

ALC 202 held at WAVV2008 relative instructions sample problems and sample solutions

High Level Assembler Option Summary

(PTF UK19035) Page
HLASM R5.0 2008/02/21 15

No Overriding ASMAOPT Parameters

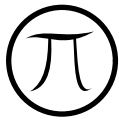
Overriding Parameters- LINECOUNT(99),FLAG(NOEXLITW)

No Process Statements

Options for this Assembly

NOADATA

- 4 ALIGN
- BATCH
- CODEPAGE(047C)
- NOCOMPAT
- NODBCS
- NODECK
- DXREF
- ESD
- NOEXIT
- 3 FLAG(0,ALIGN,CONT,NOEXLITW,NOIMPLEN,NOPAGE0,PUSH,RECORD,NOSUBSTR,USING0)
- NOFOLD
- NOINFO
- LANGUAGE(EN)
- NOLIBMAC
- 3 LINECOUNT(99)
- 4 LIST
- MACHINE(,NOLIST)
- MXREF(SOURCE)
- NOOBJECT
- OPTABLE(UNI,NOLIST)
- NOPCONTROL
- NOPESTOP
- NOPROFILE
- NORA2
- NORENT
- 3 NORLD
- RXREF
- SECTALGN(8)
- SIZE(MAX)
- SUBLIB=AE
- NOSUPRWARN
- SYSPARM()
- NOTERM
- NOTEST
- THREAD
- NOTRANSLATE
- TYPECHECK(MAGNITUDE,REGISTER)
- USING(NOLIMIT,MAP,WARN(15))
- WORKFILE
- 4 XREF(FULL)



ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

WAVVDEMO

External Symbol Dictionary

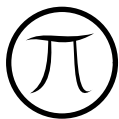
Page

Symbol	Type	Id	Address	Length	Owner	Id	Flags	Alias-of
DEMO	SD	00000001	00000000	000000B9			00	

HLASM R5.0 2008/02/21 15

DEMO

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ALC 202 held at WAVV2008

relative instructions

sample problems and

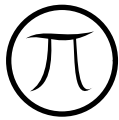
sample solutions

WAVVDEMO DEMO for WAVV relative branches (Jumps)

Page

Active Usings: None

```
Loc  Object Code  Addr1 Addr2 Stmt  Source Statement                                     HLASM R5.0  2008/02/21 15
000000          00000 000B9  2 DEMO      CSECT
3 &CLC      SETC  '5*256(13)'  CLC for a S-Constant
4 *****
5 *
6 *    FIRST PAGE HAS PROBLEMS ...SECOND PAGE HAS SOLUTIONS
7 *
8 *****
9 *
10 *    MAKE SURE LOCTR are resolved as we want (if we need them
11 *        the names are free - but I prefer CODE for CODE and...
000000          00000 000B9 12 CODE      LOCTR
000098          00098 000B9 13 DEFS      LOCTR
000000          00000 000B9 14 CODE      LOCTR
15 *
16 *-----
17 *    WORKS ALWAYS for a PROLOG:
000000 0530
000002 A73A 0076          00076 18          BALR  3,0
19          AHI   3,BASE-*
20          USING BASE,3
21 *
22 *-----
23 *
24 *    problem cases DATA in Procedure
25 *
26 *    :::::EXECUTES:::::
27 *
000006 0000 0000          00000 28          EX    1,MYCLC
** ASMA034E Operand MYCLC beyond active USING range by -110 bytes
** ASMA435I Record 28 in SYSIPT on volume:
00000A D500 3027 3034 0009F 000AC 29 MYCLC      CLC   FIELD1(*-*),FIELD2
30 *
31 *-----
32 *    :::::BRANCHES with X-reg:::
33 *
000010 D400 0001 3010 00001 00088 34          NC    1,=A(X'03')  MAKE SURE ONLY 0 1 2 and 3
000016 8910 0002          00002 35          SLL   1,2
00001A 0000 0000          00000 36          B     *+4(1)
** ASMA034E Operand *+4(1) beyond active USING range by -90 bytes
** ASMA435I Record 36 in SYSIPT on volume:
00001E 0000 0000          00000 37          B     FOR_RC0
** ASMA034E Operand FOR_RC0 beyond active USING range by -74 bytes
** ASMA435I Record 37 in SYSIPT on volume:
000022 0000 0000          00000 38          B     FOR_RC4
** ASMA034E Operand FOR_RC4 beyond active USING range by -68 bytes
** ASMA435I Record 38 in SYSIPT on volume:
000026 0000 0000          00000 39          B     FOR_RC8
** ASMA034E Operand FOR_RC8 beyond active USING range by -62 bytes
** ASMA435I Record 39 in SYSIPT on volume:
00002A 0000 0000          00000 40          B     FOR_RC12
** ASMA034E Operand FOR_RC12 beyond active USING range by -56 bytes
** ASMA435I Record 40 in SYSIPT on volume:
41 *
00002E          42 FOR_RC0  DS    0H
00002E D20C 3027 3034 0009F 000AC 43          MVC   FIELD1,FIELD2
000034          44 FOR_RC4  DS    0H
000034 D20C 3027 3034 0009F 000AC 45          MVC   FIELD1,FIELD2
00003A          46 FOR_RC8  DS    0H
00003A D20C 3027 3034 0009F 000AC 47          MVC   FIELD1,FIELD2
000040          48 FOR_RC12 DS    0H
000040 D20C 3027 3034 0009F 000AC 49          MVC   FIELD1,FIELD2
50 *
```



ALC 202 held at WAVV2008

relative instructions

sample problems and

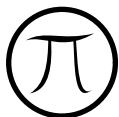
sample solutions

WAVVDEMO SOLUTIONS SOLUTIONS SOLUTIONS SOLUTIONS SOLUTIONS

Page

Active Usings: BASE,R3

Loc	Object	Code	Addr1	Addr2	Stmt	Source	Statement	HLASM R5.0	2008/02/21 15
					98	*			
					99	*			
					100	*	SOLUTION FOR		
					101	*			
					102	*	EXECUTES		
					103	*			
00004E	4410	3020		00098	104	First	EX 1,MYCLCX		
					105	*			
000098			00098	000B9	106	DEFS	LOCTR		
000098	D500	3027 3034	0009F	000AC	107	MYCLCX	CLC FIELD1(*-*),FIELD2		
000052			00000	000B9	108	CODE	LOCTR		
					109	*			
					110	*			
					111	*			
					112	*			
					113	*			
					114	*			
					115	*			
					116	*			
					117	*			
					118	*			
					119	*			
					120	*			
					121	*			
000052	4410	3014		0008C	122	Second	EX 1,=S(256*5(13),FIELD1,FIELD2) CLC FIELD1,FIELD2		
					123	*			
					124	*			
					125	*			
					126	*			
					127	*			
					128	*			
					129	*			
					130	*			
					131	*			
					132	*			
					133	*			
					134	*			
					135	*			
					136	*			
					137	*			
000056	4410	301A		00092	138	Third	EX 1,=S(&CLC,FIELD1,FIELD2)		
						+Third	EX 1,=S(5*256(13),FIELD1,FIELD2)		
					139	*			
					140	*			
					141	*			
					142	*			
					143	*			
					144	*			
					145	*			
					146	*			
					147	*			
					148	*			
					149	*			
					150	*	BRANCHES		
					151	*			
00005A	D400	0001 3010	00001	00088	152	NC	1,=A(X'03') MAKE SURE ONLY 0 1 2 and 3		
000060	8910	0002		00002	153	SLL	1,2		
000064	5811	3000		00078	154	L	1,=A(FOR_RC0,FOR_RC4,FOR_RC8,FOR_RC12)(1)		
000068	07F1				155	BR	1		
					156	*			
					157	*			



ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

WAVVDEMO SOLUTIONS SOLUTIONS SOLUTIONS SOLUTIONS SOLUTIONS

Page

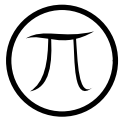
Active Usings: BASE,R3

Loc	Object	Code	Addr1	Addr2	Stmt	Source	Statement
00009F			00098	000B9	191	DEFS	LOCTR
00009F					192	FIELD1	DS CL13
0000AC					193	FIELD2	DS CL13
					194		END

HLASM R5.0 2008/02/21 15

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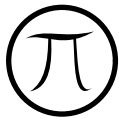


ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

WAVVDEMO										Ordinary Symbol and Literal Cross Reference										Page
Symbol	Length	Value	Id	R	Type	Asm	Program	Defn	References	HLASM R5.0 2008/02/21 15										
BASE	8	00000078	00000001	D	D			184	19 20U											
CODE	1	00000000	00000001	J				12	14 108 178											
DEFS	1	00000098	00000001	J				13	106 176 191											
DEMO	1	00000000	00000001	J				2												
FIELD1	13	0000009F	00000001	C	C			192	29 43M 45M 47M 49M 107 188 189											
FIELD2	13	000000AC	00000001	C	C			193	29 43 45 47 49 107 188 189											
First	4	0000004E	00000001	I				104												
FOR_RC0	2	0000002E	00000001	H	H			42	37B 186											
FOR_RC12	2	00000040	00000001	H	H			48	40B 186											
FOR_RC4	2	00000034	00000001	H	H			44	38B 186											
FOR_RC8	2	0000003A	00000001	H	H			46	39B 186											
MXFLAG	4	0000006A	00000001	I				174												
MXFLAG_S	1	0000009E	00000001	X	X			177	174 180M											
MXTARGET	2	00000076	00000001	H	H			181	175B											
MYCLC	6	0000000A	00000001	I				29	28X											
MYCLCX	6	00000098	00000001	I				107	104X											
MYFLAG	4	00000046	00000001	I				58	59M											
MYTARGET	2	0000004E	00000001	H	H			60	58B											
Second	4	00000052	00000001	I				122												
Third	4	00000056	00000001	I				138												
=A(FOR_RC0, FOR_RC4, FOR_RC8, FOR_RC12)																				
	4	00000078	00000001	A				186	154											
=A(X'03')																				
	4	00000088	00000001	A				187	34 152											
=S(256*5(13), FIELD1, FIELD2)																				
	2	0000008C	00000001	S				188	122X											
=S(5*256(13), FIELD1, FIELD2)																				
	2	00000092	00000001	S				189	138X											

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10



ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

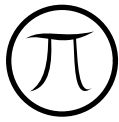
WAVVDEMO
Con Source
PRIMARY INPUT

Macro and Copy Code Source Summary
Volume Members
SWISET SWITST

Page
HLASM R5.0 2008/02/21 15

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ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

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Using Map

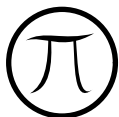
Page

HLASM R5.0 2008/02/21 15

Stmt	Count	Id	Action	Type	Value	Range	Id	Reg	Max	Disp	Last Stmt	Label and Using Text
20	00000006	00000001	USING	ORDINARY	00000078	00001000	00000001	3	00034		180	BASE,3

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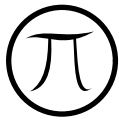


ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

General Purpose Register Cross Reference										Page	
Register	References (M=modified, B=branch, U=USING, D=DROP, N=index)										HLASM R5.0 2008/02/21 15
0(0)	(no references identified)										
1(1)	28	35M	36N	104	122	138	153M	154M	154N	155B	
2(2)	(no references identified)										
3(3)	18M	19M	20U								
4(4)	(no references identified)										
5(5)	(no references identified)										
6(6)	(no references identified)										
7(7)	(no references identified)										
8(8)	(no references identified)										
9(9)	(no references identified)										
10(A)	(no references identified)										
11(B)	(no references identified)										
12(C)	(no references identified)										
13(D)	(no references identified)										
14(E)	(no references identified)										
15(F)	(no references identified)										

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DEMO



ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

WAVVDEMO

Diagnostic Cross Reference and Assembler Summary

Page
HLASM R5.0 2008/02/21 15

Statements Flagged

28(P1,28), 36(P1,36), 37(P1,37), 38(P1,38), 39(P1,39), 40(P1,40), 58(P1,58), 59(P1,59)

8 Statements Flagged in this Assembly 8 was Highest Severity Code

HIGH LEVEL ASSEMBLER, 5696-234, RELEASE 5.0, PTF UK19035

SYSTEM: VSE/AF 8.1.0

JOBNAME: WAVV07

STEPNAME: (NOSTEP)

PROCSTEP: (NOPROC)

Data Sets Allocated for this Assembly

Con	DDname	Data Set Name	Volume	Member
P1	SYSIPT	SYSIPT		
L1	*LIB*	PRD2.CONFIG	SYSWK1	
L2		PRD1.BASE	DOSRES	
L3		PRD1.MACLIB	DOSRES	
L4		PRD2.SCEEBASE	SYSWK1	
L5		PRD2.PROD	SYSWK1	
L6		PRD2.DBASE	SYSWK1	
L7		PRD2.COMM	SYSWK1	
L8		PRD2.COMM2	SYSWK1	
L9		PRD2.AFP	SYSWK1	
L10		PRIMARY.\$\$C	DOSRES	
L11		IJSYSRS.SYSLIB	DOSRES	

SYSLST

5228K allocated to Buffer Pool

Storage required 200K

184 Primary Input Records Read

0 Library Records Read

0 Work File Reads

0 ASMAOPT Records Read

324 Primary Print Records Written

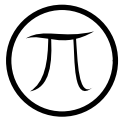
0 Work File Writes

0 Object Records Written

0 ADATA Records Written

Assembly Start Time: 15.06.23 Stop Time: 15.06.23

Return Code 008

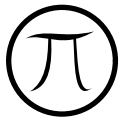


ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

```
1S55I  LAST RETURN CODE WAS 0008
// ASSGN SYS005,SYSLST
1T20I  SYS005 HAS BEEN ASSIGNED TO X'FEE' (TEMP)
// EXEC GETLSTJN,PARM='SYS005' <---- der setzt &LSTJNAM und &LSTJN
1S54I  PHASE GETLSTJN IS TO BE FETCHED FROM PRD2.CONFIG
```

DEMO

410



ALC 202 held at WAVV2008
relative instructions
sample problems and
sample solutions

1S55I LAST RETURN CODE WAS 0000

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