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AAAAAAAAAA LL          GGGGGGGGGG SSSSSSSSSS AAAAAAAAAA MM      MM PPPPPPPPPP 222222222
AAAAAAAAAAAA LL      GGGGGGGGGGGG SSSSSSSSSSSS AAAAAAAAAAAA MMM     MMM PPPPPPPPPPPP 22222222222
AA      AA LL      GG      GG SS      SS AA      AA MMMM     MMMM PP      PP 22      22
AA      AA LL      GG      SS      AA      AA MM MM     MM MM PP      PP      22
AA      AA LL      GG      SSS      AA      AA MM MMMM     MM PP      PP      22
AAAAAAAAAAAA LL      GG      SSSSSSSS  AAAAAAAAAAAA MM     MM     MM PPPPPPPPPPPP      22
AAAAAAAAAAAA LL      GG      GGGGG     SSSSSSSS  AAAAAAAAAAAA MM     MM PPPPPPPPPP      22
AA      AA LL      GG      GGGGG     SSS AA      AA MM     MM PP      22
AA      AA LL      GG      GG      SS AA      AA MM     MM PP      22
AA      AA LL      GG      GG SS      SS AA      AA MM     MM PP      22
AA      AA LLLLLLLLLLLL GGGGGGGGGGGG SSSSSSSSSSS AA      AA MM     MM PP      22222222222
AA      AA LLLLLLLLLLLL GGGGGGGGGGG SSSSSSSSSS AA      AA MM     MM PP      22222222222

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JJJJJJJJJ 77777777777
JJJJJJJJJ 77777777777
JJ      77      77
JJ      77
JJ      77
JJ      77
JJ      77
JJ      77
JJ      77
JJ JJ      77
JJ JJ      77
JJJJJJJJ 77
JJJJJJ 77
AAAAAAAAAAA
AAAAAAAAAAAA
AA      AA
AA      AA
AA      AA
AAAAAAAAAAAA
AAAAAAAAAAAA
AA      AA
AA      AA
AA      AA
AA      AA

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****A START JOB 7 ALGSAMP2 ALGOL Sample Program ROOM 6.46.01 PM 21 DEC 18 PRINTER1 SYS TK4- JOB 7 START A****
****A START JOB 7 ALGSAMP2 ALGOL Sample Program ROOM 6.46.01 PM 21 DEC 18 PRINTER1 SYS TK4- JOB 7 START A****
****A START JOB 7 ALGSAMP2 ALGOL Sample Program ROOM 6.46.01 PM 21 DEC 18 PRINTER1 SYS TK4- JOB 7 START A****
****A START JOB 7 ALGSAMP2 ALGOL Sample Program ROOM 6.46.01 PM 21 DEC 18 PRINTER1 SYS TK4- JOB 7 START A****

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J E S 2 J O B L O G

18.46.00 JOB 7 IEF677I WARNING MESSAGE(S) FOR JOB ALGSAMP2 ISSUED  
18.46.00 JOB 7 \$HASP373 ALGSAMP2 STARTED - INIT 1 - CLASS A - SYS TK4-  
18.46.00 JOB 7 IEF403I ALGSAMP2 - STARTED - TIME=18.46.00  
18.46.00 JOB 7 IEFACTRT - Stepname Procstep Program Retcode  
18.46.00 JOB 7 ALGSAMP2 IVP2 ALGOL ALGOL RC= 0000  
18.46.00 JOB 7 ALGSAMP2 IVP2 LKED IEWL RC= 0000  
18.46.01 JOB 7 ALGSAMP2 IVP2 GO GO RC= 0016  
18.46.01 JOB 7 IEF404I ALGSAMP2 - ENDED - TIME=18.46.01  
18.46.01 JOB 7 \$HASP395 ALGSAMP2 ENDED

----- JES2 JOB STATISTICS -----

21 DEC 18 JOB EXECUTION DATE

57 CARDS READ

291 SYSOUT PRINT RECORDS

0 SYSOUT PUNCH RECORDS

0.00 MINUTES EXECUTION TIME

1	//ALGSAMP2 JOB (ALGOL),	JOB 7
	// 'ALGOL Sample Program',	00000200
	// CLASS=A,	00000300
	// MSGCLASS=A,	00000400
	// REGION=1024K, COND=(0,NE), MSGLEVEL=(1,1),	00000500
	// USER=HERC01,PASSWORD= GENERATED BY GDL	
	*****	00000600
	***	00000700
	*** NAME: SYS2.JCLLIB(ALGSAMP2)	00000800
	***	00000900
	*** Desc: IBM Algol F Level 2.1 IVP	00001000
	***	00001100
	*****	00001200
	***	00001300
	*** 360S-AL-531 Algol F Compiler	00001400
	*** and	00001500
	*** 360S-LM-532 Algol F Library	00001600
	***	00001700
2	//IVP2 EXEC ALGOFCLG, PARM.GO='TRACE,DUMP'	00001800
	***	00001001
	*****	00002001
	***	00003001
	*** IBM ALGOL F LEVEL 2.1	00004001
	***	00005001
	*** 360S-AL-531 ALGOL F COMPILER	00006001
	*** AND	00007001
	*** 360S-LM-532 ALGOL F LIBRARY	00008001
	***	00009001
	*** COMPILE, LINK-EDIT AND EXECUTE A PROGRAM	00010001
	***	00011001
	*****	00012001
	***	00013001
3	XXALGOL EXEC PGM=ALGOL, REGION=1024K	00014001
4	XXSYSPPRINT DD SYSOUT=*	00015001
5	XXSYSPPUNCH DD DUMMY	00016001
6	XXSYSLIN DD DSN=&&OBJECT, UNIT=VIO, SPACE=(3200, (20,10)),	00017001
	XX DISP=(,PASS)	00018001
7	XXSYSUT1 DD UNIT=VIO, SPACE=(2048, (50,10))	00019001
8	XXSYSUT2 DD UNIT=VIO, SPACE=(2048, (50,10))	00020001
9	XXSYSUT3 DD UNIT=VIO, SPACE=(2048, (40,10))	00021001
10	//ALGOL.SYSIN DD *	00001900
11	XXLKED EXEC PGM=IEWL, PARM='XREF,LIST,LET', COND=(5,LT,ALGOL),	00022001
	XX REGION=1024K	00023001
12	XXSYSPPRINT DD SYSOUT=*	00024001
13	XXSYSLIB DD DSN=SYS1.ALGLIB, DISP=SHR	00025001
14	XXSYSIMOD DD DSN=&&GOSET(GO), UNIT=VIO, DISP=(,PASS),	00026001
	XX SPACE=(2048, (100,20,1))	00027001
15	XXSYSUT1 DD UNIT=VIO, SPACE=(2048, (100,20))	00028001
16	XXSYSLIN DD DSN=&&OBJECT, DISP=(OLD,DELETE)	00029001
17	XX DD DDNAME=SYSIN	00030001
18	XXGO EXEC PGM=GO, COND=( (5,LT,ALGOL), (5,LT,LKED)),	00031001
	XX REGION=1024K	00032001
19	XXSTEPLIB DD DSN=&&GOSET, DISP=(OLD,PASS)	00033001
20	XXALGLDD01 DD SYSOUT=*	00034001
21	XXSYSPPRINT DD SYSOUT=*	00035001
22	XXSYSUT1 DD UNIT=VIO, SPACE=(1024, (20,10))	00036001

STMT NO. MESSAGE

18 IEF686I DDNAME REFERRED TO ON DDNAME KEYWORD IN PRIOR STEP WAS NOT RESOLVED

IEF236I ALLOC. FOR ALGSAMP2 ALGOL IVP2

IEF237I JES2 ALLOCATED TO SYSPRINT

IEF237I DMY ALLOCATED TO SYSPUNCH

IEF237I VIO ALLOCATED TO SYSLIN

IEF237I VIO ALLOCATED TO SYSUT1

IEF237I VIO ALLOCATED TO SYSUT2

IEF237I VIO ALLOCATED TO SYSUT3

IEF237I JES2 ALLOCATED TO SYSIN

IEF142I ALGSAMP2 ALGOL IVP2 - STEP WAS EXECUTED - COND CODE 0000

IEF285I JES2.JOB00007.S00102 SYSOUT

IEF285I SYS18355.T184600.RA000.ALGSAMP2.OBJECT PASSED \*-----2

IEF285I SYS18355.T184600.RA000.ALGSAMP2.R0000001 DELETED \*-----0

IEF285I SYS18355.T184600.RA000.ALGSAMP2.R0000002 DELETED \*-----0

IEF285I SYS18355.T184600.RA000.ALGSAMP2.R0000003 DELETED \*-----16

IEF285I JES2.JOB00007.SI0101 SYSIN

IEF373I STEP /ALGOL / START 18355.1846

IEF374I STEP /ALGOL / STOP 18355.1846 CPU OMIN 00.12SEC SRB OMIN 00.01SEC VIRT 192K SYS 292K

\*\*\*\*\*

\* 1. Jobstep of job: ALGSAMP2 Stepname: ALGOL Program name: ALGOL Executed on 21.12.18 from 18.46.00 to 18.46.00 \*
\* elapsed time 00:00:00,22 CPU-Identifier: TK4- Page-in: 0 \*
\* CPU time 00:00:00,13 Virtual Storage used: 192K Page-out: 0 \*
\* corr. CPU: 00:00:00,13 CPU time has been corrected by 1 / 1,0 multiplier \*

\* I/O Operation \*

\* Number of records read via DD \* or DD DATA: 36 \*

\* DMY.....0 DMY.....0 FFF.....2 FFF.....0 FFF.....0 FFF.....16 DMY.....0 \*

\* Charge for step (w/o SYSOUT): 0,21 \*

IEF236I ALLOC. FOR ALGSAMP2 LKED IVP2

IEF237I JES2 ALLOCATED TO SYSPRINT

IEF237I 148 ALLOCATED TO SYSLIB

IEF237I VIO ALLOCATED TO SYSLMOD

IEF237I VIO ALLOCATED TO SYSUT1

IEF237I VIO ALLOCATED TO SYSLIN

IEF237I DMY ALLOCATED TO

IEF142I ALGSAMP2 LKED IVP2 - STEP WAS EXECUTED - COND CODE 0000

IEF285I JES2.JOB00007.S00103 SYSOUT

IEF285I SYS1.ALGLIB KEPT \*-----56

IEF285I VOL SER NOS= MVSRES.

IEF285I SYS18355.T184600.RA000.ALGSAMP2.GOSET PASSED \*-----18

IEF285I SYS18355.T184600.RA000.ALGSAMP2.R0000004 DELETED \*-----0

IEF285I SYS18355.T184600.RA000.ALGSAMP2.OBJECT DELETED \*-----3

IEF373I STEP /LKED / START 18355.1846

IEF374I STEP /LKED / STOP 18355.1846 CPU OMIN 00.09SEC SRB OMIN 00.01SEC VIRT 264K SYS 252K

\*\*\*\*\*

\* 2. Jobstep of job: ALGSAMP2 Stepname: LKED Program name: IEWL Executed on 21.12.18 from 18.46.00 to 18.46.00 \*
\* elapsed time 00:00:00,14 CPU-Identifier: TK4- Page-in: 0 \*
\* CPU time 00:00:00,10 Virtual Storage used: 264K Page-out: 0 \*
\* corr. CPU: 00:00:00,10 CPU time has been corrected by 1 / 1,0 multiplier \*

\* I/O Operation \*

\* Number of records read via DD \* or DD DATA: 0 \*

\* DMY.....0 148.....56 FFF.....18 FFF.....0 FFF.....3 DMY.....0 \*

\* Charge for step (w/o SYSOUT): 0,16 \*

IEF236I ALLOC. FOR ALGSAMP2 GO IVP2

IEF237I VIO ALLOCATED TO STEPLIB

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IEF237I JES2 ALLOCATED TO ALGLDD01
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I VIO ALLOCATED TO SYSUT1
IEF142I ALGSAMP2 GO IVP2 - STEP WAS EXECUTED - COND CODE 0016
IEF285I SYS18355.T184600.RA000.ALGSAMP2.GOSET PASSED *-----0
IEF285I JES2.JOB00007.S00104 SYSOUT
IEF285I JES2.JOB00007.S00105 SYSOUT
IEF285I SYS18355.T184600.RA000.ALGSAMP2.R0000005 DELETED *-----0
IEF373I STEP /GO / START 18355.1846
IEF374I STEP /GO / STOP 18355.1846 CPU OMIN 00.04SEC SRB OMIN 00.00SEC VIRT 28K SYS 252K
*****
* 3. Jobstep of job: ALGSAMP2 Stepname: GO Program name: GO Executed on 21.12.18 from 18.46.00 to 18.46.01 *
* elapsed time 00:00:00,07 CPU-Identifier: TK4- Page-in: 0 *
* CPU time 00:00:00,04 Virtual Storage used: 28K Page-out: 0 *
* corr. CPU: 00:00:00,04 CPU time has been corrected by 1 / 1,0 multiplier *
*
* I/O Operation *
* Number of records read via DD * or DD DATA: 0 *
* FFF.....0 DMY.....0 DMY.....0 FFF.....0 *
*
* Charge for step (w/o SYSOUT): 0,06 *
*****
IEF285I SYS18355.T184600.RA000.ALGSAMP2.GOSET DELETED
IEF375I JOB /ALGSAMP2/ START 18355.1846
IEF376I JOB /ALGSAMP2/ STOP 18355.1846 CPU OMIN 00.25SEC SRB OMIN 00.02SEC

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SC

SOURCE STATEMENT

```
'BEGIN'                                00002000
'COMMENT'                                00002100
  IBM ALGOL F LEVEL 2.1 IVP              00002200
  SAMPLE PROGRAM TO CREATE DELIBERATE   00002300
  TO DEMONSTRATE ALGOL RUN TIME        00002400
  DIAGNOSTIC INFORMATION;              00002500
'INTEGER' I;                             00002600
1  'REAL' A;                              00002700
2  'BOOLEAN' B;                           00002800
3  'INTEGER' 'ARRAY' IA[1:5];             00002900
4  'ARRAY' AR[0:3,2:8];                   00003000
5  'BOOLEAN' 'ARRAY' BA[0:1,1:3,3:7];     00003100
6  'INTEGER' 'PROCEDURE' IP;              00003200
7  IP := I + 5;                           00003300
8  'REAL' 'PROCEDURE' RP(A);              00003400
9  'VALUE' A;                              00003500
10 'INTEGER' A;                            00003600
11 RP := A*A;                             00003700
12 'PROCEDURE' P(A,B,C);                  00003800
13 'BOOLEAN' A;                           00003900
14 'REAL' B;                              00004000
15 'INTEGER' C;                           00004100
16 A:= B < C ;                            00004200
17 I := 1;                                00004300
18 A := 2.6;                              00004400
19 AR[1,1] := IP;                          00004500
20 AR[1,2] := RP(AR[1,1]);                 00004600
21 P(BA[0,1,3],A,I);                      00004700
22 P(B,AR[1,2],IP);                       00004800
23 SYSACT(1,8,50);                        00004900
24 OUTREAL(1,AR[1,1]);                    00005000
25 OUTBOOLEAN(1,BA[0,1,3]);               00005100
26 OUTBOOLEAN(1,B);                      00005200
27 'COMMENT' DELIBERATE DIVIDE BY ZERO    00005300
  ERROR;
27 A := A/0;                              00005400
28 'END'                                  00005500
```

## IDENTIFIER TABLE

PBN SC	PBN SURR	NAME	TYPE	DM DSP PR LN	NAME	TYPE	DM DSP PR LN	NAME	TYPE	DM DSP PR LN
001	00000 000	A	R	01C	AR	R A	02 03C	B	B	020
		BA	B A	03 058	I	I	018	IA	I A	01 024
		IP	I P	00 070	P	P	03 078	RP	R P	01 074
002	00006 001	IP	I P	00 070						
003	00008 001	A	I V	020	RP	R P	01 074			
004	00012 001	A	B N	018	B	R N	020	C	I N	028

OBJECT MODULE SIZE 1840 BYTES

DATA STORAGE AREA SIZES

PBN	BYTES	PBN	BYTES	PBN	BYTES	PBN	BYTES	PBN	BYTES
001	136	002	32	003	40	004	60		



F64-LEVEL LINKAGE EDITOR OPTIONS SPECIFIED XREF,LIST,LET  
 DEFAULT OPTION(S) USED - SIZE=(231424,55296)

CROSS REFERENCE TABLE

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
PROGRAM	00	730	IHIDSTAB	6D8	IHIENTIF	724				
IHIFSARA*	730	E68	IHIFSAIN	1524						
IHIFSARB*	1598	670								
IHIOBOOL*	1C08	1C8	IHIOBOAR	1C5A						
IHISOREA*	1DD0	380	IHISORAR	1DD0	IHISOREL	1E10				
IHISYSCT*	2150	788								
IHIORTN*	28D8	D18	IHIIROQ	28D8	IHIIOROP	29A4	IHIIORNX	2D54	IHIIORCL	2FB8
			IHIIORCP	316E	IHIIORGP	325C	IHIIORCN	3260	IHIIOREN	32C4
			IHIIOREV	3340	IHIIORED	33D4	IHIIORCI	3480	IHIIOREER	3504
IHIERROR*	35F0	6E8								
IHIERMSG*	3CD8	9B8	IHIERM01	3D88						

LOCATION	REFERS TO SYMBOL	IN CONTROL SECTION	LOCATION	REFERS TO SYMBOL	IN CONTROL SECTION
61C	IHISYSCT	IHISYSCT	658	IHISOREL	IHISOREA
660	IHIOBOOL	IHIOBOOL	156C	IHIFSARB	IHIFSARB
9C8	IHIERROR	IHIERROR	7DC	IHIDSTAB	PROGRAM
1520	IHIIOREER	IHIORTN	1580	IHIIORCP	IHIORTN
9DC	IHIIORCP	IHIORTN	151C	IHIIORGP	IHIORTN
1518	IHIIOREN	IHIORTN	1514	IHIIROQ	IHIORTN
1508	IHIIOREV	IHIORTN	1500	IHIIORCI	IHIORTN
1588	IHIIORNX	IHIORTN	150C	IHIIORNX	IHIORTN
9E1	IHIIORNX	IHIORTN	158C	IHIIORCL	IHIORTN
1504	IHIIORCL	IHIORTN	1584	IHIIOROP	IHIORTN
1510	IHIIOROP	IHIORTN	9D8	IHIIOROP	IHIORTN
157C	IHIENTIF	PROGRAM	159D	IHIFSARA	IHIFSARA
3CC0	IHIERM01	IHIERMSG	3CBC	IHIERMSG	IHIERMSG

ENTRY ADDRESS 1524

TOTAL LENGTH 4690

\*\*\*GO DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET

AUTHORIZATION CODE IS 0.

+6.000000' +00 'FALSE' 'FALSE'



ALGOL PROGRAM TRACE

MODULE        SEMICOLON NUMBERS

GO	1	2	3	4	5	6	8	12	17	18	19	7	20
	9	10	11	21	13	14	15	16	22	13	14	15	16
	7	23	24	25	26	27							

END OF ALGOL PROGRAM EXECUTION

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AAAAAAAAAA LL      GGGGGGGGGG SSSSSSSSSS AAAAAAAAAA MM      MM PPPPPPPPPP 222222222
AAAAAAAAAAAA LL    GGGGGGGGGGGG SSSSSSSSSSSS AAAAAAAAAAAA MMM     MMM PPPPPPPPPP 22222222222
AA      AA LL      GG      GG SS      SS AA      AA MMMM     MMMM PP      PP 22      22
AA      AA LL      GG      SS      AA      AA MM MM     MM MM PP      PP      22
AA      AA LL      GG      SSS      AA      AA MM MMMM     MM PP      PP      22
AAAAAAAAAAAA LL    GG      SSSSSSSS  AAAAAAAAAAAA MM     MM     MM PPPPPPPPPP      22
AAAAAAAAAAAA LL    GG      GGGGG     SSSSSSSS  AAAAAAAAAAAA MM     MM PPPPPPPPPP      22
AA      AA LL      GG      GGGGG     SSS AA      AA MM     MM PP      22
AA      AA LL      GG      GG      SS AA      AA MM     MM PP      22
AA      AA LL      GG      GG SS      SS AA      AA MM     MM PP      22
AA      AA LLLLLLLLLL GGGGGGGGGGGG SSSSSSSSSS AA      AA MM     MM PP      22222222222
AA      AA LLLLLLLLLL GGGGGGGGGG  SSSSSSSSSS AA      AA MM     MM PP      22222222222

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JJJJJJJJJ 77777777777
JJJJJJJJJ 77777777777
JJ      77      77
JJ      77
JJ      77
JJ      77
JJ      77
JJ      77
JJ      77
JJ JJ      77
JJ JJ      77
JJJJJJJJ 77
JJJJJJ 77
AAAAAAAAAAA
AAAAAAAAAAAA
AA      AA
AA      AA
AA      AA
AAAAAAAAAAAA
AAAAAAAAAAAA
AA      AA
AA      AA
AA      AA
AA      AA

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****A END JOB 7 ALGSAMP2 ALGOL Sample Program ROOM 6.46.01 PM 21 DEC 18 PRINTER1 SYS TK4- JOB 7 END A****
****A END JOB 7 ALGSAMP2 ALGOL Sample Program ROOM 6.46.01 PM 21 DEC 18 PRINTER1 SYS TK4- JOB 7 END A****
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