

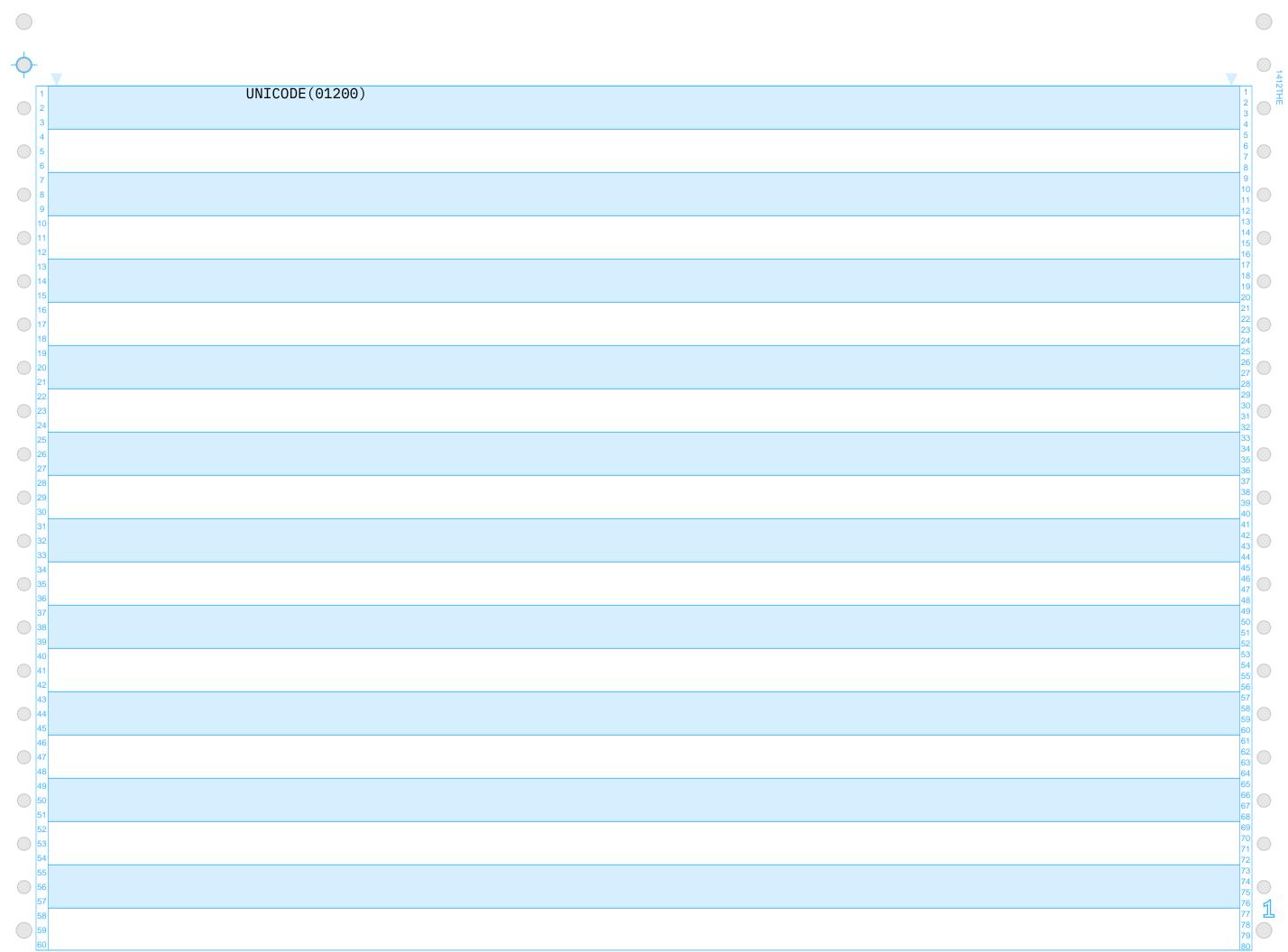
JES2 JOB LOG -- SYSTEM SOW1 -- NODE SOW1 09.40.24 JOB04525 ---- TUESDAY, 15 OCT 2024 ----IRRO10I USERID IBMUSER IS ASSIGNED TO THIS JOB. 09.40.24 J0B04525 09.40.24 JOB04525 ICH70001I IBMUSER LAST ACCESS AT 09:16:50 ON TUESDAY, OCTOBER 15, 2024 09.40.24 J0B04525 \$HASP373 ASMHC STARTED - INIT 1 - CLASS A 09.40.24 J0B04525 IEF403I ASMHC - STARTED - TIME=09.40.24 09.40.24 J0B04525 ----TIMINGS (MINS.)---------PAGING COUNTS-----STEPNAME PROCSTEP **EXCP** 09.40.24 J0B04525 CONN TCB SRB CLOCK SERV WORKLOAD PAGE SWAP VIO SWAPS 09.40.24 J0B04525 00 62 0 .00 .00 21 BATCH 0 0 0 - C 0 . 0 09.40.24 JOB04525 IEF404I ASMHC - ENDED - TIME=09.40.24 09.40.24 J0B04525 ENDED. NAME-J. Winkelmann -ASMHC TOTAL TCB CPU TIME= .00 TOTAL ELAPSED TIME= .0 09.40.24 JOB04525 \$HASP395 ASMHC ENDED - RC=0000 ----- JES2 JOB STATISTICS -----15 OCT 2024 JOB EXECUTION DATE 21 CARDS READ 379 SYSOUT PRINT RECORDS 0 SYSOUT PUNCH RECORDS 33 SYSOUT SPOOL KBYTES 0.00 MINUTES EXECUTION TIME

4		141
1 2 3	1 //ASMHC JOB (PB),'J. Winkelmann', J0B04525 // CLASS=A,MSGCLASS=J, 00020000 // REGION=8M, 00030000	2THE 27HE
5 6	// MSGLEVEL=(1,1), 00040000 // NOTIFY=IBMUSER 00050007 2 /*JOBPARM ROOM=JW 00051000	5 6 7 8
7 8 9	//************************************	9 10 11 12
110	//* //* Desc: Assemble //* //*	3 14 15 16
13 14 15	//************************************	7 18 19 20
16 17 18	3 //C EXEC PGM=IEV90,PARM=OBJECT 00140002 4 //SYSIN DD DSN=IBMUSER.ASSEMBLE.SOURCE(PRNOTEST),DISP=SHR 00141007 5 //SYSLIB DD DSN=MVS38J.SYS2.MACLIB,DISP=SHR 00150007 6 //SYSUT1 DD UNIT=SYSDA,SPACE=(CYL,(20,5)),DSN=&SYSUT1 00170002	!1 !2 23 24
19 20 21	7 //SYSPUNCH DD SYSOUT=* 8 //SYSPRINT DD SYSOUT=* 9 //SYSLIN DD DSN=IBMUSER.ASSEMBLE.OBJ(PRNOTEST),DISP=SHR 00180002 00200007	25 26 27 28
22 23 24		19 30 31 32
25 26 27		33 34 35 36
28 29 30		38 39 40
31 32 33		11 12 13 14
34 35 36		15 16 17 48
37 38 39		i0 i0 i1 i2
40 41 42		i3 i4 i55 56
43 44 45		i8 i8 i9
46 47 48		33 54
50 51		36 37 58
52 53 54		70 71 72
55 56 57		75 76 1
58 59 60		78 79 30

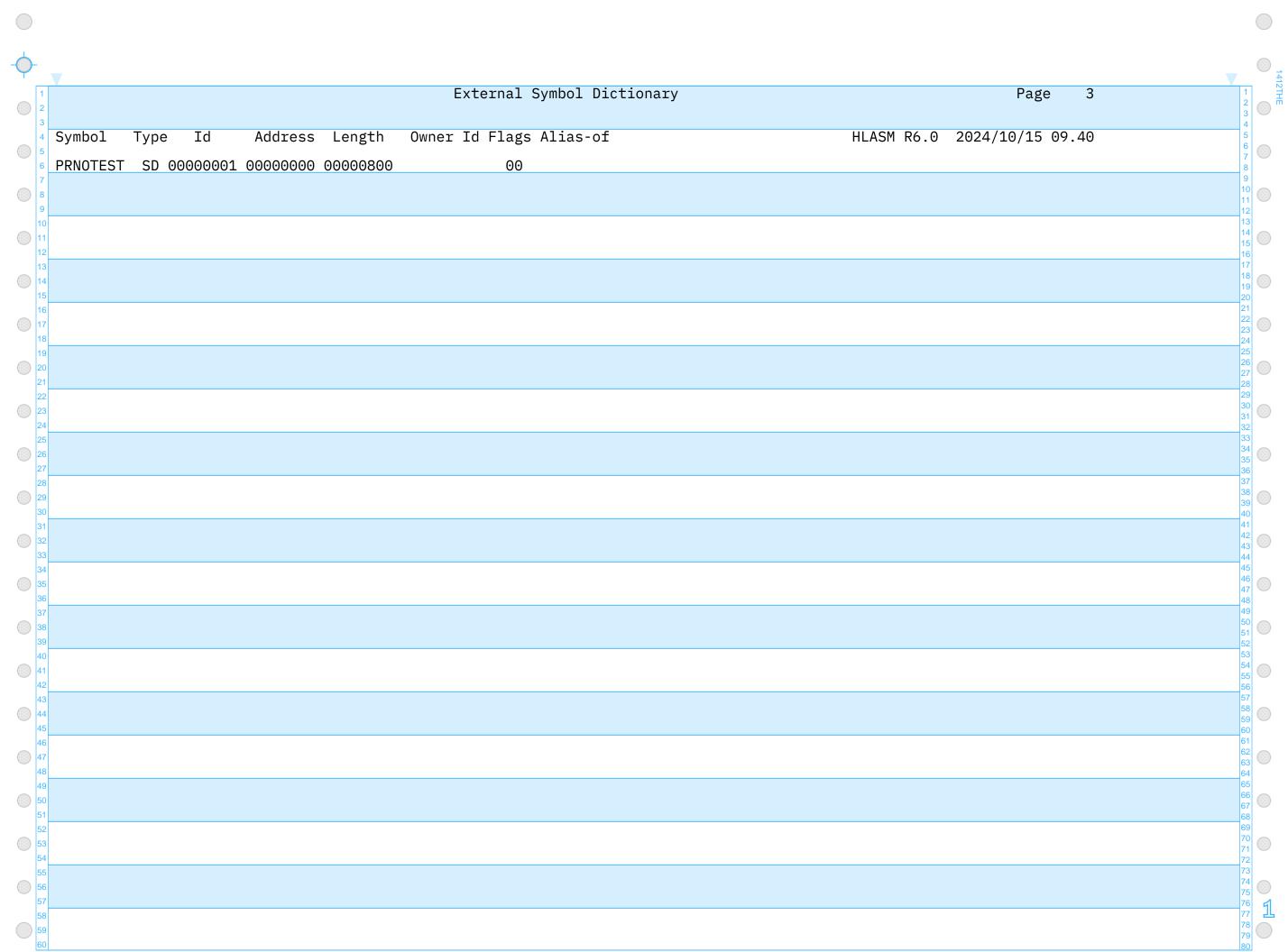
ICH70001I IBMUSER LAST ACCESS AT 09:16:50 ON TUESDAY, OCTOBER 15, 2024 IEFA111I ASMHC IS USING THE FOLLOWING JOB RELATED SETTINGS: SWA=ABOVE, TIOT SIZE=32K, DSENQSHR=DISALLOW, GDGBIAS=JOB IEF236I ALLOC. FOR ASMHC C IEF237I 0A82 ALLOCATED TO SYSIN IEF237I 0AA2 ALLOCATED TO SYSLIB IGD100I VIO ALLOCATED TO DDNAME SYSUT1 DATACLAS (IEF237I JES2 ALLOCATED TO SYSPUNCH IEF237I JES2 ALLOCATED TO SYSPRINT 1 IEF237I 0A82 ALLOCATED TO SYSLIN IEF142I ASMHC C - STEP WAS EXECUTED - COND CODE 0000 IBMUSER.ASSEMBLE.SOURCE IEF285I **KEPT** IEF285I VOL SER NOS= A3SYS1. IEF285I MVS38J.SYS2.MACLIB **KEPT** IEF285I VOL SER NOS= B5CFG1. SYS24289.T094024.RA000.ASMHC.SYSUT1.H01 IEF285I **DELETED** IEF285I IBMUSER.ASMHC.JOB04525.D0000101.? **SYSOUT** IEF285I IBMUSER.ASMHC.JOB04525.D0000102.? **SYSOUT** IEF285I IBMUSER.ASSEMBLE.OBJ KEPT VOL SER NOS= A3SYS1. IEF285I IEF373I STEP/C /START 2024289.0940 □ 23 IEF032I STEP/C /STOP 2024289.0940 CPU: 0 HR 00 MIN 00.10 SEC SRB: 0 HR 00 MIN 00.01 SEC 240K SYS: 264K EXT: 32768K SYS: VIRT: 9820K ATB- REAL: 252K SLOTS: 0K VIRT- ALLOC: 0M 17M SHRD: IEF375I JOB/ASMHC /START 2024289.0940 29 IEF033I JOB/ASMHC /STOP 2024289.0940 CPU: 0 HR 00 MIN 00.10 SEC SRB: 0 HR 00 MIN 00.01 SEC

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High Level Assembler Option Summary
                                                                                                      (PTF UI93396)
                                                                                                                       Page
                                                                                                                               1
                                                                                                  HLASM R6.0 2024/10/15 09.40
  No Overriding ASMAOPT Parameters
  Overriding Parameters- OBJECT
  No Process Statements
  Options for this Assembly
                     NOADATA
                       ALIGN
                     NOASA
                       ASCII(00819)
                       BATCH
                       CA(LOCAL)
                       CE(LOCAL)
                       CODEPAGE (01148)
                     NOCOMPAT
                       CU(LOCAL)
                     NODATAMAP
                     NODBCS
                     NODECK
                       DXREF
                       EBCDIC(00037)
                       ESD
                     NOEXIT
                       FAIL (NOMSG, NOMNOTE, MAXERRS (500))
                       FLAG (O, ALIGN, CONT, EXLITW, NOIMPLÉN, NOLONGER, NOPAGEO, PUSH, RECORD, RENT, NOSIGNED, NOSUBSTR, NOTRUNC,
                            USINGO)
                     NOFOLD
                     NOGOFF
                       ILMA
                     NOINFO
                       LANGUAGE (EN)
                     NOLIBMAC
                       LINECOUNT(60)
                       LIST(121)
                       MACHINE(, NOLIST)
                       MXREF (SOURCE)
3 PARM/OPTION
                       OBJECT
                       OPTABLE(UNI, NOLIST)
                     NOPCONTROL
                     NOPESTOP
                     NOPROFILE
                     NORA2
                     NORENT
                       RLD
                       RXREF
                       SECTALGN(8)
                       SIZE(MAX)
                     NOSUPRWARN
                       SYSPARM()
                     NOTERM
                     NOTEST
                       THREAD
                     NOTRANSLATE
                       TYPECHECK (MAGNITUDE, REGISTER, SIGNED)
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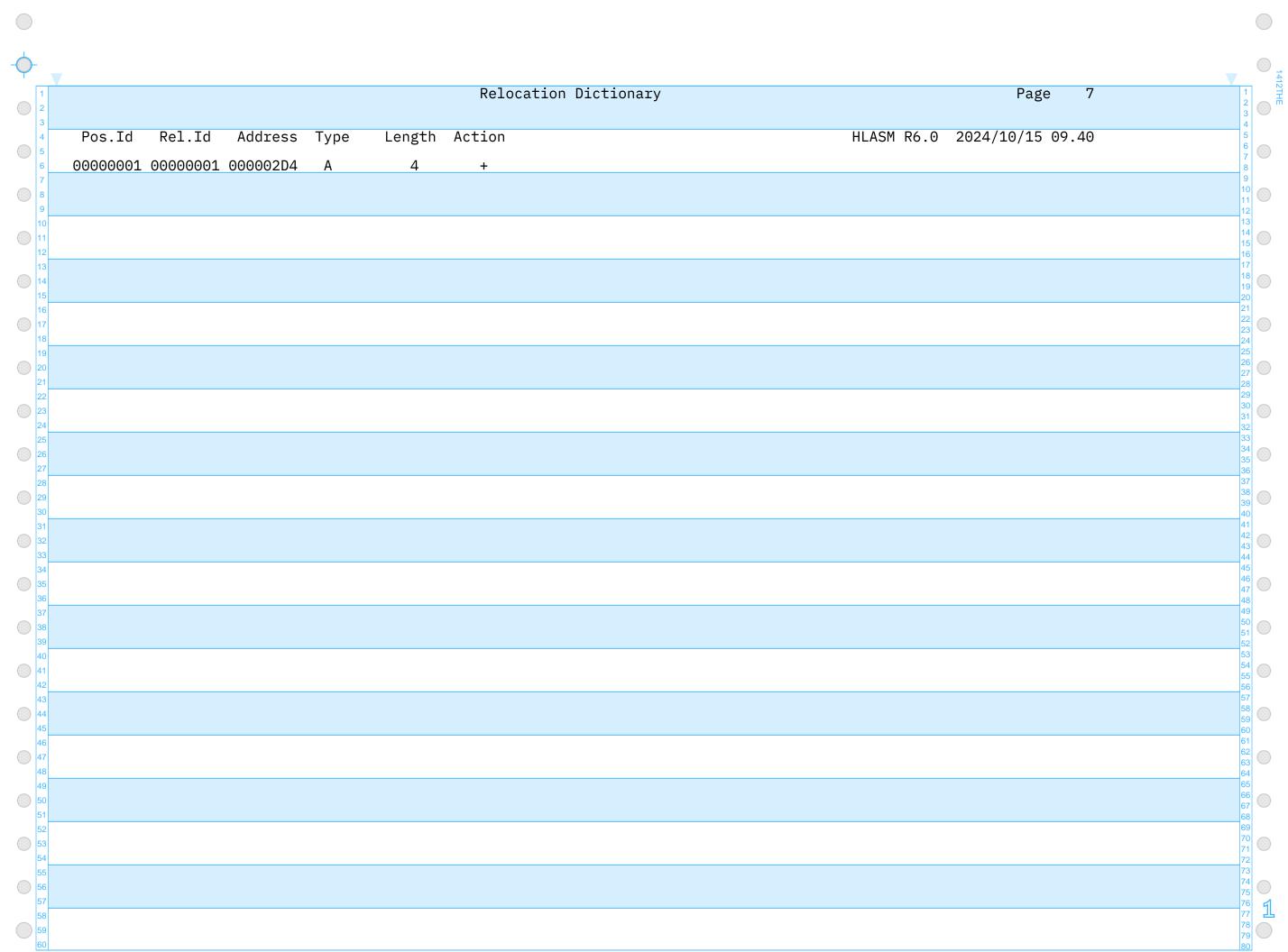
High Level Assembler Option Summary (PTF UI93396) Page 2 HLASM R6.0 2024/10/15 09.40 USING(NOLIMIT, MAP, WARN(15))
NOWORKFILE
XREF(SHORT, UNREFS) No Overriding DD Names



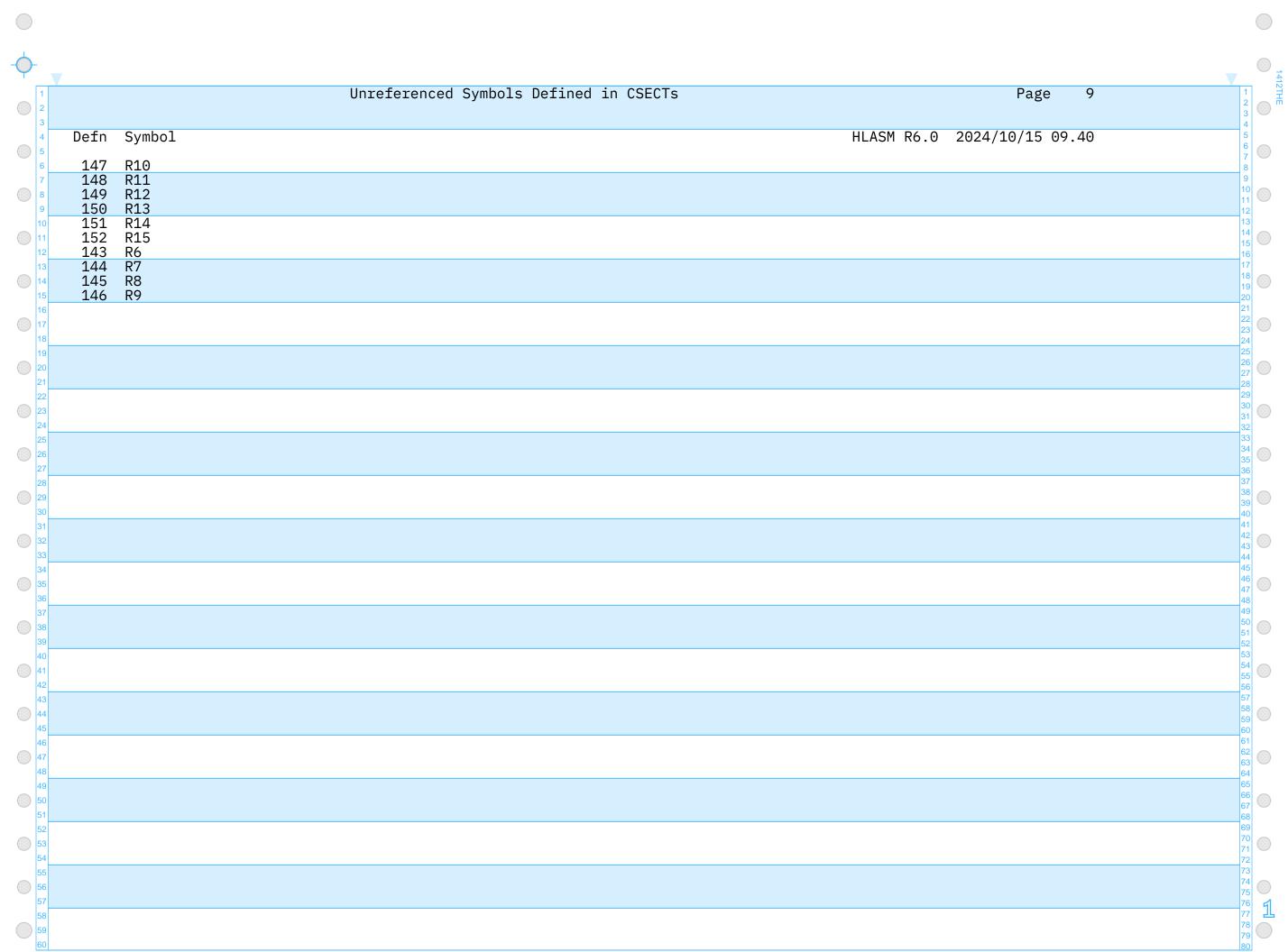
Standalone Test PRNO Instruction Page Active Usings: None 2024/10/15 09.40 Loc Object Code Addr1 Addr2 Stmt Source Statement HLASM R6.0 2 * 3 * Function -4 * 5 * This module tests the PRNO instruction in a standalone environment. 6 * 7 * 8 * Operation -9 * 10 * PRNOTEST exercises PRNO QUERY, DRNG, and TRNG functions 11 * and does plausibility checks on the results. 12 * 13 * - If all tests pass, PRNOTEST enters an enabled wait state. 14 * 15 * - If a test fails, the test sequence is aborted and a disabled wait state DEAD is entered. 16 * 17 * 18 PRNOTEST CSECT 00000 00800 000000 R:0 00000 19 USING *,0 20 ORG PRNOTEST+X'1A0' 000000 00000 001A0 0001A0 0000000180000000 21 22 001B0 001D0 ORG PRNOTEST+X'1D0' 0001B0 0001D0 0002000180000000 23 X'000200018000000000000000000DEAD' # z/Arch pgm new PSW DC 0001E0 001E0 00200 24 ORG PRNOTEST+X '200 25 *** 26 *** **QUERY** 27 *** 000200 C001 0000 0000 28 LGFI R0,0 R0->function code 0 PB(240), PBNULL clear parameter block 000206 D2EF 0480 0600 00480 00600 29 R1->parameter block 30 00020C 4110 0480 00480 LA R1,PB 000210 B93C 0024 31 PRNO R2, R4 perform random number operation 000214 D50F 06F0 0480 006F0 00480 32 ERQUERY(16), PB compare with expected result CLC 00021A 4780 0220 00220 33 BE *+6 result OK 00021E 0000 34 DC H'0' disabled wait DEAD if result invalid 35 *** 36 *** DRNG: FIPS known answer test 37 *** RO->function code 3 with modifier: seed 000220 C001 0000 0083 38 R0,131 000226 D2EF 0480 0600 00480 00600 39 MVC PB(240), PBNULL clear parameter block 00022C 4110 0480 40 LA R1, PB 00480 R1->parameter block 000230 4120 0800 00800 41 R2, F0 R2->first operand address LA R3->first operand length 000234 C031 0000 0000 LGFI R3,0 42 00023A 4140 0570 00570 43 LA R4,S0 R2->second operand address R3->second operand length 44 LGFI 00023E C051 0000 0040 R5,64 SO(64), ENTROPY provide predefined entropy 000244 D23F 0570 0708 00570 00708 45 00024A B93C 0024 PRNO R2,R4 perform random number seed operation 46 RO->function code 3: generate 00024E C001 0000 0003 47 LGFI R0,3 R1->parameter block 000254 4110 0480 00480 48 LA R1,PB R2->first operand address 000258 4120 0800 00800 49 R2,F0 LA R3->first operand length 00025C C031 0000 0040 50 LGFI R3,64 00570 51 R4,S0 R2->second operand address 000262 4140 0570 R3->second operand length 52 LGFI R5,0 000266 C051 0000 0000 00026C B93C 0024 53 PRNO R2,R4 perform random number generate operation 000270 D53F 0748 0800 00748 00800 54 CLC ERFIPS(64),F0 compare with expected result 000276 4780 0270 55 BE 0027C *+6 result OK 00027A 0000 56 DC H'0' disabled wait DEAD if result invalid

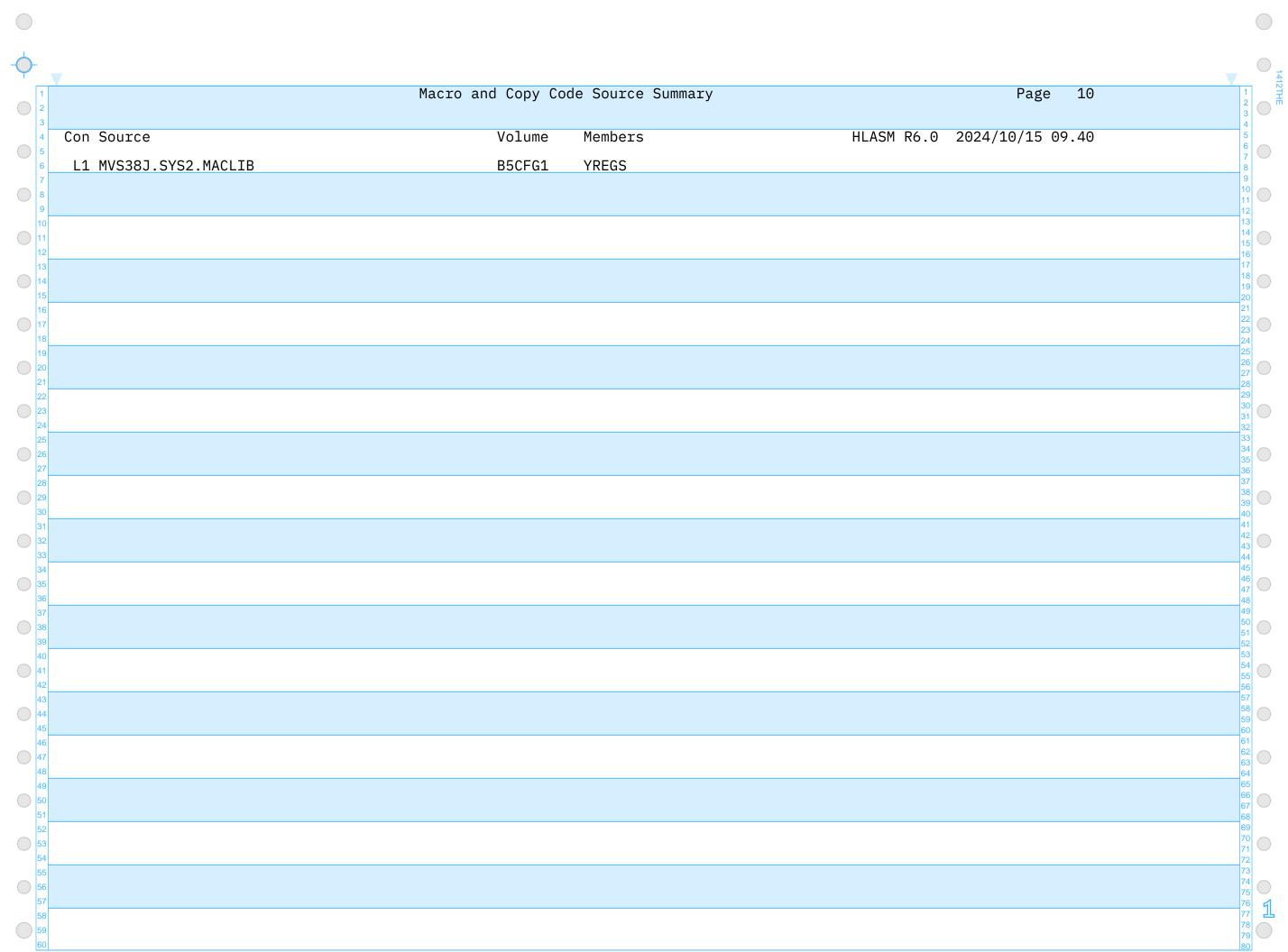
Standalone Test PRNO Instruction Page Active Usings: PRNOTEST, RO 2024/10/15 09.40 Loc Object Code Addr1 Addr2 Stmt HLASM R6.0 Source Statement 57 *** 58 *** DRNG: Reseed and generate 59 *** R0,131 00027C C001 0000 0083 60 LGFI RO->function code 3 with modifier: reseed 000282 4110 0480 00480 61 R1,PB R1->parameter block LA R2->first operand address 00800 62 R2,F0 000286 4120 0800 LA R3->first operand length 00028A C031 0000 0000 63 LGFI R3,0 R2->second operand address 000290 4140 0570 00570 LA R4,S0 64 000294 C051 0000 0040 65 LGFI R5,64 R3->second operand length SO(64), PB+17 00029A D23F 0570 0491 00570 00491 steal seed material (ignored by Hercules) 66 0002A0 B93C 0024 67 **PRNO** R2,R4 perform random number reseed operation 0002A4 C001 0000 0003 LGFI R0,3 RO->function code 3: generate 68 0002AA 4110 0480 00480 69 LA R1,PB R1->parameter block 00800 0002AE 4120 0800 70 LA R2,F0 R2->first operand address 0002B2 C031 0001 0000 71 LGFI R3,65536 R3->first operand length 0002B8 4140 0570 00570 72 R4,S0 R2->second operand address LA R3->second operand length LGFI 0002BC C051 0000 0000 73 R5,0 0002C2 B93C 0024 74 **PRNO** R2,R4 perform random number generate operation 0002C6 D53F 0800 0600 00800 00600 75 CLC FO(64), PBNULL first 64 bytes zero .. 002D2 0002CC 4770 02D2 76 BNE *+6 .. is not plausible 77 0002D0 0000 disabled wait DEAD if first 64 bytes zero 78 0002D2 C031 0001 07C1 LGFI R3,F0+65536-63 last 64 bytes .. 0002D8 D53F 3000 0600 00000 00600 79 CLC 0(64,R3),PBNULL .. zero .. 0002DE 4770 02E4 002E4 80 BNE .. is not plausible 81 H'0 0002E2 0000 disabled wait DEAD if last 64 bytes zero 82 *** 83 *** TRNG Query 84 *** 0002E4 C001 0000 0070 85 LGFI R0,112 RO->function code 112 MVC PB(240), PBNULL clear parameter block 0002EA D2EF 0480 0600 00480 00600 86 0002F0 4110 0480 00480 87 LA R1,PB R1->parameter block PRNO R2, R4 0002F4 B93C 0024 88 perform random number operation 0002F8 D507 0700 0480 00700 00480 89 CLC TRQUERY(8),PB compare with expected result 0002FE 4780 0304 00304 90 BE result OK *+6 91 DC H'0' disabled wait DEAD if result invalid 000302 0000 92 *** **TRNG** 93 *** 94 *** 000304 C001 0000 0072 95 LGFI R0,114 RO->function code 114: TRNG 00800 96 R2,F0 R2->first operand address 00030A 4120 0800 97 LGFI R3,64 R3->first operand length 00030E C031 0000 0040 00570 98 000314 4140 0570 LA R4,S0 R2->second operand address 99 LGFI R3->second operand length 000318 C051 0000 0040 R5,64 100 00031E B93C 0024 PRNO R2,R4 perform random number generate operation 000322 D53F 0800 0600 00800 00600 CLC FO(64), PBNULL first operand zero ... 101 000328 4770 032E 0032E 102 BNE .. is not plausible *+6 00032C 0000 103 DC H'0 disabled wait DEAD if first operand zero SO(64), PBNULL seconf operand zero ... 00032E D53F 0570 0600 00570 00600 104 CLC 000334 4770 033A 0033A 105 BNE .. is not plausible *+6 106 DC H'0' disabled wait DEAD if second operand zero 000338 0000 LPSWE WAITPSW 00033A B2B2 0400 107 load enabled wait PSW 00400 ORG PRNOTEST+X'400 00033E 0033E 00400 108 000400 0702000180000000 109 WAITPSW DC X'070200018000000000000000000000000000 enabled wait PSW ORG PRNOTEST+X'480' 000410 00410 00480 110 000480 111 PB DS XL240 current parameter block

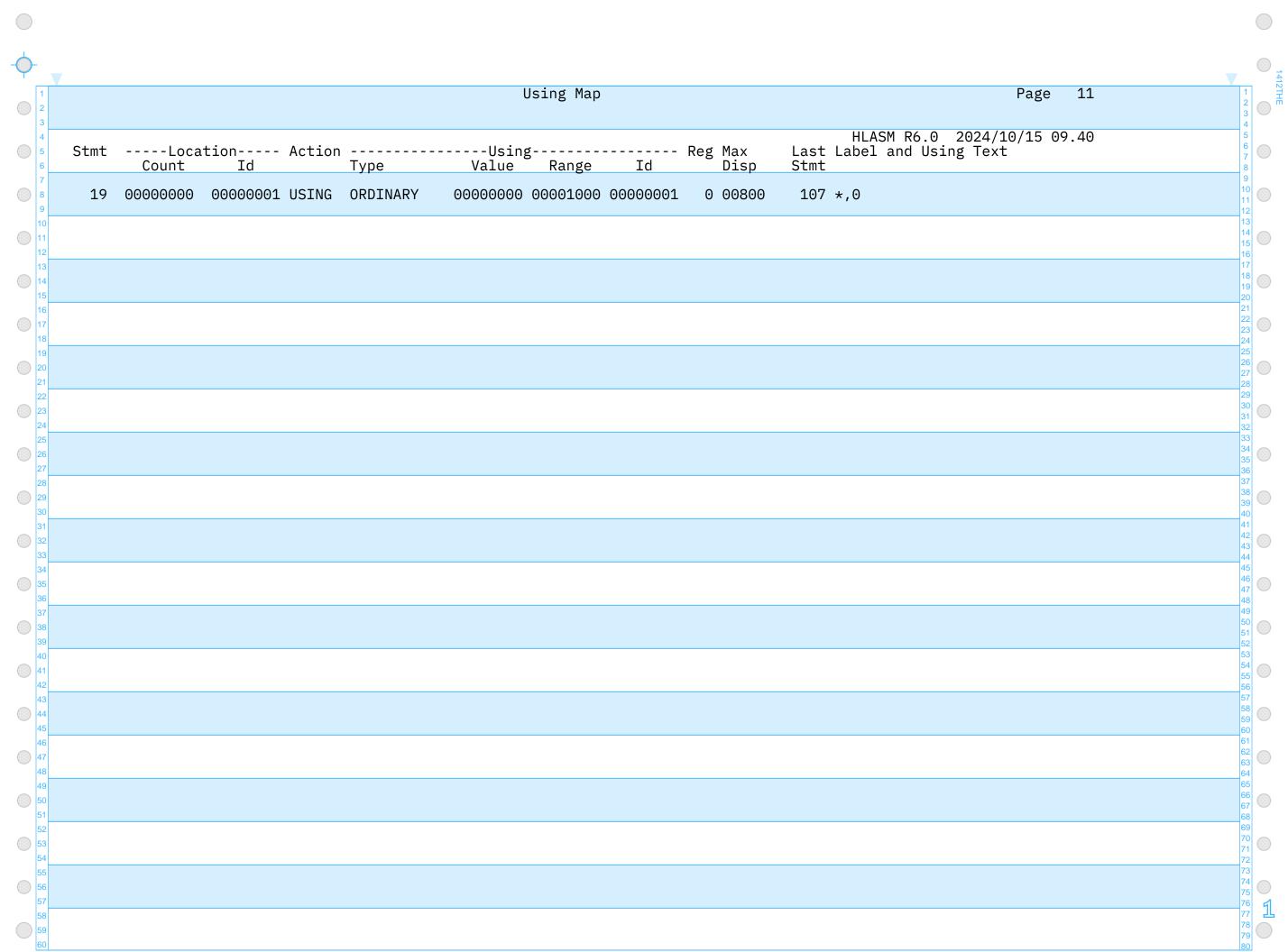
Standalone Test PRNO Instruction Page 6 Active Usings: PRNOTEST, RO 2024/10/15 09.40 Object Code Addr1 Addr2 Stmt Source Statement HLASM R6.0 112 S0 DS 000570 XL64 second operand 005B0 00600 113 ORG PRNOTEST+X '600' 0005B0 000600 00000000000000000 114 PBNULL DC 240X'00' empty parameter block **ERQUERY** DC 0006F0 9000000000000000 115 expected Hercules TRNG query result TRQUERY 000700 00000000000000020 DC X'000000C0000000020' 116 000708 3295117F02371270 117 ENTROPY DC X'3295117F02371270' predefined entropy for 000710 105A3783CFE0BF5A DC X'105A3783CFE0BF5A FIPS known answer test 118 119 000718 C1408E6CEAC5AEEB DC X'C1408E6CEAC5AEEB 000720 D6D814BC827DC04D 120 X'D6D814BC827DC04D DC X'21A1E480E3D5F2E3 121 DC 000728 21A1E480E3D5F2E3 000730 78319ADE9BDDDA4C 122 DC X'78319ADE9BDDDA4C 123 000738 2E93B74E348D5EE3 DC X ' 2E93B74E348D5EE3 ' 000740 2ED46A1AE62566E0 124 DC X'2ED46A1AE62566E0 000748 F1DFE8330811ECD1 125 **ERFIPS** DC X'F1DFE8330811ECD1 expected generate result for 000750 0AEB68728FAC57B0 126 DC X'0AEB68728FAC57B0 FIPS known answer test X'5DC8B4116DFCC066 000758 5DC8B4116DFCC066 127 DC 000760 C4FBB654B317FB0E 128 DC X'C4FBB654B317FB0E 000768 011265748F7929B0 129 DC X'011265748F7929B0 000770 180366625DE0665B 130 DC X'180366625DE0665B 000778 116C878B0F05BAD8 131 DC X'116C878B0F05BAD8 DC X'319416258824DFDC' 000780 319416258824DFDC 132 ORG PRNOTEST+X'800' 000788 00788 00800 133 000800 134 F0 DS 0X first operand YREGS , 135 EQU 00000 137+R0 01-YREGS 0 ΕŎU 00001 1 138+R1 01-YREGS 2 00002 139+R2 ΕŌU 01-YREGS 00003 140+R3 EQU 3 01-YREGS ΕŎU 00004 141+R4 01-YREGS 4 00005 142+R5 EŎU 5 01-YREGS 143+R6 00006 EOU 6 01-YREGS 00007 144+R7 ΕŌU 7 01-YREGS 145+R8 EŎU 8 00008 01-YREGS 00009 146+R9 EQU 9 01-YREGS ΕŌU 10 0000A 147+R10 01-YREGS ΕŌU 0000B 148+R11 11 01-YREGS 0000C 149+R12 EQU 12 01-YREGS 0000D 150+R13 ΕŌU 13 01-YREGS 0000E 151+R14 ΕŌU 14 01-YREGS 15 152+R15 EQU 0000F 01-YREGS 154 **END**



_	V																		7	
1 2 3				0r	dinary	Symbo	l and Lite	eral Cr	oss Re	ierenc	9						Page	8		1 2 3
4 5	Symbol	Length	Value	Id	R Type	e Asm	Program	Defn	Refere	nces				HLASM	1 R6.0	2024/	10/15	09.40		5 6 7
6 7	ENTROPY ERFIPS	8	00000708 00000748	00000001	Χ	X		117 125	45 54											8 9
9	ERQUERY FO	1	000006F0 00000800	00000001	Χ	X X		115 134	32 41 29M	49	54 32	62	70 40	75	78 61	96	101	O (M		10 11 12
10 11	PB PBNULL		00000480			X X		111 114	29M 87 29	30 89 39	32 75	39M 79	40 86	48 101	61 104	66	69	86M		13 14 15 16
13 14	PRNOTEST R0	1	00000000		J			18 137	29 20 28M	22 38M	24 47M	108 60M	110 68M	113 85M	133 95M					16 17 18 19
15 16	R1 R2	1	00000001	00000001 00000001	A U			138 139	30M 31M	40M 41M	48M 46M	61M 49M	69M 53M	87M 62M	67M	70M	74M	88M		20
17 18	R3 R4	1	00000003	00000001	A U			140	96M 42M	100M 50M	63M	71M	78M	79	97M					22 23 24
19 20				00000001				141	31 98M	43M 100	46	51M	53	64M	67	72M	74	88		25 26 27
21 22 23	R5 S0 TRQUERY	64	00000005 00000570 00000700			X		142 112 116	44M 43 89	52M 45M	65M 51	73M 64	99M 66M	72	98	104				28 29 30
232425	WAITPSW		00000400		X	X		109	107											31 32 33
26 27																				34 35 36
28 29																				21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
30 31 32																				40 41 42 43 44
33 34																				43 44 45
35 36																				45 46 47 48
88																				50 51
0																				53 54
2																				56 57
4 5																				58 59 60
6 7																				62 63
9																				65 66 67
1																				68 69
3																				71 72
5																				73 74 75
8																				76 77 78
																				79 80







\(\)		141
1 2 3	General Purpose Register Cross Reference Page 12	1 2 3
4 5	Register References (M=modified, B=branch, U=USING, D=DROP, N=index) HLASM R6.0 2024/10/15 09.40	5 6 7
6 7 8 9	0(0) 19U 28M 31 38M 46 47M 53 60M 67 68M 74 85M 88 95M 100 1(1) 30M 31 40M 46 48M 53 61M 67 69M 74 87M 88 100 2(2) 31M 41M 46M 49M 53M 62M 67M 70M 74M 88M 96M 100M 3(3) 31M 42M 46M 50M 53M 63M 67M 71M 74M 78M 79 88M 97M 100M	8 9 10
	3(3) 31M 42M 46M 50M 53M 63M 67M 71M 74M 78M 79 88M 97M 100M 4(4) 31 43M 46 51M 53 64M 67 72M 74 88 98M 100	11 12 13
10 11 12 13 14 15	5(S) 31 44M 46 52M 53 65M 67 73M 74 88 99M 100 6(6) (no references identified) 7(7) (no references identified)	15 16 17
14	8(8) (no references identified) 9(9) (no references identified)	18 19 20
16 17 18	10(A) (no references identified) 11(B) (no references identified) 12(C) (no references identified) 13(D) (no references identified)	21 22 23 24
19 20 21	13(D) (no references identified) 14(E) (no references identified) 15(F) (no references identified)	25 26 27
22 23 24	13(1) (NO TELETENCES TACHTITIES)	29 30 31
25 26		32 33 34 35
28 29 30		36 37 38 39
30 31 32		40 41 42
33 34		43 44 45 46
35 36 37		47 48 49
38 39		50 51 52
40 41 42		55 54 55 56
43 44 45		57 58 59 60
46 47 48		61 62 63
49 50		65 66 67
51 52 53		68 69 70 71
54 55 56		72 73 74
57 58		76 77 78
59 60		79 80

Diagnostic Cross Reference and Assembler Summary Page 13 HLASM R6.0 2024/10/15 09.40 No Statements Flagged in this Assembly HIGH LEVEL ASSEMBLER, 5696-234, RELEASE 6.0, PTF UI93396 SYSTEM: z/OS 03.01.00 JOBNAME: ASMHC STEPNAME: C PROCSTEP: (NOPROC) ECECP: International 1 Unicode Module: ASMA047C From Page 1148 To Page 17584 Data Sets Allocated for this Assembly Con DDname Data Set Name Volume Member P1 SYSIN IBMUSER.ASSEMBLE.SOURCE A3SYS1 PRNOTEST L1 SYSLIB MVS38J.SYS2.MACLIB B5CFG1 IBMUSER.ASSEMBLE.OBJ SYSLIN A3SYS1 PRNOTEST SYSPRINT IBMUSER.ASMHC.JOB04525.D0000102.? 26740K allocated to Buffer Pool Storage required 136 Primary Input Records Read 0 ASMAOPT Records Read 23 Library Records Read 0 Work File Reads 319 Primary Print Records Written 0 Work File Writes O ADATA Records Written 19 Object Records Written Assembly Start Time: 09.40.24 Stop Time: 09.40.24 Processor Time: 01.11.34.9672 Return Code 000

