrong reel. Mount proper reel and begin again.
- 11518 (No message)

 Explanation: A macro routine or a model statement has been specified, but does not appear on the system file.

 The questionable reference is printed on the SPR.

 Corrective Action: Check control deck. The input to SG1 may be out of sequence.

11519 MACRO DIR EXCEEDS 240

Explanation: The Macro Library can have only 240 entries, and this number has been exceeded.

Corrective Action: Reduce number of macro routines to specified limit.

11520 NO SYSGEN END CARD

Corrective Action: Check control deck. System Generation will process the last card read as if it were followed by an END card. No action is required if all other cards are in order.

11521 HDR CD INVALID

Explanation: Column 60 of the EXEQ card indicates a header is desired on the output tape. The card following on the SIU is not a valid header card.

Corrective Action: Correct deck.

11522 CC60 OF EXEO INVALID

Explanation: Column 60 of the EXEQ card has a digit other than "1" or "2."

Corrective Action: Correct the EXEQ card for the type of header desired.

11523 SOF EXCEEDS 154 LIMIT

Explanation: Tape SOF may have no more than 154 items, and this number has been exceeded.

Corrective Action: Deck may be in error. Some items may have been copied several times.

Disk-Oriented System

Diagnostic messages that may be produced on the console printer during execution of sc1 and sc2 are listed in sequence by message number in the following section. When one of these messages appears, processing halts and special end of program occurs unless the "Corrective Action" comment states that processing will continue or that no corrective action is to be taken. After the correction is made, the job must be rerun. Full instructions appear in the *Operator's Guide*.

SG1 and SG2 Diagnostic Messages for a Disk-Oriented System

11521 HDR CD INVALID

Explanation: Column 60 of the EXEQ card indicates a header is desired on the output tape. The card following on the SIU is not a valid header card. Corrective Action: Correct deck.

11522 CC60 OF EXEQ INVALID

Explanation: Column 60 of the EXEQ card has a digit other than "1" or "2".

Corrective Action: Correct the EXEQ card for the type of header desired.

11562 CREATLIB NOT ON SOF

Explanation: SG1 has been executed, but the Create Library is not on the system.

Corrective Action: An SOF that includes the Create Library must be generated and this SOF used to process the job that caused the message.

11563 PACKAGE XXXXXXXXXX NOT IN CREATLIB Explanation: No packet of the name XXXXXXXXXX has been found in the Create Library by SG1.

Corrective Action: Check the control deck to be sure that spelling on CREAT card is correct.

11564 OUTPUT ON XXX

Explanation: XXX is the x-control field for the unit on which the new output file is located.

Corrective Action: None.

11565 DISK LOADER NOT PRESENT

Explanation: IBSGDL has not been included or generated as the first item.

Corrective Action: Rerun the job including IBSGDL.

11566 NO SYSCEN END CARD

Corrective Action: Check control deck. System Generation will process the last card read as if it were followed by an END card. No corrective action is necessary if all other cards are in order.

11567 CHECK CONTROL DECK

Explanation: A System Generation control card is placed where none is expected, or a control card is not where it should be (example: LOCATM followed by DELETR). Corrective Action: Correct control card deck.

11568 (No message)

Explanation: A macro routine or a model statement has been specified but does not appear on the system file. The questionable reference is printed on the SPR. Corrective Action: Check control deck. The input to SG2 may be out of sequence.

11569 SEOERR-XXXXX

Explanation: A macro statement sequence number with low-order blank or an out-of-order sequence number has been encountered in the SIU.

Corrective Action: Generation continues but the statement in question is omitted from the library and is printed on the SPR. Check the control deck.

11570 ALTERNATE LIBRARY HEADER

Explanation: SG2 has been directed to find a library but did not find an identifying header record on LIB. Corrective Action: Tape is probably wrong reel. Mount proper reel and begin again.

11571 MODULE XXXXXXXXXX NOT ON GO FILE

Explanation: Occurs during library maintenance. The
named subprogram was not immediately available on
the SIU and was not found on the Go file.

Corrective Action: Check control deck. Subprogram
name may be mispunched.

11572 XXXXXXXXX NOT AVAIL

Explanation: An INCLD card has specified the name of an item which is not in the system.

Corrective Action: Check control deck for proper spelling of item name.

11573 XXXXXXXXXX NOT VALID

Explanation: An INCLD card has specified the name of an item which does not contain valid program information. The area assigned to SOF (on the disk) has been accidentally altered or destroyed.

Corrective Action: Reload the SOF from the output tape from the previous System Generation run.

11574 SG2 CTL CARD OR I/O ERROR

Explanation: An uncorrectable I/O error has occurred. The problem may be caused by erroneous system generation control cards.

Corrective Action: Check the deck and rerun.